

# **WESTERN INTERIOR ALASKA Federal Subsistence Regional Advisory Council**



Innoko River Basin in Winter.

USFWS

**February 23–26, 2010  
Meeting Materials**

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**Western Interior Alaska Subsistence Regional Advisory Council  
&  
Eastern Interior Alaska Subsistence Regional Advisory Council  
Joint Meeting**

February 23, 2010, 8:30 a.m. to 5:00 p.m.  
Pike's Waterfront Lodge, Fairbanks

**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. Contact staff for the current schedule. Evening sessions are at the call of the chair.

1. **Call to Order (This meeting will be chaired jointly by chairs of both councils)**
  - a. Welcome and Opening Remarks
  - b. Invocation
2. **Roll Call and Establish Quorum**
3. **Review Staff Analyses and Make Recommendations on Yukon River Chinook Salmon Proposals WP09-12 and WP09-13 (Rich Cannon)**
4. **Customary Trade of Yukon River Salmon**
5. **Research North Report on the Use of Subsistence-caught Fish for Feeding Sled Dogs in the Yukon River Drainage (Dave Andersen)**
6. **Update on Issue of Salmon Bycatch in the Bering Sea/Aleutian Islands Pollock Fishery (OSM briefing)**
7. **Adjourn**

For **more information**, contact Ann Wilkinson, Council Coordination Division Chief, at 1800-478-1456, by fax at 907-786-3676, or email at [ann\\_wilkinson@fws.gov](mailto:ann_wilkinson@fws.gov). Also visit the Federal Subsistence Management Program's website at <http://alaska.fws.gov/asm/home.html>. For **special accommodations**, call 1800-478-1456 at least 72 hours prior to the meeting to arrange for special accommodations for persons with disabilities. **Teleconferencing** may be available. Call 1800-478-1456 at least 72 hours prior to the meeting to arrange.

**WESTERN INTERIOR ALASKA SUBSISTENCE REGIONAL ADVISORY COUNCIL**

February 24, 25, and 26, 2010, 8:30 a.m. to 5:00 p.m.

Pike’s Waterfront Lodge, Fairbanks

**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. Contact staff for the current schedule. Evening sessions are at the call of the chair.

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- 1. WP10-51/53: Revise caribou season in Units 9A, 9B, 17B, 17C, 18, and 19A and revise harvest limits in Units 9A, 9B, 9C, 17A, 17B, 17C, 18, and 19A ..... 131

**8. Call for 2010-2012 Fisheries Proposals**

**9. Review and Make Recommendations on Alaska Board of Game Proposals**

- a. Proposal 78: 5 AAC 85.025. Hunting seasons and bag limits for caribou. Eliminate the nonresident closed area for caribou in Unit 19A.
- b. Proposal 79: 5 AAC 85.045(a)(17). Hunting seasons and bag limits for moose. Change registration permit and general hunt areas and season dates in Unit 19D.
- c. Proposal 80: 5 AAC 85.045. Hunting seasons and bag limits for moose. Lengthen the moose season for nonresidents in Unit 21A.
- d. Proposal 81: 5 AAC 85.045. Hunting seasons and bag limits for moose. Lengthen the moose season for nonresidents in Unit 21A.
- e. Proposal 82: 5 AAC 85.055. Hunting seasons and bag limits for Dall sheep. Open a registration hunt for Dall sheep in Unit 19C for residents.
- f. Proposal 83: 5 AAC 92.010. Harvest tickets and reports. Eliminate the early reporting requirement for wolves harvested in the Unit 19D East wolf predation control area.
- g. Proposal 84: 5 AAC 92.125. Predation Control Areas Implementation Plans. Establish a Unit 21E predation control implementation plan.
- h. Proposal 85: 5H5 AAC 92.125. Predation control areas implementation plans. Adopt a wolf predation control plan for Unit 21E which can be implemented right away.
- i. Proposal 86: 5 AAC 92.125. Predation Control Areas Implementation Plans. Establish a Unit 21E predation control implementation plan.
- j. Proposal 87: 5 AAC 92.540. Controlled use areas. Modify the aircraft restrictions for the Koyukuk Controlled Use Area.
- k. Proposal 88: 5 AAC 85.045. Hunting seasons and bag limits for moose. Change the moose hunt area boundary in Unit 21B.
- l. Proposal 89: 5 AAC 92.540. Controlled use areas. Allows more flexibility to operate a check station and clarifies salvage requirements in the Koyukuk Controlled Use Area.
- m. Proposal 90: 5 AAC 85.045. Hunting seasons and bag limits for moose. Open a winter moose hunt in the Kanuti Controlled Use Area.

*Agenda*

- n. Proposal 91: 5 AAC 85.045. Hunting seasons and bag limits for moose. Open a winter moose hunt in the Koyukuk Controlled Use Area.
- o. Proposal 92: 5 AAC 92.011. Taking of game by proxy. Clarifies and fully implements proxy restrictions in Units 21B, 21C, 21D, and 24.
- p. Proposal 93: 5 AAC 92.108. Identified big game prey populations and objectives. Change Intensive Management Objectives for Unit 21B.
- q. Proposal 94: 5 AAC 92.540 (8)(B). Controlled use areas. Modify the boundary of Kanuti Controlled Use Area in Unit 24B.
- r. Proposal 100: 5 AAC 85.025. Hunting seasons and bag limits for caribou. Change the resident season and bag limit for caribou in Unit 25A.
- s. Proposal 101: 5 AAC 85.025. Hunting seasons and bag limits for caribou. Modify the caribou bag limit in Unit 26B, Dalton Highway Corridor Management Area.
- t. Proposal 102: 5 AAC 85.025. Hunting seasons and bag limits for caribou. Modify the resident season and bag limit for caribou in Unit 26B, remainder.
- u. Proposal 103: 5 AAC 85.025. Hunting seasons and bag limits for caribou. Modify the resident season and bag limit for caribou in Unit 26B, remainder.
- v. Proposal 104: 5 AAC 85.025. Hunting seasons and bag limits for caribou. Expand bag limit for caribou in Unit 26B.
- w. Proposal 105: 5 AAC 85.025. Hunting seasons and bag limits for caribou. Develop a management plan for the Central Arctic Herd in Units 26B and 26C.

**10. Review and Approve Draft 2009 Annual Report**

**11. Agency Reports**

- a. Office of Subsistence Management
- b. Native organizations and tribal agencies
- c. Alaska Department of Fish and Game
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- d. Fish and Wildlife Service
- e. National Park Service
- f. Other agencies or organizations

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**15. Adjourn**

For **more information**, contact Ann Wilkinson, Council Coordination Division Chief, at 1800-478-1456, by fax at 907-786-3676, or email at [ann\\_wilkinson@fws.gov](mailto:ann_wilkinson@fws.gov). Also visit the Federal Subsistence Management Program’s website at <http://alaska.fws.gov/asm/home.html>. For **special accommodations**, call 1800-478-1456 at least 72 hours prior to the meeting to arrange for special accommodations for persons with disabilities. **Teleconferencing** may be available. Call 1800-478-1456 at least 72 hours prior to the meeting to arrange.

## REGION 6—Western Interior Alaska Regional Advisory Council

<b>Seat</b>	<b>Yr Apptd Term Expires</b>	<b>Member Name &amp; Address</b>	<b>Community</b>
<b>1</b>	2001 <i>2010</i>	<b>Robert A. Walker</b>	<b>Anvik</b>
<b>2</b>	2004 <i>2010</i>	<b>Donald V. Honea Jr.</b>	<b>Ruby</b>
<b>3</b>	1998 <i>2010</i>	<b>Michael Joseph Stickman      Secretary</b>	<b>Nulato</b>
<b>4</b>	2008 <i>2011</i>	<b>Timothy P. Gervais</b>	<b>Ruby</b>
<b>5</b>	1993 <i>2011</i>	<b>Raymond L. Collins</b>	<b>McGrath</b>
<b>6</b>	1993 <i>2011</i>	<b>Jack L. Reakoff                      Chair</b>	<b>Wiseman</b>
<b>7</b>	2007 <i>2012</i>	<b>James L. Walker</b>	<b>Holy Cross</b>
<b>8</b>	2006 <i>2012</i>	<b>Jenny K. Pelkola</b>	<b>Galena</b>
<b>9</b>	1997 <i>2012</i>	<b>Carl M. Morgan</b>	<b>Aniak</b>
<b>10</b>	2008 <i>2011</i>	<b>Eleanor Yatlin</b>	<b>Huslia</b>

**WESTERN INTERIOR ALASKA SUBSISTENCE REGIONAL ADVISORY COUNCIL**  
***Unapproved* MEETING MINUTES**  
**October 6 – 7, 2009**  
**Sackett Center Community Hall, Aniak, Alaska**

1. **Call to Order** by Chair Jack Reakoff at 9:20.m.
  - A. Invocation was lead by Angela Morgan.
  - B. Welcome and opening remarks by Council member Carl Morgan and Jack Reakoff.
2. **Roll Call and Establishment of Quorum**

Members present: Jack Reakoff (Wiseman), Jenny Pelkola (Galena), James Walker (Holy Cross), and Donald Honea, Jr. (Ruby) Carl Morgan (Aniak), Ray Collins (McGrath), Robert Walker (Aniak), Timothy Gervais (Ruby), and Eleanor Yatlin (Huslia) – quorum was established with nine of the ten members present.

Members with excused absence: Mickey Stickman (Nulato),
3. **Introduction of Agency Staff and Honored Guests**
  - A. Native Corporations, Tribal – Village Councils:
    - (1) Kuskokwim Native Association (KNA): Karrie Hackett, Melissa Smith, and Mike Thalhauser
    - (2) Tanana Chiefs Conference (TCC): Laura LeBlanc, Lisa Kangas, and Brandy Berkbigler
    - (3) Aniak Tribal Council (ATC): Angela Morgan
  - B. Yukon River Drainage Fisheries Association (YR DFA): Jason Hale
  - C. State Advisory Committees:
    - (1) Ken Chase, chair of the Grayling-Anvik-Shageluk-Holy Cross Advisory Committee (GASH)
    - (2) Bob Aloysius, chair Central Kuskokwim Fish and Game Advisory Committee (also Yukon – Kuskokwim Delta Regional Advisory Council member)
  - A. Alaska Department of Fish and Game (ADF&G):
    - (1) Wildlife Conservation Division: Glenn Stout & Josh Pearce (via teleconference)
    - (2) Commercial Fisheries: Dani Evenson
    - (3) Sport Fish Division: John Chythlook
  - B. Bureau of Land Management: George Oviatt, Tim Craig, and Geoff Beyersdorf
  - C. National Park Service (NPS): Nancy Swanton
  - D. Fish and Wildlife Service (FWS):
    - (1) Regional Director Geoff Haskett and Tracy McDonald Refuge Management Supervisor
    - (2) Refuges:
      - (a) Kanuti: Mike Spindler
      - (b) Koyukuk/Nowitna: Kenton Moos and Jetta Minerva
      - (c) Innoko: Bo Sloan and Kevin Whitworth
      - (d) Anchorage office: Tracy McDonnell, Refuge Supervisor
    - (3) Fisheries: Gerald Maschman
    - (4) Office of Subsistence Management (OSM): Liz Williams, Vince Mathews, Larry Buklis, Don Rivard, and Pete DeMatteo (by teleconference)
4. **Regional Council Members Concerns**
  - A. Regional Council members' concerns
    - (1) **Yatlin:** She shared information she received from her contacting Hughes, Allakaket, Alatna and Huslia. She used the VHF in Huslia and received a response from Catherine Attla. Catherine wanted to thank the agencies for the salmon restrictions on the Yukon River that allowed people on the Koyukuk to get fish. George Attla, Sr. shared written comments with Yatlin. The response from Allakaket was they had a hard time getting their moose this year and the past ten years. They did not have caribou in the area and did not know what they

- were going to do to survive with high cost of food. They did share they did pretty good with fishing. Hughes did not like the guided hunters around the area (Hog River and Huslia).
- (2) **Gervais:** The moose harvest in the Ruby and Nowitna area was reasonably successful. The Ruby community was okay with harvest. The biggest issue was the poor Chinook salmon run. He shared his extreme disappointment with the attitude and performance of the ADF&G Commissioner and the Regional Director for the National Marine Fisheries Service and his staff. It seemed to him they were subverting the public process by not having a good attitude about the almost unanimous message from subsistence users from many of the Western Alaska Rivers about the Chinook salmon. He requested the Council look into the recertification of the pollock fishery as sustainable through the Marine Stewardship Council. He suggested dialogue between - with the Secretaries of State, Commerce, and Interior. He also requested the Council support the request from the Southern Norton Sound Advisory Committee's to have four designated voting seats on North Pacific Fishery Management Council (NPFMC) for Federally-recognized tribes and/or Alaska Native organizations from the AYK region.
- (3) **Honea:** He echoed what Gervais concerning the fall moose harvest for the Ruby and Nowitna areas. He has noticed a decrease in the size of the moose and was concerned about the low harvest numbers for the Allakaket area. With the 2009 salmon fishing he felt they might not have been vocal enough about their salmon needs and the low number of fish. He could not understand how there could be commercial openings for fall chum without letting a certain number of the fish pass Pilot Station sonar. He felt there was something wrong when tribes across the Yukon River, including Canada, came up with a Bering Sea Chinook salmon bycatch level of 33,000 and then the NPFMC comes up with a bycatch cap of nearly 70,000 fish.
- (4) **Collins:** He represented this Council at the NPFMC meeting and was also very disappointed with the NPFMC rejecting all the testimony not only from Alaska but from the Canadian delegation. The cap of 70,000 was way above the historic average and it does not go into effect until 2012. He felt there would be no relief with Bering Sea pollock fisheries bycatch. The McGrath area had reasonable success with moose hunting and the predator management program did give the area the relief needed. They have a better population of breeding cow moose and the closed area to moose hunting was opened this year and last year for a short period of time. He expressed his concern that the predator management program was still under fire as being inadequate or inappropriate when he believes it was successful. Reakoff asked if the program had a sunset clause. Collins replied harvest of wolves was allowed to continue and there were no specific measures on bears. The bear population was on the way up and ADF&G measures to allow increased bear harvest has not increased bear harvest. It remains very low bear harvest for the area. Reakoff shared his concern about low bear harvest in the region and the need for local people to understand the detriment bears have on moose calves.
- (5) **Morgan:** He felt there should be a unified voice from the AYK area with reducing the Chinook salmon bycatch for the pollock fisheries. He felt it needs to continue and be more forceful. There local moose hunting effort was more successful because of the moose opening on State land in Unit 18 that took hunting pressure off in the Aniak area. He commented on the low water levels and their effect on restricting access to moose hunting areas. The caribou have not come back despite our efforts and there are still guided hunts for the Mulchatna herd in its depressed state. He agreed with others that bears were probably the biggest factor affecting the moose population in the Aniak area. Reakoff asked how local hunters were feeling about the local drawing and Tier II moose hunt in Unit 19A. Morgan shared that when people fill out the applications have been getting the permits. The younger

people may not be getting them because they do not have enough points because they have not hunted as long.

- (6) **R Walker:** The concerns from Anvik and Grayling were the regulations setting their nets to 150 foot driftnet in Y4 where in Y3 they are allowed to use a 300 foot driftnet. Y4 fishermen are at a disadvantage with these regulations. Anvik caught only 500 to 550 Chinook salmon that was divided up among 30 households. They were encouraging fishermen when processing their fish to scrape the meat off the backbones of the fish caught. They found out that a lot more fish escaped into Canada than what were expected based on fish counts at Pilot Station. GASH villages were considering declaring an economic emergency because of the low number of fish harvested. The villages in his area have noticed more grizzly bears coming into the village and swimming the Yukon River. Moose hunting in the Anvik area did pretty good; Grayling had a hard time because of low water.
- (7) **J Walker:** He agreed with R Walker's comments and fishermen in the Holy Cross area having to deal with salmon fishery closures. He noted there had to be a reason causing the moose to migrate out of the Innoko NWR and putting pressure on villages to go to other areas to meet their subsistence needs. He noted a lot of predator kills in his area from grizzly bears that was not happening before. He felt when more people were in fish camps, they got rid of many of the bears. Now with less fish camps they are having problems with bears. He thought there should be more predator control on bears and wolves in his area.
- (8) **Pelkola:** She thanked everyone for their prayers and donations for his son's accident that prevented her attendance at the last Council meeting. He was doing well and a walking miracle. She noted early this fall it was warm and a lot of moose meat went to waste. The Galena area, Koyukuk, Nulato area did pretty well with getting their moose this fall. Residents of the middle Yukon area either got their moose or got their moose meat from someone sharing their harvested moose. She shared her memories traveling on trader boat with her mom and that needs were provided up and down the river. She felt subsistence fishermen were getting over regulated and confused. She understood that people from the city could not help with fishing this summer even though she and others needed help because of their age. She felt the villages need to have a meeting of minds to work out this fishing situation. Fishermen in her area sacrificed this year. She was happy people up the Koyukuk were able to get more fish. The agencies need to coordinate better the fishing regulations outreach to reduce confusion and the messages need to be clearer.
- (9) **Reakoff:**
  - (a) Chair's Report: He shared an overview of his attendance at the winter YR DFA meeting and how points from the Council were adopted by the managers this year. There were some enumeration glitches at Pilot Station but the bottom line was escapement in Canada was reached and we are going to see fish returns from this escapement. He was displeased that Canada fished commercially in light of no commercial Chinook openings and the restriction on the sale of bycatch Chinook salmon in Alaska. He requested the Council submit a letter to the Yukon River Panel or whoever in discussions with Canada about our displeasure with the Canadian commercial openings. He shared his displeasure with the NPFMC ruling for 68,000 Chinook salmon bycatch which was basically a no bycatch limit. The NPFMC continued to show it is derelict with maintaining the pollock fishery and mitigating the salmon bycatch issues. He felt the Council should explore every mean to voice the Council's displeasure with the NPFMC.

He has been working on Upper Koyukuk moose proposals with ADF&G and Refuge staff focusing on winter State hunt in Unit 24B for the upcoming Board of Game meeting. He tracked the Yukon Chinook run and participated in several of the YR DFA weekly teleconferences. He shared with ADF&G Commercial Fisheries his concerns

about the directed chum fisheries and the mortality of larger Chinook salmon with the 6 inch gear. He was not sympathetic to complaints from the lower river about what should they do with Chinook bycatch with the commercial chum openings. They knew they were not going to be allowed to sell the bycatch and should have incorporated this bycatch in their planning for subsistence needs. He suggested the lack data and studies on the Chinook bycatch with the smaller gear should be in the Council's annual report.

He was very concerned about the local hire provision in ANILCA and Office of Personnel Management (OPM) current requirement for nationwide recruitment efforts. He felt the Department of Interior and the Forest Service stress to OPM that ANILCA requires that local people with local knowledge should have a priority with hiring in rural locations. An assistance program for local people with the hiring requirement should be established. It is hard for potential local hires to navigate the application process and there is a large turnover in local staff.

5. **Review and Adoption of Agenda:** Morgan made a motion, seconded by Pelkola to adopt the agenda as amended. The motion passed (VOTE: 9-0-0-1). The amendments were to add a discussion about Ichthyophonus, a discussion about the current status of the Mulchatna caribou herd, and under Fisheries Issues a discussion about the Marine Stewardship Council's recertification of pollock fisheries as a sustainable fishery and other options, including communication with various Federal Secretaries, State and Commerce on NPFMC actions.
6. **Approval of February 18 – 19, 2009 Galena Meeting Minutes:** Honea made a motion, seconded by Collins to adopt the meeting minutes. The motion passed (VOTE: 9-0-0-1).
7. **Fisheries Resource Monitoring Program**
  - A. **2010 Fisheries Resource Monitoring Plans – Review**

(1) YUKON REGION

- (a) Rivard provided an overview of the monitoring projects to data and the recommendations of the Technical Review Committee. He directed the Council's attention to the Yukon Region's draft plan in their meeting booklet and shared the recommendations of the Yukon – Kuskokwim Delta Regional Advisory Council.
- (b) **Council Discussion:** Collins asked how climate change would be assessed with the Andersen and Brown project. Williams responded that the researchers will review their field notes from many years that contain comments from people they interviewed as well as from meeting transcripts. They will be doing a short survey and pull all the information together into a catalog for management to use. Their project aligns closely with Section 812 of ANILCA. Yatlin shared her desires that elders be consulted on climate change. Many of them noted changes in the climate from their years living a subsistence lifestyle. She shared how the song of robin has changed due to climate change. She asked how the researchers get the traditional ecological knowledge. Williams explained they get it from the many years of working in the villages, listening to villagers and keeping notes beyond the survey answers.

Gervais wondered about the Yukon River Chinook salmon run reconstruction project, if it could incorporate a numeration on the difference between actual salmon bycatch numbers and reported bycatch numbers over time. He spoke with members of the trawl fleet that shared that their estimations of under reporting ranged from 25 – 75 percent. He hoped the study would put some effort into speaking with trawl fleet members and some way develop more accurate numbers to show the failings of the current observer program. Rivard acknowledged it was an important aspect of the Chinook salmon management and he has been following it closely. He did not think it would be appropriate to incorporate this into the project and it was late in the project's proposal

process to add this. He suggested it might a project for future consideration. Reakoff suggested this under reporting concern could be an annual report topic. Buklis explained that the project will look at the in-river run reconstructions and relate them to other issues, like the bycatch issue. They could take the testimony given here and conduct modeling exercises, for example if bycatch estimates were low by x percent, what the relationship to in-river data would be. Discussion continued on the best way to get this topic of under reporting as a future research topic. Buklis recommended the best way would be when they develop the call for proposals for 2012, which is done in the summer/fall of 2010. Chair Reakoff recommended the course of action of the Council would be to note this in their plan recommendation and incorporate this into the Council's annual report.

J Walker asked if there were other means to monitor the bycatch like electronic monitoring. Rivard shared from the last NPFMC meeting that one boat captain was using videotaping to account for the bycatch.

Collins asked if there were any studies on the contribution of the Canadian tributaries since 50 percent of the Chinook salmon are Canadian stocks. Buklis responded that Canada's Department of Fisheries and Oceans (DFO) did telemetry work with a fishwheel mark recovery program to look at salmon distribution. Collins asked if there was a whole river perspective of the various systems. Dani Evenson, ADF&G, shared that ADF&G did a radio telemetry study in combination with DFO. They were able to track salmon from various tributaries from 2000 – 2004. Their genetics program also indicates the portions of fish from various tributaries.

Yatlin asked about studies on other species of fish. Rivard and Williams shared information about some of the whitefish projects and the whitefish strategic planning efforts.

**Council Action:** Gervais made a motion, seconded by J Walker to send a letter to the NPFMC about the Council's concern with the excessive bycatch level set by the NPFMC requesting continuous video observer footage for the trawl fleet and the Council feels that the current observer program is underreporting the bycatch. The motion passed (VOTE: 9-0-0-1).

**Council Action: Support** the seven projects recommended for funding by the Technical Review Committee as listed in the Draft 2010 Fisheries Resource Monitoring Plan of the Council's October 2009 meeting booklet.

**Council Action:** Requested staff note for the 2012 call for fishery monitoring proposals that the issue of the quality of salmon bycatch in the Bering Sea and how it relates to reconstruction of the Yukon River fisheries.

(2) KUSKOKWIM REGION

- (a) Rivard provided an overview of the monitoring projects to data and the recommendations of the Technical Review Committee. He directed the Council's attention to the Yukon Region's draft plan in their meeting booklet and shared the recommendations of the Yukon – Kuskokwim Delta Regional Advisory Council
- (b) **Council Action:** Collins made a motion seconded by Morgan to support the nine projects recommended for funding by the Technical Review Committee, as listed in the Draft 2010 Fisheries Resource Monitoring Plan of the Council's October 2009 meeting booklet.

- B. **Yukon Partners for Fisheries Monitoring Program:** Brandy Berkbigler gave a power point presentation. The complete presentation can be found with the meeting transcript.

- (1) **Council Discussion:** Reakoff asked how many fish were they catching at Henshaw project on July 5 and how much of that run component was lost with the late installation of the weir. Berkbigler replied the whole time they were installing the weir they did not see any fish so they caught the beginning of the run. Bob Aloysius, Yukon-Kuskokwim Delta Regional Council member, asked how she obtains the samples and what happens to the fish afterwards. Berkbigler replied they take one clip off the fin of the Chinook salmon along with three scales and the fish is returned to the fisherman. The scale samples were sent to the State's aging lab and the genetic samples either go to the State or the Fish and Wildlife lab, depending on her funding source. Reakoff and Aloysius wondered if blood samples were taken and she said they were not.

Honea wondered with the hard times with the Chinook salmon harvests, were they looking at other fish species that subsistence fishermen are substituting for the missing Chinooks. She responded she has attended the whitefish strategic planning meetings and once a plan comes out, TCC will be looking at doing some whitefish studies. J Walker asked if they noted any increase in farm raised fish in the Yukon River. As far as she knew they did not see any except one Canadian Chinook hatchery fish.

- C. **Kuskokwim Partners for Fisheries Monitoring Program:** Mike Thalhauser gave an overview of KNA's fishery program. The complete presentation can be found in the meeting transcript.

- (1) **Council Discussion:** The Council was informed of the overlapping of whitefish tags with the extended sheefish project. Collins asked with the rainbow study, was there much movement of trout during the summer. Thalhauser shared the big movement was in winter coming out of three tributaries. Reakoff asked when the spring runoff starts, do the trout start moving back to their summer or spawning area. Thalhauser replied they only have one year of data and should know more with an additional year's data. Gervais asked how significant rainbow trout was for subsistence and sportfishing on the Kuskokwim River was. Thalhauser replied there is a significant winter subsistence trout fishery and certainly the sportfishery on the Aniak River rainbow trout is significant. One of his projects was the fish important to the winter subsistence fishery the same fish utilized for the sportfishery. Gervais continued to ask were there a user conflict between the two rainbow trout fisheries. As far as with the tagged fish, he did not see them harvested by the sportfishery, which is much farther upriver with the cautionary reminder, he has only one year of data.

Morgan asked for the number of Chinook salmon going up the Aniak River because based on his part experience serving on the Kuskokwim River Salmon Working Group, the Aniak River was significant contributor. Thalhauser agreed it was a significant producer for the Kuskokwim River. Gervais asked if there was a subsistence fishery for eels in the Kuskokwim. Thalhauser replied there not much of one. In the past people in Red Devil harvested eels. Aloysius shared his support for the Partners Program for local hire and encouragement of local youth to go into fisheries research and management. Reakoff shared the Council's strong support for the Partners Program and the efforts of KNA and TCC.

The Council discussed how they would learn more about what the projects KNA, TCC, and others conduct. Gervais would like the complete report and has limited Internet access. CD copies of projects he is interested in would work. Yatlin was comfortable with CD copies of Koyukuk River projects. Collins made the point that the number of projects' data has reached a point that a summary manual was needed; a handbook where people could find information what was learned from all the projects. Buklis shared that the challenge was to focus it because the data collected factors into inseason management and the regulatory processes. Distilling the main points from the different studies would be an endeavor and OSM would need what the focus would be. He reminded the Council the annual project

reports and formal reports are available on the Internet. He offered the suggestion to work through their coordinator to get the main points the Council wants tracked and come back to your meetings with developments on those issues. Reakoff encouraged Council members to review the project list for specific questions they have and forward them to the coordinator.

- (2) KNA's School Outreach Program: Kari Hackett gave an overview of the two main KNA programs, the high school internship program and the in-school program with K – 12 grade programs.

**Council Discussion:** Gervais shared his appreciation for the programs and for providing an attitude with the students that they are part of the solution. Reakoff asked if they cover game or wildlife populations in the area with the programs. Hackett replied they do a little with the first year focusing on salmon biology and their lifecycles and discuss resident fish species. The next year they focus on watershed ecology and a higher focus on resident fish species. The ecosystem view does stimulate discussion about many different animals and management practices like predator control. Gervais encouraged Hackett to encourage the students to communicate with students outside Alaska about the predator-prey relationships so they have a better understanding how predator management fits in.

## 8. Fisheries Issues

### A. Yukon & Kuskokwim Rivers – Post Season Review

- (1) Yukon River: Gerald Maschman provided copies of the 2009 Yukon River salmon season summary and shared highlights of the summary.

**Council Discussion:** Gervais asked about the fall season's three pulses and where they entered into the river, Pilot Station or somewhere else? Maschman replied the pulses were based on both the test net fishery and Pilot Station sonar. Gervais asked what they use to differentiate between summer and fall chum salmon. Was it just a date? Dani Evenson of ADF&G responded that primarily inseason they use a date, a set date, July 15 is the last day we consider then summer chum so on July 19<sup>th</sup> they consider everything fall chum salmon. However they have an inseason genetics program funded through OSM and they are seeing summer chum, particularly Tanana stocks well into July and even into the beginning of August. They are working to integrate that into their brood table so they can use that to move forecasts and tighten management. Gervais surmised that most of the summer chum are Tanana stocks and fall chum are bound for Canada. Evenson replied there are different stocks at different times. Gervais asked for her feelings about the State's position for a high bycatch number with the NPFMC. Evenson responded that she shared information with the Commissioner but the ultimate decision was his to make. Yatlin started a discussion about the location of the Pilot Station sonar and it being miles upriver from the mouth. Evenson acknowledged they are aware of the problems with sonar like high water, debris, etc. They are looking into using side scan sonar, testing longer nets to increase the catchability of Chinook, moving the test net sites further down river, and alternative sites for the sonar. Pitkas Point and other sites between Marshall and Russian Mission are being explored. Reakoff asked if they would run simultaneous projects at Pilot Station and a new site for testing. Evenson shared they high cost of the sonar and support camps. Pitkas Point has similar bank erosion problems like Pilot Station so they are considering Marshall and Russian Mission. The challenge with these sites is the decrease of the timeliness of the data because they are further upriver.

Honea asked about the justification for the two fall chum commercial openings in 2009 and the 2010 projection. Evenson said they did not have projections at this time because the necessary brood table requires escapement data that was being collected as the fish

continue to run upriver. They typically have that information by the fall meeting of the US/Canada Joint Technical Committee. She explained that the fall chum season is based on the projection of the run and they switch into inseason management as their assessment projects come on-line. At the time of the first commercial opening they thought there would be a surplus of fall chum so there was an opening. That fishery actually turned out to be predominately summer chum, genetically speaking. The second opening was timed when there were few fall chum with a predominance of coho salmon. Honea asked did they not wait until a certain number of fish pass the Pilot Station sonar before opening a commercial season to provide for escapement upriver. Evenson explained they tend to link the summer chum return with the fall chum return. If the summer chum return has good return numbers, then the fall chum return should be good as well. They allowed the first commercial opening because it was consistent with their pre-season management plan. Unfortunately there were not enough fall chum. Also it is important to spread out the harvest so not to hit one stock very hard. R Walker asked about the CPUE numbers being different this year for the test fisheries. Evenson replied the high water levels resulted in the very low CPUE numbers. Discussion continued on the amount of Chinook salmon that reached Canada. Evenson gave an overview of Canadian border passage: probably roughly 68,000 fish crossed the border with a threshold value of 45,000 minimum for spawning. She reviewed the process for determining allowable catch for Canada based on the treaty that resulted in a border passage goal of 55,000 Chinook. They can safely say that for the first time in three years they did fulfill the treaty requirements.

Reakoff suggested increasing the depth of the test fishing gear proportionally to the rise in water level. Evenson felt that was an excellent point and they would be looking into it. Honea shared a suggestion from the river-wide tribal meeting to have more test fishing and sonar sites. Evenson shared that it has been talked about but they are costly and labor intensive. Pelkola said something has start somewhere even though it is expensive. She makes the sacrifice with high fuel costs to go to fish camp. Evenson explained they have channeling their efforts into improving Pilot Station and they are trying other avenues to understand the returns like the inseason genetics program. Gervais asked both Evenson and Maschman if the Bering Sea bycatch levels were detrimental to their management. Evenson replied that the bycatch does have an effect on the fisheries particularly in the low run years, if they are not meeting escapement then every fish counts. She also said that bycatch complicates their jobs as managers but it is not the only thing that explains why the runs come back low. The range of Chinook salmon taken as bycatch ranges from 6,000 to 20,000 depending on the year. Reakoff shared he was not comfortable with the observer program and the bycatch data is skewed to be low numbers. Evenson added she thought the sampling has not been good and difficult to know which drainage the fish were going to.

(2) Kuskokwim River: No staff present.

B. **Alaska Board of Fisheries – AYK Region Proposals – Review and Recommendations**

(1) **Proposal 66 Kuskokwim River Salmon Rebuilding Plan.** Allow retention of chum salmon in Aniak River sport fishery.

**Council recommendation:** Collins made a motion, seconded by Pelkola to support the proposal. The motion passed (VOTE: 2-0-7-1).

**Justification:** The Council framed the proposal as a housekeeping proposal and supported the possible savings in Chinook salmon harvested with the three fish harvest limit. A majority of the Council members abstained from voting because it being an area issue.

(2) **Proposal 67 Gillnet specifications and operations.** Change the maximum mesh size from 8 inch to 6 inch in the Kuskokwim River.

**Council recommendation:** J Walker made a motion seconded by Collins to support the proposal. The motion passed (VOTE: 9-0-0-1).

**Justification:** The Council did not see a need for the management option to allow 8 inch nets when the Kuskokwim River Chinook salmon has not recovered. When 8 inch nets were allowed with directed fisheries the Chinook salmon bycatch were the large females, which are desired for quality escapement. The Council did not want Chinook salmon to become the desired species in chum salmon directed fisheries.

- (3) **Proposal 81 Fishing Seasons and Periods.** Clarify subsistence fishing schedule in Subdistricts 4-B and 4-C. Clarify the subsistence fishing schedule in Subdistricts 4-B and 4-C during commercial fishing closures lasting longer than five days.

**Council recommendation:** Gervais made a motion seconded by J Walker to defer to the home State Advisory Committees. The motion passed (VOTE: 9-0-0-1).

**Justification:** The Council was uncomfortable taking a position on this proposal without knowing what the affected advisory committees recommendations, hence deferral to the home advisory committees.

- (4) **Proposal 83 Subsistence Fishing Permits.** Require recording subsistence harvest on catch calendars all harvested fish, in ink, before concealing the fish from view. If fish are shared outside the household, the number of fish shared and the name(s) of the person(s) shared with must be recorded on the catch calendar. The catch calendar must be available for inspection at any fish camp, fishing location, or primary residence of the calendar holder.

**Council recommendation:** Honea made a motion seconded by J Walker to support the proposal. The motion failed (VOTE: 0-9-0-1). The Council opposed the proposal.

**Justification:** The Council opposed the proposal because it places an undue hardship on the subsistence fishermen and would be difficult to record due to weather conditions and the challenges of recording in a boat while fishing. Recording with whom a subsistence fisherman shared his/her fish was going too far.

- (5) **Proposal 84 Lawful gear and gear specifications.** Extend Subdistricts 4-B and 4-C drift gillnet area for Chinook salmon into State waters of the subdistricts to the mouth of the Yuki River allowing Chinook salmon to be taken by drift gillnets from June 10 through July 14.

**Council recommendation:** Honea made a motion seconded by Yatlin to support the proposal with modification to include the entire subdistricts 4-B and 4-C. The motion passed (VOTE: 9-0-0-1).

**Justification:** The Council supported the expansion of its Federal efforts to allow drift net fishing in Federal waters a few years back. The local communities have asked for this extension of the allowed drift net fishing area for years throughout the entire subdistricts. Council members noted there would a minimal harvest and it would relieve congestion and concentration of fishing in Koyukuk area.

- (6) **Proposal 85 Lawful gear and gear specifications.** Extend Subdistricts 4-B and 4-C drift gillnet area for Chinook and fall chum salmon into State waters of the subdistricts to the mouth of the Yuki River allowing Chinook salmon to be taken by drift gillnets from June 10 through July 14.

**Council recommendation:** Pelkola made a motion seconded by Honea to support the proposal with modification to include the entire subdistricts 4-B and 4-C. The motion passed (VOTE: 9-0-0-1).

**Justification:** The Council felt there was no reason that people in Subdistricts 4-B and 4-C should not be able to harvest fall chum salmon with drift gillnet gear. They should have the opportunity to utilize harvest methods that they feel are appropriate. And based on the Council's action on proposal 84, the Council supported this proposal with the modification to include the entire area of Subdistricts 4-B and 4-C.

- (7) **Proposal 87 Yukon River King Salmon Management Plan.** Review triggers, GHR, fishing schedule in king salmon management plan.  
**Council recommendation:** No action with the understanding the Council representative can express and share the conservation concerns of the Western Interior Regional Council as they relate to Chinook salmon and the associated subsistence use and needs.  
**Justification:** The Council was concerned about the wide-reaching aspects of this proposal and the lack alternates or suggestions to improve the management plan. The Council was clear it wanted its representative be empowered to share the Council’s concerns when the Board addresses this proposal. The Council concerns are regarding protecting the subsistence resource and the subsistence users in the Western Interior Region.
- (8) **Proposal 88 Gillnet specifications and operations, and lawful gear and gear specifications.** Prohibit drift gillnet gear for subsistence and commercial fishing. No subsistence or commercial driftnet fishing allowed in the entire Yukon River drainage.  
**Council recommendation:** J Walker made a motion seconded by Pelkola to support the proposal. The motion failed (VOTE: 0-9-0-1). The Council opposed the proposal.  
**Justification:** The Council recognizes that drift gillnet fishing is a very important part and method of subsistence harvest. Drift gillnet fishing method economizes time, effort and expense for subsistence fishermen.
- (9) **Proposal 89 Gillnet specifications and operations, and lawful gear and gear specifications.** Restrict depth of subsistence and commercial 6 inch mesh to 35 meshes. No commercial or subsistence 6 inch gillnets with a hung depth of more than 15 feet or 35 meshes shall be allowed in the entire Yukon River drainage.  
**Council recommendation:** Honea made a motion seconded by Pelkola to support the proposal. The motion failed (VOTE: 0-9-0-1). The Council opposed the proposal.  
**Justification:** The Council is opposed to a 6 inch mesh requirement for directed commercial or subsistence Chinook salmon harvest. A depth restriction would have variations of effectiveness to protect Chinook salmon depending on wind velocity. Stronger winds bring Chinook to the surface. Fishermen in the lower river may not be able to meet subsistence needs with shallow nets in the relatively short harvest windows.
- (10) **Proposal 90 Gillnet specifications and operations, and lawful gear and gear specifications.** Prohibit subsistence and commercial gillnets over 6 inch mesh size. No commercial or subsistence gillnets with a stretched mesh larger than 6 inch shall be allowed in the entire Yukon River drainage.  
**Council recommendation:** J Walker made a motion seconded by R Walker to support the proposal. The motion failed (VOTE: 0-9-0-1). The Council opposed the proposal.  
**Justification:** The Council opposes this proposal because of the high dropout rate and high mortality of Chinook salmon with the use of this smaller mesh size gear. The 6 inch gear type is far too small for intended Chinook salmon and is detrimental to the subsistence users and the resource.
- (11) **Proposal 91 Yukon River Summer Chum Salmon Management Plan.** Limit commercial king salmon harvest during chum directed fisheries with a bycatch of Chinook salmon quota to be set at 3000 fish until such time that border escapements into Canada are achieved for one full life salmon cycle (six years). Upon reaching the quota all commercial chum salmon directed fisheries shall be closed for the remainder of the summer chum season.  
**Council recommendation:** Honea made a motion seconded by Gervais to support the proposal. The motion passed (VOTE: 9-0-0-1).  
**Justification:** The Council supports this Chinook salmon quota as a disincentive to target Chinook salmon while fishing under directed chum salmon fisheries. This is a necessary conservation measure when there are restricted Chinook runs.

- (12) **Proposal 92 Yukon River Summer Chum Salmon Management Plan.** Prohibit sale of kings during non-king directed fisheries. No commercial sales of Chinook salmon caught in non-Chinook directed commercial fisheries in the entire Yukon River drainage. Chinook salmon caught as bycatch shall go into the subsistence fishery only.  
**Council recommendation:** Honea made a motion seconded by Gervais to support the proposal with the modification to remain in effect as long as subsistence restrictions are in place. The motion passed (VOTE: 9-0-0-1).  
**Justification:** The bycatch of Chinook salmon needs to be reduced during these times of suppressed Chinook runs and the needs of escapement and subsistence are top priority. Passage of this proposal allows for the commercial harvest of summer chum without being detrimental to the Chinook returns. It eliminates the incentive to target Chinook salmon during a directed chum fishery.
- (13) **Proposal 93 Yukon River King Salmon Management Plan.** Prohibit retention of kings during chum directed main stem fisheries. In commercial openings on the main stem of the Yukon River in Districts 1 – 5 for an other-directed species, a fisherman or fisherwoman participating in those directed fisheries may neither retain nor sell any king salmon he or she bycatches in those directed fishery openings.  
**Council recommendation:** J Walker made a motion seconded by Gervais to support the proposal. The motion failed (VOTE: 0-9-0-1). The Council opposed the proposal.  
**Justification:** The Council opposes this proposal because discarding Chinook salmon harvested incidentally during directed fisheries for other salmon species is extremely wasteful.
- (14) **Proposal 94 Yukon River King Salmon Management Plan.** Require windows schedule during lower river commercial fishery, repeal 5 AAC 05.360(e) (managers must stick to the window schedule).  
**Council recommendation:** J Walker made a motion seconded by Gervais to support the proposal. The motion failed (VOTE: 2-7-0-1). The Council opposed the proposal.
- (15) **Proposal 96 Yukon River Summer Chum Salmon Management Plan.** Reallocate commercial summer chum salmon guideline harvest ranges.  
**Council recommendation:** Deferred to the affected advisory committees.
- (16) **Proposal 97 Yukon River Fall Chum Salmon Guideline Harvest Ranges.** Reallocate commercial fall chum salmon harvests.  
**Council recommendation:** Deferred to the affected advisory committees.
- (17) **Proposal 98 Fishing districts and subdistricts.** Open commercial fishing between Chris Point and Black River for both drift and set net.  
**Council recommendation:** Collins made a motion seconded by Pelkola to support the proposal. The motion failed (VOTE: 0-9-0-1). The Council opposed the proposal.  
**Justification:** This proposal provides additional fishing area and allocation of resource to an area that has not had a fishery. The Yukon River salmon resource cannot support additional commercial harvest, with the subsistence restrictions in place.
- (18) **Proposal 99 Closed Waters.** Open Andreafsky River to commercial fishing by deleting part (4) of 5 AAC 05.350.  
**Council recommendation:** Deferred to the affected advisory committees.
- C. **North Pacific Fishery Management Council (NPFMC)**
- (1) Update Regarding Chinook and Chum salmon Bycatch
- (a) OSM Briefing: Don Rivard gave the briefing and directed the Council's attention to materials in their meeting booklet. He shared the appreciation and recognition of the testimony of the Council representatives, including Collins that testified at the April NPFMC meeting. They did an excellent job but the results on the bycatch level did not align with the desires of the Council's representatives. The NPFMC lowered its preferred

alternative level to 60,000 Chinook from 68,000. This will be their recommendation to the Secretary of Commerce. Comments on the NPFMC's action should be referred to the Secretary of Commerce based on the date in the proposed rule due out between December and February.

**Council Action:** The Council by unanimous consent decided to send a letter to the Secretary of Commerce sharing their displeasure with NPFMC's Chinook salmon bycatch recommendation, their concern about under reporting with the observer program, and the bycatch should be at the 29,000 level. Staff would work with Gervais, Collins, and Reakoff on the content of the letter. The letter would be copied to the State Department because of the treaty with Canada. Rivard encouraged the Council to review the proposed rule when drafting the letter.

- (b) Yukon River Drainage Fisheries Association: Jason Hale shared key points from Becca Robbins associated with the NPFMC's Chinook bycatch recommendation. A key point being that the Council's letter request the Secretary of Commerce reject the NPFMC's Chinook salmon management action and use his emergency regulation authority to implement a hard cap recommended by the Council. The letter should be sent both by postal and electronic mail. He continued with what was coming up with the chum salmon bycatch issue before the NPFMC. He suggested the Council send a letter about the importance of chum salmon to subsistence users. Rivard added that the NPFMC's staff were planning to meet with selected Regional Councils. OSM recommended they return to this Council.

**Council Action:** The Council by unanimous consent agreed to send a letter to the NPFMC enumerating how chum salmon are important to the region and bycatch conservation issue is important to the Council and the Council wants involvement in the NPFMC's deliberation process. The letter would also explain how the escapement needs placed a burden on subsistence users in the form of restrictions and since the NPFMC did not deal with appropriately with the bycatch Chinook salmon situation resulted in a higher subsistence importance placed on chum salmon. The letter would also invite NPFMC members to the next Council meeting and thank them for their past attendance.

Hale continued with an update on YRDFA's projects. This included the weekly inseason teleconferences and their winter preseason teleconferences and meeting prior to the 2009 season. YRDFA will be requesting funding for a similar preseason teleconferences/meeting for the 2010 season from the Yukon River Panel.

- (2) NPFMC Appointments – Southern Norton Sound Advisory Committee Request: Copies of the request were provided to the Council. Discussion continued on the Council's relationship to the Hatch Act with letters to the Congressional delegation. Mathews explained the Council is not subject to the Hatch Act since they are not Federal employees but they are bound to the Council Correspondence Policy. The Council cannot lobby Congress was the bottom line. The Council can bring the issue to the Federal Subsistence Board and copy the NPFMC. Several Council members spoke in support of additional inriver members on the NPFMC. Buklis recommended drafting to OSM leadership for their judgment on going directly to the agencies involved or not. Chair Reakoff wanted the Council letter to go to OSM's ARD and encourage the Federal Subsistence Board to send a letter to Alaska's congressional delegation to have additional representation on the NPFMC. Companion Council letters to the Alaskan delegation and the Governor would be part of the package to the ARD. Information from the Seward Peninsula RAC meeting was shared it was clarified the Council could sent letters to the agencies involved directly after the correspondence review was completed.

**Council Action:** Pelkola made a motion seconded by Gervais to follow the suggested letters laid out by Chair Reakoff. The motion passed (VOTE: 9-0-0-1). It was agreed a copy the

Marine Stewardship Council these letters with a cover letter sharing the current fisheries is not sustainable.

- D. Ichthyophonus in Chinook salmon: Studies Status: Don Rivard gave an overview of the current status of the studies. Printed materials were provided. Details of the overview can be found in the meeting transcripts.

**Council Discussion:** Reakoff explained ADF&G promised a more extensive study of this disease during the tri-council meeting in Wasilla. He was unhappy with the study design and felt ADF&G was ignoring the disease and its impacts on salmon returns and harvests. Collins asked if they checked for the disease in other drainages like the Kuskokwim. Rivard replied they did but it was not a problem so far in the Kuskokwim River.

## 9. Wildlife Issues

- A. **Federal Closure Review:** Larry Buklis gave an overview of closure policy and the Council's past action on the Unit 24 remainder moose closure.

- (1) Unit 24 remainder Moose: WCR08-20

**Council Action:** Stickman made a motion, seconded by Walker to maintain the moose closure in Unit 24B remainder. The motion passed (VOTE: 7-0-0-3).

**Justification:** The original reasoning for establishing the closure remains in effect. The moose population remains low and possibly declining and subsistence needs for the communities of Allakaket and Alatna continue to go unmet or at an additional effort or cost. The closure area has the potential for high influx of nonrural hunters because of its close proximity to Bettles/Fairbanks as an air transportation hub and river access from the Dalton Highway

- B. **Call for Regulatory Proposals**

- (1) Federal:

- (a) Unit 24B moose – Kanuti National Wildlife Refuge Area: Copies of the draft proposal were provided to the Council. Pete DeMatteo and Glenn Stout (ADF&G) were involved by teleconference. Mike Spindler gave an overview of the moose population involved and local harvest data. He also covered the challenges with meeting subsistence needs and allowing for a winter hunt. Details of the overview can be found in the meeting transcripts.

**Council Discussion:** Reakoff asked did they find bull moose along the river corridor in late winter with the telemetry study. Spindler shared his recollections that the bulls leave the river corridor in early summer to the burn areas and do not return to the river until January. Reakoff shared why people in the area were having a hard time hunting moose in winter because of the snow depths and the cost to cover the distance to Federal lands where there is a winter hunt. He continued with the objective of the draft proposal was to provide adequate subsistence opportunity while protecting the moose population with a bull moose harvest restriction. He explained the dual approach with Federal and State proposals. R Walker asked how many bull and cow moose fall to predation during the winter. Spindler replied of the 29 collared moose they are down to 22 moose with 7 mortalities. A majority of the mortalities were due to predation and likely wolves. R Walker responded that then human consumption came in second to predation and a hunter who took a cow moose, accidentally or intentional, would be subject to jail and/or fines. He felt it was not fair to local people and they felt threatened by this. He felt if Spindler cannot manage these moose, then maybe some else should. Six moose for a community was not a lot of moose meat. Yatlin shared her understanding of the Koyukuk River Moose Hunting Working Group and the difficulties of hunting in the deep snow in the area. Stout shared the long term strategy to build a base of information to be used for future intensive management efforts. He reiterated the Department's goal to have a healthy moose population that would allow the desired cow moose harvest level. He continued that Spindler spends a lot of time and effort with the winter hunts for

one cow or one bull harvest where that effect could be redirected to intensive management. Reakoff appreciated Stout reminding the Council of the goals and would like the Council or the local AC to submit a Board of Game proposal requesting intensive management on State and private lands in the area.

**Council Action:** J Walker made a motion seconded by Yatlin to submit a proposal as modified for a Unit 24B winter antlered bull moose hunt. The motion passed (VOTE: 9-0-0-1). The modifications to the draft proposal were: moratorium language with cow moose hunt portion and striking the language closing the hunt when one cow moose was taken.

(b) Unit 21E Winter Moose Season:

**Council Action:** J Walker made a motion seconded by R Walker to submit a proposal for a 30-day winter moose season in Unit 21E. The motion passed (VOTE: 9-0-0-1).

**Council Discussion:** The current ten day winter season of February 1 – 10 does not allow the subsistence hunters and managers the flexibility to address the unpredictability of winter conditions and temperatures during those ten days. Weather in February can make safe travel impossible. A wider window of hunting opportunity will incorporate the desires of the affected communities to harvest moose when conditions are more optimal. The current other option to respond to subsistence needs associated with a winter hunt is a special action request which requires submittal of a request and a review/approval process of the Federal Subsistence Program. Having a wider winter would alleviate activating the Federal special action process. The proposal was submitted with the understanding the harvest would be within the 40-moose Innoko Moose Plan quota unless biological parameters requiring lowering the quota after consultation with the chair of this Council, the State area biologist and the BLM. The Federal registration permit will be issued by the Innoko NWR and the Refuge would have emergency closure authority. Permits will be issued to households that did not harvest a moose in fall and there shall be a harvest report within 24 hours of the harvest.

(c) Unit 21E Later Fall Moose Season:

**Council Action:** R Walker made a motion seconded by Pelkola for a five day shift in the fall moose season to have an August 25 – September 30 bull moose season. The motion passed (VOTE: 9-0-0-1).

**Council Discussion:** The Council has endorsed proposals in the past that shift the fall moose season further into the fall season. The Council's reasoning for endorsing and submitting this proposal was because the moose are moving around later and a five day shift later would provide additional opportunity to harvest a moose during a time when the moose are available for harvest. Bull moose during the warmer fall seasons are not moving until a week before the breeding season. The recent fall trend has been for warmer fall temperatures. Granting a later season would increase the opportunity and assist with reducing spoilage of the meat harvested due to the warm temperatures that can happen in early August.

(d) Koyukuk Controlled Use Area (Unit 21D):

**Council Action:** R Walker made a motion seconded by Yatlin to submit a Federal proposal for the Koyukuk Control Use Area within Units 21D, 24C, and 24D to extend the winter hunt window, have a six year moratorium on the August portion of the cow moose hunt, and a bull moose hunt if biologically a cow moose hunt was not allowed in March. The motion passed (VOTE: 9-0-0-1).

**Council Discussion:** Excerpt from the proposal language: A winter window of March 1 – April 15 with the desired cow moose harvest during the March 1 – 5, if the moose population can biologically support a cow harvest, with the April 10- 15 bulls only hunt provides flexibility for the concerns of the wildlife managers as well as providing

opportunity for subsistence needs to met with a winter harvest. Including the six year moratorium language recognizes the administrative burden of consultation for the August season when the current situation would not allow for an August cow hunt but also respects the desires of subsistence users to keep the cow moose season in regulation.

The Koyukon Athabascan communities of along the Koyukuk and Yukon rivers have traditionally hunted moose in winter to carry them through the remaining winter months until the fish return and other wild resources are available. It is also an important opportunity to harvest a moose if not successful during the fall season. Without a viable and flexible winter season subsistence hunters may be forced to hunt illegally in order to meet their needs.

(2) State:

(a) Unit 24B Winter Moose Hunt:

**Council Action:** Yatlin made a motion seconded by Gervais to submit a Board of Game proposal for an April 5 – 15 antlered bull moose hunt for Unit 24B. The motion passed (VOTE: 9-0-0-1).

**Council Discussion:** The proposal language would request an April 5 – 15 antlered bull moose season downstream of the Henshaw Creek and including the Henshaw Creek drainage. The harvest quota of bulls will be determined after consultation with the State Area Biologist, Refuge Manager, BLM Central Yukon Field Office Manager, and the chairs of the Koyukuk River Advisory Committee and the Western Interior Alaska Subsistence Regional Advisory Council. The quota will be based on biological sustainability of the population maintaining the bull/cow ratio management objective. The harvest quota would apply to Federal and State concurrent hunts, if applicable. The Area Wildlife Biologist is authorized to close the season once the quota is reached. Traditionally the Upper Koyukuk River in Unit 24B had a winter moose hunt which gave harvest opportunity to unsuccessful fall hunters another chance to harvest a moose and it provided a fresh meat source to the communities when the fall harvested moose and cached fish were running low. When the State winter season was eliminated it was for the conservation of cow moose and other reasons. Since that time Allakaket and Alatna villages have had harvests averaging around 25% of what is necessary. Radio collared moose show that most moose are far away from the river corridors during the fall and December hunts. A “to be announced bull season” during early March has been suggested and may work if all the hunters were able to identify a bull moose in the field in early March. Having a winter antlered bull hunt in April would better accommodate subsistence users in need of meat in late winter. By early April, bull moose are starting to show the first signs of soft velvet antler growth, thus alleviating the identification problem with the early March hunt of readily distinguishing bulls from cows. The new growth is typically 2 – 10 inches in length and is easily distinguished. Increased light conditions also aid in better identification and provide more hours of harvest opportunity.

(b) Koyukuk Controlled Use Area Winter Moose Hunt:

**Council Action:** Yatlin made a motion seconded by Gervais to submit a Board of Game proposal for an April 10 – 15

**Council Discussion:** Having a winter antlered bull hunt in April would better accommodate subsistence users in need of meat in late winter. By early April, bull moose are starting to show the first signs of soft velvet antler growth, thus alleviating the identification problem with the early March hunt of readily distinguishing bulls from cows. The new growth is typically 2 – 10 inches in length and is easily distinguished. Increased light conditions also aid in better identification and provide more hours of harvest opportunity. Local subsistence needs would continue to be unmet, forcing some

families to poach a moose to meet their needs. They will take the first moose they encountered which may be a cow moose. The surplus bull moose available will go unharvested and the moose population will not grow because of illegal cow moose harvest. The lands closest to the villages are State managed, and most economically accessed. Without a State late winter hunt, there will remain a patchwork of Federal – State hunt areas that may result in unnecessary State law enforcement actions on a legal late winter Federal hunt. The patch work of hunts also may result in local hunters breaking State regulations because of the challenge to know where the jurisdictional boundaries are in the field. The current patch work also results in higher fuel costs for local hunters who have to travel farther to hunt the Federal winter season, burning more fuel and passing winter hunting opportunities that are closer on village and regional Native corporation lands.

**C. Organization/agency Reports on Wildlife Studies, Issues, and/or Concerns**

- (1) ADF&G Wood Bison Reintroduction Update: Randy Rogers gave the update. He thanked the Council for its letter of support. He shared key issues involved with the project: the need for a special regulation for wood bison under the Endangered Species Act as a non-essential experimental population (10 (j)) and a proposed rule and environmental assessment required. He will keep the Council informed as these issues move forward. He reviewed Doyon’s concerns about the Minto Flats location and their non objection to the lower Yukon – Innoko location. They are shooting for their first bison release in the spring of 2011.

**Council Discussion:** Collins asked about the first release and expected rate of growth.

Rogers replied a minimum of 40 bison would be released to get a herd started and they expect a 20 – 25 percent growth rate. It would most likely be 10 – 15 years before there was a herd that could sustain any significant harvest. Discussion continued with support to relocate the bison to the Ruby area and the GASH area. Reakoff asked the Council to designate a Council representative to planning group Rogers mentioned for the lower Yukon-Innoko area. J Walker agreed to be the Council’s representative.

During the Council’s discussion of 2009 Annual Report topics discussion of supporting the reintroduction in the bison in the GASH area came up. Haskett shared with the Council the FWS was supporting the State completely on getting the 10(j) rule done and supporting the re-introduction of bison. The Council by consensus agreed to send a letter to Director Haskett supporting the bison re-introduction.

**10. Future Meeting Dates and Locations:**

- A. **Winter 2010:** Joint meeting with Eastern Interior Regional Council in Fairbanks the week of February 22, 2010
- B. **Fall 2010:** October 5 - 6, 2010 in McGrath with alternate location of Galena. R Walker made a motion, seconded by J Walker to meet in McGrath with the alternate location of Galena. The motion passed (7-2-0-1).

**11. Annual Report**

- A. **2008 Annual Report Reply Letter:** Mathews pointed out a copy of the Federal Subsistence Board’s letter was in the meeting booklet.
- B. **2009 Annual Report Topics/Issues:** Topics below would be written in draft form with review and editing by the Council chair and back to the Council for approval at the winter 2011 meeting.
- (1) The need for additional baseline data from OSM or through the ADF&G Subsistence Division to have more current data for the middle Yukon, Upper Koyukuk, and Kuskokwim areas.
- (2) Reakoff was not pleased with the Board’s response to the 2008 Annual Report topic “Maintaining Viable Ungulate Populations: A Management Strategy”. The topic was requesting the Federal managers bring to the Council wildlife population situations that fall

below the recognized scientific principles of management objectives for those populations. He would like the Council to resubmit the issue.

Mathews reminded him that the Council submitted this topic twice already and it might be better to bring this topic up during the Chairs section of the next Federal Subsistence Board meeting. Reakoff requested Buklis convey to ARD Probasco that he remains unsatisfied with the response. Buklis said he would convey this back that OSM should be monitoring the State-managed hunts and fisheries and be more poised to assert the priority in restricting or closing those opportunities if they have exceeded certain sustainable thresholds. Reakoff agreed to bring the topic before the next Board meeting.

- (3) Reakoff still felt that Office of Personnel Management needs to work with Federal agencies to provide a local hire program that incorporates local people as laid out in Title 1308 of ANILCA.
- (4) The Federal Subsistence Board needs to aware there is little to no data that shows what approximate dead loss or dropout rate for the six-inch mesh gear. There is an unknown mortality factor with the use of this gear with the Chinook and chum fisheries.
- (5) The Federal Subsistence Board should look at the under-reporting of Chinook bycatch with the Bering Sea Pollock fisheries and highlight this concern(s) with the agencies associated with NPFMC.

## 12. Organization Reports

### A. Office of Subsistence Management

- (1) **Revised Schedule/Calendar for Program:** Buklis directed the Council to materials on key dates with the program including Board meeting dates and council meeting windows.
- (2) **Proposed Changes to Section .19 Regulations:** Buklis directed the Council to meeting book materials on this topic. The reasons for this ruling were to clarify the Board's role with special actions, how the regulations are adopted, and clearer criteria on what is an extenuating circumstance.

**Council Discussion:** Reakoff shared that the new time sensitive specific language was beneficial to subsistence users to address needs that arise out of cycle.

- (3) **Climate Change and Subsistence Management:** Buklis pointed out that there was increasing attention and concern with climate change and OSM wanted the Councils to be aware of this. The program wanted a continuing dialogue with the Council on climate change through proposals and special actions, fisheries monitoring program, and sharing observations.

**Council Discussion:** Reakoff appreciated OSM's interest in climate change that affects resources, their use. He also appreciated OSM's willingness to track climate change.

- (4) **Council Correspondence Policy Overview:** Mathews gave of the policy and how the Council's correspondence was handled between himself, the Council chair, and OSM leadership.

**Council Discussion:** R Walker asked if Russ Holder was retiring. Mathews explained he was not retiring but accepted a position in Idaho.

**Council Action:** The Council by consensus agreed to send a letter to Holder for service and to wish him well in his future job.

- (5) **Statewide Status of Commercial/Sport Representatives on Regional Councils:** Chair Reakoff directed staff to provide information on this in a letter to the Council members.

### B. Alaska Department of Fish and Game:

- (1) Subsistence Division: Lily Ray gave an overview of the subsistence baseline survey for the central Kuskokwim area for any kind of wild resources including plants. She provided a handout on the project funded as part of the NEPA process associated with the Donlin Creek

Mine project. Eight communities have been selected for the baseline study which consists of household surveys, mapping and key respondent interviews.

**Council Discussion:** Collins asked the survey ask for a broader spectrum of harvests to give a long timeline on subsistence harvest. Honea commended the Donlin Creek Mine for gathering traditional information and working with the communities to collect this information. He thanked Ms. Ray for her short and to the point presentation. Morgan has commended the project and that it was funded through the Subsistence Division, which is independent of NovaGold who is funding the project. Gervais asked if there would on-going studies after the NEPA-EIS project was completed. Ms. Ray replied it was the goal of the division to do baseline studies when possible but they are expensive and funding remains an issue. She confirmed Morgan's discussion that the project was funded through NovaGold and they contracted with the ADF&G, a neutral independent party.

**C. Bureau of Land Management:**

- (1) Tim Craig provided a written summary of BLM activities for the Central Yukon Field Office and he touched upon key points in the summary. A copy of the summary can be found in the administrative record and his key point presentation in the meeting transcripts.

**Council Discussion:** Reakoff asked if there were active radio collars on the Hodzana caribou. Craig replied affirmative and the put four more on and collected tissue samples. Collins was curious about the low number of ram sheep and was it due to hunting pressure. Craig explained the ram numbers are relatively low, 4 – 5 percent legal rams and perhaps hunting had some bearing on it. He noted there were hard winters four or five years ago that might be a factor also. Reakoff asked is those sheep were found in a large aggregate during the survey year. Craig replied they were scattered with some big groups scattered across sheep habitat. He was interested in the GPS collared ewe study to see how far they move. Yatlin asked about what the two permitted hunting guides were hunting for in the region. Craig responded the one at Poss Mountain was a sheep hunter and the Mathews River was keying on sheep and bears. Reakoff asked if BLM was tracking harvest rates in Dalton Highway corridor and associated BLM lands or do they get harvest reporting number from ADF&G. They do try to find out how many sheep are harvested in the guided areas and harvest data for the corridor comes from the State's harvest tickets.

- (2) Geoff Beyersdorf gave a power point presentation on the moose population survey for Unit 21E. A copy of the presentation is available from Beyersdorf and details of his presentation in the meeting transcript.

**Council Discussion:** Reakoff asked if they look at the yearly bull component of the population. Beyersdorf replied they did not and that has been a point of discussion between him and ADF&G on how advantageous that information is. There has been some question how easily detectable those yearling bull are. Reakoff shared his appreciation for the bull/cow ratio and reviewed the points of Council's regulatory proposal for Unit 21E moose winter hunt. Beyersdorf suggested the permits be issued to the head of the household. Reakoff agreed and Gervais suggested a 36 or 48 hour harvest reporting requirement. Reakoff asked for the Innoko Refuge Manager's position on the reporting requirement. Sloan replied the tighter the reporting time the more accurate harvest numbers would be to see where the overall harvest was to the harvest quota. A 24 hour would not scare him. J Walker thought most of the hunters have a VHF with them and could report that way. Collins assumed there would be a dedicated phone or answering service so hunters could leave a message anytime. Sloan that would be something they would have. The Refuge was planning to have face-to-face village meeting to get information out and educate the hunters on the hunt and its requirements. Discussion continued on how to keep Russian Mission informed and involved in the outreach efforts. Josh Pearce of ADF&G was on-line via teleconference. He felt the points discussed for the moose proposal were good and timely reporting and one per household would fairly distribute the permits across the communities.

Beyersdorf explained the differences between the State's proxy hunt and the Federal's designated hunter option. Beyersdorf reminded the Council the Innoko/Yukon Moose Management Plan recommends a 40 moose harvest quota. The Council was comfortable with honoring the 40 moose harvest quota but not having it in their proposal.

Beyersdorf gave the Anchorage Field Office agency report hitting the highlights that they have moved forward with a resource management plan for the Bering Sea/Western Interior area starting in 2010. There will be scoping meetings. He gave an overview of the recreation and guiding permits for his office. BLM was working with Department of Natural Resources to analyze and develop a program to some of the problems with hunting concession areas. Reakoff shared his understanding from BLM State Director Bisson that when resource management plans came up, the plan would implement the guide areas. He was concerned about promises made and BLM not having control of guide areas on their lands. He reminded everyone that the Council has been a proponent of a guide selection process for BLM lands. Beyersdorf said he would take back his concerns and would fold those concerns into the public comment period for the management plan. He would also talk to the BLM recreation person that BLM look at guide use areas being a component of the resource management plans. Beyersdorf continued to cover activities of the Anchorage Field Office. He provided a follow up to the Council's previous meetings concerns about the Mulchatna Caribou herd. He shared information from Jim Woolington (ADF&G) on the herd. ADF&G estimated the a population level of 30-40,000 caribou from the recent census noting survey conditions were not good. They radio collared 36 females caribou with almost 90 percent age class three were pregnant. Reakoff asked if there was any bull/cow data. Beyersdorf said not at this time and the 2009 composition counts would start in a few days. He concluded his report sharing that they have made significant headway with partnerships with ADF&G and the Innoko Refuge. Reakoff appreciated Beyersdorf's work and seeing the bull/cow ratios for the Unit 21E moose population.

**D. Fish and Wildlife Service**

- (1) Regional Office: Tracy McDonald, Refuge Supervisor for Innoko, Koyukuk/Nowitna, Selawik, Togiak, Kodiak, Kenai, and Alaska Peninsula-Becharof, shared her pleasure to get out and meet Council members.
- (2) Refuges:
  - (a) Innoko: Bo Sloan, Refuge Manager, gave an overview of refuge activities beginning with giving credit to Beyersdorf's efforts with the moose collaring project and to Haskett and McDonald support for the extra funds to participate in the project. The refuge were trying to execute a moose composition count in Unit 21A and then launch into conducting a GSPE survey in Units 21A and 21D. There was a lot cooperation with the Alaska troopers out of Aniak with patrol work. The refuge presently does not have an officer and used the zone officer out of Fairbanks in fall. He shared that Clara Dementieff was reinstated as a full-time Refuge Information Technician (RIT). She conducted a science camp during the summer and attended a teacher conference with the teachers from the Iditarod School District. And she participated in a culture camp in Anvik. Recently the refuge filled its fire management officer. The refuge will be getting an additional biologist on staff.  
**Council Discussion:** Honea asked about the status of the predator control program around McGrath. Sloan replied the refuge was outside the boundaries of the control program and was ongoing outside the refuge with bear snaring being allowed. Beyersdorf added the Board of Game deferred in 2007 for a predator control program in a portion of Unit 21E and will be taking it up at its March 2010 meeting. Collins added to the discussion that the predator control program has been successful and moose numbers were up. He offered to get information to the Council on the program. Reakoff shared

his appreciation for their performance and providing the bull/cow ratios he requested for years.

- (b) Kanuti: Mike Spindler, Refuge Manager, gave an overview of refuge activities: (1) completing the refuge's CCP, installation of six water gauges to measure water coming into the refuge, (3) plans to collar ten more moose, (4) reported on Allakaket's successful caribou harvest, (5) overview of a large summer shorebird project, and (6) Lisa Saperstein transferred to a Department of Defense position in central Washington and the refuge will be recruiting to fill the position. He concluded his presentation suggesting the Council align moose hunting dates, September 1 – 25, for the Council's Koyukuk Refuge proposal. Reakoff requested Minerva that the refuge submit a Federal proposal to address this housekeeping item.

**Council Discussion:** Gervais shared that he did not find Spindler's actions regarding subsistence opportunities for Allakaket to be offensive. In his estimation there appeared to be quite a bit of time and financial resources devoted to provide a subsistence opportunity. Spindler appreciated his comments and continued with a discussion on the balancing act refuge managers have to perform to protect the resource and secondarily provide a subsistence opportunity. Reakoff felt that Spindler has gone beyond the call of duty and done an excellent job providing for a subsistence opportunity while protecting the resource. He highly appreciated all the various refuge projects being conducted with a limited staff. He reminded the Council that the Council sent a letter to Allakaket and Alatna on Spindler's efforts and the need for additional enforcement monitoring.

- (c) Koyukuk-Nowitna: Jetta Minerva gave an overview of the refuge report in the meeting booklet. The refuge's CCP was completed and CD copies were available at the meeting. The Refuge was recruiting a fisheries biologist and thanked Haskett and McDonald for funding this position. The refuge has added to their biological program some forest health and wetland monitoring.

**Council Discussion:** Reakoff clarified he was not making a slanderous remark against Refuge Manager Moos during the earlier discussion on moose hunting opportunities in the Koyukuk CUA. He felt Moos was doing an excellent job. Gervais asked if there were preliminary numbers for the number of hunters and moose from the Nowitna check station. Minerva replied there were 89 moose hunters that went through the check station with 28 moose harvested and two additional moose were harvested after the check station closed. Honea shared his appreciation for having a check station. Reakoff shared his feelings on the importance of those two moose harvested in the late season to subsistence families. Yatlin shared her personal disagreement with the Federal and State moose counts. Local residents know where the moose are and are a more reliable source on the number of moose than aerial surveys. Reakoff clarified the situation that there is a March 1 – 5 moose season and moose population shifted, the cows moved down river just outside the hunt area but the perception of refuge staff was the cow population was reduced. The refuge manager precluded the hunt without any bull hunt provision. Pelkola asked of the 30 moose out of the Nowitna check station, how many were for local residents. Minerva did not know exact numbers but there were more non-local than local hunters.

**Council Action:** Collins made a motion, seconded by Pelkola to retract the Council's action to submit a letter to Canada protesting that they conducted a commercial harvest during the depressed Yukon River Chinook salmon returns. By consensus the Council's earlier action was back on the table and rescinded their earlier action by a vote of 0-9-0-1.

- E. **National Park Service:** Nancy Swanton addressed three items and focused the Council's attention to materials in the meeting booklet. The three items were (1) to allow the collection and use of plants and shed horns, antlers, and bones by NPS qualified rural residents, (2) Denali National Park (NP) update, and (3) Gates of the Arctic NP update. NPS was looking at

alternatives for #1 and wanted the Council to be aware of Subsistence Resource Commission issues and actions.

**13. Regional Council Business:**

**A. Regional Council Appointments:**

- (1) Federal Subsistence Board's January meeting: The Council saw no need to send a representative based on the Board's agenda.
- (2) Alaska Board of Fisheries AYK January meeting: Gervais volunteered to represent the Council and Reakoff requested, because of the importance of this meeting, that OSM provide funding for the entire meeting.
- (3) Alaska Board of Game Interior Region February meeting: Chair Reakoff agreed to represent the Council at this important meeting.
- (4) Western Arctic Caribou Herd Working Group: Mathews review the Council's past representative was Benedict Jones. Reakoff covered the importance of the caribou herd and to be informed on the herd's status and management.

**Council Action:** Reakoff requested and the Council agreed by consensus to send a letter to ADF&G biologist Benti and the working group that the Council urges them to incorporate bull/cow ratios at the minimum threshold of 35 bulls per 100 cows into the management plan and the Council be provided copies of their meeting minutes.

**B. Correspondence Received and Sent:** Mathews pointed out the correspondence summary list in the Council meeting booklet. Reakoff directed Mathews to have proposals promulgated by the Council sent to all of the affected State advisory committees and the past Council chair, Ron Sam. Mathews reminded the Council of the pending 2010 nominations and which members' seats were up.

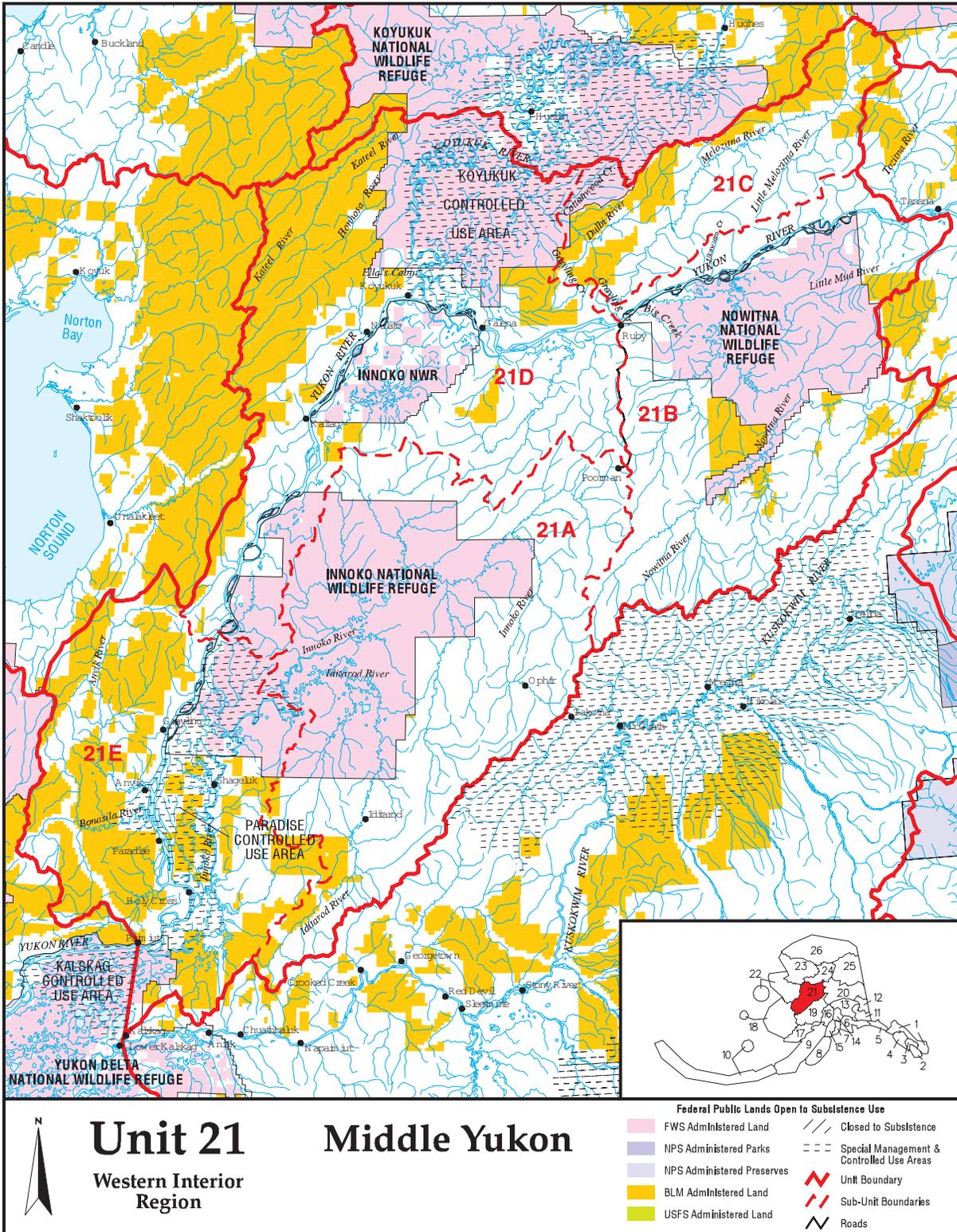
**C. Recognition Awards:** Donald Honea, Jr. received a certificate and FWS coffee mug for his valuable five years of service (2004 – 2009) on the Western Interior Regional Council. Director Haskett assisted with the awards presentation.

**14. Council Members closing comments & Adjournment**

- (1) **Pelkola:** She felt it was a very good meeting and maybe not enough time was spent on some topics and a little too much time on other things. Reakoff apologized for a times getting too long-winded but sometimes it was necessary for record.
- (2) **Yatlin:** She thanked Aniak for its hospitality and was disappointed there were few Aniak residents at the meeting. She acknowledged they cover a wide and diverse region and she agreed with Pelkola on time spent and not spent on topics. She thanked everyone.
- (3) **J Walker:** He also thanked Aniak for hosting the meeting and the agencies that gave reports. He thanked and commended fellow Council members for their participation and bringing their concerns forward.
- (4) **R Walker:** It was nice to come back to Aniak. He thanked the Council members and staff for attending the meeting.
- (5) **Morgan:** He shared his amazement that at each Council meeting he learns something new. He thanked everyone for coming to his community and it was a long but wonderful meeting.
- (6) **Collins:** He appreciated the patience of the staff that sit throughout the meeting. He felt it does not get any easier to solve some of the problems the Council faces but he felt progress was being made. He enjoyed the lodging arrangements where all the Council members stay together and have an opportunity to visit outside the meeting.
- (7) **Honea:** He appreciated having Pelkola and Yatlin on the Council because women bring a different perspective to the Council. He thanked the village of Aniak and KNA for their efforts with hosting the meeting. He shared his appreciation for Gervais' and other Council members who are fishermen bringing their experience to the discussion table.
- (8) **Gervais:** He thanked the community of Aniak and the residents of the Kuskokwim for welcoming the Council to their area. He gained a better understanding of the concerns for









<b>WP10-01 Executive Summary</b>	
<b>General Description</b>	Proposal WP10-01 requests the addition of a definition for “drawing permit” to the Federal subsistence management regulations. <i>Submitted by the USFWS, Office of Subsistence Management</i>
<b>Proposed Regulation</b>	<i>Statewide-General Regulations</i>  § __.25(a) Definitions <b>Drawing permit—a permit issued to a limited number of Federally qualified subsistence users selected by means of a lottery held for all Federally qualified subsistence users submitting valid applications for such permits and who agree to abide by the conditions specified for each hunt. Drawing permits are issued based on priorities determined by 36 CFR 242.17 and 50 CFR 100.17.</b>
<b>OSM Preliminary Conclusion</b>	<b>Support</b> Proposal WP10-01 <b>with modification</b> to simplify and clarify the definition.  The modified regulation would read: <i>Statewide-General Regulations</i> § __.25(a) Definitions <b>Drawing permit—a permit issued to a limited number of Federally qualified subsistence users selected by means of a random drawing.</b>
<b>Southeast Regional Council Recommendation</b>	
<b>Southcentral Regional Council Recommendation</b>	
<b>Kodiak/Aleutians Regional Council Recommendation</b>	
<b>Bristol Bay Regional Council Recommendation</b>	
<b>Yukon/Kuskokwim Delta Regional Council Recommendation</b>	
<b>Western Interior Regional Council Recommendation</b>	
<b>Seward Peninsula Regional Council Recommendation</b>	
<b>Northwest Arctic Regional Council Recommendation</b>	
<b>Eastern Interior Regional Council Recommendation</b>	

*continued on next page*

<b>WP10-01 Executive Summary (continued)</b>	
<b>North Slope Regional Council Recommendation</b>	
<b>Interagency Staff Committee Comments</b>	
<b>ADF&amp;G Comments</b>	
<b>Written Public Comments</b>	<b>None</b>

## DRAFT STAFF ANALYSIS WP10-01

### ISSUES

Proposal WP10-01, submitted by the USFWS, Office of Subsistence Management, requests the addition of a definition for “drawing permit” to the Federal subsistence management regulations.

### DISCUSSION

Existing Federal subsistence management regulations do not include a definition for “drawing permit” (§§ \_\_.4 and \_\_.25(a)). However, because this term is used in the hunting regulations (§ \_\_.26(n) (19)), a definition should be provided.

#### Existing Federal Regulation

*Statewide-General Regulations*

§ \_\_.25(a) *Definitions*—No existing definition

#### Proposed Federal Regulation

*Statewide-General Regulations*

§ \_\_.25(a) *Definitions*

***Drawing permit—a permit issued to a limited number of Federally qualified subsistence users selected by means of a lottery held for all Federally qualified subsistence users submitting valid applications for such permits and who agree to abide by the conditions specified for each hunt. Drawing permits are issued based on priorities determined by 36 CFR 242.17 and 50 CFR 100.17.***

#### Existing State Regulation

*Definitions*

*Drawing permit—a permit issued to a limited number of people selected by means of a lottery held for all people submitting valid applications for such permits and who agree to abide by the conditions specified for each hunt.*

#### Extent of Federal Public Lands/Waters

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% U.S. Fish and Wildlife Service, and 6% U.S. Department of Agriculture, U.S. Forest Service lands.

#### Effects of the Proposal

The addition of this definition does not affect fish and wildlife populations, subsistence uses or other uses (i.e., sport/recreational or commercial). The Federal Subsistence Management Program has used drawings as one way to distribute permits among residents of a community that are similarly situated relative to

customary and traditional uses of those wildlife populations. Current hunting regulations use the phrase “drawing permit” to describe the permit for the Unit 19A moose hunt, and there have been other situations where drawings have been used to distribute registration permits among qualified applicants. Proposal WP10-09, submitted by the Southeast Alaska Subsistence Regional Advisory Council, requests a drawing permit hunt. The addition of a definition for “drawing permit” to the Federal regulations would help provide clarity to regulations.

## **OSM PRELIMINARY CONCLUSION**

**Support** Proposal WP10-01 **with modification** to simplify and clarify the definition.

The modified regulation would read:

*Statewide-General Regulations*

*§ \_\_.25(a) Definitions*

***Drawing permit—a permit issued to a limited number of Federally qualified subsistence users selected by means of a random drawing.***

### **Justification**

The definition clarifies a term that is used in the Federal subsistence hunting regulations and does not affect fish and wildlife populations, subsistence uses or other uses. The modified wording simplifies the definition and makes it clear that drawing permits are based on a “random” drawing for all similarly situated Federally qualified subsistence users.

## STATUS OF WP10-02 (*DEFERRED WP08-05*)

Proposal WP10-02 (deferred proposal WP08-05), submitted by the Alaska Department of Fish and Game, requested clarification of the existing Federal Subsistence management regulation governing the use of brown bear claws in handicrafts for sale. The proposal specifically 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 Alaska Department of Fish and Game, pending formation of a workgroup to address the issue of developing a method of tracking brown bear claws made into handicrafts for sale. The Board voted unanimously to defer the proposal “to allow a work group to address this issue of sale and tracking, specifically whether or not it’s even feasible” (FSB 2008:117). 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).

An initial scoping meeting between Federal and State staff was held in January 2009; at that meeting a draft charge was developed<sup>1</sup>. A briefing was provided to all Councils during the Winter 2009 meeting cycle on the status of the workgroup, and Councils selected representatives to participate in the workgroup. The workgroup, including representatives from nine Councils, and Federal and State staff met in June 2009. At that meeting, participants from the Councils posed a number of questions directed at whether or not bear claw tracking is a problem for subsistence users, and if regulations needed to be changed. These questions prompted Federal and State staff to conduct further research, and to meet as agency staff to compare notes and to follow up on research questions, which they did twice during summer 2009. The work group attempted to meet again during the summer of 2009, but this was not possible. In the interim, another briefing on the status of the workgroup was provided to the Councils at the Fall 2009 meetings.

### FUTURE DIRECTION

The workgroup, including Council members, will meet during spring/summer 2010 to address the questions raised at its first meeting, and to begin working towards resolution of the issues. This will provide ample time for the workgroups’ findings to be presented to each Council for their recommendations during the Fall 2010 meeting cycle, and for a full report to be provided to the Federal Subsistence Board for action at its January 2011 meeting. A report will also be provided to the Alaska Board of Game at an appropriate meeting. Proposal 10-02 (WP08-05) will be deferred until that time.

### LITERATURE CITED

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

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<sup>1</sup> Draft charge for workgroup:

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.

<b>WP10-03 Executive Summary</b>	
<b>General Description</b>	Proposal WP10-03 requests the addition of a general provision in Federal subsistence management regulations to allow the harvest of fish and wildlife by participants in a cultural or educational program. <i>Submitted by the Office of Subsistence Management</i>
<b>Proposed Regulation</b>	<i>See the analysis for the proposed regulation language.</i>
<b>OSM Preliminary Conclusion</b>	<b>Support</b> Proposal WP10-03 <b>with modification</b> to simplify the proposed regulation.
<b>Southeast Regional Council Recommendation</b>	
<b>Southcentral Regional Council Recommendation</b>	
<b>Kodiak/Aleutians Regional Council Recommendation</b>	
<b>Bristol Bay Regional Council Recommendation</b>	
<b>Yukon/Kuskokwim Delta Regional Council Recommendation</b>	
<b>Western Interior Regional Council Recommendation</b>	
<b>Seward Peninsula Regional Council Recommendation</b>	
<b>Northwest Arctic Regional Council Recommendation</b>	
<b>Eastern Interior Regional Council Recommendation</b>	
<b>North Slope Regional Council Recommendation</b>	
<b>Interagency Staff Committee Comments</b>	
<b>ADF&amp;G Comments</b>	
<b>Written Public Comments</b>	<b>None</b>

## DRAFT STAFF ANALYSIS WP10-03

### ISSUES

Proposal WP10-03, submitted by the Office of Subsistence Management, requests the addition of a general provision in Federal subsistence management regulations to allow the harvest of fish and wildlife by participants in a cultural or educational program.

### DISCUSSION

This proposal is a housekeeping measure intended to provide clarity in the guidelines for issuing permits for the harvest of fish and wildlife by cultural and educational programs. Doing so will help to inform the public, fish and wildlife managers, Office of Subsistence Management staff, members of the Interagency Staff Committee, and members of the Federal Subsistence Board (Board) of the guidelines currently in use by Office of Subsistence Management staff with regard to permits to harvest wildlife and fish for cultural and educational programs. Since the Federal program began in 1990, the process for issuing permits has gone through a number of changes. Because some of these changes have not been well documented, there is some confusion over the process. The intent of this regulation then is to provide clarity in Federal subsistence management regulations.

Currently, there is no specific provision allowing for the harvest of wildlife for cultural and educational programs although there is a general allowance that provides for such a practice. A specific provision allows for the harvest of fish for a cultural and educational program.

Most requests speaking to the allowance of fish or wildlife harvests on behalf of a cultural or educational program are on behalf of culture camps sponsored by Native nonprofit organizations. Requests for permits also have been received from a substance abuse rehabilitation program and for college courses. The permits are typically requested both to teach cultural and educational activities associated with harvest, and to provide food for participants in the cultural and educational program. Once a program has been approved for a permit, follow-up requests (referred to as repeat requests in the regulation), may be made annually for up to five years by the same cultural or educational program to harvest the same animal species and amount.

### Existing Federal Regulation

#### Program structure

#### § \_\_\_\_ .10(d)

*(5) The Board may implement one or more of the following harvest and harvest reporting or permit systems:*

*(iii) The fish and wildlife is taken by individuals or community representatives permitted (via a Federal Subsistence Registration Permit) a one-time or annual harvest for special purposes including ceremonies and potlatches.*

## **General regulations**

No existing regulation

## **Fish regulations**

### **§\_\_\_\_.27(e)**

*(2) The U.S. Fish and Wildlife Service Office of Subsistence Management may issue a permit to harvest fish for a qualifying cultural/educational program to an organization that has been granted a Federal subsistence permit for a similar event within the previous 5 years. A qualifying program must have instructors, enrolled students, minimum attendance requirements, and standards for successful completion of the course. Applications must be submitted to the Office of Subsistence Management 60 days prior to the earliest desired date of harvest. Permits will be issued for no more than 25 fish per culture/education camp. Appeal of a rejected request can be made to the Federal Subsistence Board. Application for an initial permit for a qualifying cultural/educational program, for a permit when the circumstances have changed significantly, when no permit has been issued within the previous 5 years, or when there is a request for harvest in excess of that provided in this paragraph (e)(2), will be considered by the Federal Subsistence Board.*

## **Proposed Federal Regulation**

### **Program structure**

#### **§\_\_\_\_.10(d)**

*(5) The Board may implement one or more of the following harvest and harvest reporting or permit systems:*

*(iii) The fish and wildlife is taken by individuals or community representatives permitted (via a Federal Subsistence Registration Permit) a one-time or annual harvest for special purposes including ceremonies and potlatches.*

### **General regulations**

#### **§\_\_\_\_.25(g) Cultural/educational program permits**

*(1) A qualifying program must have instructors, enrolled students, minimum attendance requirements, and standards for successful completion of the course. Applications must be submitted to the Federal Subsistence Board through the Office of Subsistence Management 60 days prior to the earliest desired date of harvest. Generally permits will be issued for no more than one large mammal per cultural/educational program, permits will be issued for no more than 25 fish per cultural/educational program, and permits for the harvest of shellfish will be addressed on a case by case basis. Any animals harvested will count against any established Federal harvest quota for the area in which harvested.*

*(2) Application for an initial permit for a qualifying cultural/educational program, for a permit when the circumstances have changed significantly, when no permit has been issued within the previous 5 years, or when there is a request for harvest in excess of that provided in paragraph*

*(g)(1), will be considered by the Federal Subsistence Board. Appeal of a rejected request can be made to the Federal Subsistence Board.*

*(3) A permit to harvest fish, wildlife, or shellfish for a qualifying cultural/educational program which has been granted a Federal subsistence permit for a similar event within the previous 5 years may be issued by the Federal in-season manager (for fisheries) or the Federal local land manager (for wildlife). Requests for follow-up permits must be submitted to the in-season or local land manager 60 days prior to the earliest desired date of harvest.*

*(4) Federal in-season and local land managers will report the re-issue of any cultural/educational program permits and the harvest results to the U.S. Fish and Wildlife Service, Office of Subsistence Management.*

### **Fish regulations**

#### **§ \_\_\_\_ .27(e)**

*(2) The U.S. Fish and Wildlife Service Office of Subsistence Management may issue a permit to harvest fish for a qualifying cultural/educational program to an organization that has been granted a Federal subsistence permit for a similar event within the previous 5 years. A qualifying program must have instructors, enrolled students, minimum attendance requirements, and standards for successful completion of the course. Applications must be submitted to the Office of Subsistence Management 60 days prior to the earliest desired date of harvest. Permits will be issued for no more than 25 fish per culture/education camp. Appeal of a rejected request can be made to the Federal Subsistence Board. Application for an initial permit for a qualifying cultural/educational program, for a permit when the circumstances have changed significantly, when no permit has been issued within the previous 5 years, or when there is a request for harvest in excess of that provided in this paragraph (e)(2), will be considered by the Federal Subsistence Board.*

### **State Regulations**

#### **5 AAC 92.034 Permit to take game for cultural purposes**

*The commissioner may issue a permit for the taking of game for the teaching and preservation of historic or traditional Alaskan cultural practices, knowledge, and values, only under the terms of a permit issued by the department upon application. A permit may not be issued if the taking of the game can be reasonably accommodated under existing regulations. For purposes of this section, "game" includes (1) deer; (2) moose; (3) caribou; (4) black bear; (5) mountain goat; (6) small game; (7) furbearers; and (8) any migratory bird for which a federal permit has been issued.*

### **Regulatory History**

At the inception of the Federal Subsistence Management Program, all requests for permits to allow harvests for special purposes between regulatory cycles were treated as special actions that went directly to the Board. In 2000, the Board adopted a general provision in Federal regulations that delegated authority to Office of Subsistence Management to issue special harvest permits for repeated requests from

cultural and educational camp operators (§\_\_\_\_.25(c)(4)<sup>1</sup>; 66 FR 10148, February 13, 2001). Thus, the initial request went to the Board and any subsequent requests to the Office of Subsistence Management. This regulation included provisions for issuing permits to harvest up to 25 fish and one species of wildlife (deer, moose, caribou, black bear, or mountain goat only). These species were included in the regulation because permits had previously been distributed for these species. At the time of its adoption, the Board expressed the desire to evaluate the effectiveness of the regulation following its implementation (FWS 2004).

Concurrently, in 2000 the Board also adopted regulations to manage fisheries occurring in Federal public waters. As part of this activity, the Board adopted a regulation addressing the subsistence take of fish on behalf of cultural and educational programs (§\_\_\_\_.27(e)(2); 66 FR 33745, June 25, 2001). The regulation adopted by the Board required that initial requests are considered by the Board and repeat requests are considered by Office of Subsistence Management. The Board gave the Office of Subsistence Management the authority to issue repeat permits for the harvest of up to 25 fish per program. It should be noted that this regulation was adopted even though a similar regulation (described in the previous paragraph) already existed in general provisions of Federal regulations, which was probably an oversight.

In November 2003 the Board rescinded the general provisions regulation that delegated authority to the Office of Subsistence Management to issue cultural and educational permits (§\_\_\_\_.25(g) [§\_\_\_\_.25(c)(4)]; 69 FR 40177, July 1, 2004). Instead of a regulation, the Board established guidelines for issuing permits for the harvest fish and wildlife for cultural and educational programs. Additionally, the Board delegated the authority to issue repeat permits to field managers.

When a permit to harvest wildlife by a cultural or educational program is issued, at the same time a letter containing guidelines for delegation is completed by the analyst at the Office of Subsistence Management and sent to the Federal field manager by the policy coordinator at the Office of Subsistence Management. The guidelines require that the field manager become familiar with the management history of the species and with the State and Federal regulations and management plan, and be up-to-date on population and harvest status information. Also, the guidelines direct the field manager to consult with the local ADF&G fish and wildlife managers.

### **Effects of the Proposal**

If this proposal is adopted, the provision in fish regulations for issuing cultural and educational permits should be rescinded. The description of how to apply for a permit to harvest fish or wildlife as part of a cultural or educational program that is in the Federal subsistence regulation booklets published for the public will flow directly from the new regulation requested in this proposal.

If this proposal is not adopted, there will continue to be confusion among the public, fish and wildlife managers, Office of Subsistence Management staff, members of the Interagency Staff Committee, and members of the Federal Subsistence Board concerning the issuing of these permits.

### **OSM PRELIMINARY CONCLUSION**

**Support Proposal WP10-03 with modification** to simplify the proposed regulation.

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<sup>1</sup> The regulation located at §\_\_\_\_.25(c)(4) in Federal regulations was later moved to §\_\_\_\_.25(g) during a reorganization of the Federal regulations (66 FR 33745–33746, June 25, 2001).

The modified regulation should read:

### **General regulations**

#### **§\_\_\_\_.25(g) Cultural/educational program permits**

*(1) A qualifying program must have instructors, enrolled students, minimum attendance requirements, and standards for successful completion of the course. Applications must be submitted to the Federal Subsistence Board through the Office of Subsistence Management and should be submitted 60 days prior to the earliest desired date of harvest. Harvests must be reported and any animals harvested will count against any established Federal harvest quota for the area in which it is harvested.*

*(2) Requests for follow-up permits must be submitted to the in-season or local manager and should be submitted 60 days prior to the earliest desired date of harvest.*

### **Justification**

The harvest of fish and wildlife by participants in cultural and educational programs is generally allowed in the Federal Subsistence Management Program regulations. Proposal WP10-03 will further clarify for fish and wildlife managers, Office of Subsistence Management staff, members of the Interagency Staff Committee, and members of the Federal Subsistence Board the cultural and educational permit regulations.

### **LITERATURE CITED**

FWS. 2004. Staff analysis for Proposal WP04-26. Pages 178–188 in Federal Subsistence Board Meeting Materials May 18–21, 2004. Office of Subsistence Management, FWS. Anchorage, AK. 622 pages.

<b>WP10-04 Executive Summary</b>	
<b>General Description</b>	This proposal would remove Units 6, 12, 20A, 20B, 20C east of the Teklanika River, 20D and 20E from the areas for which the Assistant Regional Director for Subsistence Management has the delegated authority to open, close or adjust Federal subsistence lynx seasons and to set harvest and possession limits. <i>Submitted by the Office of Subsistence Management</i>
<b>Proposed Regulation</b>	<p>§__.26 (f)(3)</p> <p><i>The Assistant Regional Director for Subsistence Management, FWS, is authorized to open, close, or adjust Federal subsistence lynx seasons and to set harvest and possession limits for lynx in Units <del>6, 7, 11, 12, 13, 14, 15, and 16, 20A, 20B, 20C east of the Teklanika River, 20D, and 20E,</del> with a maximum season of November 1–February 28. This delegation may be exercised only when it is necessary to conserve lynx populations or to continue subsistence uses, only within guidelines listed within the ADF&amp;G Lynx Harvest Management Strategy, and only after staff analysis of the potential action, consultation with the appropriate Regional Council Chairs, and Interagency Staff Committee concurrence.</i></p>
<b>OSM Preliminary Conclusion</b>	<b>Support</b> proposal WP10-04 <b>with modification</b> to delete the regulatory language found in §__.26 (f)(3), and delegate the authority to open, close, or adjust Federal lynx seasons and to set harvest and possession limits for lynx via a delegation of authority letter only.
<b>Southeast Regional Council Recommendation</b>	
<b>Southcentral Regional Council Recommendation</b>	
<b>Kodiak/Aleutians Regional Council Recommendation</b>	
<b>Bristol Bay Regional Council Recommendation</b>	
<b>Yukon/Kuskokwim Delta Regional Council Recommendation</b>	
<b>Western Interior Regional Council Recommendation</b>	
<b>Seward Peninsula Regional Council Recommendation</b>	
<b>Northwest Arctic Regional Council Recommendation</b>	

*continued on next page*

<b>WP10-04 Executive Summary (continued)</b>	
<b>Eastern Interior Regional Council Recommendation</b>	
<b>North Slope Regional Council Recommendation</b>	
<b>Interagency Staff Committee Comments</b>	
<b>ADF&amp;G Comments</b>	
<b>Written Public Comments</b>	<b>None</b>

## DRAFT STAFF ANALYSIS WP10-04

### ISSUE

This proposal, submitted by the Office of Subsistence Management, would remove Units 6, 12, 20A, 20B, 20C east of the Teklanika River, 20D and 20E from the areas for which the Assistant Regional Director for Subsistence Management has the delegated authority to open, close or adjust Federal subsistence lynx seasons and to set harvest and possession limits.

### DISCUSSION

Lynx trapping seasons are adjusted annually based on recommendations determined using Alaska Department of Fish and Game (ADF&G) Tracking Harvest Strategy for managing lynx (FSB 2001). The Alaska Board of Game removed Units 6, 12, 20A, 20B, 20C east of the Teklanika River, 20D and 20E from the list of units that are managed using the lynx harvest strategy. Based on this action these units should also be eliminated from regulation.

### Existing Federal Regulation

§\_\_.26 (f)(3)

*The Assistant Regional Director for Subsistence Management, FWS, is authorized to open, close, or adjust Federal subsistence lynx seasons and to set harvest and possession limits for lynx in Units 6, 7, 11, 12, 13, 14, 15, 16, 20A, 20B, 20C east of the Teklanika River, 20D, and 20E, with a maximum season of November 1–February 28. This delegation may be exercised only when it is necessary to conserve lynx populations or to continue subsistence uses, only within guidelines listed within the ADF&G Lynx Harvest Management Strategy, and only after staff analysis of the potential action, consultation with the appropriate Regional Council Chairs, and Interagency Staff Committee concurrence.*

### Proposed Federal Regulation

§\_\_.26 (f)(3)

*The Assistant Regional Director for Subsistence Management, FWS, is authorized to open, close, or adjust Federal subsistence lynx seasons and to set harvest and possession limits for lynx in Units ~~6, 7, 11, 12, 13, 14, 15, and 16, 20A, 20B, 20C east of the Teklanika River, 20D, and 20E,~~ with a maximum season of November 1–February 28. This delegation may be exercised only when it is necessary to conserve lynx populations or to continue subsistence uses, only within guidelines listed within the ADF&G Lynx Harvest Management Strategy, and only after staff analysis of the potential action, consultation with the appropriate Regional Council Chairs, and Interagency Staff Committee concurrence.*

### Regulatory History

In 1987, ADF&G adopted a Tracking Harvest Strategy for managing lynx (ADF&G 1987). This strategy calls for shortening or closing trapping seasons when lynx numbers are low, and lengthening or opening seasons when lynx are abundant. In the spring of 1992, the Alaska Board of Game adopted

maximum possible seasons for a number of management units within the State. Authority to make season adjustments within seasonal windows was delegated to ADF&G by the Alaska Board of Game. The decision to adjust the season is based upon the reported number of lynx harvested and the percentage of kittens within the total harvest.

The Federal Subsistence Board (Board) endorsed the State's strategy for setting seasons on lynx and has regularly made annual adjustments to the Federal seasons to align with the State seasons. In 2001 the Federal Subsistence Board (FSB 2001) added a statewide regulatory provision and issued a Delegation of Authority Letter (**Appendix I**) so that the Office of Subsistence Management could adjust lynx trapping regulations through the use of the ADF&G tracking harvest strategy. This delegated authority requires coordination with ADF&G, consultation with the appropriate Federal land management agencies, and development of a staff analysis to evaluate the effects of the changes to the season and harvest limit and Interagency Staff Committee concurrence.

In March 2008, the Alaska Board of Game eliminated the lynx tracking strategy in the interior game management units and established permanent seasons for Unit 20. Unit 12 was previously removed from the tracking strategy and in March 2009 the Alaska Board of Game eliminated the tracking strategy for Unit 6.

### Effects of the Proposal

When the Board first delegated its authority to the Assistant Regional Director for Subsistence Management, Units 6, 7, 11, 12, 13, 14, 15, 16, 20A, 20B, 20C east of the Teklanika River, 20D, and 20E were managed by the State using the lynx strategy. Over time, however, the State has removed a number of units from its lynx tracking strategy. If this proposal is adopted it would align Federal and State regulations regarding lynx management.

There should be no impacts on wildlife populations as season and harvest limits can still be changed through the normal regulatory cycle or through special action if needed. There will be no adverse impacts to subsistence users as season and harvest limits may still be changed. This proposed change only addresses the authority delegated to the Assistant Regional Director for the Office of Subsistence Management.

### OSM PRELIMINARY CONCLUSION

**Support** proposal WP10-04 **with modification** to delete the regulatory language found in § \_\_.26 (f)(3), and delegate the authority to open, close, or adjust Federal lynx seasons and to set harvest and possession limits for lynx via a delegation of authority letter only (**Appendix II**).

The regulation would be deleted:

§ \_\_.26 (f)(3) [*Reserved*]

*The Assistant Regional Director for Subsistence Management, FWS, is authorized to open, close, or adjust Federal subsistence lynx seasons and to set harvest and possession limits for lynx in Units 6, 7, 11, 12, 13, 14, 15, 16, 20A, 20B, 20C east of the Teklanika River, 20D, and 20E, with a maximum season of November 1–February 28. This delegation may be exercised only when it is necessary to conserve lynx populations or to continue subsistence uses, only within guidelines listed within the ADF&G Lynx Harvest Management Strategy, and only after staff analysis of the potential action, consultation with the appropriate Regional Council Chairs, and Interagency Staff Committee concurrence.*

## **Justification**

There should be no impacts on wildlife populations as season and harvest limits can still be changed via the normal regulatory cycle or via special action if needed. There will be no impacts to subsistence users as season and harvest limits may still be changed. This proposed change is only addressing the authority delegated to the Assistant Regional Director for the Office of Subsistence Management. The current delegation is already done through a letter and the regulatory language in §\_\_.26 (f)(3) is redundant and not needed. The draft letter found in **Appendix II** would update the delegation of authority letter making it more consistent with other delegation letters issued throughout the state by the Board.

## **LITERATURE CITED**

ADF&G, Division of Wildlife Conservation. 1987. Report to the Board of Game on lynx management. 30 pages.

ADF&G, Division of Wildlife Conservation. 2009. Recommendations for the 2008–2009 lynx trapping seasons: Interior Alaska Tracking Harvest Strategy. 2 pages.

FSB. 2001. Transcripts of the Federal Subsistence Board proceedings, May 9, 2001. Anchorage, AK.



FISH and WILDLIFE SERVICE  
BUREAU of LAND MANAGEMENT  
NATIONAL PARK SERVICE  
BUREAU of INDIAN AFFAIRS

## Federal Subsistence Board

3601 C Street, Suite 1030  
Anchorage, Alaska 99503-6199



FOREST SERVICE

JUN 15 2001

FWS/OSM/C:/LynxDelegation

Mr. Thomas H. Boyd  
Assistant Regional Director, Subsistence Management  
U.S. Fish and Wildlife Service  
3601 C Street, Suite 1030  
Anchorage, Alaska 99503

Dear Mr. Boyd:

This letter delegates regulatory authority from the Federal Subsistence Board to you as Project Leader of the Office of Subsistence Management to issue special actions when necessary to assure the conservation of healthy lynx populations and to provide for subsistence uses of lynx, consistent with the Alaska Department of Fish and Game Lynx Harvest Management Strategy, on Federal lands subject to ANILCA Title VIII.

### Overview

It is the intent of the Federal Subsistence Board that lynx management by Federal officials be coordinated with the Alaska Department of Fish and Game and involve Regional Advisory Council representatives to conserve healthy lynx populations while providing for subsistence uses. Federal managers are expected to cooperate with State managers and minimize disruption to resource users and existing agency programs, as agreed to under the Interim Memorandum of Agreement for Coordinated Fisheries and Wildlife Management for Subsistence Uses on Federal Public lands in Alaska.

### DELEGATION OF AUTHORITY

**1. Delegation:** The Project Leader of the Office of Subsistence Management is hereby delegated authority to approve special actions affecting lynx on Federal lands as outlined under **2. Scope of Delegation.**

**2. Scope of Delegation:** The regulatory authority hereby delegated is limited to authority to open, close, or adjust Federal subsistence lynx seasons and to set harvest and possession limits for lynx. This delegation may be exercised only when it is necessary to conserve lynx populations or to continue subsistence uses, only within guidelines listed within the Lynx Harvest Management Strategy, and only after staff analysis of the potential action and Staff Committee concurrence.

Mr. Thomas H. Boyd

2

All other proposed changes to codified regulations, such as customary and traditional use determinations or adjustments to method or means of take, shall be directed to the Federal Subsistence Board.

The Federal lands subject to this delegated authority are those described in the Subsistence Management Regulations for Public Lands in Alaska. You will coordinate your decisions with all affected Federal land managers and the Alaska Department of Fish and Game.

**3. Effective Period:** This delegation of authority is effective from the date of this letter, and continues until revoked by the Federal Subsistence Board.

**4. Guidelines for Delegation:** You will review special action requests or situations that may require a special action and all supporting information to determine (1) if the request/situation falls within the scope of delegation, (2) if the action would be consistent with the conservation of healthy lynx populations, and (3) what the consequences of taking an action may be on potentially affected subsistence users and non-subsistence users. You will consider the management history of lynx in the affected region, current State and Federal lynx regulations and management plans, and lynx population and harvest status information. Requests not within your delegated authority will be forwarded to the Federal Subsistence Board for consideration. You will keep a record of all special action requests and their disposition.

You will immediately notify the Federal Subsistence Board and notify/consult with appropriate ADF&G managers, Regional Advisory Council members, and other affected Federal conservation unit managers concerning special actions being considered. You will issue timely decisions. Users, affected State and Federal managers, law enforcement personnel, and Regional Advisory Council representatives will be notified before the effective date/time of decisions.

**5. Support Services:** Administrative support for management activities will be provided by the Office of Subsistence Management, U.S. Fish and Wildlife Service, Department of the Interior.

**6. Authority:** This delegation of authority is established pursuant to 36 CFR 242.10(d)(6) and 50 CFR 100.10(d)(6).

This delegation of authority will assure conservation of lynx populations through sound management decisions in cooperation with State managers, thereby providing for the long-term needs of the subsistence user.

Sincerely,



Mitch Demientieff, Chair  
Federal Subsistence Board

Attachment: Tracking Harvest Strategy for Lynx

cc: Members of the Federal Subsistence Board

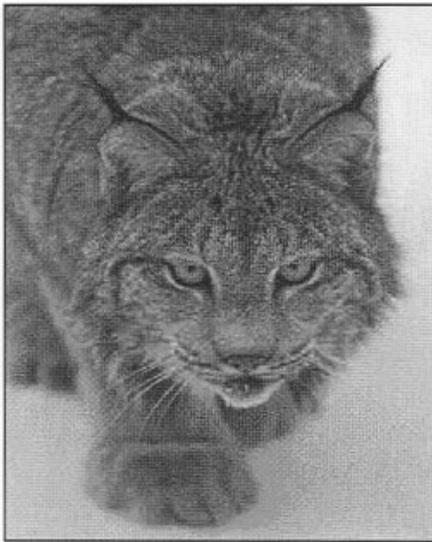
Mr. Stanley Pruszanski, Assistant Regional Director - Law Enforcement

Mr. Walter Soroka, Deputy Assistant Regional Director - Law Enforcement

Mr. Frank Rue, Commissioner, Alaska Department of Fish and Game

## Tracking Harvest Strategy for Lynx

by Howard Golden  
Furbearer Biologist, Southcentral Region

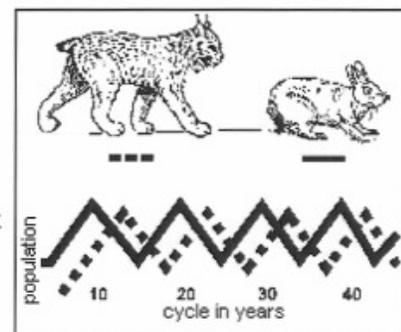


Lynx (*Lynx canadensis*) populations in Alaska and much of Canada fluctuate greatly over a 9-11-year period, responding mainly to the abundance of snowshoe hares (*Lepus americanus*). Lynx population trends are closely tied with those of snowshoe hares even when other prey is available. Lynx respond directly to changes in hare abundance through the number of kittens that are produced and the survival of kittens and adults. This response by lynx follows the hare population cycles, which are remarkably synchronous in northern latitudes.

Managers of lynx harvest in these areas must be able to respond with appropriate harvest regulations to ensure sustainable harvests are maintained. A tracking harvest strategy is one method for managing the harvest of populations in a fluctuating environment. Under a tracking harvest strategy, harvest is increased while a population is growing and is decreased during a population decline. In 1987, the Alaska Department of Fish and Game (ADF&G) and the Board of Game (BOG), which authorizes seasons and bag limits in Alaska, adopted a tracking harvest strategy to allow the dynamic management of lynx based on the ability of populations to support harvest. This was in response to concerns by lynx managers that high lynx-pelt prices would encourage excessive harvest during the declining phase of the lynx cycle.

The tracking harvest strategy applies to the road-connected areas of Interior and Southcentral Alaska that have high trapper use. Several criteria are used to determine if lynx seasons should be changed, including:

1. Percent kittens in the harvest
2. Evidence of increasing or decreasing populations of both lynx and hares
3. Period of pelt primeness
4. Potential negative effects of early seasons' orphaning kittens too young to survive
5. Possible effects of late seasons on higher harvests due to increased movement and greater vulnerability of lynx

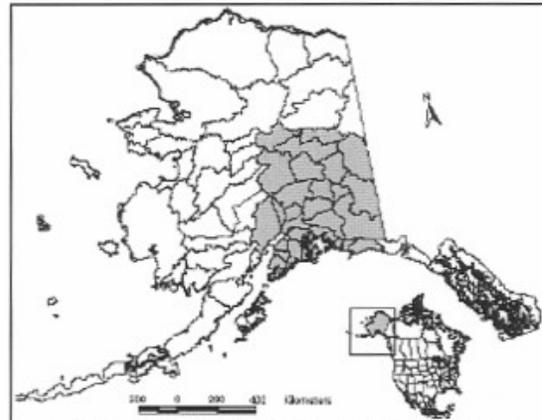


The tracking harvest strategy for lynx was implemented in 1988. The strategy resulted in season closures in some units when lynx populations seemed to be at low levels but later allowed seasons in those units to reopen once lynx populations began to increase. The tracking harvest strategy became difficult to use because of the need to issue emergency orders to change seasons outside the usual regulatory schedule established by the BOG. This problem was resolved in 1992 when the BOG authorized ADF&G to

change season lengths within the broad seasons of 1 November-28 February in Interior game management units and 10 November-28 February in Southcentral units. ADF&G is not authorized to modify bag limits under this plan because that is a BOG allocation prerogative. There is a no-limit bag for lynx trapping throughout most of the state.

Every spring ADF&G biologists analyze data collected over winter during the trapping season to determine the most appropriate lynx seasons for the next winter. Biologists use a variety of tools to make their decisions. These tools include:

1. Track counts in snow to monitor the relative abundance of lynx and snowshoe hares
2. Pelt measurements to estimate the proportion of kittens in the harvest
3. Biological measurements from lynx carcasses purchased from trappers
4. Harvest data to determine where and how many lynx were trapped
5. Reports from trappers to get their on-the-ground observations
6. Other things like weather and snow conditions and pelt prices



Tracking harvest strategy area (shaded) and Game Management Unit boundaries in Alaska.

The new seasons may be long during the high years in a population cycle, closed during a low period, or somewhere in between during the middle years.

#### LynxTrak: A Tool for Lynx Harvest Managers



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## LynxTrak: A Tool for Lynx Harvest Managers

by Howard Golden  
Furbearer Biologist, Southcentral Region

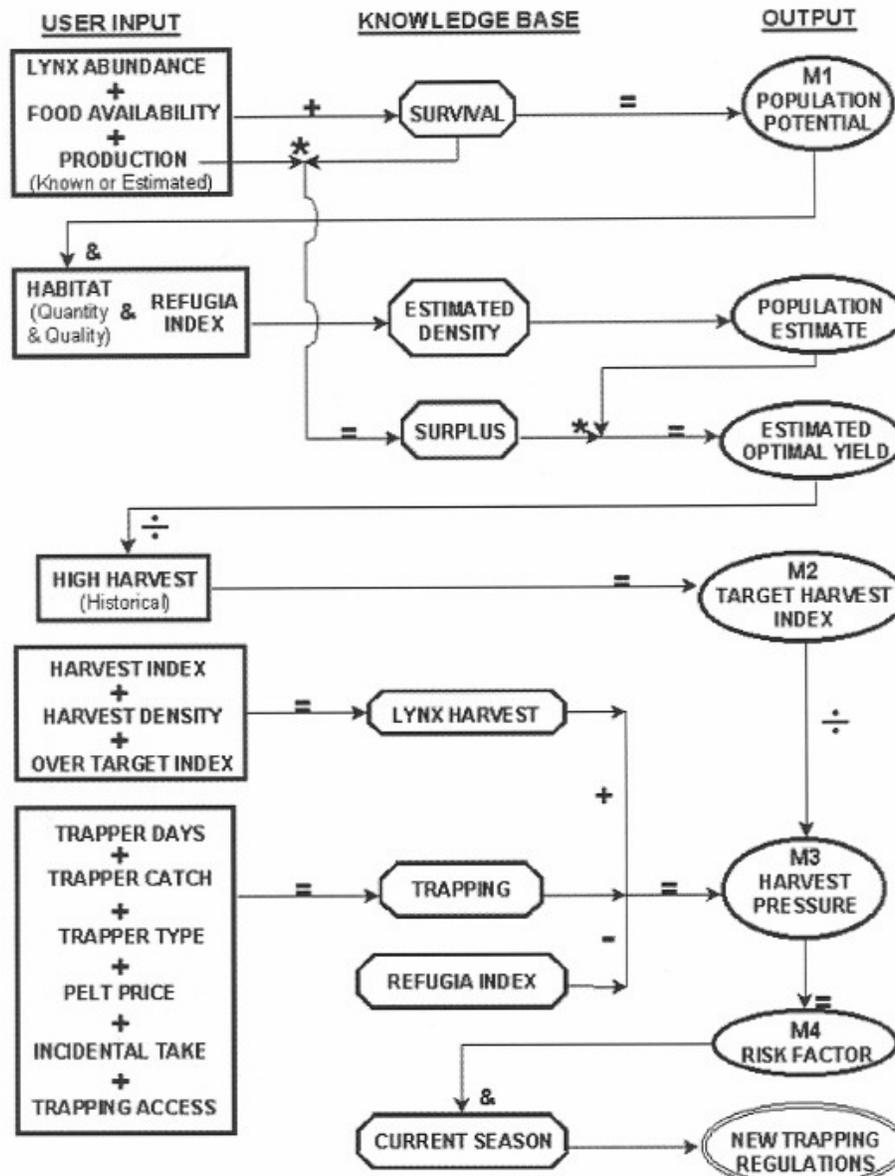


© Brian Slough

To aid lynx managers achieve sustainable harvest objectives under the tracking harvest strategy, I developed a rule-based model, called **LynxTrak**, as a decision-making tool. The advantage of the rule-based model is that it provides a documented, logical structure to the decision-making process that is both intuitive and experiential. Such models can process quantitative data but are most useful when coping with qualitative information to reach decisions. Rule-based models build on what is known using available literature, in-house databases, and the collective knowledge of experts. These types of models have become known as knowledge-based systems or expert systems. Expert systems are now widely used to address many situations in natural resource management, such as management of rangelands and lake systems, prescribed burning, and population modeling. The knowledge base for **LynxTrak** incorporates material from pertinent literature, lynx researchers, managers, and trappers in Alaska and Canada, and from Alaskan

lynx harvest data gathered through pelt sealing.

Expert systems are used with a computer program shell to incorporate the user's experience and available information into a decision tree, which is the foundation of the rule-based model. Designers of a model first establish all potential decisions or goals that could reasonably be made regarding a particular situation. Next, questions using qualitative variables are formulated about the specific conditions or situations that may exist. Finally, a set of rules is devised as if-then scenarios that direct the user toward an informed, logical, and consistent decision. This modeling approach can provide the user with a protocol that, because it is fully documented, ensures accountability. Lynx harvest managers in southcentral Alaska have been using the model for the last few years.



Summary flow diagram of LynxTrak depicted as user input, knowledge base, and output through the 4 modules: population potential (M1), target harvest index (M2), harvest pressure (M3), and risk factor (M4). The user input (rectangles) is the response given to questions (or occasionally variables) which LynxTrak asks as questions. The responses are then used to calculate numerical variables that become the knowledge base (octagons). The output (ovals) consists of the knowledge base variables used in combination to calculate other numerical variables and, finally, the goal of new trapping regulations.

**LynxTrak** is available in a runtime version that may be downloaded from this web site. The user guide ([PDF version](#) – 33K) for the model should be printed to aid installation and running the model. The model is in a [self-extracting zip file](#) (668K) that includes all the files needed to run **LynxTrak**.

Full documentation and technical support for **LynxTrak** is available from Howard Golden ([mailto:20howard\\_golden@fishgame.state.ak.us](mailto:20howard_golden@fishgame.state.ak.us)).



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Contact: Howard Golden ([mailto:%20howard\\_golden@fishgame.state.ak.us](mailto:%20howard_golden@fishgame.state.ak.us))

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Last Modified 08/10/2001 14:02:14

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1011 East Tudor Road  
Anchorage, Alaska 99503

Dear Mr. Probasco:

This letter delegates regulatory authority from the Federal Subsistence Board to you as Project Leader of the Office of Subsistence Management to take action when necessary to assure the conservation of healthy lynx populations and to provide for subsistence uses of lynx, consistent with the Alaska Department of Fish and Game Lynx Harvest Management Strategy, on Federal lands subject to ANILCA Title VIII. This supersedes and replaces the original delegation letter dated June 15, 2001.

#### Overview

It is the intent of the Federal Subsistence Board that lynx management by Federal officials be coordinated with the Alaska Department of Fish and Game and involve Regional Advisory Council representatives to conserve healthy populations while providing for subsistence uses. Federal managers are expected to cooperate with State managers and minimize disruption to resource users and existing agency programs, as agreed to under the Memorandum of Understanding for Coordinated Fisheries and Wildlife Management for Subsistence Uses on Federal Public lands in Alaska (December 18, 2008).

### **DELEGATION OF AUTHORITY**

**1. Delegation:** The Project Leader of the Office of Subsistence Management is hereby delegated authority to issue special action regulations affecting lynx on Federal lands as outlined under **2. Scope of Delegation.**

**2. Scope of Delegation:** The regulatory authority hereby delegated is limited to authority to open, close or adjust Federal subsistence lynx seasons and to set harvest and possession limits for lynx. This delegation may be exercised only when it is necessary to conserve lynx populations or to continue subsistence uses, only within guidelines listed within the Lynx Harvest Management Strategy.

All other proposed changes to codified regulations, such as customary and traditional use determinations or adjustments to method or means of take, shall be directed to the Federal Subsistence Board.

The Federal lands subject to this delegated authority are those described in the Subsistence Management Regulations for Public Lands in Alaska. You will coordinate your decisions with all affected Federal land managers and the Alaska Department of Fish and Game.

**3. Effective Period:** This delegation of authority is effective from the date of this letter, and continues until revoked by the Federal Subsistence Board.

**4. Guidelines for Delegation:** You will become familiar with the management history of lynx in the region, with the current State and Federal regulations and management plans, and be up-to-date on population and harvest status information. You will review situations that may require action and all supporting information to determine (1) if the request/situation falls within the scope of authority, (2) if significant conservation problems or subsistence harvest concerns are indicated, and (3) what the consequences of taking an action may be on potentially affected subsistence users and non-subsistence users. Requests not within your delegated authority will be forwarded to the Federal Subsistence Board for consideration. You will keep a record of all special action requests and their disposition.

You will immediately notify the Federal Subsistence Board and notify/consult with local ADF&G managers, Regional Advisory Council members, and other affected Federal conservation unit managers concerning actions being considered. You will issue timely decisions. Users, affected State and Federal managers, law enforcement personnel, and Regional Advisory Council representatives will be notified before the effective date/time of decisions.

**5. Support Services:** Administrative support for management activities will be provided by the Office of Subsistence Management, U.S. Fish & Wildlife Service, Department of the Interior.

**6. Authority:** This delegation of authority is established pursuant to 36 CFR 242.10(d)(6) and 50 CFR 100.10(d)(6).

This delegation of authority will assure conservation of lynx populations through sound management decisions in cooperation with State managers, thereby providing for the long-term needs of the subsistence user.

Sincerely,

Michael R. Fleagle, Chair  
Federal Subsistence Board

cc:

Members of the Federal Subsistence Board  
Interagency Staff Committee  
Tina Cunning, ADF&G

<b>WP10-05 Executive Summary</b>	
<b>General Description</b>	Proposal WP10-05 seeks to update, clarify, and simplify the regulations regarding accumulation of harvest limits for both fish and wildlife. <i>Submitted by the Office of Subsistence Management</i>
<b>Proposed Regulation</b>	<p>§ __.25(c) <i>Harvest Limits.</i></p> <p>(1) <i>Harvest limits authorized by this section and harvest limits established in State regulations may not be accumulated, <b>unless specified otherwise in §§ __.26 or __.27 or __.28.</b></i></p> <p>(2) ****</p> <p>(3) <i>A harvest limit <del>may applies</del> apply to the number of fish, wildlife, or shellfish that can be taken daily, seasonally and/or during a regulatory year or held in possession.; however, harvest limits for grouse (in some Units), ptarmigan, and caribou (in some Units), are regulated by the number that may be taken per day. Harvest limits of grouse, and ptarmigan are also regulated and the number that can be held in possession.</i></p>
<b>OSM Preliminary Conclusion</b>	<b>Support</b>
<b>Southeast Regional Council Recommendation</b>	
<b>Southcentral Regional Council Recommendation</b>	
<b>Kodiak/Aleutians Regional Council Recommendation</b>	
<b>Bristol Bay Regional Council Recommendation</b>	
<b>Yukon/Kuskokwim Delta Regional Council Recommendation</b>	
<b>Western Interior Regional Council Recommendation</b>	
<b>Seward Peninsula Regional Council Recommendation</b>	
<b>Northwest Arctic Regional Council Recommendation</b>	
<b>Eastern Interior Regional Council Recommendation</b>	
<b>North Slope Regional Council Recommendation</b>	

*continued on next page*

**WP10-05 Executive Summary (continued)**

<b>Interagency Staff Committee Comments</b>	
<b>ADF&amp;G Comments</b>	
<b>Written Public Comments</b>	<b>None</b>

## DRAFT STAFF ANALYSIS WP10-05

### ISSUES

Proposal WP10-05, submitted by the Office of Subsistence Management, seeks to update, clarify, and simplify the regulations regarding accumulation of harvest limits for both fish and wildlife.

### DISCUSSION

A prohibition against accumulating Federal and State harvest limits has been included in the statewide general Federal subsistence regulations since 1990 (§\_\_.25(c)(1)). Wording in Section \_\_.25(c)(3) dates back to 1994; this section identifies the species for which harvest limits apply. There is a need to update both Sections \_\_.25(c)(1) and (3). While the Board has addressed a number of area specific proposals concerning the accumulation of harvest limits over the years, these two sections of the general regulations have not been updated to reflect changes to the unit and area specific regulations; the current proposal addresses those inconsistencies.

#### Existing Federal Regulations

Statewide – Subsistence taking of fish, wildlife, and shellfish: general regulations

§\_\_.25(c) *Harvest Limits.*

(1) *Harvest limits authorized by this section and harvest limits established in State regulations may not be accumulated.*

(2)\*\*\*\*

(3) *A harvest limit applies to the number of fish, wildlife, or shellfish that can be taken during a regulatory year; however, harvest limits for grouse, ptarmigan, and caribou (in some Units) are regulated by the number that may be taken per day. Harvest limits of grouse and ptarmigan are also regulated by the number that can be held in possession.*

#### Proposed Federal Regulations

Statewide – Subsistence taking of fish, wildlife, and shellfish: general regulations

§\_\_.25(c) *Harvest Limits.*

(1) *Harvest limits authorized by this section and harvest limits established in State regulations may not be accumulated, **unless specified otherwise in §§\_\_.26 or \_\_.27 or \_\_.28.***

(2)\*\*\*\*

(3) *A harvest limit **may applies apply** to the number of fish, wildlife, or shellfish that can be taken **daily, seasonally and/or** during a regulatory year **or held in possession.** ~~; however, harvest limits for grouse (in some Units), ptarmigan, and caribou (in some Units), are regulated by the number~~*

*that may be taken per day. Harvest limits of, grouse, and ptarmigan are also regulated and the number that can be held in possession.*

### **Existing State Regulations**

In State hunting regulations a harvest (bag) limit applies to a regulatory year unless otherwise specified, and includes animals taken for any purpose, including for subsistence. State hunting regulations provide daily limits for wolves (all or part of Units 9, 10, 13, 17 and 19); caribou (all or part of Units 21, 22, 23, 24 and 26); coyote (Units 6–17, 19 and 20); grouse (1–7, 9, 11–26); hare (all or part of Units 1–5 and 14) and ptarmigan (Units 1–26).

State regulations do not prohibit the accumulation of harvest limits taken in State sport, personal use, and subsistence fisheries across most of Alaska (Kotzebue, Norton Sound-Port Clarence, Yukon-Northern, Kuskokwim, Bristol Bay, Aleutian Islands, Alaska Peninsula, Chignik, Kodiak, Cook Inlet and Prince William Sound areas). In the Southeast Area, the State prohibits fishers from possessing salmon taken in the sport fishery on the same day as salmon taken in either subsistence or personal use fisheries (5 AAC 01.745(b); 5 AAC 77.682(e)). In the Yakutat Area, the State prohibits possession of personal use-taken and sport-taken salmon on the same day (5 AAC 77.628(f)).

In State subsistence fish regulations, ten areas (Norton Sound-Port Clarence, Yukon-Northern, Bristol Bay, Aleutian Islands, Alaska Peninsula, Chignik, Kodiak, Cook Inlet, Prince William Sound and Southeast (5 AAC 01)) have annual harvest limits for some species of freshwater fish. The annual subsistence harvest limits specified in the Aleutian Islands, Chignik and Kodiak areas are the same as those in Federal subsistence regulations and the subsistence fisheries in these three areas are administered using State permits. There is no State subsistence daily, possession or annual harvest limit regulations for freshwater fisheries in two areas (Kotzebue and Yakutat). Only one area (Southeast Alaska) has a specific State subsistence regulatory daily and possession limit (for one species at one location; 5 AAC 01.760). Most State sport fish harvest regulations are based on daily and possession limits (5 AAC 47-75).

### **Extent of Federal Public Lands and Waters**

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% U.S. Fish and Wildlife Service, and 6% U.S. Department of Agriculture, U.S. Forest Service lands.

### **Regulatory History**

#### Accumulating Federal and State harvest limits

The current wording in Section \_\_.25(c)(1) that addresses the prohibition against accumulating Federal and State harvest limits dates back to 1990. Based on requests from subsistence users, ADF&G, and the review and recommendations of the Southcentral Alaska and Southeast Alaska Subsistence Regional Advisory Councils, the Federal Subsistence Board (Board) supported several exemptions to and clarification of the general prohibition against accumulation of harvest limits in Section \_\_.25(c)(1).

In 2004, the Board authorized accumulation of subsistence harvest limits for salmon in the Copper River drainage upstream from Haley Creek with harvest limits for salmon authorized under State of Alaska sport fishing regulations (27(i)(11)(B)). In 2005, the Board also authorized the accumulation of Federal subsistence fish annual harvest limits with State sport fishing limits for the Southeast Alaska area (27(i)(13)(vii)).

In 2006, the Board allowed accumulation of Federal subsistence fishing harvest limits with State of Alaska sport fishing harvest limits within the Chugach National Forest and in the Copper River drainage downstream from Haley Creek provided that the accumulation of fishing harvest limits would not occur in the same day (27(i)(11)(A)).

In 2009, the Board clarified regulations by stipulating that a subsistence fisher may not accumulate Federal subsistence harvest limits authorized for Southeast Alaska Area with any harvest limits authorized under any State of Alaska fishery with the following exceptions: annual and seasonal Federal subsistence harvest limits may be accumulated with State sport fishing harvest limits provided that accumulation of harvest limits does not occur during the same day (27(i)(13)(vii)). That year, the Board further clarified that fishers may not possess subsistence taken and sport taken fish of a given species on the same day in the Yakutat (27(i)(12)(viii)) and Southeast Alaska (27(i)(13)(xi)) Areas.

Current Federal subsistence management regulations that address applicability for subsistence take of wildlife (§\_\_.26) provide the following clarification concerning accumulation of harvest limits (§\_\_.26(e)(1)):

*Except as specified in paragraphs (e)(2) or (f)(1) of this section, or as otherwise provided, you may not take a species of wildlife in any unit, or portion of a unit, if your total take of that species already obtained anywhere in the State under Federal and State regulations equals or exceeds the harvest limit in that unit.*

Sections \_\_.26(e)(2) and (f)(1) address established community harvest limit allowances and an allowance for accumulating hunting and trapping harvest limits.

The regulations that address applicability for subsistence taking of fish (§\_\_.27) provides the following clarification concerning accumulation of harvest limits:

*(§\_\_.27(a)(2)) The harvest limit specified in this section for a subsistence season for a species and the State harvest limit set for a State season for the same species are not cumulative, except as modified by regulations in §\_\_.27(i). This means that if you have taken the harvest limit for a particular species under a subsistence season specified in this section, you may not, after that, take any additional fish of that species under any other harvest limit specified for a State season.*

The regulations that address applicability for subsistence taking of shellfish (§\_\_.28) provides the following clarification concerning accumulation of harvest limits:

*(§\_\_.28(d)(1)) The harvest limit specified in this section for a subsistence season for a species and the State harvest limit set for a State season for the same species are not cumulative. This means that if you have taken the harvest limit for a particular species under a subsistence season specified in this section, you may not, after that, take any additional shellfish of that species under any other harvest limit specified for a State season.*

### Application of harvest limits

The current wording in Section \_\_.25(c)(3) dates back to 1994 and specifies that harvest limits apply to “regulatory year”, with the exception of ptarmigan, and in some units for grouse and caribou.

Current Federal hunting regulations (§\_\_.26) include daily limits for beaver (Unit 9 and 17), caribou (all or part of Units 21–24 and 26); hare (all or part of Units 1–5 and 14); and wolf (part of Unit 19). There

are daily and possession limits for grouse (all or part of Units 1–7, 9 and 11–25); ptarmigan (Units 1–26); and beaver (all or part of Units 7, 11, 13 and 25).

When Federal subsistence management regulations for fish (§ \_\_.27) were first implemented on October 1, 1999, there were no specified daily or possession limits for fish in Federal regulations except on the Kenai Peninsula. Since that time, the Federal Subsistence Board has established daily and/or possession limits for specific fish species and locations in 5 of 13 fishery management areas. Federal regulatory provisions for daily harvest and/or possession limits for specific species of fish were first established in the Southeast Area in 2001, the Yukon-Northern and Cook Inlet areas in 2002, the Bristol Bay Area in 2003, and the Yakutat Area in 2006.

Current Federal subsistence management regulations include daily and/or possession limits for sockeye and coho salmon, steelhead trout, brook trout, grayling, Dolly Varden, cutthroat trout, and rainbow trout in all or parts of the Southeast Area. Yakutat Area regulations include a daily harvest and possession limit for Dolly Varden and address a daily limit for steelhead trout.

In parts of the Cook Inlet Area there are specific daily harvest and possession limits in Federal regulations for Chinook, sockeye, coho and pink salmon; Dolly Varden/Arctic char; lake trout and rainbow/steelhead trout. In other parts of the Cook Inlet Area, Federal subsistence regulations specify that the daily harvest and possession limits for fish are the same as those in Alaska sport fishing regulations. In a November 24, 2008 letter to OSM, Federal Subsistence Board Chairman Fleagle clarified that the Board's intent was that Federal subsistence and State sport harvest limit for fish not be accumulated for the Kasilof and Kenai river drainages and vicinity.

Federal subsistence management regulations also specify daily and possession limits for rainbow trout in the Bristol Bay Area and daily and possession limits for grayling in a part of the Yukon-Northern Area. There are no Federal daily or possession limits for fish in the Kotzebue, Norton Sound-Port Clarence, Kuskokwim, Aleutian Islands, Alaska Peninsula, Chignik, Kodiak, or Prince William Sound areas. Federal subsistence management regulations specify annual harvest limits for fish species and locations in seven areas (Aleutian Islands, Alaska Peninsula, Chignik, Kodiak, Cook Inlet, Prince William Sound, and Southeast). There are no daily, possession or annual limits for fish under Federal subsistence management regulations in three areas (Kotzebue, Norton Sound-Port Clarence, and Kuskokwim).

Shellfish regulations (§ \_\_.28) include daily and possession limits as well. There are daily limits for shellfish in Bering Sea Area. There are daily and/or possession limits for shellfish in the Cook Inlet, Kodiak, and Alaska Peninsula-Aleutian Islands Areas.

### **Effects of the Proposal**

Proposal WP10-05 does not affect fish and wildlife populations, subsistence uses or other uses (i.e., sport/recreational or commercial). Rather, the proposal seeks to update, clarify, and simplify Sections \_\_.25(c) (1) and (3), all of which reference accumulation of harvest limits. Section \_\_.25(c)(1) dates back to 1990 and Section \_\_.25(c)(3) dates back to 1994. The proposed wording changes retain the general prohibition of accumulation of Federal and State harvest limits, and points to unit and area specific regulations for details and exceptions. Unit and area specific regulations currently provide daily, daily and possession, or possession limits for ptarmigan, grouse, caribou, wolf, hare, beaver, fish and shellfish. This proposal does not change any unit or area specific Federal subsistence regulations concerning accumulation of harvest limits or the timeframe (daily, seasonal or regulatory year) for harvest limits.

## OSM PRELIMINARY CONCLUSION

**Support** Proposal WP09-05.

### **Justification**

The general regulations concerning accumulation of harvest limits need to be updated to reflect Board action over the years. The Board has addressed a number of proposals concerning accumulation of harvest limits; the approved exceptions are reflected within the Federal hunting and trapping (§\_\_.26), fishing (§\_\_.27), and shellfish (§\_\_.28) regulations. The changes to the general regulations proposed herein recognize all of the previously approved exceptions. This proposal does not affect fish and wildlife populations, subsistence users or other users. Given the number of species, areas and units affected, and the changes that may occur in the future, it is appropriate to use more general wording in these general regulations.

<b>WP10-63/68 Executive Summary</b>	
<b>General Description</b>	<p>Proposal WP10-63 requests that the existing August 27–September 20 moose season be shifted five days later to September 1–25 within the Units 21D, 24C and 24D portions of the Koyukuk Controlled Use Area. The season length would remain the same. <i>Submitted by the Koyukuk/Nowitna National Wildlife Refuge</i></p> <p>Proposal WP10-68 requests changes in seasons and harvest limits for moose in the Koyukuk Controlled Use Area portions of Units 21D, 24C, and 24D. <i>Submitted by the Western Interior Alaska Subsistence Regional Advisory Council</i></p>
<b>Proposed Regulation</b>	<i>See analysis for regulatory language.</i>
<b>OSM Preliminary Conclusion</b>	<b>Support</b> Proposals WP10-63 and WP10-68 <b>with modification</b> to clarify the regulatory language for the “to be announced” seasons.
<b>Western Interior Regional Council Recommendation</b>	
<b>Interagency Staff Committee Comments</b>	
<b>ADF&amp;G Comments</b>	
<b>Written Public Comments</b>	

**DRAFT STAFF ANALYSIS  
WP10-63/68**

**ISSUE**

Proposal WP10-63, submitted by the Koyukuk/Nowitna National Wildlife Refuge (Refuge), requests that the existing August 27–September 20 moose season be shifted five days later to September 1–25 within the Units 21D, 24C and 24D portions of the Koyukuk Controlled Use Area. The season length would remain the same.

Proposal WP10-68, submitted by the Western Interior Alaska Subsistence Regional Advisory Council (Council), requests changes in seasons and harvest limits for moose in the Koyukuk Controlled Use Area portions of Units 21D, 24C, and 24D.

**DISCUSSION**

Both proponents are requesting that the fall season dates be changed to align Federal and State general hunting seasons in the Koyukuk Controlled Use Area portion of Units 21D, 24C, and 24D. Both proponents also stated that local residents have voiced concerns about warmer than normal temperatures occurring in the early part of the fall moose hunting season, noting that the requested September 1–25 season would align with local user preferences that favor harvesting moose during the relatively cooler part of the fall season. Both of the proponents also stated that shifting the season dates would avoid an administrative burden on the Refuge staff. If the current Federal-only August 27–31 season were to remain in effect, there would be a need to conduct extensive public outreach, and for staff to operate a moose hunter check station on the lower Koyukuk River during August 25–September 2 (in addition to the Nowitna River Moose Hunters Check Station already operated August 26–October 2 by Refuge staff). Separate Federal permits would also have to be printed, issued, enforced and collected if the dates are not changed. ADF&G staff operates the Koyukuk River Moose Hunter Check Station at Ella’s Cabin, from approximately August 29–September 28 each year, where the State registration permits for hunt RM-832 are issued and the hunt is administered, monitored and enforced. If the Federal season dates are shifted to match the State’s season, then Federally qualified users would continue to hunt under the State registration permit and utilize the same check station.

The proponent of WP10-68 believes there is a harvestable surplus of cow moose, albeit a very limited one, in the Koyukuk Controlled Use Area, and wants to retain the opportunity to harvest cows during the March 1–5 “to be announced” season, which is the traditional and preferred time of year when local hunters harvest cows. However, the proponent would like to suspend cow harvest to help allow the population to recover. To accomplish this, the proponent is requesting a five-year moratorium on cow harvest during the September 1–5 “to be announced” season, during which 1 antlerless moose may be taken. In reality, this makes the harvest limit “1 bull”. However, the proponent specifically wants the “1 antlerless moose” limit wording to remain in regulation (WIRAC 2009).

A review of the Council’s October 2009 meeting transcripts revealed that the proponent wants the proposed April 10–15 “to be announced” season to be mandatory if there is no March 1–5 “to be announced” season in the same year (WIRAC 2009).

## Existing Federal Regulations

### Unit 21D — Moose

*Unit 21D Koyukuk Controlled Use Area – 1 moose; however, antlerless moose may be taken only during Aug. 27–31 and the Mar. 1–5 season, if authorized by announcement by the Koyukuk/Nowitna National Wildlife Refuge Manager and BLM Central Yukon Field Office Manager. Harvest of cow moose accompanied by calves is prohibited. During the Aug. 27–Sept. 20 season, a State registration permit is required. During the Mar. 1–5 season, a Federal registration permit is required. Announcement for the antlerless moose seasons and cow quotas will be made after consultation with the ADF&G Area Biologist and the Chairs of the Western Interior Alaska Subsistence Regional Advisory Council and Middle Yukon Fish and Game Advisory Committee.*

*Aug. 27–Sept. 20*

*Mar. 1–5 season to be announced.*

### Unit 24C and 24D — Moose

*Unit 24C and 24D, that portion within the Koyukuk Controlled Use Area and Koyukuk National Wildlife Refuge – 1 moose; however, antlerless moose may be taken only during Aug. 27–31 and the Mar. 1–5 season, if authorized by announcement by the Koyukuk/Nowitna National Wildlife Refuge Manager and BLM Central Yukon Field Office Manager. Harvest of cow moose accompanied by calves is prohibited. During the Aug. 27–Sept. 20 season, a State registration permit is required. During the Mar. 1–5 season, a Federal registration permit is required. Announcement for the antlerless moose seasons and cow quotas will be made after consultation with the ADF&G Area Biologist and the Chairs of the Western Interior Alaska Subsistence Regional Advisory Council and the Middle Yukon and Koyukuk River Fish and Game Advisory Committees.*

*Aug. 27– Sept. 20*

*Mar. 1–5 season to be announced.*

## Proposed Federal Regulations — WP10-63

### Unit 21D — Moose

*Unit 21D Koyukuk Controlled Use Area – 1 moose; however, antlerless moose may be taken only during ~~Aug. 27–31~~ **Sept. 1–5** and the Mar. 1–5 season, if authorized by announcement by the Koyukuk/Nowitna National Wildlife Refuge Manager and BLM Central Yukon Field Office Manager. Harvest of cow moose accompanied by calves is prohibited. During the ~~Aug.~~ **Sept. 1–20–25** season, a State registration permit is required. During the Mar. 1–5 season, a Federal registration permit is required. Announcement for the antlerless moose seasons and cow quotas will be made after consultation with the ADF&G Area Biologist and the Chairs of the Western Interior Alaska Subsistence Regional Advisory Council and Middle Yukon Fish and Game Advisory Committee.*

*~~Aug. 27–~~**Sept. 1– 20 25***

*Mar. 1–5 season to be announced.*

**Unit 24C and 24D — Moose**

*Unit 24C and 24D, that portion within the Koyukuk Controlled Use Area and Koyukuk National Wildlife Refuge – 1 moose; however, antlerless moose may be taken only during ~~Aug. 27–31~~ **Sept. 1–5** and the Mar. 1–5 season, if authorized by announcement by the Koyukuk/Nowitna National Wildlife Refuge Manager and BLM Central Yukon Field Office Manager. Harvest of cow moose accompanied by calves is prohibited. During the ~~Aug. 27–31~~ **Sept. 1–20–25** season, a State registration permit is required. During the Mar. 1–5 season, a Federal registration permit is required. Announcement for the antlerless moose seasons and cow quotas will be made after consultation with the ADF&G Area Biologist and the Chairs of the Western Interior Alaska Subsistence Regional Advisory Council and the Middle Yukon and Koyukuk River Fish and Game Advisory Committee.*

~~Aug. 27–Sept. 1–20 25~~  
 Mar. 1–5 season to be announced.

**Proposed Federal Regulations — WP10-68 <sup>1</sup>**

**Unit 21D — Moose**

*Unit 21D Koyukuk Controlled Use Area – 1 moose; however, antlerless moose may be taken only during ~~Aug. 27–31~~ **Sept. 1–5\*** and the Mar. 1–5 season, if authorized by announcement by the Koyukuk/Nowitna National Wildlife Refuge Manager and BLM Central Yukon Field Office Manager. Harvest of cow moose accompanied by calves is prohibited. **The harvestable surplus of cows will be determined for a quota. If it determined there is not a harvestable cow surplus, then a harvestable bull quota will be set, and to be taken from April 10 to April 15.** During the ~~Aug. 27–Sept. 20~~ **Sept. 1–25** season, a State registration permit is required. During the **five day to be announced season between Mar. 1–5 season**, a Federal registration permit is required. Announcement for the antlerless moose seasons and cow quotas will be made after consultation with the ADF&G Area Biologist and the Chairs of the Western Interior Alaska Subsistence Regional Advisory Council and the Middle Yukon **and Koyukuk River Fish and Game Advisory Committees.***

~~Aug. 27–Sept. 1–20 25~~  
 Mar. 1–5 **April 15** season to be announced

***\*A moratorium on cow moose harvest during the Sept. 1–5 season would remain in effect until July 1, 2016, but does not affect harvest for mortuary purposes.***

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<sup>1</sup> Per discussions with the proponent and further examination of meeting transcripts, it was determined that the intended dates for the fall season (Sept.1–25) and the intended dates for the requested cow moose moratorium were incorrectly shown in the proposal. The correct dates are shown here as the basis for the analysis.

**Unit 24C and 24D — Moose**

Unit 24C and 24D, that portion within the Koyukuk Controlled Use Area and Koyukuk National Wildlife Refuge – 1 moose; however, antlerless moose may be taken only during ~~Aug. 27–31~~ **Sept. 1–5\*** and the Mar. 1–5 season, if authorized by announcement by the Koyukuk/Nowitna National Wildlife Refuge Manager and BLM Central Yukon Field Office Manager. Harvest of cow moose accompanied by calves is prohibited. **The harvestable surplus of cows will be determined for a quota. If it is determined there is not a harvestable cow surplus, then a harvestable bull quota will be set, and to be taken from April 10 to April 15.** During the ~~Aug. 27–Sept. 20~~ **Sept. 1–25** season, a State registration permit is required. During the **five day to be announced season between Mar. 1–5 season**, a Federal registration permit is required. Announcement for the antlerless moose seasons and cow quotas will be made after consultation with the ADF&G Area Biologist and the Chairs of the Western Interior Alaska Subsistence Regional Advisory Council and the Middle Yukon Fish and Koyukuk River Game Advisory Committees.

~~Aug. 27–Sept. 1–20~~ **25**

Mar. 1–5 **April 15** season to be announced.

**\*A moratorium on cow moose harvest during the Sept. 1–5 season would remain in effect until July 1, 2016, but does not affect harvest for mortuary purposes.**

**Existing State Regulations**

**Units 21D, 24C and 24D — Moose**

Unit 21D within the Koyukuk Controlled Use Area	Resident: One bull by permit, available at Ella’s Cabin check station, Huslia, or Hughes beginning Aug. 31. Trophy value must be destroyed. Resident: One bull with 50-inch antlers or 4 or more brow tines on at least one side by permit. Nonresident: One bull with 50-inch antlers or 4 or more brow tines on at least one side by permit.	RM-832 DM-828/830 DM-823/825/ 827/829	Sept. 1–Sept. 25 Sept. 5–Sept. 25 Sept. 5–Sept. 25
Unit 24C within the Koyukuk Controlled Use Area	Resident: One bull by permit available at Ella’s Cabin check station, Huslia or Hughes beginning Aug. 31. Trophy value must be destroyed. Resident: One bull by permit Resident: One bull Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side by permit.	RM-832 DM-828/830 Harvest DM-823/825 827/829	Sept. 1–Sept. 25 Sept. 5–Sept. 25 Dec. 1–Dec. 10 Sept. 5–Sept. 25

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<i>Unit 24D within the Koyukuk Controlled Use Area</i>	<i>Resident: One bull by permit available at Ella's Cabin check station, Huslia or Hughes beginning Aug. 31. Trophy value must be destroyed.</i>	<i>RM-832</i>	<i>Sept. 1–Sept. 25</i>
	<i>Resident: One bull by permit</i>	<i>DM-828/830</i>	<i>Sept. 5–Sept. 25</i>
	<i>Resident: One bull</i>	<i>Harvest</i>	<i>Dec. 1–Dec. 10</i>
	<i>Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side by permit.</i>	<i>DM-823/825 827/829</i>	<i>Sept. 5–Sept. 25</i>

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State Management Objectives

*Unit 21D*

- Maintain a moose population of 9,000–10,000 for the subunit.
- Provide for a harvest of moose not to exceed 700 moose or 7% of the annual moose population estimate each regulatory year.
- Provide for moose hunting opportunity not to exceed 950 hunters per regulatory year.
- In combination with Unit 24, implement at least two habitat enhancement activities every five years.
- Reduce meat spoilage by hunters.
- Reduce the amount of spoiled meat observed at Ella's cabin and at hunting camps by 10% each regulatory year.
- Increase the number of people engaging in non consumptive uses of wildlife by >1% each regulatory year.

*Unit 24*

- Maintain a moose population of 10,000–12,000.
- Provide for a harvest of moose not to exceed 360 moose or 5% of the annual moose population estimate each regulatory year.
- Provide for moose hunting opportunity not to exceed 500 hunters per regulatory year.
- In combination with Unit 21D, implement at least two habitat enhancement activities every five years.
- Reduce the amount of spoiled meat observed at Ella's Cabin and at hunting camps by 10% each regulatory year.
- Increase the number of people engaging in nonconsumptive uses of wildlife by >1% each regulatory year

**Extent of Federal Public Lands**

Federal public lands comprise approximately 50% of Unit 21D and consist of 28% U.S. Fish and Wildlife Service and 22% Bureau of Land Management lands (see **Unit 21 Map**). Federal public lands comprise approximately 64% of Unit 24 and consist of 22% National Park Service, 21% Bureau of Land Management, and 21% U.S. Fish and Wildlife Service lands (see **Unit 24 Map**). These proposals address only the Koyukuk Controlled Use Area, of which the majority is U.S. Fish and Wildlife Service lands.

## Customary and Traditional Use Determinations

Residents of Unit 21D, Huslia and Ruby have a positive customary and traditional use determination for moose in Unit 21D.

Residents of Unit 24, Anaktuvuk Pass, Koyukuk, and Galena have a positive customary and traditional use determination for moose in Unit 24.

## Regulatory History

Local accounts of difficulties in harvesting moose in Unit 21 during the earlier part of the fall season resulted in numerous Special Action requests submitted to the Federal Subsistence Board from 2004 to 2008 requesting later season dates.

The Fall season dates were originally September 1–25, but were changed beginning with the 1999/2000 regulatory year to 27 August–September 20 at the request of local users (Stout 2010, pers. comm.). At its March 2008 meeting, the Alaska Board of Game adopted State Proposals 63 and 80, shifting the State season (RM-832) five days later for the entire Koyukuk Controlled Use Area, from August 27–September 20 to September 1–25. This change was requested by the Middle Yukon Fish and Game Advisory Committee and was supported by the Koyukuk River Fish and Game Advisory Committee and the Council. Special Action requests were granted by the Federal Subsistence Board in 2008 and 2009 to match the Federal season dates with these dates.

## Biological Background

### Unit 21D within the Koyukuk Controlled Use Area

#### *Koyukuk River Mouth, Pilot Mountain, and Squirrel Creek Trend Count Areas (TCAs) Combined, Unit 21D*

These trend count areas lie on the southern periphery of the Unit 21D portion of the Koyukuk Controlled Use Area, but are pertinent because of seasonal moose movements between the two areas. Results from November 2009 surveys in these three TCAs indicate a stable moose population and revealed a total of 774 cows which was higher than the 2001–2008 average of 660 cows observed in the three TCAs (**Table 1**) (Bryant and Scotton 2008). During the 2009 survey 195 bulls were observed, an increase from previous years. The 2009 bulls:100 cow ratio and the yearling bulls:100 cows ratio decreased slightly from the previous year (**Table 1**) due to the high number of cows observed. During the November 2009 survey only 130 calves were observed, down substantially from the previous eight-year average of 237 calves. The 2009 calf:cow ratio was 17 calves:100 cows, lower than the management objective of 30–40 calves:100 cows for the lower Koyukuk River moose population (ADF&G 2001, Bryant and Scotton 2009). This lower ratio can be explained partially due to recent years of good production and recruitment. Cows typically are 3 years or older when they first reproduce, and 4 years or older when they begin to produce twins, depending on body condition.

#### *Dulbi River Mouth and Three Day Slough TCAs Combined, Unit 21D*

These combined TCAs cover a discontinuous area (the two are not connected, but are within a few miles adjacent to each other along the Koyukuk River south of Roundabout Mountain.) totaling 277 mi<sup>2</sup> (Bryant and Scotton 2009). There were increases in 2008 within the combined TCAs for the adult cow and bull components of the population. The number of bulls was again high in 2009, despite annual harvest, and

**Table 1.** Combined TCAs, Koyukuk River Mouth (KRM), Pilot Mt. Slough (PMS), and Squirrel Creek (SC), 2001–2009 GSPE Summary, Koyukuk NWR, Alaska (Bryant and Scotton 2009).

Year	Total Bulls	Total Cows	Total Calves	Total moose	Total yrlyg bulls	Bulls/100 cows	Calves/100 cows	Yrlygbulls/100 cows	Total cows w/ twins	Total cows w/ calves	Twins/100 cows/calv.
2001	234	687	136	1057	51	34	20	7	3	133	2
2002	179	583	260	1022	33	31	46	6	24	235	10
2003	159	693	253	1105	69	23	37	10	23	230	10
2004	185	684	301	1170	75	27	44	11	30	271	11
2005	152	623	238	1013	51	24	38	8	20	217	9
2006	136	634	180	950	44	22	28	7	17	164	10
2007	174	717	290	1181	66	24	41	9	25	264	10
2008	183	641	202	1026	76	29	32	12	13	189	7
2009	195	774	130	1099	72	25	17	9	3	127	2

cow numbers were nearly identical to the high number observed in 2008. Results from the 2008 and 2009 survey showed that overall cow numbers increased substantially to 1,081 and 1,080 respectively, and were well above the average of 827 observed between 2002 and 2007. However, the number of cows (135) with calves was substantially lower than the highs of 248 and 302 seen in 2007 and 2006, respectively (**Table 2**). The number of twins observed in the fall surveys has been steadily declining since 2006. Total observed bulls for 2008 and 2009 increased from 2005 (**Table 2**), which is indicative of good production and recruitment (Bryant and Scotton 2009). The 2009 bull:cow ratio of 29 bulls:100 cows was adequate for breeding. The yearling bull:100 cows ratio increased slightly the last three years from the 2001–2006 average of 7 yearling bulls:100 cows (Bryant and Scotton 2009).

#### *Units 24C and 24D within the Koyukuk Controlled Use Area*

The combined TCAs cover a contiguous area north/northeast of Huslia totaling 306 mi<sup>2</sup>. Results from the 2009 surveys revealed an adult moose population of 1,195 up from the counts observed in both 2007 and 2008 (**Table 3**). Results also revealed that yearling-bull recruitment was adequate to maintain the adult bull population at 12 yearling bulls:100 cows. Recruitment has been consistently good, between 10 and 12 yearling bulls:100 cows since 2003. The 2009 production/survival-to-fall (the number of first-year calves that survived to November) was only 15 calves:100 cows, lower than any year since 2001 (**Table 3**). During the 2009 survey, 908 cows were observed, and the number is back to the long term average, after the decrease observed in 2008. A total of 354 bull moose were observed during the survey, which was above the 2001–2008 average of 282 bulls. The 2009 bull:cow ratio was 37 bulls:100 cows.

Note: the lower number of cows observed (798) in November 2008 prompted the closure of the March 2009 antlerless season.

#### **Harvest History**

For the period of 2006–2008, the number of registered hunters averaged 418 for the fall season in the Koyukuk Controlled Use Area portion of Units 21D, 24C, and 24D. In 2009, there was a 25% increase in the number of hunters to 522 (**Table 4**) (Stout 2010, pers. comm.).

The number of moose harvested increased by 21% in 2008 and an additional 8% in 2009, as compared to 2007 (**Table 5**) (Stout 2010, pers. comm.).

#### **Effects of the Proposals**

Adoption of these proposals would shift the Federal fall moose season in the Koyukuk Controlled Use Area portion of Units 21D, 24C, and 24D from August 27–September 20 to September 1–25. This change would address local concerns of warmer temperatures that occur during the early part of the current fall moose season.

Adoption of the proposals would align the Federal and State general fall hunting seasons for the affected area. This would reduce regulatory complexities which could reduce law enforcement issues.

The requested regulatory changes would eliminate a potentially significant administrative burden on Refuge staff if the current Federal-only August 27–31 season were to remain in effect.

Adoption of WP10-68 would make the April 10–15 “to be announced” season for bulls mandatory if there is no March 1–5 “to be announced” season for cows in the same year. However, if the harvest quota for

**Table 2.** Combined TCAs, Dulbi River and Three-Day Slough, 2001–2008 GSPE Summary, Koyukuk NWR, Alaska (Bryant and Scotton 2009).

Year	Total Bulls	Total Cows	Total Calves	Total moose	Total yrlyg bulls	Bulls/100 cows	Calves/100 cows	Yrlyg bulls/100 cows	Total cows w/ twins	Total cows w/ calves	Twins/100 cows w/ calves
2001	178	862	117	1157	49	21	14	6	2	117	2
2003	155	904	198	1257	62	17	22	7	12	186	7
2004	183	820	229	1232	66	22	28	8	14	214	7
2005	156	743	161	1060	47	21	22	6	9	152	6
2006	224	901	341	1466	59	25	38	7	38	302	13
2007	250	732	270	1252	81	34	37	11	22	248	9
2008	322	1081	242	1645	98	30	22	9	13	229	6
2009	317	1080	140	1537	93	29	13	9	5	135	4

**Table 3.** Combined TCAs, Huslia Flats and Treat Island, 2001–2008 GSPE Summary, Koyukuk NWR, Alaska (Bryant and Scotton 2009).

Year	Total Bulls	Total Cows	Total Calves	Total moose	Total yrlyg bulls	Bulls/100 cows	Calves/100 cows	Yrlyg bulls/100 cows	Total cows w/ twins	Total cows w/ calves	Twins/100 cows w/ calves
2001	260	889	110	1259	51	29	12	6	1	108	1
2003	274	889	217	1380	85	31	24	10	7	206	3
2004	308	929	296	1533	102	33	32	11	23	271	9
2005	252	895	171	1318	103	28	19	12	3	162	2
2006	341	906	304	1551	93	38	34	10	23	281	8
2007	290	870	235	1395	100	33	27	12	15	219	7
2008	251	798	184	1233	95	32	23	12	10	174	6
2009	334	908	137	1379	113	37	15	12	10	127	8

**Table 4.** Hunter registration from ADF&G reported harvest returns for fall hunts RM-832, DM-823, -825, -827, -828, -829, and 830 for the Koyukuk Controlled Use Area portion of Units 21D, Unit 24C, and Unit 24D (Stout 2010, pers. comm.).

Year	Total Hunter Registration	Total Local Hunter Registration*	Total Other AK Res. Hunter Registration	Total Nonres. Hunter Registration
2006	433	265	157	11
2007	400	239	150	11
2008	422	229	177	16
2009	522	281	214	16

\*Local communities include Kaltag, Nulato, Koyukuk, Galena, Ruby, Huslia, Hughes and Allakaket.

**Table 5.** Harvest by residency and success rates from ADF&G reported harvest returns for fall hunts RM-832, DM-823, -825, -827, -828, -829, and 830 for the Koyukuk Controlled Use Area portion of Units 21D, Unit 24C, and Unit 24D (Stout 2010, pers. comm.).

Year	Total Moose Harvest	Total Local Res. Harvest*	Total Other AK Res. Harvest	Total Nonres. Harvest	Local Res. % Success*	Other AK Res. % Success	Nonres. % Success
2006	167	92	67	8	36	49	84
2007	158	81	68	9	34	53	100
2008	201	102	87	12	51	64	86
2009*	222	109	104	9	45	49	56

\*Local communities include Kaltag, Nulato, Koyukuk, Galena, Ruby, Huslia, Hughes and Allakaket.

bulls were determined to be zero for any particular year, there would then be no “to be announced” season in April.

Note: The Koyukuk/Nowitna National Wildlife manager does not support this mandatory aspect and believes he should retain managerial discretion for both “to be announced” seasons based on the biological status of the population (Moos 2009, pers. comm.).

A five year moratorium on cow moose harvest would go into effect for the September 1–5 “to be announced” season, during which 1 antlerless moose may be taken. Cow harvest would still be allowed in the March 1–5 “to be announced” season, which is the traditional and preferred time of year when local hunters harvest cows, if it is determined there is a harvestable surplus in any given year. A moratorium on cow harvest during the September 1–5 season would, in reality, make the harvest limit “1 bull”. However, the proponent specifically wants the “1 antlerless moose” wording to remain in regulation (WIRAC 2009).

### Other Alternative Considered

A range of March 1–April 15 for the two “to be announced” seasons was considered. These dates would provide more flexibility to the refuge manager in responding to weather conditions and would conceivably even allow for a bull harvest March 1–5, if there were no harvestable surplus of cows during those dates. However, in general, both managers and hunters prefer consistent hunting season dates over a floating time period

A review of the Council's October 2009 meeting transcripts revealed that there was much discussion about the dates of the Winter/Spring hunts, with the proponents of both proposals affirming the specific dates of March 1–5 and April 10–15 for the “to be announced” seasons (WIRAC 2009).

### OSM PRELIMINARY CONCLUSION

**Support** Proposals WP10-63 and WP10-68 **with modification** to clarify the regulatory language for the “to be announced” seasons.

The proposed regulations would read:

#### **Unit 21D — Moose**

*Unit 21D Koyukuk Controlled Use Area – 1 bull moose; however,*

*Aug. 27–Sept. 1–20 25*

*1 antlerless moose by Federal permit may be taken only during Aug. 27–31 and the Mar. 1–5 season, if authorized by announcement by the Koyukuk/Nowitna National Wildlife Refuge Manager and BLM Central Yukon Field Office Manager. Harvest of cow moose accompanied by calves is prohibited. A harvestable surplus of cows will be determined for a quota.*

*Mar. 1–5 season to be announced*

*or*

*or*

*1 bull by Federal permit, if there is no Mar. 1–5 season and if authorized by announcement by the Koyukuk/Nowitna National Wildlife Refuge Manager and BLM Central Yukon Field Office Manager. A harvestable surplus of bulls will be determined for a quota. During the Aug. 27–Sept. 20 season, a State registration permit is required. During the Mar. 1–5 season, a Federal registration permit is required.*

*Apr. 10–15 season to be announced*

*Announcements for the antlerless-moose March and April seasons and cow harvest quotas will be made after consultation with the ADF&G Area Biologist and the Chairs of the Western Interior Alaska Subsistence Regional Advisory Council and Middle Yukon and Koyukuk River Fish and Game Advisory Committees.*

#### **Unit 24C and 24D — Moose**

*Unit 24C and 24D, that portion within the Koyukuk Controlled Use Area and Koyukuk National Wildlife Refuge – 1 bull moose; however,*

*Aug. 27–Sept. 1–20 25*

*1 antlerless moose by Federal permit may be taken only during Aug. 27–31 and the Mar. 1–5 season, if authorized by announcement by the Koyukuk/Nowitna National Wildlife Refuge Manager and BLM Central Yukon Field Office Manager. Harvest of cow moose accompanied by calves is prohibited. A harvestable surplus of cows will be determined for a quota.*

*or*

*1 bull by Federal permit, if there is no Mar. 1–5 season and if authorized by announcement by the Koyukuk/Nowitna National Wildlife Refuge Manager and BLM Central Yukon Field Office Manager. A harvestable surplus of bulls will be determined for a quota. ~~During the Aug. 27–Sept. 20 season, a State registration permit is required. During the Mar. 1–5 season, a Federal registration permit is required.~~*

*Announcements for the antlerless moose March and April seasons and cow harvest quotas will be made after consultation with the ADF&G Area Biologist and the Chairs of the Western Interior Alaska Subsistence Regional Advisory Council and Middle Yukon and Koyukuk River Fish and Game Advisory Committees.*

*Mar. 1–5 season to be announced*

*or*

*Apr. 10–15 season to be announced*

## Justification

The requested five-day shift of the fall season would provide a locally preferred opportunity to harvest moose during a typically cooler period of the fall season.

Adoption of the proposal would align Federal and State fall moose seasons in the Koyukuk Controlled Use Area portion of Units 21D, 24C, and 24D, would reduce regulatory complexities due to mixed land jurisdictions with different seasons and would eliminate a potentially significant administrative burden on the Refuge staff if the current Federal-only August 27–31 season were to remain in effect.

The April 10–15 “to be announced” season for bulls will not be mandatory if there is no March 1–5 “to be announced” season for cows in the same year, as the Koyukuk/Nowitna National Wildlife manager should retain managerial discretion for both seasons, based on the biological status of the population.

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<b>WP10-65 Executive Summary</b>	
<b>General Description</b>	<p>Proposal WP10-65 requests that the winter season dates for moose in Unit 21E be changed from Feb. 1–10 to Feb. 15–Mar. 15. The proponent also requests that the harvest parameters for the winter hunt be announced by the Federal managers (U.S. Fish and Wildlife Service and Bureau of Land Management) after consultation with the ADF&amp;G Area Biologist, the Bureau of Land Management wildlife biologist, and the chairs of the Grayling-Anvik-Shageluk-Holy Cross (GASH) Advisory Committee and the Council. The proponent further requests that a Federal registration permit be required for the winter season, that it be issued by the Innoko National Wildlife Refuge, and that only one permit be allowed per household. <i>Submitted by the Western Interior Subsistence Regional Advisory Council</i></p>
<b>Proposed Regulation</b>	<p><i>1 moose; however, only bulls may be taken from Aug. 20–Sept. 25. <b>The harvest parameters for the winter hunt to be announced by the Federal managers (Fish and Wildlife Service and Bureau of Land Management) after consultation with the ADF&amp;G Area Biologist, the Bureau of Land Management wildlife biologist, and the chairs of the Grayling-Anvik-Shageluk-Holy Cross Advisory Committee and the Western Interior Regional Advisory Council. A Federal registration permit will be issued one per household by the Innoko National Wildlife Refuge. Moose may not be taken within one-half mile of the Innoko or Yukon Rivers during the winter Feb. season.</b></i></p> <p style="text-align: right;"><i>Aug. 20–Sept. 25</i> <i>Feb. 15–Feb. 10–Mar. 15</i></p>
<b>OSM Preliminary Conclusion</b>	<p><b>Support</b> proposal WP10-65 with modification to 1) change “harvest parameters” to “permit conditions, 2) provide emergency closure authority to the Innoko National Wildlife Refuge manager, and 3) have the Innoko National Wildlife Refuge Manager announce the permit conditions after consulting with local area Federal and State agencies and local fish and game advisory councils/committees as stipulated in a letter of delegation.</p>
<b>Yukon/Kuskokwim Delta Regional Council Recommendation</b>	
<b>Western Interior Regional Council Recommendation</b>	
<b>Interagency Staff Committee Comments</b>	

*continued on next page*

<b>WP10-65 Executive Summary (continued)</b>	
<b>ADF&amp;G Comments</b>	
<b>Written Public Comments</b>	

## DRAFT STAFF ANALYSIS WP10-65

### ISSUE

Proposal WP10-65 was submitted by the Western Interior Subsistence Regional Advisory Council (Council) and requests that the winter season dates for moose in Unit 21E be changed from Feb. 1–10 to Feb. 15–Mar. 15. The proponent also requests that the harvest parameters for the winter hunt be announced by the Federal managers (U.S. Fish and Wildlife Service and Bureau of Land Management) after consultation with the ADF&G Area Biologist, the Bureau of Land Management wildlife biologist, and the chairs of the Grayling-Anvik-Shageluk-Holy Cross (GASH) Advisory Committee and the Council. The proponent further requests that a Federal registration permit be required for the winter season, that it be issued by the Innoko National Wildlife Refuge, and that only one permit be allowed per household.

### DISCUSSION

The proponent suggests that a longer winter season would allow local users to hunt moose when travel conditions are more optimal and may also help spread hunting pressure across a wider area. The proponent believes that a Federal registration permit would provide more accurate harvest data, which it hopes will result in more informed management decisions. The proponent requests that the harvest parameters identified by the Federal managers align with the harvest guidelines of the Yukon-Innoko Moose Management Plan, which would provide flexibility to limit the number of moose harvested or the sex of the moose to be harvested, when needed, for conservation purposes. The provision prohibiting harvest within one half mile of the Innoko and Yukon Rivers during the winter season would not change.

Two other provisions that were discussed by the Council during the development of its proposal but were not included in the proposal as submitted are a provision to provide the Innoko NWR manager emergency closure authority for the winter hunt and a 24-hour reporting requirement (WIRAC 2009). This was most likely an oversight when drafting the proposal.

### Existing Federal Regulation

Unit 21E — Moose

*1 moose; however, only bulls may be taken from Aug. 20–Sept. 25. Moose may not be taken within one-half mile of the Innoko or Yukon Rivers during the Feb. season.*

<i>Aug. 20–Sept. 25</i>	<i>Aug. 20–Sept. 25</i>
<i>Feb. 1–Feb. 10</i>	<i>Feb. 1–Feb. 10</i>

## Proposed Federal Regulation

### Unit 21E — Moose

*1 moose; however, only bulls may be taken from Aug. 20–Sept. 25. The harvest parameters for the winter hunt to be announced by the Federal managers (Fish and Wildlife Service and Bureau of Land Management) after consultation with the ADF&G Area Biologist, the Bureau of Land Management wildlife biologist, and the chairs of the Grayling-Anvik-Shageluk-Holy Cross Advisory Committee and the Western Interior Regional Advisory Council. A Federal registration permit will be issued one per household by the Innoko National Wildlife Refuge. Moose may not be taken within one-half mile of the Innoko or Yukon Rivers during the winter Feb. season.*

*Aug. 20–Sept. 25  
Feb. 15–Feb. 10  
Mar. 15*

## Existing State Regulation

### Unit 21E — Moose

<i>Resident: One antlered bull</i>	<i>Harvest</i>	<i>Sept. 5–Sept. 25</i>
<i>Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side by permit.</i>	<i>DM837/839</i>	<i>Sept. 5–Sept. 20</i>

## Extent of Federal Public Lands

Federal public lands comprise approximately 55% of Unit 21E and consist of 44% Bureau of Land Management and 11% U.S. Fish and Wildlife Service lands (**Map 1**).

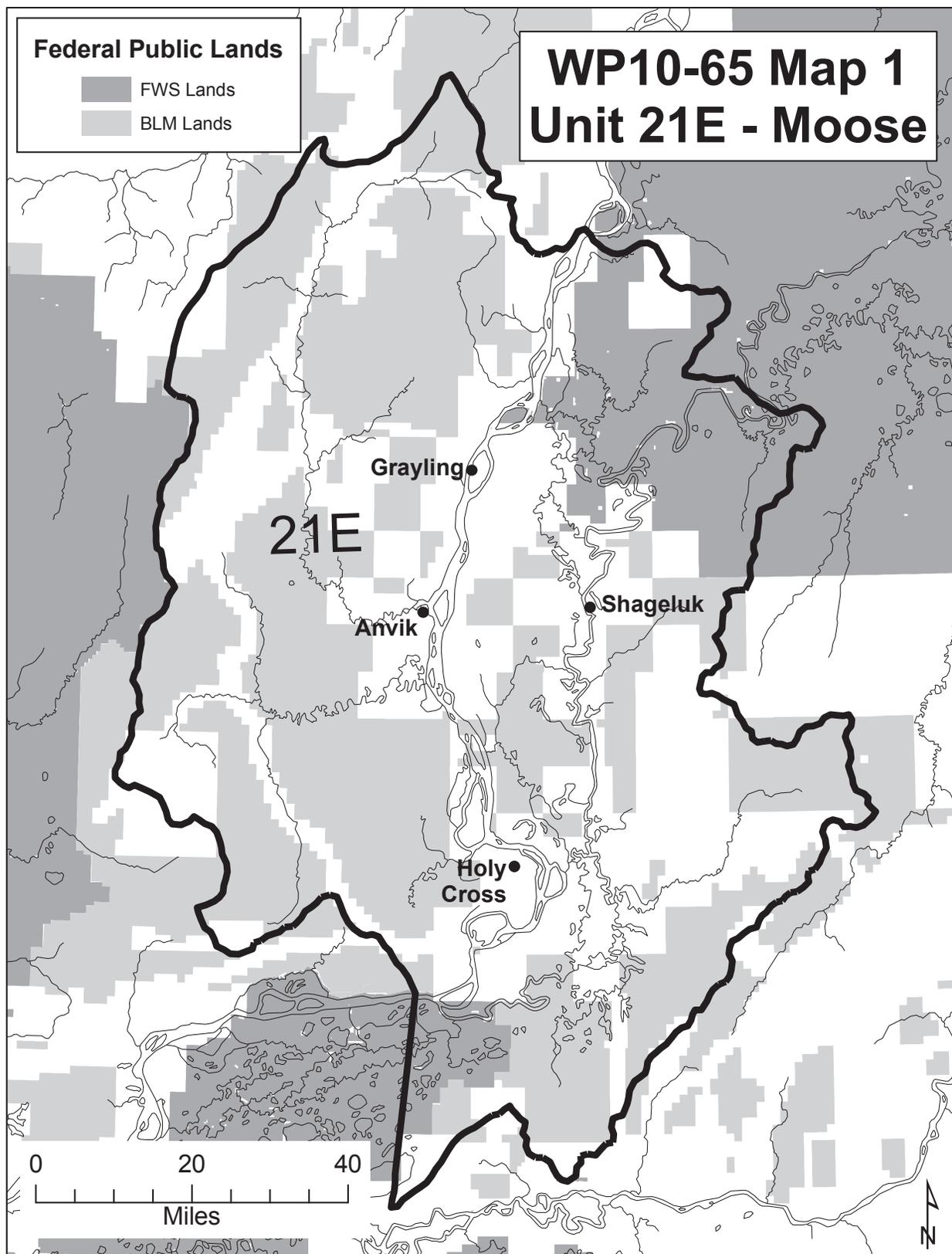
## Customary and Traditional Use Determinations

Residents of Unit 21E and Russian Mission have a positive customary and traditional use determination for moose in Unit 21E.

**Note:** If proposal WP10-69 is adopted, or some modification thereof, then one or more of the communities of Lower Kalskag, Kalskag, Aniak, and/or Chuathbaluk may be added to the existing C&T use determination for moose in Unit 21E.

## Regulatory History

The Paradise Controlled Use Area is almost entirely within Unit 21E and was established in 1978 by the Alaska Board of Game in response to concerns that hunter success rates favored non-rural users and the total harvest of moose in the area was threatening the population. The Paradise Controlled Use Area regulations placed a restriction on fly-in hunting for moose, air transport of hunters and hunting-related equipment, and the air transport of moose meat from the field. The Paradise Controlled Use Area access restrictions and the State’s moose seasons for Unit 21E were adopted by the Federal Subsistence Board in 1990. During the 1990/1991 regulatory year the State and Federal moose seasons were Sept. 5 – 25 and Feb. 1–10 for Unit 21E. The winter season dates have not changed in Federal regulation since



then, although the State eliminated the winter season from its regulations beginning in the 2003/2004 regulatory year.

In 1995 the Federal Subsistence Board provided additional opportunity during the fall season by adding ten days to the early part of the season in Unit 21E with season dates of August 25 to September 25. The Federal subsistence Board subsequently extended the fall season by another five days in 1996 which resulted in season dates of Aug. 20 to Sept. 25. These fall season dates are still in effect today.

In January 2005 a cooperative moose planning effort called the Yukon-Innoko Moose Management Working Group was launched. The goal of the planning effort was to develop a proactive management plan to help maintain the moose population while also providing for high levels of human consumptive uses of moose in Units 21A and 21E (ADF&G 2006). The working group included representatives of the GASH and Lower Yukon Fish and Game Advisory Committees, the Western Interior and Yukon-Kuskokwim Delta Regional Advisory Councils, as well as non-local hunters and representatives who had commercial interests associated with hunting in the area. The result of the planning effort was the Yukon-Innoko Moose Management Plan, which was completed in March 2006. This plan was then endorsed by the Federal Subsistence Board in May 2006 through Resolution 06-01. A few of the key management goals, objectives and recommendations outlined in the plan are:

Goal:

- Manage to achieve an Intensive Management moose population of 9,000 to 11,000 moose in Unit 21E

Objectives:

- Manage harvest conservatively with a harvest rate less than or equal to 4% of the estimated population; harvest should be directed predominantly at bulls
- Manage the moose population toward maintaining a minimum post-hunt bull:cow ratio of 25–30 bull:100 cows.
- Manage the moose population toward maintaining a minimum fall post hunt calf:cow ratio of 30–40 calves:100 cows.
- Manage the moose population toward maintaining a minimum calf overwinter survival of 20% of the total population in late winter.

Recommendations:

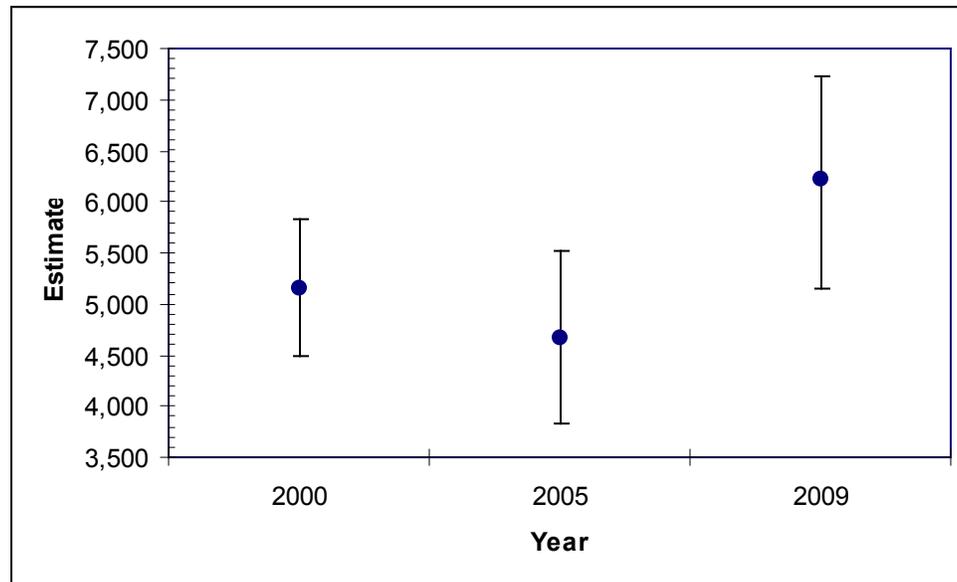
- Provide for the harvest of up to 40 antlerless moose in winter.
- If cow harvest remains greater than 40 (including cows taken in the Federal season and those taken for potlatches etc.), consider the need to recommend closing the Federal winter season

The Working Group also recommended that “*if the Federal customary and traditional subsistence use determination (C&T) for Unit 21E is revised to make a large number of additional communities eligible, the federal winter season should be eliminated*” (ADF&G 2006). Proposal WP10-69 requests a change to the existing C&T determination for moose in Unit 21E.

## Biological Background

### *Unit 21E Moose Geospatial Population Estimator (GSPE) Surveys*

Results from winter surveys using the Geospatial Population Estimate (GSPE) in 2000, 2005, and 2009 appear to show a higher moose population in 2009 compared to the previous surveys (**Figure 1**). However, the 90% confidence intervals all overlap which precludes any conclusive trends in the Unit 21E moose population but the biologists conducting the surveys do believe the population is stable. The 5,070 mi.<sup>2</sup> GSPE survey area included mainly that portion of Unit 21E east of the Yukon River and includes portions of the Innoko and Yukon Delta National Wildlife Refuges as well as BLM lands.



**Figure 1.** Unit 21E population estimates with 90% confidence intervals (ADF&G 2009a and Peirce and Seavoy 2008).

### *Unit 21E Moose Trend Count and Composition Surveys*

Moose composition surveys in Unit 21E in 2007, 2008 and 2009 counted 84, 186, and 153 moose, respectively (**Table 1**). It is important to note that composition surveys flown in Unit 21E do not follow a rigid design for survey intensity or area covered. Therefore, actual numbers of moose observed during any given composition survey are subject to a large number of variables. The 2008 and 2009 survey data suggest that the bull:cow ratios and calf:cow ratios have declined since the 2007 survey (**Table 1**). The most recent calf:cow ratio was 18 in 2009 which is below the management object of 30–40 calves per 100 cows identified in the Yukon-Innoko Moose Management Plan. However, there was a considerable amount of flooding that occurred in 2009 which likely explain the low calf:cow ratio and the biologists conducting the survey reported that they were not able to survey a portion of the area that typically has more bulls which also partially explain the lower bull:cow ratio (Beyersdorf 2010 pers. comm.). There is a moose collaring study planned to begin in the spring of 2010 that should help address some of the moose survey data limitations in Unit 21E.

Similar to fall composition surveys, spring twinning surveys do not follow rigid protocols. Twinning surveys since 2007 show an opposite trend for calves from the fall composition surveys (**Table 2**). While

the data presented in **Tables 1** and **2** cover only a short time period, they appear to indicate that fewer calves are surviving than in previous years.

**Table 1.** Unit 21E moose composition surveys conducted during the fall of 2007, 2008, and 2009 (ADF&G 2007 and ADF&G 2008).

Year	Total					Bulls/100 cows	Calves/100 cows
	Bulls	Yearling Bulls	Cows	Calves	Moose		
2007	26	9	35	27	84	74	66
2008	59	28	95	35	186	62	37
2009	33	21	102	18	153	32	18

**Table 2.** Unit 21E spring moose twinning survey results (Kovach 2009, pers. comm.).

Year	Cows with Calves	Litters with Twins	Twinning Rate
2007	28	7	29
2008	32	15	47
2009	24	12	50

### Harvest History

Reported moose harvests in Unit 21E by residents of Grayling, Anvik, Shageluk, and Holy Cross (GASH) indicate an annual average of 35 successful moose hunters (range = 27–43) from 2000 to 2009 (**Table 2**) (ADF&G 2009b). However, it should be noted that for some parts of Alaska, the ADF&G harvest ticket data do not typically reflect the actual level of harvest, although this data can provide an estimate of harvest trends over time for a particular area. A more accurate reflection of actual harvest for the GASH area communities is available for Unit 21E from two studies that included household surveys of moose harvests for calendar years 2002/2003 and 2003/2004 (Brown et al. 2004; Brown and Koster 2005). Household surveys conducted for 2002/2003 estimated a total harvest by GASH area residents of 133 moose ( $\pm 6\%$  at 95% CI) in Unit 21E with 18 (10 cows) of those moose having been taken during the winter season (Brown et al. 2004). Household surveys conducted for the 2003/2004 calendar year estimated a total harvest by GASH area residents of 118 moose ( $\pm 4\%$  at 95% CI) in Unit 21E with 16 (11 cows) of those moose having been taken during the winter season (Brown and Koster 2005). For these two study years the household survey data suggest that the total annual average moose harvest was 3.3 times higher than the harvest reported in the harvest ticket database. Household surveys were also conducted in 1990/1991 and the total estimated harvest by GASH area residents was 169 moose in Unit 21E (Wheeler 1993).

Information reported in the harvest ticket database does suggest that the GASH area hunter success rates have ranged between 55% and 83%, with a nine-year average of 68% (**Table 3**). Regardless of this relatively high success rate there does seem to be a downward trend in harvest success over the past ten years.

**Table 3.** Reported moose harvest ticket data for residents of the communities of Grayling, Anvik, Shageluk, and Holy Cross in Unit 21E, 2000-2009 and household moose harvest survey data for calendar years 2002/2003 and 2003/2004 (ADF&G 2009b; Brown et al. 2004; Brown and Koster 2005).

<b>Year</b>	<b>Successful hunters</b>	<b>Unsuccessful hunters</b>	<b>Total hunters</b>
	Number (%)	Number (%)	Number
2000			
Reported Harvest Ticket Total	39 (83%)	8 (17%)	47
2001			
Reported Harvest Ticket Total	32 (75%)	8 (25%)	40
2002			
Reported Harvest Ticket Total	39 (75%)	13 (25%)	52
2003			
Reported Harvest Ticket Total	43 (74%)	15 (26%)	58
* HH survey - Winter harvest	18 (10 cows)	na	na
* HH Survey - Total harvest	133 (75%) ± 6% at 95% CI	44 (25%)	177
2004			
Reported Harvest Ticket Total	32 (59%)	22 (41%)	54
* HH survey - Winter harvest	16 (11 cows)	na	na
* HH Survey – Total harvest	118 (67%) ± 6% at 95% CI	58 (33%)	176
2005			
Reported Harvest Ticket Total	40 (75%)	13 (25%)	53
Reported Winter Harvest	8		
2006			
Reported Harvest Ticket Total	39 (56%)	31 (44%)	70
Reported Winter Harvest	4		
2007			
Reported Harvest Ticket Total	34 (60%)	23 (40%)	57
Reported Winter Harvest	5		
2008			
Reported Harvest Ticket Total	27 (55%)	22 (45%)	49
Reported Winter Harvest	4		
2009			
** Reported Harvest Ticket Total	28	na	na
* Household survey data for the communities of Grayling, Anvik, Shageluk, and Holy Cross.			
** Preliminary estimate.			
na = Not available			

## Effects of the Proposal

Adoption of the proposal would provide the residents of Unit 21E and Russian Mission with additional opportunity and more flexibility to harvest moose during the winter season. Federal managers would be required to determine the harvest parameters each year after consulting with ADF&G and the chairs of the Western Interior Regional Council and GASH Fish and Game Advisory Committee. The term “harvest parameters” could be changed to “permit conditions” which would provide more flexibility to the Federal managers to adjust permit conditions, as needed, that may be different than those parameters related only to harvest. The harvest parameters would need to be consistent with the harvest guidelines identified in the Yukon-Innoko Moose Management Plan. The plan provides for flexibility to limit the number of moose harvested or the sex of the moose to be harvested, when needed, for conservation purposes. If adopted, a Federal registration permit would be established and only one permit would be issued per household. This would help to provide more accurate harvest data, which will likely result in more informed management decisions in the future.

Although a timeframe for a reporting requirement was not included in the proposal as submitted, the Council discussed a 24-hour reporting provision at length during its development of this proposal (WIRAC, 2009). If the 24-hour reporting requirement is still desired, it can be added to the permit without stipulating it in regulation.

The proponent also stated their intent to provide the Innoko National Wildlife Refuge manager with emergency closure authority although this provision was also not included in the proposal as submitted. It is likely that this was a mere oversight when drafting the proposal since it is clear in the record that the Council intended to include this provision. This would allow the Federal manager to react more quickly to any needed closures. Without this authority, a special action request would need to be submitted to the Federal Subsistence Board for its action. While Board action on these types of requests can be completed in a few days, they often take a week or more before final action is taken. Thus, providing emergency closure authority to the Refuge Manager may be appropriate.

A portion of the proposed regulation is duplicative by suggesting that the U. S. Fish and Wildlife Service and Bureau of Land Management announce the harvest parameters after consultation with the ADF&G Area Biologist and the Bureau of Land Management wildlife biologist. The details of who is to be consulted can be better described in a letter of delegation to the refuge manager.

It should be noted that the cumulative effects of adopting all three proposals (WP10-65, WP10-66, and WP10-69) could result in an increase in moose harvests to the degree that restrictions may need to be added in the future. Changes in harvest levels and patterns will need to be closely monitored to evaluate the effects of changes that are adopted. An early indication of possible concerns is that the most recent fall calf:cow ratio (18) in 2009 was below the management object of 30–40 calves per 100 cows identified in the Yukon-Innoko Moose Management Plan.

If this proposal is adopted, extensive outreach effort will need to occur to educate and implement these changes. The Innoko National Wildlife Refuge staff has committed to work with the GASH area communities to inform the residents of any changes and to implement a Federal registration permit for this hunt, if adopted. Since the State does not have a comparable winter season in the affected area it would require the use of detailed maps that clearly show the location of Federal public lands.

Until the moose collaring study results are available no conclusive assessments can be made regarding the status of the health of the moose population in Unit 21E, although local users do report a slight decline. Nonetheless, it appears that the population is stable and can continue to support a limited moose harvest

during the winter season. Hunters should be encouraged to harvest bulls as much as possible to favor productivity and yearling bull recruitment.

## OSM PRELIMINARY CONCLUSION

**Support** proposal WP10-65 with modification to 1) change “harvest parameters” to “permit conditions, 2) provide emergency closure authority to the Innoko National Wildlife Refuge manager, and 3) have the Innoko National Wildlife Refuge Manager announce the permit conditions after consulting with local area Federal and State agencies and local fish and game advisory councils/committees as stipulated in a letter of delegation.

The modified regulation should read:

*Unit 21E — 1 moose; however, only bulls may be taken from Aug. 20–Sept. 25.*

*Aug. 20–Sept. 25*

*Feb. 15–~~Feb. 10~~–Mar. 15*

***The permit conditions and any needed closures for the winter hunt will be announced by the Innoko NWR Manager after consultation with local area Federal and State land managers and local fish and game advisory councils/committees as stipulated in the letter of delegation. Moose may not be taken within one-half mile of the Innoko or Yukon Rivers during the winter ~~Feb.~~ season.***

## Justification

Adoption of the proposal would provide the residents of Unit 21E and Russian Mission with additional opportunity and more flexibility to harvest moose during the winter season. Population data from surveys conducted from 2000–2009 indicate that the affected moose population is stable and can continue to support limited moose harvests during the winter season.

A more streamlined approach that would allow for these same provisions would be to delegate the authority to the Innoko National Wildlife Refuge manager to announce the permit conditions and any needed closures after consulting with the local Federal and State agencies and the local fish and game advisory councils and committees. The details of the delegation of authority conditions would be defined in a letter to the refuge manager.

The details for announcing the permit conditions and who must be consulted prior to authorizing the hunt or any closures can best be accomplished through a letter of delegation to the refuge manager. The 24-hour reporting requirement is a provision that can be added to the permit without stipulating it in regulation. The emergency closure authority would allow the Federal manager to react more quickly.

The term “harvest parameters” should be changed to “permit conditions” to provide more flexibility to the Federal managers to adjust permit conditions that may be different than those parameters related only to harvest. A Federal registration permit would be established and only one permit would be issued per household. This would help to provide more accurate harvest data and would likely lead to more informed management decisions in the future. This could also be stipulated in the delegation of authority letter.

All of these changes will need an extensive outreach effort to educate and implement these changes. The Innoko NWR staff has committed to working with the GASH area communities to inform them of the Federal registration permit requirement for this hunt.

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<b>WP10-66 Executive Summary</b>	
<b>General Description</b>	Proposal WP10-66 requests that the fall moose season dates in Unit 21E be shifted by five days, from Aug. 20–Sept. 25 to Aug. 25–Sept. 30. <i>Submitted by the Western Interior Subsistence Regional Advisory Council</i>
<b>Proposed Regulation</b>	<p><i>1 moose; however, only bulls may be taken from Aug. 20-25–Sept. 25-30.</i></p> <p><i>Moose may not be taken within one-half mile of the Innoko or Yukon Rivers during the Feb. season.</i></p> <p><i>Aug. 20-25–Sept. 25-30</i></p> <p><i>Feb. 1–Feb. 10</i></p>
<b>OSM Preliminary Conclusion</b>	<b>Support</b>
<b>Yukon/Kuskokwim Delta Regional Council Recommendation</b>	
<b>Western Interior Regional Council Recommendation</b>	
<b>Interagency Staff Committee Comments</b>	
<b>ADF&amp;G Comments</b>	
<b>Written Public Comments</b>	

**DRAFT STAFF ANALYSIS  
WP10-66**

**ISSUE**

Proposal WP10-66 was submitted by the Western Interior Subsistence Regional Advisory Council (Council) and requests that the fall moose season dates in Unit 21E be shifted by five days, from Aug. 20–Sept. 25 to Aug. 25–Sept. 30.

**DISCUSSION**

The proponent believes that moose are moving around later in the season in recent years, and a five day shift would provide greater opportunity to harvest moose. The Council also believes that recent fall temperatures have been warmer, so a change could help reduce spoilage of meat. The proponent also stated that this season shift could help prevent cow moose from being harvested during the winter season since a successful hunter who takes a bull during the fall season would not be eligible to harvest a cow during the winter season. Another added benefit identified by the Council was that this season shift could reduce competition with non-local hunters, who would be hunting under State regulations with different season dates.

**Existing Federal Regulation**

Unit 21E — Moose

*1 moose; however, only bulls may be taken from Aug. 20–Sept. 25. Aug. 20–Sept. 25  
Moose may not be taken within one-half mile of the Innoko or Feb. 1–Feb. 10  
Yukon Rivers during the Feb. season.*

**Proposed Federal Regulation**

Unit 21E — Moose

*1 moose; however, only bulls may be taken from Aug. ~~20~~25–Sept. Aug. ~~20~~25–Sept. ~~25~~30  
~~25~~30.  
Moose may not be taken within one-half mile of the Innoko or Feb. 1–Feb. 10  
Yukon Rivers during the Feb. season.*

**Existing State Regulation**

<i>Unit 21E</i>	<i>Resident: One antlered bull Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one side by permit</i>	<i>Harvest DM837/839</i>	<i>Sept. 5–Sept. 25 Sept. 5–Sept. 20</i>
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### **Extent of Federal Public Lands**

Federal public lands comprise approximately 55% of Unit 21E and consist of 44% Bureau of Land Management and 11% U.S. Fish and Wildlife Service lands (see **Unit 21 Map**).

### **Customary and Traditional Use Determinations**

Residents of Unit 21E and Russian Mission have a positive customary and traditional use determination for moose in Unit 21E.

**Note:** If proposal WP10-69 is adopted, or some modification thereof, then one or more of the communities of Lower Kalskag, Kalskag, Aniak, and/or Chuathbaluk may be added to the existing C&T use determination for moose in Unit 21E.

### **Regulatory History**

The regulatory history information for this analysis is the same as that presented in proposal WP10-65. Please refer to that analysis.

### **Biological Background**

The biological background information for this analysis is the same as that presented in proposal WP10-65. Please refer to that analysis.

### **Harvest History**

Please refer to WP10-65 for the harvest history information that also pertains to this analysis. Additional harvest history information that pertains to this proposal is that residents of the GASH communities harvested an estimated 4% and 5% of their moose during August of 2003 and 2004 respectively (Brown et al. 2004; Brown and Koster 2005). By contrast, they harvested 80% and 81% of their moose during September of 2003 and 2004, respectively (Brown et al. 2004; Brown and Koster 2005).

### **Effects of the Proposal**

Adoption of the proposal would shift the fall moose hunting season dates in Unit 21E five days later into the fall. Moose will likely be moving along river corridors and thus easier to locate later in September than they are in late August. The foliage along the river corridors has usually dropped by late September, making the moose easier to locate. This proposed change would likely lead to increased hunting success during a later fall season.

The fall season only allows for the harvest of bulls and so any increased harvest during the fall season may help to reduce the potential harvest of cows during the winter season since hunters can only harvest one moose per regulatory year. This could be a benefit to the moose population in the long term depending on how harvest patterns change over time.

Temperatures in late September are usually cooler than they are in late August and this could help reduce the potential for meat spoilage.

However, it should be noted that the cumulative effects of adopting all three proposals (WP10-65, WP10-66, and WP10-69) could result in an increase in moose harvests to the degree that restrictions may need to be added in the future. Changes in harvest levels and patterns will need to be closely monitored to evaluate the effects of changes that are adopted.

## **OSM PRELIMINARY CONCLUSION**

**Support** proposal WP10-66.

### **Justification**

Adoption of the proposal would provide the residents of Unit 21E and Russian Mission with additional opportunity to hunt moose later into September when the majority of the hunting activity occurs.

Even though moose harvest by residents of the GASH communities would likely increase, the population data from surveys conducted from 2000–2009 indicate that the affected moose population can continue to support these harvests.

## **LITERATURE CITED**

Brown, C., and D. Koster. 2005. The 2003–2004 harvest of moose, caribou, bear, and wolves in the Lower–Middle Yukon River communities of Grayling, Anvik, Shageluk, and Holy Cross. ADF&G, Division of Subsistence Tech. Paper No. 298. Juneau, AK. 46 pages.

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<b>WP10-67 Executive Summary</b>	
<b>General Description</b>	Proposal WP10-67 requests changes in harvest seasons and limits for moose in Unit 24B. <i>Submitted by the Western Interior Alaska Subsistence Regional Advisory Council</i>
<b>Proposed Regulation</b>	<i>See analysis for regulatory language.</i>
<b>OSM Preliminary Conclusion</b>	<p><b>Support</b> Proposal WP10-67 <b>with modification</b> to:</p> <ol style="list-style-type: none"> <li>1. Change the floating date range of the proposed 10-day “to be announced” season to a set date range of March 27–April 5;</li> <li>2. Include all of the Kanuti National Wildlife Refuge in Unit 24B, and all BLM lands in Unit 24B, along with the Kanuti Controlled Use Area, in the “to be announced” season;</li> <li>3. Not include a six year moratorium on cow moose harvest.</li> <li>4. Streamline regulatory language on hunt management.</li> </ol>
<b>Western Interior Regional Council Recommendation</b>	
<b>North Slope Regional Council Recommendation</b>	
<b>Interagency Staff Committee Comments</b>	
<b>ADF&amp;G Comments</b>	
<b>Written Public Comments</b>	None

## DRAFT STAFF ANALYSIS WP10-67

### ISSUE

Proposal WP10-67, submitted by the Western Interior Alaska Subsistence Regional Advisory Council (Council), requests changes in harvest seasons and limits for moose in Unit 24B.

### DISCUSSION

The proponent is requesting 1) a change in dates for the winter season to March 15–April 15, 2) a longer “to be announced” season of ten days instead of five during those dates, 3) changes to the description of areas (portions) of Unit 24B, which, in addition to the John River drainage, would be “all Federal land within the Kanuti Controlled Use Area” and “remainder,” and 4) changing the harvest limit from “1 moose” to “1 antlered moose” with a six year moratorium on cow moose harvest in the Kanuti Controlled Use Area, with an exception for mortuary purposes. No changes are proposed for the John River drainage portion of Unit 24B.

The proponent states that the current regulations which allow for a March 1–5 “to be announced” season only applies to a portion of Unit 24B, “all drainages to the north of the Koyukuk River, except the John River.” Because of an artifact of regulatory history (when Unit 24 was subdivided into four subunits), the area authorized to be opened in the “to be announced” winter season contains only a small portion of the Kanuti National Wildlife Refuge within the Kanuti Controlled Use Area. The proponent also states that the area currently available to be opened in the “to be announced” winter season does not provide enough opportunity for subsistence harvest by residents of Allakaket, Alatna, Evansville, and Bettles in times of hardship due mostly to poor hunting success during the fall season. Opening all Federal public land within the Kanuti Controlled Use Area of Unit 24B would provide more opportunity.

In both 2007 and 2008, the Allakaket Tribal Council requested, through Special Action (WSA06-08 and WSA07-09), a season extension of the March 1–5 hunt because of extremely cold weather conditions during the announced and scheduled March 1–5 season. In 2007, a special 5-day hunt was granted for March 20–24. In 2008, a 3-day extension was granted for March 8–10. Over the past few years, early March has tended to be extremely cold in Unit 24B resulting in conditions which have made hunting difficult. In 2007 and 2008, there were no successful hunters during the March 1–5 “to be announced” season or the extended opportunities through Special Action. In 2009, season dates were changed from March 1–5 to March 27–31 by Special Action to accommodate the desires of the Allakaket Tribal Council. In 2009, one moose hunter was successful in the March 27–31 Federal hunt. The proponent, therefore, believes that the March 1–5 season has provided little meaningful opportunity to meet subsistence needs, especially in hardship years, and that changing the current 5-day, “to be announced” March 1–5 season to the proposed 10-day, “to be announced” season between March 15–April 15, would better accommodate hunting for subsistence users.

The later dates and longer window for the “to be announced” season would assist users in field identification of the sex of the moose, to avoid the inadvertent harvest of a cow. By early April, bull moose are starting to show the first signs of antler growth, thus helping to alleviate the problem encountered in the early March hunt of readily distinguishing bulls from cows. Increased light conditions also aid in identification and provide more hours of harvest opportunity.

The proponent noted that there is precedent for late winter hunts in the area. Up until 2004, there was a March 1–10 State general hunt for antlerless moose (eliminated by Alaska Board of Game action in April 2004). More recently (2008), the Alaska Board of Game has allowed a late-winter bulls-only hunt in a nearby Unit 26B (April 2–16).

The proponent also requests a six-year moratorium (until July 1, 2016) on cow moose harvest (with exception for mortuary purposes) and believes this moratorium is needed because the moose population most likely cannot support a cow harvest at present and in the near future. The proponent wants the regulations to specify “antlered bull” not just “bull” to emphasize the need to avoid the inadvertent harvest of a cow (WIRAC 2009).

The proponent also submitted a similar proposal to the Alaska Board of Game, requesting an antlered bull moose hunt in April in the State’s non-remainder portion of Unit 24. The Alaska Board of Game is scheduled to take up the proposal during its February 2010 meeting in Fairbanks. However, the Kanuti Controlled Use Area is closed in Federal regulations to the take of moose by non-Federally qualified users.

## Existing Federal Regulations

### Unit 24B — Moose

*Unit 24B, that portion within the John River Drainage—1 moose* Aug. 1–Dec.31

*Unit 24B, all drainages to the north of the Koyukuk River, except the John River drainage — 1 moose; however, antlerless moose may be taken only from Sept. 27–Oct. 1 and Mar. 1–5, if authorized jointly by the Kanuti National Wildlife Refuge Manager, the BLM Central Yukon Field Office Manager, and the Gates of the Arctic National Park Superintendent. A Federal registration permit is required for the Sept. 26–Oct. 1 and Mar. 1–5 seasons. Harvest of cows accompanied by calves is prohibited.*

*The announcement will be made after consultation with the ADF&G Area Biologist and Chairs of the Western Interior Alaska Subsistence Regional Advisory Council, the Gates of the Arctic Subsistence Resource Commission, and the Koyukuk River Fish and Game Advisory Committee.*

*Federal public lands in the Kanuti Controlled use Area are closed to the taking of moose, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena hunting under these regulations.*

*Unit 24B remainder — 1 antlered bull. A Federal registration permit is required for the Sept. 26–Oct. 1 season.* Aug. 25–Oct. 1

*Federal public lands in the Kanuti Controlled Use Area are closed to the taking of moose, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena, hunting under these regulations.*

**Proposed Federal Regulations**

**Unit 24B — Moose**

*Unit 24B, that portion within the John River Drainage — 1 moose Aug. 1–Dec.31*  
~~*Unit 24B, all drainages to the north of the Koyukuk River, except the John River drainage — 1 moose; however, antlerless moose may be taken only from Sept. 27–Oct. 1 and Mar. 1–5, if authorized jointly by the Kanuti National Wildlife Refuge Manager, the BLM Central Yukon Field Office Manager, and the Gates of the Arctic National Park Superintendent. A Federal registration permit is required for the Sept. 26–Oct. 1 and Mar. 1–5 seasons. Harvest of cows accompanied by calves is prohibited. The announcement will be made after consultation with the ADF&G Area Biologist and Chairs of the Western Interior Alaska Subsistence Regional Advisory Council, the Gates of the Arctic Subsistence Resource Commission, and the Koyukuk River Fish and Game Advisory Committee.*~~

***Unit 24B Kanuti Controlled Use Area — 1 antlered bull. If a March–April season is authorized jointly by the Kanuti National Wildlife Refuge Manager, the BLM Central Yukon Field Office Manager, and the Gates of the Arctic National Park Superintendent, the 10-day, “to be announced” season and numerical harvest quota of moose will be determined based on biological sustainability of the population, maintaining the bull/cow ratio management objective. The harvest quota would apply to Federal and State concurrent hunts, if applicable. Opening of the “to be announced” season will be decided after consultation with the ADF&G Area Biologist and Chairs of the Western Interior Subsistence Regional Advisory Council, the Gates of the Arctic Subsistence Resource Commission, and the Koyukuk River Fish and Game Advisory Committee. The Kanuti National Wildlife Refuge Manager is authorized to close the season once the quota is reached. A Federal registration permit is required for the Aug 25–Oct. 1 season, and the March 15–April 15 season.***

***Aug. 25–Oct. 1***  
***Mar. 15–Apr. 15***  
***Season to be announced***

*Federal public lands in the Kanuti Controlled Use Area are closed to the taking of moose, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena, hunting under these regulations. A moratorium on cow moose harvest is in effect until July 1, 2016, but does not affect harvest for mortuary purposes.*

*Unit 24B remainder — 1 antlered bull. A Federal registration permit is required for the Sept. 26–Oct. 1 period. Federal public lands in the Kanuti Controlled use Area are closed to the taking of moose, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena hunting under these regulations.*

*Aug. 25–Oct. 1*

**Existing State Regulations**

<i>Unit 24B all drainages of the Koyukuk River upstream from the Henshaw Creek drainage, excluding the North Fork of the Koyukuk River drainage</i>	<i>Resident: One bull</i>	<i>Sept. 1–Sept. 25</i>
	<i>Nonresident: One bull with 50-inch antlers or 4 or more brow tines on at least one side.</i>	<i>Sept. 5–Sept. 25</i>
<i>Unit 24B remainder</i>	<i>Resident: One bull</i>	<i>Sept. 1–Sept. 25</i> <i>or</i> <i>Dec. 1–Dec. 10</i>
	<i>Nonresident: One bull with 50-inch antlers or antlers with 4 or more brow tines on at least one</i>	<i>Sept. 5–Sept. 25</i>

### **Extent of Federal Public Lands**

Federal public lands comprise approximately 64% of Unit 24 (22% National Park Service, 21% Bureau of Land Management, and 21% Fish and Wildlife Service lands) (See **Unit Map 24**).

### **Customary and Traditional Use Determinations**

Residents of Unit 24, Anaktuvuk Pass, Koyukuk, and Galena have a positive customary and traditional use determination for moose in Unit 24.

### **Regulatory History**

An extension of the winter hunt season and a similar modification of the winter hunt area was accomplished by Special Action requests WSA06-08 (decision dated March 15, 2007), and WSA07-09 (decision dated February 26, 2008). In both years, the Allakaket Tribal Council requested a season extension of the March 1–5 hunt because of extremely cold weather conditions during the March 1–5 season. In 2007, a special 5-day additional hunt was granted for March 20–24. In 2008, a 3-day extension was granted for March 8–10. In 2009, season dates were changed from March 1–5 to March 27–31 by Special Action request to accommodate the desires of the Allakaket Tribal Council. The season for the remainder of Unit 24B outside the Kanuti Controlled Use Area remained unchanged.

### **Biological Background**

The Koyukuk River Moose Management Plan 2000–2005 (Management Plan) (ADF&G 2001) set the management goals/objectives for the Koyukuk River moose population. For the portion of Unit 24 where the Kanuti Controlled Use Area is located, the management intent is to maintain or increase moose populations while providing for continuation of a moderate hunter participation and moderate level of harvest. Bull:cow ratios of up to 30–40 bulls:100 cows for this low density population may be necessary to allow for adequate breeding where cows are sparsely distributed. Calf:cow ratios of 30–40 calves:100 cows were prescribed by the Management Plan to support population growth (ADF&G 2001). Overall, an increase in population is desired before additional harvest can be considered. While indications suggest this population may be growing, the population's size and density remain low.

Population surveys have been conducted on Kanuti National Wildlife Refuge (Refuge) since 1989. However, the surveys in 1989 and 1993 used the Gasaway method, and are not easily compared to the

more recent surveys. The surveys conducted from 1999 to 2008 (**Table 1**) employed the GeoSpatial Population Estimator technique (Kellie and Delong 2006) and can be compared more readily (Gasaway et al. 1986).

The moose population on the Refuge has been relatively stable but at low levels since 1999 (**Figure 1**). The population estimate for 2008 was 872 moose compared to an estimated 588 moose in 2007, resulting in population densities of 0.32 and 0.22 moose per square mile, respectively (**Table 1**) (FWS 2008). The 2007 density estimate was the lowest recorded for the Refuge and was significantly lower than the 1999 estimate. However, because of variability of the surveys, it is difficult to definitively determine a population trend (**Figure 1**). It should also be noted that the 90% confidence intervals for most of the population estimates overlap, indicating that there is no significant change.

Since 1999, the calf:cow ratios have been higher than the objective in the Management Plan which may be an indication that this population could be growing (**Table 1**).

A moose survey was scheduled to take place in November 2009, but was canceled by Refuge staff due to extreme cold (< - 40° F) weather conditions (Spindler 2009b).

### Harvest History

Harvest data compiled by the ADF&G for Unit 24B, between 1989 and 2007, revealed that both the number of moose harvested and hunter success have declined (**Table 2**).

The reported Federal subsistence harvest has been low for registration hunts RM892, RM893, and RM895 in 2006 and 2007 (**Table 3**).

The long-term annual harvest estimates for the communities of Alatna and Allakaket averaged 44.8 moose (ADF&G household surveys, Brown et al. 2004). It should be noted that the permit data reported above is specific to Unit 24B, whereas household survey data are not. In the period 1997–2003, annual moose harvest averaged 33.7 bulls and 3.4 cows in Allakaket, while Alatna harvested an annual average of 5.4 bulls and 2.3 cows in the same period (Brown et al. 2004). Most (87.5%) of these moose were taken in September, and only a few (12.5%) were taken in March.

The combination of a telephone survey, ADF&G harvest tickets and Federal permits provided a total estimated harvest of 14 moose by Allakaket/Alatna in the fall 2008 hunt (**Table 4**). No one harvested a moose during the State's general winter hunt December 1–10, despite several days of effort by five hunters in 2008. It is estimated that the villages of Allakaket and Alatna harvested about 30% of their recent historic number of moose (as indicated by the 1997–2003 ADF&G Division of Subsistence surveys, Brown et al. 2004) in 2008. Similar harvest shortfalls were observed in the fall harvests of 2006 and 2007. For that reason, Federal agencies agreed to provide a five day bulls-only additional hunting opportunity, March 1–5, in both 2007 and 2008 in Unit 24B (Spindler 2008).

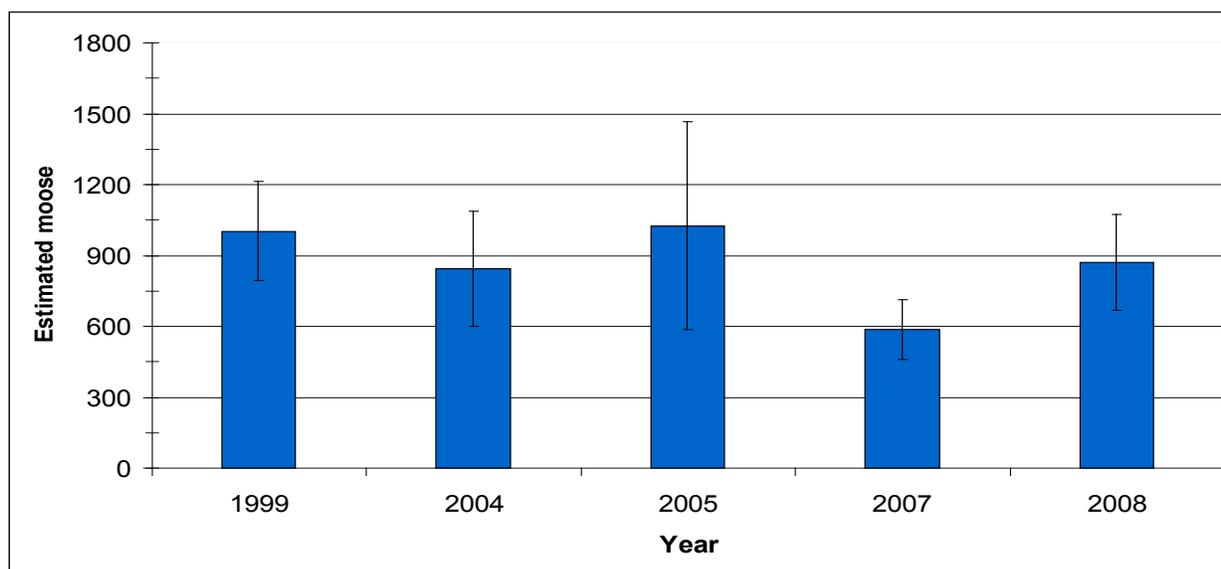
The March 2007 and 2008 hunts were limited to “bulls only” because of the low moose population. Hunting effort declined from March 2007 to March 2008, because of low temperatures, the difficulty of approaching a bull within shooting range at low temperatures. As a result, no one was successful in harvesting moose in either of the initial five-day seasons. In both 2007 and 2008, the March 1–5 hunt dates were extended by Special Action Request because of the extreme cold weather. The observed effort was less during the requested extension periods than during the originally authorized periods in both years, even though temperatures were somewhat milder but still no moose were harvested (**Table 5**). Hunters did report seeing some bulls on Doyon or Koyitlotsina Corp. lands, but apparently had no

**Table 1.** Summary of moose population survey data for Kanuti NWR, 1999–2008 (FWS 2008).

	1999	2004	2005	2007	2008
Survey Area (miles <sup>2</sup> ) <sup>1</sup>	2,715	2,710	2,710	2,714	2,715
Units Surveyed	108	103	82	150	80
Population Estimate	1,003	842	1,025	588	872
Standard Error	127	146	270	76	124
Range of Estimate <sup>2</sup>	794–1,211	602–1,083	581–1,470	463–714	669–1,075
Moose Density (moose/mile <sup>2</sup> )	0.37	0.31	0.38	0.22	0.32
Estimated Cows	542	403	471	276	432
Estimated Bulls	320	252	331	167	199
Bulls:100 Cows	59	62	70	60	46
Yearling Bulls:100 Cows	4	9	20	13	14
Calves:100 Cows	30	46	43	53	58

<sup>1</sup> Survey areas vary slightly among years depending on how survey units were delineated and how units intersected the refuge boundary. Units extending beyond the boundary were considered “in” the refuge, even if much of the unit was outside the boundary.

<sup>2</sup> 90% confidence interval.



**Figure 1.** Graphic results of moose population surveys conducted in the Kanuti NWR, 1999–2008 (FWS 2008).

**Table 2.** Harvest by residency and success rates from ADF&G reported harvest returns for fall hunts (ADF&G 2008).

Period	Total Moose Harvest	Total 24B Res. Harvest	Total Other AK Res. Harvest	Total Nonres. Harvest	24B Res. Success Rate	Other AK Res, Success Rate	Nonres. Success Rate
1989 –1999	61	12	39	10	58%	47%	49%
2000–2007	43	8	26	9	48%	35%	34%

**Table 3.** Reported harvest for Federal Registration Permits in Unit 24B for 2006–2008 (OSM 2009).

Year	Number of moose harvested (RM892)	Number of moose harvested (RM893)	Number of moose harvested (RM895)
2006	0	2 bulls	0
2007	0	4 bulls	0
2008	0	3 bulls	1 bull

**Notes:**

RM892 — Federal Registration Permit for Unit 24B all drainages to the north of the Koyukuk River, except the John River Drainage (Sept. 27–Oct. 1)

RM893 — Federal Registration Permit for Unit 24B remainder (Aug. 25–Oct. 1)

RM895 — Federal Registration Permit for Unit 24B all drainages to the north of the Koyukuk River, except the John River Drainage (Mar.1–Mar. 5 season to be announced)

**Table 4.** Reported moose hunting activity by Allakaket and Alatna residents according to State harvest ticket records during the September and December general hunts (Spindler 2009a).

Year	2001	2002	2003	2004	2005	2006	2007	2008
Moose harvested	6	5	5	6	12	12	18	14

**Note:** Reporting compliance in 2001–2004 likely low. Better and more accurate reports in 2005–2008 based on telephone polls made by a contracted local resident.

**Table 5.** Reported moose hunting activity during Federal subsistence hunts, March 2007 and March 2008, based on permit returns and telephone interviews (Spindler 2009a).

	2007	2008
Season dates	March 1–5, 20–24	March 1–5, 8–10
Total of number Federal permits issued	27	13
Hunters that did not report	0	0
Hunters that actually hunted	10	9
Range in hunting days	1–10	1–5
Average days hunted per hunter that went afield	3.8	2.6
Number of moose harvested	0	0

opportunities to shoot bulls on Federal lands. Hunters also reported seeing a few cows and cow/calf pairs (Spindler 2009a).

### **Current Events**

After the October 2009 Council meeting, the merits of replacing the floating date range of the proposed “to be announced” season with a set date range of March 27–April 5, was recognized in discussions between the Kanuti National Wildlife Refuge Manager and the Council Chair. This would address concerns of the ADF&G Area Biologist (also expressed after the Council meeting) that snow and ice travel conditions become less reliable April 10–15. The Refuge Manager also noted that there is usually a local spring carnival dog race the first weekend in April and villagers prefer that the spring hunt dates not overlap with the carnival. The March 27–April 5 dates would therefore be as late as practicable to have a better chance of mild weather and allowing for some antler growth to occur, making it easier to discern bulls. The Refuge Manager also pointed out that both Federal and State managers and hunters prefer a consistent set 10-day hunting season over a floating time period (Spindler 2009b), should a season be authorized.

### **Effects of the Proposal**

If the proposal were adopted, a few more bulls may be harvested from the Unit 24B moose population during the winter season. Federal land managers would set a quota during the winter season on the number of moose that could be harvested, which would address conservation concerns. The proposed regulatory language would apply a quota set by the Federal manager to any concurrent applicable State hunt, but that would not be within the authority of the Federal manager. The hunt would be allowed on all Federal public lands in Unit 24B within the Kanuti Controlled Use Area, thus providing more subsistence opportunity to local Federally qualified subsistence users, while spreading the harvest over a larger area. Expanding the “to be announced season” from 5 to 10 days, and moving the dates of the “to be announced” hunt from early March to a mid-March to mid-April time frame, should improve the chance of success for Federally qualified subsistence users. **Map 2** illustrates the geographic areas of differing moose harvest limit and season applicability in Unit 24B under current Federal regulations, and **Map 3** illustrates proposed changes.

Non-subsistence users would not be affected because Federal public lands within the Kanuti Controlled Use Area in Unit 24B are currently closed to non-Federally qualified moose hunters. Currently, the moose population, although at a low density, exhibits a healthy bull/cow ratio, good productivity and recruitment. The population should be able to support the additional subsistence harvest of a few bull moose by Federally qualified users without causing any conservation concerns.

Other than the John River drainage, the hunt area descriptions of Unit 24B — the “Kanuti Controlled Use Area” and “remainder” would be different than current descriptions if this proposal was adopted. These differences would take active outreach (by Refuge staff) to inform hunters of this change to prevent inadvertent violations. The hunt areas would continue to differ from State hunt areas in Unit 24B.

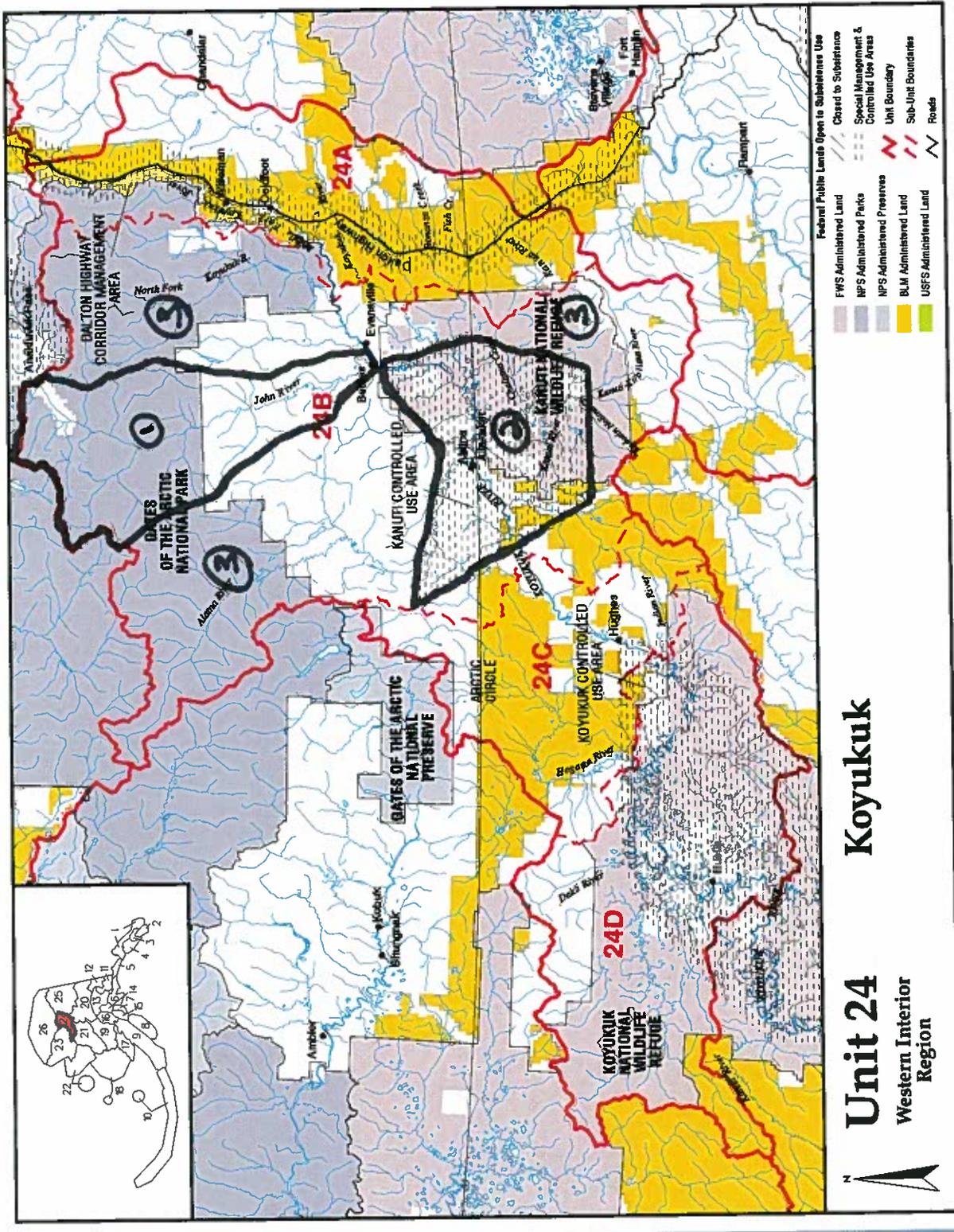
Portions of the Kanuti National Wildlife Refuge and BLM lands in Unit 24B would fall into both the “Kanuti Controlled Use Area” and “remainder” hunt areas. In discussions with the Refuge manager and BLM staff, it is their preference that all of the Refuge and BLM lands in Unit 24B be included in the “to be announced” hunt, along with the Kanuti Controlled Use Area. This would provide additional opportunity to Federally qualified subsistence users. There is a small part of the eastern side of the Refuge in Unit 24A that would not be affected by this proposal.



Map 3. Geographic areas of differing moose harvest limit and season applicability in Unit 24B under proposed Federal regulations.

# Koyukuk

# Hunting / Unit 24



A six year moratorium on cow moose harvest would be specified in regulation. However, this is unnecessary, as the proposed harvest limit is “1 antlered bull,” which would prohibit the harvest of a cow. In order to harvest cows in the future in the portion of Unit 24B affected by this proposal, a Special Action request or proposal would need to be submitted, whether or not the moratorium language is adopted. The remainder area retains the current harvest limit of one antlered bull, and no cow moose moratorium has been proposed.

Much of the area north of the Koyukuk River (excluding the John River drainage), which had formerly been described as a separate hunt area, would be encompassed within the remainder area if this proposal were adopted as submitted. The current one moose limit in Unit 24B north of the Koyukuk, except the John River, with allowance for antlerless take when authorized would be supplanted by the one antlered bull limit applicable to Unit 24B remainder. No changes are proposed for the John River drainage. Federally qualified users who hunt in Gates of the Arctic National Park lands to the west and east of the John River drainage (**Map 3**) would, if this proposal were adopted, find that the season and harvest limit would change, taking on the regulations applicable to the current remainder area.

### OSM Preliminary Conclusion

Support Proposal WP10-67 with modification to:

1. Change the floating date range of the proposed 10-day “to be announced” season to a set date range of March 27–April 5;
2. Include all of the Kanuti National Wildlife Refuge in Unit 24B, and all BLM lands in Unit 24B, along with the Kanuti Controlled Use Area, in the “to be announced” season (**Map 4**);
3. Not include a six year moratorium on cow moose harvest.
4. Streamline regulatory language on hunt management.

The modified proposed regulations would read:

#### Unit 24B — Moose

<p><i>Unit 24B, that portion within the John River Drainage — 1 moose</i></p> <p><i>Unit 24B, all drainages to the north of the Koyukuk River, except the John River drainage — 1 moose; however, antlerless moose may be taken only from Sept. 27–Oct. 1 and Mar. 1–5, if authorized jointly by the Kanuti National Wildlife Refuge Manager, the BLM Central Yukon Field Office Manager, and the Gates of the Arctic National Park Superintendent. A Federal registration permit is required for the Sept. 26–Oct. 1 and Mar. 1–5 seasons. Harvest of cows accompanied by calves is prohibited. The announcement will be made after consultation with the ADF&amp;G Area Biologist and Chairs of the Western Interior Alaska Subsistence Regional Advisory Council, the Gates of the Arctic Subsistence Resource Commission, and the Koyukuk River Fish and Game Advisory Committee.</i></p>	<p><i>Aug. 1–Dec.31</i></p> <p><i>Aug. 25–Oct. 1</i></p> <p><i>Mar. 1–Mar. 5</i></p> <p><i>Season to be announced</i></p>
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***Unit 24B Kanuti Controlled Use Area and Kanuti Wildlife Refuge and BLM lands outside of the Kanuti Controlled Use Area — 1 antlered bull. A Federal registration permit is required. Authorization of a March 27–April 5 season, determination of the harvest quota, and closing of the hunt will be done under the authority delegated to the Federal manager in consultation with Federal agencies, ADF&G staff, and public advisory groups as stipulated in the letter of delegation.***

***Aug. 25–Oct. 1***

***Mar. 27–Apr. 5  
Season to be  
announced***

*Federal public lands in the Kanuti Controlled Use Area are closed to the taking of moose, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena, hunting under these regulations.*

*Unit 24B remainder 1 antlered bull. A Federal registration permit is required for the Sept. 26–Oct. 1 period. Federal public lands in the Kanuti Controlled Use Area are closed to the taking of moose, except by Federally qualified subsistence users of Unit 24, Koyukuk, and Galena, hunting under these regulations.*

***Aug. 25–Oct. 1***

## **Justification**

Including all Federal land within the Kanuti Controlled Use Area and the Kanuti National Wildlife Refuge in Unit 24B would provide more opportunity, especially for residents of Allakaket, Alatna, Evansville and Bettles, who have been experiencing hardships in recent years.

A set, 10-day season of March 27–April 5, helps assure that the “to be announced” hunt, if authorized, will take place when temperatures are likely to not be as cold as those often found in early March, addresses concerns of deteriorating snow and ice travel conditions by April 10–15, and will assist users in field identification of the sex of the moose to avoid the inadvertent harvest of cows. By late March/early April, bull moose are starting to show the first signs of antler growth, thus alleviating the problem in the early March hunt of readily distinguishing bulls from cows. Increased daylight also aids in identification and provides more hours of harvest opportunity. Setting the dates of the “to be announced” season later in March and into early April in regulation should help alleviate the need for Special Actions.

The cow moose moratorium language is unnecessary, as the proposed harvest limit of “1 antlered bull” prohibits the harvest of a cow.

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<b>WP10-69 Executive Summary</b>	
<b>General Description</b>	Proposal WP10-69 requests the recognition of customary and traditional uses of moose in Unit 21E for residents of Lower Kalskag, Upper Kalskag, Aniak, and Chuathbaluk. The communities of Upper Kalskag, Aniak, and Chuathbaluk are located in Unit 19A; Lower Kalskag is in Unit 18. <i>Submitted by Kuskokwim Native Association</i>
<b>Proposed Regulation</b>	<b>Unit 21E—Moose</b>  <i>Rural residents of Unit 21E, Aniak, Chuathbaluk, Kalskag, Lower Kalskag, and Russian Mission.</i>
<b>OSM Preliminary Conclusion</b>	<b>Support</b> Proposal WP10-69 <b>with modification</b> to include the Paimiut Slough area of Unit 21E only, and to exclude Chuathbaluk.  <b>Unit 21E—Moose</b>  <i>South of a line beginning at the western boundary of Unit 21E near Tabernacle Mountain, extending easterly to the junction of Paimiut Slough and Innoko Slough, and southeasterly in the direction of Molybdenum Mountain to the juncture of Units 19A, 21A, and 21E—Residents of Unit 21E, Aniak, Kalskag, Lower Kalskag, and Russian Mission.</i>  <i>Remainder—Residents of Unit 21E and Russian Mission.</i>
<b>Western Interior Regional Council Recommendation</b>	
<b>Interagency Staff Committee Comments</b>	
<b>ADF&amp;G Comments</b>	
<b>Written Public Comments</b>	

## DRAFT STAFF ANALYSIS WP10-69

### ISSUES

Proposal WP10-69, submitted by Kuskokwim Native Association (KNA), requests the recognition of customary and traditional uses of moose in Unit 21E for residents of Lower Kalskag, Upper Kalskag,<sup>1</sup> Aniak, and Chuathbaluk. The communities of Upper Kalskag, Aniak, and Chuathbaluk are located in Unit 19A; Lower Kalskag is in Unit 18.

### DISCUSSION

The proposal is being submitted for all of Unit 21E; however, the proponent states that it is the Paimiut Slough area that is customarily and traditionally used by Lower Kalskag, Upper Kalskag, Aniak, and Chuathbaluk, and it encourages the Western Interior Regional Advisory Council to consider modifying the proposal to include that area only (see **Map 1**). The proponent further states that this proposal reflects comments received from residents of the communities named in the request, and that historically these communities depended on moose from Unit 21E to feed their families.

In part, this request is being made because of the growing scarcity of moose in Unit 19A and the Kuskokwim River drainage portion of Unit 18 and regulatory restrictions that resulted beginning in 2003. The impetus for KNA to request a modification to the existing customary and traditional use determination for moose in Unit 21E is the closure and then removal of the State-managed winter moose hunt in Unit 21E in 2003/04. Only the Federal winter moose season has remained open, and as a consequence, the winter moose season has been closed to all but the Federally qualified communities of Grayling, Anvik, Shageluk and Holy Cross (collectively known as GASH) and Russian Mission. The GASH communities are in Unit 21E, and Russian Mission is located in Unit 18.

While caribou can be harvested in Unit 21E under Federal subsistence regulations by residents of some communities in Unit 19A—Aniak, Chuathbaluk, and Crooked Creek—currently no community in Unit 19A is included in the customary and traditional use determination for moose in Unit 21E.

### Existing Federal Regulation

Customary and Traditional Use Determination

#### **Unit 21E—Moose**

*Rural residents of Unit 21E and Russian Mission.*

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<sup>1</sup> For the purposes of this analysis, Upper Kalskag is designated as “Upper” to clarify the difference between Upper Kalskag and Lower Kalskag.



## Proposed Federal Regulation

Customary and Traditional Use Determination

### Unit 21E—Moose

*Rural residents of Unit 21E, Aniak, Chuathbaluk, Kalskag, Lower Kalskag, and Russian Mission.*

## Extent of Federal Public Lands

Federal public lands comprise approximately 55% of Unit 21E and consist of 79% Bureau of Land Management and 21% U.S. Fish and Wildlife Service lands (**Map 1**).

## Background

A similar request was submitted by KNA to the Federal Subsistence Board (Board) in February 2008 in the form of a special action request (WSA08-01). The Board rejected the request in part because of the differences in the Yukon Kuskokwim Delta and Western Interior Councils' recommendations suggesting that additional public participation and discussion was necessary. The Board encouraged KNA to submit a regular-cycle proposal. That regular cycle proposal is the topic of this analysis.

As noted, this request was made in part because of the growing scarcity of moose in Unit 19A. In March 2006, ADF&G and the Board closed the eastern portion of Unit 19A to all moose hunting due to conservation concerns. Subsequently, in September 2006, hunting opportunity in the western portion of Unit 19A was reduced through Tier II and ANILCA Section 804. Initially, this occurred through a special action and emergency order but these restrictions were subsequently passed into regulation in May 2007. This situation has resulted in reduced opportunity and harvest of moose in all of Unit 19A, the primary area used by the proponents for hunting moose. Since the 2006/07 season, a State Tier II permit or a Federal permit has been required to hunt moose in Unit 19A. The Central Kuskokwim Moose Management Plan, published in June 2004, guides moose management in Units 19A and 19B (ADF&G 2004).

For the Kuskokwim River drainage portion of Unit 18, in the fall of 2004 a five-year moratorium on moose hunting, intended to increase moose numbers, went into effect (ADF&G 2006:4). In September 2009, State-managed lands in this area opened for moose hunting with a quota of 75 moose. The hunting season was 10 days and the quota was exceeded by 34 moose.

For Unit 21E, the GASH Fish and Game Advisory Committee and Alaska Board of Game did not support the State winter season for antlerless moose in 2003/04 due to concerns about the possibility of a decline in the moose population (ADF&G 2006:3). The winter season has not opened since that time. State antlerless moose seasons require approval by a majority of the active advisory committees located in, or the majority of whose members reside in, the affected unit or subunit (see 5 AAC 98.005 and AS 16.05.780). The Federal winter moose season has remained open. Regulatory changes in units to the south of Unit 21E have caused increased concern about displaced hunters causing increased hunting pressure in Unit 21E (ADF&G 2006:4). However, in recent years the moose population has grown in the lower Yukon River area in Unit 18, which has resulted in fewer hunters traveling upriver (ADF&G 2006:1).

The Yukon-Innoko Moose Management Plan, published in December 2006, guides management actions in Units 21A and 21E (ADF&G 2006). An Adaptive Plan for Intensive Management of Moose in Unit 21E was completed by ADF&G in 2008 (2008a). The Working Group that drafted the Yukon-

Innoko Moose Management Plan did not identify requests to expand the customary and traditional use determination for moose in Unit 21E as a major issue to be considered in the plan; however, it recommended that “if the federal customary and traditional subsistence use determination (C&T) for Unit 21E is revised to make a large number of additional communities eligible, the federal winter season should be eliminated” (ADF&G 2006:22). The Working Group deferred further comment of customary and traditional use determinations to the Federal subsistence regional advisory councils representing the area (ADF&G 2006:23).

## **Regulatory History**

This proposal is the first to request the expansion of the customary and traditional use determination for moose in Unit 21E to include Unit 19A communities. However, the Board has dealt with a number of proposals requesting the expansion of the customary and traditional use determination for moose in Unit 21E to include communities in Unit 18. The Board deferred those proposals until local users could work out a compromise, which has not been achieved.

The current customary and traditional use determination for moose in Unit 21E, adopted from the State at the inception of the Federal Subsistence Management Program in 1990, is for rural residents of Unit 21E and Russian Mission.

Aniak and Chuathbaluk are included in the the customary and traditional use determination for moose in Unit 19 only. Upper Kalskag is included in the customary and traditional use determination for moose in Unit 18 and Unit 19 only. Lower Kalskag is included in the customary and traditional use determination for Unit 18, Unit 19A, and Unit 19B only. These customary and traditional use determinations were also adopted from the State in 1990.

## **Community Characteristics**

The communities of Upper Kalskag, Aniak, and Chuathbaluk are located along the middle Kuskokwim River in Unit 19A, and Lower Kalskag is located in Unit 18 downriver from the Unit 19A boundary and adjacent to Upper Kalskag. The unit boundary goes between the two villages that are otherwise connected. With the exception of a State-maintained 4.2-mile gravel road connecting Upper and Lower Kalskag, no road connections exist between the other communities (ADCCED 2008). However, boats are used to travel between villages, and trails and the frozen river are used by people on snow machines and ATVs during winter. A trail runs from the Paimiut Portage, linking Upper Kalskag to the now-abandoned village of Paimiut on the Yukon River (see **Map 1**; Burch 1976:1–10).

Before 1900, in the area of the above named communities, people lived in semi-permanent villages, often in semi-subterranean dwellings. Most people moved seasonally to harvest various species of fish and wildlife at sites within 30 miles of each other in a relatively fixed range (Fienup-Riordan 1984:68). Before 1900 many seasonal dwelling places and semi-permanent villages existed between present-day Lower Kalskag and Napaimute, such as Kolmakovski Redoubt, Crow Village, and Ohagamute. Several more permanent communities were established after an epidemic of influenza in 1900 when villages experiencing high death rates re-grouped into fewer villages—Kalskag,<sup>2</sup> Ohagamute, Napaimute, and Crooked Creek. The migration to permanent communities continued to the 1950s at which time most residents were living in permanent communities, traveling seasonally to temporary camps to harvest wild resources (Fienup-Riordan 1984:82–85).

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<sup>2</sup> Before the village divided into two villages, Kalskag and Lower Kalskag.

Between 1950 and 1960, another population shift occurred, prompted by the requirement to send children to school imposed by the territorial government (Nick 1984). Some Paimiut residents initially moved to Upper and Lower Kalskag along the Kuskokwim River, and then some of those people again relocated to Russian Mission in the 1960s (Pete 1991:18-19). Descendents of Paimiut residents currently reside in middle Kuskokwim communities, including Lower Kalskag, Upper Kalskag, and Aniak (Pete 1991:19; YKDSRAC 2008:79, 81–82). Mining and trading enterprises also contributed to the movement of people.

Crow Village, an abandoned village that was located near present-day Chuathbaluk, and Paimiut were the farthest inland settlements whose residents spoke only Central Yup'ik (Oswalt and VanStone 1967:1). According to Charnley (1984), in 1983 Upper and Lower Kalskag, and Chuathbaluk were composed primarily of Yup'ik Eskimos. Sleetmute, Stony River, and Crooked Creek included individuals of both Yup'ik and Athabascan descent. Aniak, the regional center, was composed of both non-Native and Yup'ik people. Aniak is located approximately 26 miles upriver from Lower Kalskag, and 11 miles downriver from Chuathbaluk.

In 2000 these four communities consisted of an estimated 1,200 people in 335 households (U.S. Census 2000; **Table 1**).

**Table 1.** Community population 1950 - 2000 and and number of households 2000 (Rollins 1978, U.S. Census 2000).

Community	1950	1960	1970	1980	1990	2000	Number of Households in 2000
Lower Kalskag	88	122	183	246	297	267	66
Upper Kalskag	139	147	122	129	172	230	62
Aniak	142	308	205	341	540	572	174
Chuathbaluk			94	105	97	119	33
Total	369	577	604	821	1,106	1,188	335

### **Eight Factors for Determining Customary and Traditional Uses**

A community or area's customary and traditional use is generally exemplified through the 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)).

A holistic evaluation of eight factors for residents of Lower Kalskag, Upper Kalskag, Aniak, and Chuathbaluk is described below.

In the late 19th century, moose were not numerous in the Middle Kuskokwim Area, an area generally encompassing the Kuskokwim River drainage from Lower Kalskag to Stony River in Units 18 and 19 (Seavoy 2008); however, caribou were more common (Charnley 1983:5). For example, according to John Kilbuck, a missionary for the Moravian Church who arrived in Bethel in 1885, during a trip upriver, Kilbuck wrote that a man near Napaimute shot four deer [caribou] with five bullets that were all he had. “To get home with the meat, he made a flat boat with two skins, and in this he descended a small creek, up/into the river and then on down” (Fienup-Riordan 1988:187). Additionally, Kilbuck wrote of the people of the Middle Kuskokwim Area:

*The Upper River people were the first to use firearms—from the blunder-buss with its flint and flash pan, whose chief value as a weapon of defense was the deafening report it could make, when fired. —A few of the old people still carry powder marks on their faces from the use of this ancient arm. The blunder-buss was replaced by the musket, and the musket was replaced by the Kentucky rifle. Now the latest improved repeating rifle is the equipment of the modern hunter (Fienup-Riordan 1988:7).*

Moose began entering this area in larger numbers in the early 1900s and populations have increased in size and distribution throughout the area since that time (Charnley 1983:5).

The primary sources of information on resource use by residents of these communities contain observations made over 30 years ago: Brelsford et al.’s research in Aniak (Brelsford et al. 1987), Charnley’s work in Chuathbaluk (Charnley 1983, 1984), and Stickney’s central Kuskokwim food survey (Stickney 1981). All indicate that land mammals and salmon and nonsalmon fish were critical resources for these communities. An attempt to update these observations has been made through Krauthoefer and Koster’s (2006) research; however, the findings focus on the results of household harvest surveys almost entirely and offer little insight into possible changes in moose use patterns of the residents of Lower Kalskag, Upper Kalskag, Aniak, and Chuathbaluk.

### Harvest and Use Levels

In the area of these communities, as in much of rural Alaska, household surveys tend to provide a more accurate accounting of harvests than do returned harvest tickets (Andersen and Alexander 1992). Consequently, in 2003, 2004, and 2005, three 12-month household surveys were conducted to provide

an accurate estimate of the number of moose taken by residents of these communities (Krauthoefer and Koster 2006) (**Table 2**). With the exception of a household survey at Chuathbaluk in 1983 (Charnley 1983), no other household surveys have been conducted for moose at Lower Kalskag, Upper Kalskag, Aniak, and Chuathbaluk.

**Table 2.** Summary of household participation in harvest surveys that included moose, Aniak, Chuathbaluk, Lower Kalskag, and Upper Kalskag, all study years (ADF&G 2008b).

Community	Study Year	Type of Sample	Total Identified Households	Surveyed Households	Percentage of Total	Estimated Human Population
Aniak	2003	Census	163	82	50%	509
	2004	Census	155	92	59%	492
	2005	Census	168	124	74%	545
Chuathbaluk	1983	Census	29	29	100%	132
	2003	Census	30	17	57%	125
	2004	Census	23	17	74%	108
	2005	Census	42	21	50%	124
Lower Kalskag	2003	Census	72	34	47%	303
	2004	Census	73	59	81%	303
	2005	Census	84	30	36%	336
Upper Kalskag	2003	Census	59	34	58%	243
	2004	Census	52	50	96%	243
	2005	Census	68	34	50%	266

The estimated harvest (from all areas) and use of moose during the four study years—1983, 2003, 2004, and 2005—at Lower Kalskag, Upper Kalskag, Aniak, and Chuathbaluk are reported in **Table 3** and **Table 4**. The estimated moose harvest ranged from an annual high of 46 moose by Aniak residents in 2005, to a low of one moose by a Chuathbaluk resident in 2004 (**Table 3**). This difference between these two harvest numbers is in part because Aniak's human population was much larger than Chuathbaluk's population of people in the study years (Table 1; U.S. Census 2000).

Krauthoefer and Koster (2006) determined that in 2003, 2004, and 2005 moose were taken from Units 18, 19, and 21 by residents of the communities in the request (**Table 5**). No household from any of the four communities reported taking a moose in Unit 21E in 2003. In 2004 an estimated 6 moose total were taken in Unit 21E by residents of the four communities; and in 2005, an estimated 5 moose total were taken in Unit 21E by residents of the four communities. This is 0%, 9%, and 8%, respectively, of the total moose harvest of all four communities combined in 2003, 2004, and 2005. However, Lower Kalskag and Chuathbaluk had no reported moose harvest in Unit 21E in the any of the three survey years. It is important to note that residents of these communities were not longer eligible to participate in the winter hunt in Unit 21E beginning in 2003/2004.

Another source of information is the ADF&G harvest ticket database. It should be noted that many rural Alaska areas have low compliance with harvest ticket systems (cf. Andersen and Alexander 1992). Because of the potential for underreporting, conventional ADF&G harvest reporting systems do not always reflect the true level of harvest. From 1983 to 2006 a cumulative total of 80 returned permits reported hunting in Unit 21E by residents of the four communities, and a cumulative total of 47 moose harvests were reported in Unit 21E (Table 6). Only Chuathbaluk did not report hunting moose in Unit 21E during this period.

**Table 3.** The use and harvest of moose based on household surveys, Aniak, Chuathbaluk, Lower Kalskag, and Upper Kalskag, all study years (ADF&G 2008b).

Community	Study Year	Percentage of Households					Moose Harvest				
		Using Moose (%)	Hunting Moose (%)	Harvesting Moose (%)	Giving Moose (%)	Receiving Moose (%)	Reported (Number)	Expanded to Households Not Surveyed (Number)	Lower Estimate (Number)	Higher Estimate (Number)	95% Confidence Interval (+/- %)
Aniak	2003	85	62	15	16	74	12	24	12	37	53
	2004	80	71	23	24	65	23	38	25	51	33
	2005	80	62	25	22	60	34	46	31	55	19
Chuathbaluk	1983	NA	72	24	NA	NA	16	16	16	16	0
	2003	29	35	18	18	24	3	5	3	10	103
	2004	59	35	6	12	53	1	1	1	1	0
Kalskag	2003	74	62	24	24	62	14	30	14	53	75
	2004	36	41	17	8	24	10	12	10	15	29
	2005	40	30	3	3	37	1	2	1	8	279
Upper Kalskag	2003	74	59	29	26	59	12	21	12	32	51
	2004	72	76	16	14	64	9	9	9	10	14
	2005	59	50	18	15	44	6	12	6	21	78

NA=not asked.

**Table 4.** The harvest of moose by weight per household and per person from harvest surveys, Aniak, Chuathbaluk, Lower Kalskag, and Upper Kalskag, all study years (ADF&G 2008b).

Community	Study Year	Percentage of Households					Moose Harvest Levels in Pounds Usable Weight <sup>a</sup>		
		Using Moose (%)	Hunting Moose (%)	Harvesting Moose (%)	Giving Moose (%)	Receiving Moose (%)	Per Household (Pounds)	Per Person (Pounds)	Confidence Interval (+/- %)
Aniak	2003	85	62	15	16	74	79	25	53
	2004	80	71	23	24	65	80	42.5	33
	2005	80	62	25	22	60	109	46	19
Chuathbaluk	1983	NA	72	24	NA	NA	394	87	0
	2003	29	35	18	18	24	95	23	103
	2004	59	35	6	12	53	24	9	0
Lower Kalskag	2003	74	62	24	24	62	222	53	75
	2004	36	41	17	8	24	74	25	29
	2005	40	30	3	3	37	6	5	279
Upper Kalskag	2003	74	59	29	26	59	191	46	51
	2004	72	76	16	14	64	94	26	14
	2005	59	50	18	15	44	48	24	78

NA=not asked.

<sup>a</sup> Conversion factor is 540 lb per moose.

**Table 5.** Estimated harvest of moose by unit from household surveys, Aniak, Chuathbaluk, Lower Kalskag, and Upper Kalskag, 2003/04, 2004/05, and 2005/06 (Krauthoefer and Koster 2006).<sup>a</sup>

Unit	Lower Kalskag	Upper Kalskag	Aniak	Chuathbaluk	Total	Percentage
<b>2003/04</b>						
18	13	2	0	0	14	18%
19A	15	10	14	5	44	56%
19B	0	0	2	0	2	3%
19D	0	0	0	0	0	0%
21A	0	0	0	0	0	0%
21E	0	0	0	0	0	0%
Unknown	2	9	8	0	19	24%
Subtotal	30	21	24	5	80	100%
<b>2004/05</b>						
18	1	3	0	0	4	7%
19A	11	4	29	1	45	73%
19B	0	0	0	0	0	0%
19D	0	0	2	0	2	3%
21A	0	0	3	0	3	5%
21E	0	2	3	0	6	9%
Unknown	0	0	2	0	2	3%
Subtotal	12	9	39	1	62	100%
<b>2005/06</b>						
18	0	0	0	0	0	0%
19A	3	8	34	2	47	82%
19B	0	0	1	0	1	2%
19D	0	0	0	0	0	0%
21A	0	0	0	0	0	0%
21E	0	2	3	0	5	8%
Unknown	0	2	0	2	4	7%
Subtotal	3	12	38	4	57	100%

<sup>a</sup> Residents of the four communities were not Federally qualified to participate in the Federal winter hunt in Unit 21E.

**Table 6.** The moose harvest in Unit 1E 1983 - 2006 (ADF&G 2008c and 2008d).

Community	1983-2006 Cumulative Reported Moose Harvest	
	Number of Hunters	Number Harvested
Aniak	50	29
Chuathbulak	0	0
Lower Kalskag	11	9
Upper Kalskag	19	9
<b>TOTAL</b>	<b>80</b>	<b>47</b>

For 2003, 2004, and 2005, survey results document that many households in the communities used moose, ranging from a high of 85% at Aniak in 2003, to a low of 29% at Chuathbaluk in 2003 and 2005 (Table 3). Many households attempted to harvest moose (ranging from 76% at Upper Kalskag in 2004, to 29% at Chuathbaluk in 2005), but few (16% and 0%, respectively) were successful.

The harvests of moose by residents of Lower Kalskag, Upper Kalskag, Aniak, and Chuathbaluk are shared extensively with other households having kinship and other ties to hunters (Charnley 1983:35; Krauthoefer and Koster 2006). Sharing was documented in 2003, 2004, and 2005, at Lower Kalskag, Upper Kalskag, Aniak and Chuathbaluk. For example, for the three study years in each community, between 24% and 74% of households reported receiving moose from other households (Table 3).

### Chuathbaluk

Charnley's (1983) research offers an in-depth view of the harvest and use of moose in Chuathbaluk. Although over 30 years old, the general use pattern she documented (including seasonality of harvests, work groups, and preferences) is probably being followed today. Some findings of her research, however, are probably less applicable, such as the lack of refrigeration for preserving moose meat. According to Charnley (1983), Chuathbaluk residents hunted moose year-round, however, the intensity of harvest effort was influenced by weather conditions and regulations. Moose were available to hunters July, August, and September in habitats such as willows bordering rivers, creeks, and lakes. Bulls and cows were especially fat during these months (Charnley 1983:9). Bulls entered the rut in late September. In October the better-tasting meat of cows was preferred. In fall, access to moose habitat was possible if and when rivers and creeks were swollen from heavy rain. However, moose were more sedentary in rainy weather and harder to find, and gravel bars, where moose could sometimes be found feeding, became submerged (Charnley 1983:10). Freeze-up along the middle Kuskokwim River usually occurred in November, and it was often unsafe for travel. Warm spells in winter could return rivers and creeks to dangerous conditions for travel by hunters. Deep snow aided hunting by allowing travel by snow machine, and by hampering moose mobility (Charnley 1983:11).

At Chuathbaluk moose hunting was almost always engaged in by the adult and adolescent men (Charnley 1983:17). During September an extended family group that often included the wife, sisters, mother, and daughters of the hunters camped together for up to a week. At this time, generally, women and children gathered berries while men hunted moose and black bear. Sometimes two or three households camped together in one area. The November and February hunts usually involved the male members of a household only, and hunting occurred while checking trap lines and during day or overnight trips from the village. In February, camping was limited by cold weather (Charnley 1983:17).

During house to house interviews residents of Chuathbaluk reported hunting moose in Unit 21E in the area of Paimiut, located in Unit 21E, between 1980 and 1983 (ADF&G 1986:Plate 3). It is important to note that Chuathbaluk was re-established as a village in 1954 for religious purposes by people from other villages, including Aniak, Crooked Creek, Sleetmute, Upper Kalskag, Napaimute, and Crow Village (Charnley 1983:21–22). As a result, and perhaps not surprisingly, moose hunting areas documented by Charnley in 1983 reflected individuals' affiliations to their original villages. These use areas, located in Unit 19, were described as follows, beginning with community of residence: Upper Kalskag—the Whitefish Lake area; Crow Village—Discovery and Swift creeks, and the Aniak River; Aniak—the Aniak River; Napaimute—the Holokuk River; Crooked Creek—the Oskawalik and George rivers; and Sleetmute—the Holitna and Hoholitna rivers.

Chuathbaluk is not located in immediate proximity to a major Kuskokwim tributary that has high natural resource potential (Charnley 1983:22). However, Charnley (1983) noted that since living in Chuathbaluk,

residents had begun to utilize smaller tributaries in the vicinity of the village, all located in Unit 19A, including Veahna Creek, the Kolmakof River, and the Owhat River. During the 1982/83 hunting season hunters traveled as far as McGrath, located in Unit 19D, to hunt moose, as competition increased in their traditional hunting areas (Charnley 1983:26).

Aircraft were seldom used in moose hunting by residents of Chuathbaluk, and moose were typically hunted from boats in the fall. Motors were shut off and boats were allowed to drift downstream, guided by oars. Most moose hunting took place within one mile of either side of the waterway that was being hunted (Charnley 1983:13–15). Snow machines also were used to travel to areas where moose were likely to be found. Fresh tracks were followed on snow machine or foot. Moose were sometimes tracked with snowshoes to beds where they were resting for the day (Charnley 1983:15).

Generally, moose were butchered at the kill site by members of hunting parties, taken back to the village, and further processed (Charnley 1983:18). According to Chuathbaluk residents, in their lifetimes meat was dried and smoked at fall hunting camps. When enough animals had been taken, skin boats were constructed using the animal hides, and the hunters drifted back downstream (Charnley 1983:13).

According to Charnley (1983:13), dry meat was a staple food eaten throughout the summer when families were at fish camp. In 1982 electricity became available in Chuathbaluk, and at that time most residents did not own freezers and did not plan on acquiring one immediately due to the expense (Charnley 1983:31). Most villagers depended on the weather to prevent their meat from spoiling. For this reason, hunting seasons that occurred during months when temperatures had already fallen below freezing were preferred. The hind and front quarters and rump were commonly hung in a salmon smokehouse, or suspended from a rack, wrapped with material such as burlap to protect them from animals (Charnley 1983:32).

During warm months, meat was placed in garbage bags and submerged in creeks to be kept cool. If meat was hung it was also brushed with a brine solution to discourage flies from laying eggs. The large, butchered parts of the animal such as legs, rump, and ribs were smoked to create a hardened outer layer over the meat. This protective layer kept flies off of the meat (Charnley 1983:32).

Preparing moose meat for meals commonly meant boiling it, and less often frying, roasting, and barbecuing. Marrow from the leg bone was considered a delicacy. Moose head soup was a favorite dish, the nose, tongue, cheek meat, and brains being the most desirable parts. The liver, heart, kidneys, part of the stomach muscle, and one of the four stomachs were all eaten. Moose fat was highly valued and was cooked and eaten or rendered into oil (Charnley 1983:34).

### Aniak

At Aniak, Brelsford et al. (1987) studied the period 1964–1986 and reported that:

*Harvest areas employed by the people of Aniak are particularly extensive, ranging along the Kuskokwim River from near Tuluksak to McGrath, and from the Iditarod Flats southward to the Aniak-Chikuminuk Lake complex [including areas located in Unit 21E]. The large number of households at Aniak contributes to make the community pattern especially widespread. This also is influenced by the distinctive pattern of a small number of Aniak households who employ aircraft extensively in their hunting and trapping activities (Brelsford et al. 1987:21; bracketed text inserted by analysis author).*

*The focus of harvest was the lowlands between the Kuskokwim River and the Kilbuck Mountains, on the Aniak River, in an area north of Aniak, in the George River Basin, and throughout the Holitna Basin. However, other areas also were used (Brelsford et al. 1987:21–22, cf. FWS 1996a:Western Interior 27). Brelsford et al. (1987:21) observed that at Aniak in the mid-1980s households used aircraft in their hunting and trapping activities.*

### Upper and Lower Kalskag

According to the Yukon Delta National Wildlife Refuge comprehensive conservation plan (FWS 1988), for Upper and Lower Kalskag,

*Moose hunting occurs in a large area extending up the Kuskokwim River to the refuge boundary and beyond and north of the communities to the Yukon River, particularly in the Paimiut Slough area [located in Unit 21E] during the winter. The Aniak drainage including the Whitefish Lake area is hunted as well (FWS 1988:183; bracketed text inserted by analysis author).*

### Summary

In summary, the communities of Lower Kalskag, Upper Kalskag, Aniak, and Chuathbaluk use only a part of Unit 21E, primarily the area that was used by residents of Paimiut, the Paimiut Slough area, in winter (ADF&G 1986:Plate 3; Brelsford et al. 1987:21; FWS 1988:183). Descendants of Paimiut residents currently reside in middle Kuskokwim communities, including Lower Kalskag, Upper Kalskag, and Aniak (Pete 1991:19; YKDSRAC 2008:79, 81–82). This hunting pattern differs from that of the GASH communities in Unit 21E that are known to hunt moose in areas of the entire 21E subunit (Brown et al. 2004; Brown and Koster 2005; Wheeler 1998).

Additionally, access to Unit 21E by these communities is overland in winter, typically by snow machine or snowshoes. Several factors have been identified that influence the decision to travel to Paimiut Slough to hunt moose (Charnley 1983:44–47). One is a low success rate in the fall season, and second is if favorable travel conditions occur in February. If favorable travel conditions do not exist, hunters are unlikely to travel to the area.

### **Effects of the Proposal**

If this proposal is adopted, residents of Lower Kalskag, Upper Kalskag, Aniak, and Chuathbaluk would be eligible to harvest moose in Unit 21E under Federal regulations. Conservation concerns are addressed through implementation of seasons and harvest limits and are not part of the consideration in making customary and traditional use determinations. No effects on non-Federally qualified users are anticipated as the February season in the area is currently closed to nonsubsistence uses. If the proposal is not adopted, the communities of Aniak, Chuathbaluk, Lower Kalskag, and Upper Kalskag would continue to not be able to harvest moose under Federal regulations on Federal public lands in Unit 21E.

### **OSM PRELIMINARY CONCLUSION**

**Support Proposal WP10-69 with modification** to include the Paimiut Slough area of Unit 21E only, and to exclude Chuathbaluk.

The modified regulation should read:

#### Customary and Traditional Use Determination

##### **Unit 21E—Moose**

*South of a line beginning at the western boundary of Unit 21E near Tabernacle Mountain, extending easterly to the junction of Paimiut Slough and Innoko Slough, and southeasterly in the direction of Molybdenum Mountain to the juncture of Units 19A, 21A, and 21E—Residents of Unit 21E, Aniak, Kalskag, Lower Kalskag, and Russian Mission.*

*Remainder—Residents of Unit 21E and Russian Mission.*

#### **Justification**

Based on a review of the eight factors, residents of Lower Kalskag, Upper Kalskag, and Aniak have demonstrated customary and traditional uses of moose in a wide area accessible to them by boat and snow machine, including the Paimiut Slough area of Unit 21E; however, information to support a recommendation for Chuathbaluk is very sparse. This is based on the data collected during three annual household surveys and reported on harvest tickets to ADF&G since 1983, and the findings of ethnographic studies describing areas used by the communities to harvest moose.

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<b>WP10-70/71 Executive Summary</b>	
<b>General Description</b>	Proposals WP10-70 and -71 seek to shorten the Units 19B and 19C wolf trapping and hunting seasons. <i>Submitted by the Defenders of Wildlife in conjunction with the Alaska Wildlife Alliance</i>
<b>Proposed Regulation</b>	<p><u>Proposal WP10-70</u></p> <p>Trapping  <i>No limit</i> <span style="float: right;"><i>Nov. 1– Mar. 31 April 30</i></span></p> <p><u>Proposal WP10-71</u></p> <p>Hunting  <i>5 Wolves</i> <span style="float: right;"><i>Aug. 10–April 30–Nov. 1–Mar. 31</i></span></p>
<b>OSM Preliminary Conclusion</b>	<b>Oppose</b>
<b>Western Interior Regional Council Recommendation</b>	
<b>Interagency Staff Committee Comments</b>	
<b>ADF&amp;G Comments</b>	
<b>Written Public Comments</b>	

**DRAFT STAFF ANALYSIS  
WP10-70 AND -71**

**ISSUES**

Proposals WP10-70 and -71, submitted by the Defenders of Wildlife in conjunction with the Alaska Wildlife Alliance, seek to shorten the Units 19B and 19C wolf trapping and hunting seasons.

**DISCUSSION**

WP10-70 requests that wolf trapping not be allowed in Units 19B and 19C in the month of April. WP10-71 requests that wolf hunting not be allowed in Units 19B and 19C in the months of August, September, October, and April. The proponents note in WP10-70 and WP10-71 that in late April, hides are rubbed and that pregnant females are approaching full term. The proponents note in WP10-71 that wolf pups are only half grown at the start of the current hunting season and that hides are not suitable for commercial sale or trophies.

**Existing Federal Regulation**

**Units 19B and 19C—Wolf**

Trapping

*No limit*

*Nov. 1–April 30*

Hunting

*5 Wolves*

*Aug. 10–April 30*

**Proposed Federal Regulation**

**Units 19B and 19C—Wolf**

Proposal WP10-70

Trapping

*No limit*

*Nov. 1–~~Mar. 31~~ April 30*

Proposal WP10-71

Hunting

*5 Wolves*

*Aug. 10–April 30–Nov. 1–Mar. 31*

## Existing State Regulation

### Units 19B and 19C—Wolf

Trapping	
<i>No limit</i>	<i>Nov. 1–April 30</i>
Hunting	
<i>10 Wolves</i>	<i>Aug. 1–April 30</i>

## Extent of Federal Public Lands

Federal public lands comprise approximately 12% of Unit 19B and consist of 85% National Park Service (NPS), 15% Bureau of Land Management (BLM) and <0.2% U.S. Fish and Wildlife Service (FWS) lands. Federal public lands comprise approximately 13% of Unit 19C and consist of 65% NPS and 35% BLM lands (see **Unit 19 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 19B and 19C.

## Regulatory History

The Federal Subsistence Management Program wolf trapping season Units 19B and 19C extended from November 1 to March 31 for regulatory years 1990/91 to 1997/98. Action taken on a proposal (Proposal 82) from the Western Interior Alaska Subsistence Regional Advisory Council (Council), changed the trapping season to November 1–April 30 in regulatory year 1998/99. Since then the Unit 19B and 19C wolf trapping season has been November 1–April 30. There has been no harvest limit for wolf trapping in Units 19B and 19C since the start of the Federal Subsistence Management Program.

The Federal Subsistence Management Program wolf hunting season in Units 19B and 19C has been from August 10 to April 30 since regulatory year 1990/91. There was no harvest limit for wolf hunting from regulatory years 1990/01 to 1993/94. Action taken on a proposal from ADF&G (Proposal 2) and supported by the Council, changed the limit to 5 wolves in regulatory year 1994/95. The Unit 19B and 19C harvest limit for wolf hunting has remained at that level since then.

On BLM and FWS lands trappers may shoot a free ranging wolf during trapping season. Hunters and trappers may harvest wolves under State regulations on BLM, FWS, Lake Clark National Preserve and Denali National Preserve public lands in Units 19B and 19C.

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 not be open until September 15. The 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. In March 2005 the Council noted that pelts from yearling wolves are highly prized and sought after in the fall time to provide for winter clothing and that subsistence users should have an opportunity to harvest wolves in the fall time and noted that wolves sometimes have good pelts in the fall (FSB 2005). At its March 2005 meeting in Fairbanks, the 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).

### **Biological Background**

Murie (1944) observed that the wolves (*Canis lupus*) have been part of Alaska fauna for hundreds of years and have probably been present since the Pleistocene glaciation. Wolves are found throughout Units 19B and 19C. Prey species include caribou, moose, sheep, small mammals, snowshoe hare, and beaver. 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. Meier et al. (2006) reported that 28% of the wolves they studied in Denali National Park and Preserve 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 depend 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) reported 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.

Wolves live at low densities in a structured population of territorial packs (Mech and Boitani 2003). While information is very limited, Seavoy (2006) estimated that there are 217–289 wolves in Units 19B and 19C at a density of approximately 15–20 wolves/1000 mi<sup>2</sup>. He estimated that there were a total of 30–45 packs in Units 19B and 19C. Meier et al. (2006) reported a minimum density for wolves studied in Denali National Park and Preserve of approximately 12 wolves/1000 mi<sup>2</sup>, and that the mean pack size was 4.4 wolves. Seavoy (2006) felt that the Unit 19B and 19C wolf population was stable and that population would decline as the prey populations decline. 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. Seavoy (2006) observed that the Mulchatna caribou herd in Unit 19B was in decline. He noted that the harvest of wolves in Unit 19B would likely decline as other hunting opportunities and the number of hunters decline.

### **Harvest History**

Wolves harvested either by trapping or hunting in Alaska 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. Harvest data are summarized by regulatory year.

From regulatory years 1999/2000 to 2007/08, the reported annual harvest of wolves in Units 19B and 19C ranged from 14 to 85 wolves/year (**Table 1**). Of this harvest, 6 to 29 wolves/year (**Table 1**) were

taken during August, September, October and April. Hunters occasionally take wolves opportunistically in the fall when they are hunting caribou, moose, bear, or sheep. During much of the fall and 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. Because of limited day-length from November through January, little effort is expended hunting wolves though some are taken opportunistically in conjunction with trapping-related activities. Travel conditions begin improving in February with increasing day-length. Wolf harvest declines in April as snow and ice conditions deteriorate with the spring melt. In most years, about half of the wolves harvested in Units 19B and 19C are shot and about half are taken with traps and snares (**Table 1**).

Based on an analysis of information regarding North American wolf populations, Adams et al. (2008) concluded that wolf populations appeared to be largely unaffected by human take of  $\leq 29\%$  annually.

**Table 1.** Reported wolf harvest and method of take for Units 19B & C (ADF&G 2009).

Regulatory	Reported Total	Aug.-Oct. & April	Method of Take				
Year	Harvest	Harvest	Trap/snare	(%)	Shot	%	Unk
1999/2000	51	21	26	51	25	49	0
2000/01	54	26	27	50	27	50	0
2001/02	85	28	52	61	32	38	1
2002/03	56	29	22	39	32	57	2
2003/04	37	23	12	32	25	68	0
2004/05	20	11	9	45	10	50	1
2005/06	44	27	19	43	25	57	0
2006/07	14	6	7	50	7	50	0
2007/08	17	7	8	47	7	41	2
2008/09							

Given the limited effects of moderate levels of human take, Adams et al. concluded that the risks of reducing wolf populations through regulated harvest are quite low. ADF&G’s management objectives for Units 19B and 19C include providing a sustained annual harvest rate of up to 30% of the wolf population (Seavoy 2006). Based on the estimated Unit 19B and 19C wolf population size of 217 to 289 wolves (Seavoy 2006), the harvest of 14 to 84 wolves/year (**Table 1**) is within this management objective.

**Effects of the Proposal**

If Proposal WP10-70 is adopted, the Federal wolf trapping season in Units 19C and 19B would closed in April, thereby shortening the season by 30 days. If Proposal WP10-71 is adopted, the Federal wolf hunting season in Units 19C and 19B would be closed in August, September, October and April, thereby shortening the season by 113 days. The proposed changes would make the Federal subsistence wolf hunting and trapping seasons shorter than the State seasons.

These proposals would significantly decrease the opportunity to harvest wolves under Federal subsistence regulations in Unit 19B and 19C. Between regulatory year 1999/2000 and 2007/08, 47% of the reported Units 19B and 19C wolf harvest occurred in August, September, October, and April (**Table 1**).

WP10-70 would eliminate the opportunity for subsistence users to trap wolves during April when there are more hours of daylight and adequate conditions for snowmachine travel. WP10-71 would eliminate the opportunity for subsistence users to harvest wolves during the fall and spring when they are hunting other species of wildlife.

## **OSM PRELIMINARY CONCLUSION**

**Oppose** Proposals WP10-70 and -71

### **Justification**

The wolf population in Units 19B and 19C is thought to be healthy. The current harvest rate for Unit 19B and 19C wolves is thought to be within sustainable levels. Wolves are prolific and survival of young is generally high. Young wolves disperse from packs at high rates as yearlings and two-year-olds. 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 19B and 19C. The harvest of wolves and the use, barter, and sale of pelts is a long standing component of the subsistence economy. Over the past decade, nearly half of the reported wolf harvest in Units 19B and 19C 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 to make clothing and handicrafts. Wolves are an important subsistence resource.

Even if these proposals were adopted by the Federal Subsistence Board, hunters and trappers would still be able to take wolves on FWS, BLM, Denali National Preserve, and Lake Clark National Preserve public lands during August, September, October, and April under State regulations. Adoption of Proposals WP10-70 and -71 would not have the effect sought by the proponent unless these Federal public lands were also closed to wolf hunting and trapping by non-Federally qualified user during August, September, October, and April.

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### WP10-51/53 Executive Summary

<b>General Description</b>	<p>Proposals WP10-51 and WP10-53 were submitted by the Bristol Bay Subsistence Regional Advisory Council. Proposal WP10-51 requests that the caribou season in Units 9A, 9B, 17B, a portion of 17C, 18, 19A, and 19B be established as Aug. 1–Mar. 31.</p> <p>Proposal WP10-53, requests that the harvest limit for caribou be consistent at two caribou in Units 9A, 9B, a portion of 9C, 17A, 17B, 17C, 18, 19A, and 19B. It also requests a restriction in harvest so that no more than one bull may be taken, and no more than one caribou can be taken Aug. 1-Jan. 31 in Units 9A, 9B, a portion of 9C, a portion of 17A, 17B, a portion of 17C, 18, 19A, and 19B (excluding Lime Village).</p> <p>Note: A similar proposal (WP10-60) requesting a reduction of the caribou harvest limit to two in Unit 18 is being analyzed separately.</p>
<b>Proposed Regulation</b>	<i>See the analysis for regulation language.</i>
<b>OSM Preliminary Conclusion</b>	<p><b>WP10-51–Support with modification</b>, to make the season ending date Mar. 15 for all units.</p> <p><b>WP10-53–Support</b></p>
<b>Bristol Bay Regional Council Recommendation</b>	
<b>Yukon/Kuskokwim Delta Regional Council Recommendation</b>	
<b>Western Interior Regional Council Recommendation</b>	
<b>Interagency Staff Committee Comments</b>	
<b>ADF&amp;G Comments</b>	
<b>Written Public Comments</b>	<b>None</b>

**DRAFT STAFF ANALYSIS  
WP10-51 and WP10-53**

**ISSUES**

Proposals WP10-51 and WP10-53 were submitted by the Bristol Bay Subsistence Regional Advisory Council. Proposal WP10-51 requests that the caribou season in Units 9A, 9B, 17B, a portion of 17C, 18, 19A, and 19B be established as Aug. 1–Mar. 31.

Proposal WP10-53, requests that the harvest limit for caribou be consistent at two caribou in Units 9A, 9B, a portion of 9C, 17A, 17B, 17C, 18, 19A, and 19B. It also requests a restriction in harvest so that no more than one bull may be taken, and no more than one caribou can be taken Aug. 1–Jan. 31 in Units 9A, 9B, a portion of 9C, a portion of 17A, 17B, a portion of 17C, 18, 19A, and 19B (excluding Lime Village).

Note: A similar proposal (WP10-60) requesting a reduction of the caribou harvest limit to two in Unit 18 is being analyzed separately.

**DISCUSSION**

The proponent states that the change in the season dates (WP10-53) will provide consistency for managing the Mulchatna Caribou Herd (MCH) on Federal public lands. In changing the harvest limit (WP10-53), the proponent states the changes would also provide consistency for Federal management of the MCH and align the Federal regulations with the State regulations in regards to harvest limits.

**Existing Federal Regulations**

**Units 9A, 9B, and 9C—Caribou**

<i>Unit 9A—4 caribou; however, no more than 2 caribou may be taken Aug. 10–Sept. 30 and no more than 1 caribou may be taken Oct. 1–Nov. 30</i>	<i>Aug. 10–Mar. 31</i>
<i>Unit 9B—3 caribou; however, no more than 1 caribou may be taken from July 1–Nov. 30</i>	<i>July 1–Apr. 15</i>
<i>Unit 9C, that portion within the Alagnak River drainage—1 caribou</i>	<i>Aug. 1–Mar. 31</i>
<i>Unit 9C remainder—Federal public lands are closed to the taking of caribou.</i>	<i>No Federal open season</i>

*Federal registration permits may be issued in conjunction with the State Tier II hunt. Both Federal and State agencies will decide how many total permits to issue to make sure that the actual harvest will not significantly exceed the harvestable surplus.*

**Units 17—Caribou**

<i>Unit 17A, all drainages west of Right Hand Point—3 caribou; however, no more than 1 caribou may be taken from Aug. 1–Nov. 30</i>	<i>Aug. 1–Mar. 31</i>
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*The season may be closed and harvest limit reduced for the drainages between the Togiak River and Right Hand Point by announcement of the Togiak National Wildlife Refuge*

*Aug. 1–Sept. 30  
Dec. 1–Mar. 31*

*The season may be closed by announcement of the Togiak National Wildlife Refuge Manager.*

*Units 17A and 17C, that portion of 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay—Up to 2 caribou by Federal registration permit.*

*Federal public lands are closed to the taking of caribou except by the residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark’s Point, and Ekuk hunting under these regulations.*

*The harvest objective, harvest limit, and the number of permits available will be announced by the Togiak National Wildlife Refuge Manager after consultation with the ADF&G and the Nushagak Peninsula Caribou Planning Committee. Successful hunters must report their harvest to the Togiak National Wildlife Refuge within 24 hours after returning from the field.*

*Unit 17A remainder and 17C remainder—Selected drainages, a harvest limit of up to 5 caribou will be determined at the time the season is announced.*

*Season, harvest limit, and hunt area to be announced by the Togiak National Wildlife Refuge Manager between Aug. 1–Mar. 31*

*Units 17B and that portion of 17C east of the Wood River and Wood River Lakes—3 caribou; however no more than 1 caribou may be taken from Aug. 1–Nov. 30.*

*Aug. 1–Apr. 15*

**Unit 18—Caribou**

*Unit 18—3 caribou; however, no more than 1 caribou may be taken from Aug. 1–Nov. 30*

*Aug. 1–Mar. 15*

**Unit 19—Caribou**

*Unit 19A north of the Kuskokwim River—1 caribou*

*Aug. 10–Sept. 30  
Nov. 1–Feb. 28*

*Unit 19A south of the Kuskokwim River and 19 B (excluding Lime Village)—3 caribou; however, no more than 1 caribou may be taken from Aug. 1–Nov. 30*

*Aug. 1–Apr. 15*

<i>Unit 19C—1 caribou</i>	<i>Aug. 10–Oct. 10</i>
<i>Unit 19D south and east of the Kuskokwim River and North Fork of the Kuskokwim River—1 caribou</i>	<i>Aug. 10–Sept. 30 Nov. 1–Jan. 31</i>
<i>Unit 19D remainder—1 caribou</i>	<i>Aug. 10–Sept. 30</i>
<i>Unit 19—Rural residents of Lime Village only—no individual harvest limit, but a village harvest quota of 200 caribou; cow and calves may not be taken Apr. 1–Aug. 9. Reporting will be by a community reporting system.</i>	<i>July 1–June 30</i>

**Proposed Federal Regulations**

**Units 9A, 9B, and 9C—Caribou**

<i>Unit 9A—<del>4</del> 2 caribou; however, no more than 2 caribou <b>1 bull</b> may be taken, <del>Aug. 10–Sept. 30</del> and no more than 1 caribou may be taken <del>Oct. 1–Nov. 30</del> <b>Aug. 1–Jan. 31</b></i>	<del><i>Aug. 10–Mar. 31</i></del> <i>Aug. 1–Mar. 31</i>
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<i>Unit 9B—<del>3</del> 2 caribou; however, no more than 1 caribou <b>bull</b> may be taken, <b>and no more than 1 caribou may be taken Aug. 1–Jan. 31 from July 1–Nov. 30</b></i>	<del><i>July 1–Apr. 15</i></del> <i>Aug. 1–Mar. 31</i>
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<i>Unit 9C, that portion within the Alagnak River drainage—<del>2</del> 2 caribou; <b>however no more than 1 bull may be taken, and no more than 1 caribou may be taken Aug. 1–Jan. 31</b></i>	<i>Aug. 1–Mar. 31</i>
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<i>Unit 9C remainder—Federal public lands are closed to the taking of caribou.</i>	<i>No Federal open season</i>
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*Federal registration permits may be issued in conjunction with the State Tier II hunt. Both Federal and State agencies will decide how many total permits to issue to make sure that the actual harvest will not significantly exceed the harvestable surplus.*

**Units 17—Caribou**

<i>Unit 17A, all drainages west of Right Hand Point—<del>3</del> 2 caribou; however, no more than 1 caribou <b>bull</b> may be taken, <b>and no more than 1 caribou may be taken from Aug. 1–Nov. 30 Jan. 31</b></i>	<i>Aug. 1–Mar. 31</i> <i>The season may be closed and harvest limit reduced for the drainages between the Togiak River and Right Hand Point by announcement of the Togiak National Wildlife Refuge</i>
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*Units 17A and 17C, that portion of 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay—Up to 2 caribou by Federal registration permit.*

*Aug. 1–Sept. 30  
Dec. 1–Mar. 31*

*The season may be closed by announcement of the Togiak National Wildlife Refuge Manager.*

*Federal public lands are closed to the taking of caribou except by the residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark’s Point, and Ekuk hunting under these regulations.*

*The harvest objective, harvest limit, and the number of permits available will be announced by the Togiak National Wildlife Refuge Manager after consultation with the ADF&G and the Nushagak Peninsula Caribou Planning Committee. Successful hunters must report their harvest to the Togiak National Wildlife Refuge within 24 hours after returning from the field.*

*Units 17A remainder and 17C remainder—Selected drainages, a harvest limit of up to 5 2 caribou will be determined at the time the season is announced.*

*Season, harvest limit, and hunt area to be announced by the Togiak National Wildlife Refuge Manager between Aug. 1–Mar. 31*

*Units 17B and that portion of 17C east of the Wood River and Wood River Lakes—3 2 caribou; however no more than 1 bull may be taken, and no more than 1 caribou may be taken from Aug. 1–Nov. 30 Jan. 31*

*Aug. 1–Apr. 15  
Aug. 1–Mar. 31*

**Unit 18—Caribou**

*Unit 18—3 2 caribou; however, no more than 1 caribou bull may be taken, and no more than 1 caribou may be taken from Aug. 1–Nov. 30 Jan. 31*

*Aug. 1–Mar. 15  
Aug. 1–Mar. 31*

**Unit 19—Caribou**

*Unit 19A north of the Kuskokwim River—1 2 caribou; however, no more than 1 bull may be taken, and no more than 1 caribou may be taken Aug. 1–Jan. 31*

*Aug. 10–Sept. 30  
Nov. 1–Feb. 28  
Aug. 1–Mar. 31*

*Units 19A south of the Kuskokwim River and 19B (excluding Lime Village)—3 2 caribou; however, no more than 1 bull may be taken, and no more than 1 caribou may be taken from Aug. 1–Nov. 30 Jan. 31*

*Aug. 1–Apr. 15  
Aug. 1–Mar. 31*

*Unit 19C—1 caribou*

*Aug. 10–Oct. 10*

*Unit 19D south and east of the Kuskokwim River and North Fork of the Kuskokwim River—1 caribou*

*Aug. 10–Sept. 30  
Nov. 1–Jan. 31*

*Unit 19D remainder—1 caribou*

*Aug. 10–Sept. 30*

*Unit 19—Rural residents of Lime Village only—no individual harvest limit, but a village harvest quota of 200 caribou; cow and calves may not be taken Apr. 1–Aug. 9. Reporting will be by a community reporting system.* *July 1–June 30*

**Existing State Regulations**

**Units 9A, 9B, and 9C—Caribou**

*Residents: 2 caribou—no more than one bull may be taken; no more than one caribou may be taken from Aug. 1–Jan. 31* *Aug. 1–Mar 15*  
*Nonresidents:* *No open season*

**Unit 9C that portion north of the Naknek River and south of the Alagnak River drainage—Caribou**

*Resident: 1 caribou by permit available in person in King Salmon if a winter season is announced* *May be announced*

**Unit 17A all drainages east of Right Hand Point—Caribou**

*Resident: 1 caribou* *May be announced*

**Unit 17A remainder**

*Resident: 2 caribou—no more than one bull may be taken, and no more than one caribou may be taken from Aug. 1–Jan. 31* *Aug. 1–Mar. 15*

**Unit 17B Nonresident Closed Area**

*Resident: 2 caribou—no more than one bull may be taken, and no more than one caribou may be taken from Aug. 1–Jan. 31* *Aug. 1–Mar. 15*

**Unit 17B remainder and Unit 17C east of Wood River and Wood River Lakes**

*Resident: 2 caribou—no more than one bull may be taken, and no more than one caribou may be taken from Aug. 1–Jan. 31* *Aug. 1–Mar. 15*

*Nonresident:* *No open season*

**Unit 17C remainder**

*Resident: 1 caribou* *May be announced*

**Unit 18**

*Resident: 2 caribou—no more than one bull may be taken, and no more than one caribou may be taken from Aug. 1–Jan. 31* *Aug. 1–Mar. 15*

*Nonresident:* *No open season*

**Unit 19A and 19B**

*Resident: 2 caribou—no more than one bull may be taken, and no more than one caribou may be taken from Aug. 1–Jan. 31* *Aug. 1–Mar. 15*

*Nonresident:* *No open season*

**Unit 19C**

*Resident: 1 bull* *Aug. 10–Sept. 20*

*Nonresident: 1 bull* *Aug. 10–Sept. 20*

**Unit 19D except the drainages of the Nixon Fork River**

*Resident: 1 bull* *Aug. 10–Sept. 20*  
*Or 1 caribou* *Nov. 1–Jan. 31*

*Nonresident: 1 bull* *Aug. 10–Sept. 20*

**Unit 19D remainder**

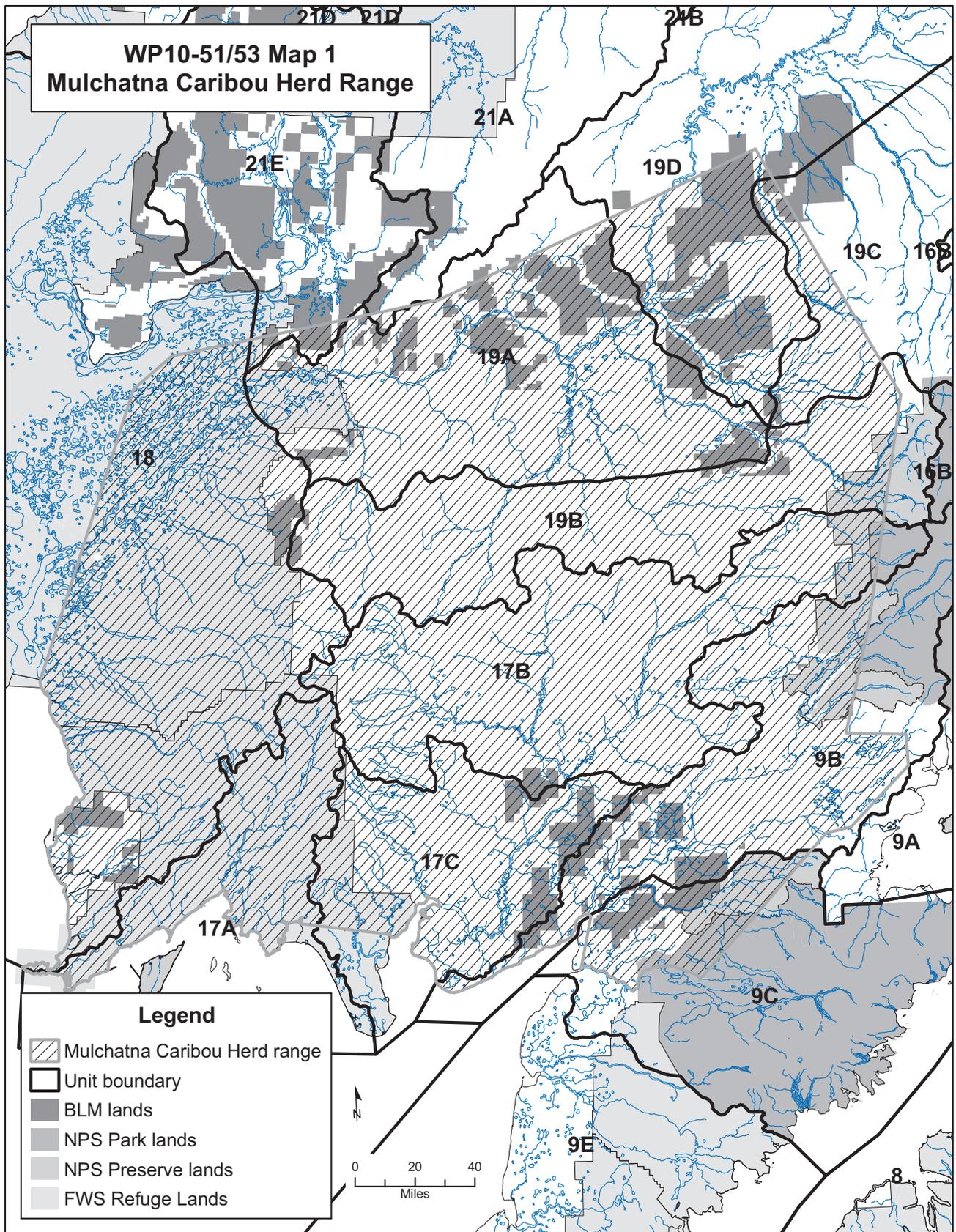
*Resident: 1 bull* *Aug. 10–Sept. 20*

*Nonresident: 1 bull* *Aug. 10–Sept. 20*

**Extent of Federal Public Lands**

The following describes the extent of Federal public lands (**Map 1**):

- Federal public lands comprise approximately 32% of Unit 9A and consists of 32% National Park Service (NPS) and <1% Fish and Wildlife Service (FWS) lands. Unit 9B has 27% Federal public lands that comprise 4% Bureau of Land Management (BLM) and 23% NPS. Unit 9C has 84% Federal public lands that comprise 3% BLM, 3% FWS, and 78% NPS. However, subsistence hunting is not authorized in Katmai National Park, which makes up 70% of Unit 9C.
- Federal public lands comprise approximately 84% of Unit 17A, all of which is FWS. Unit 17B has 7% Federal public lands that comprise 1% BLM, 1% FWS, and 6% NPS. Unit 17C has 24% Federal public lands that comprise 10% BLM and 15% FWS.
- Federal public lands comprise approximately 64% of Unit 18 and consists of 2% BLM and 62% FWS.
- Federal public lands comprise approximately 20% of Unit 19A and consists of 17% BLM and 3% FWS. Unit 19B has 13% Federal public lands that comprise 2% BLM, <1% FWS, and 11% FWS.



## Customary and Traditional Use Determinations

Units	Customary and Traditional Use Determination for Caribou
Units 9A and 9B	Rural residents of Units 9B, 9C and 17
Unit 9C	Rural residents of Units 9B, 9C and 17, and Egegik
Unit 17	Rural residents of Units 9B, 17, Lime Village, and Stony River
Unit 17A, that portion west of the Izavieknik River, Upper Togiak Lake, Togiak Lake, and the main course of the Togiak River	Rural residents of Goodnews Bay, Platinum, Quinhagak, Eek, Tuntutuliak, and Napakiak
Unit 17A, that portion north of Togiak Lake that includes Izavieknik river drainages	Rural residents of Akiak, Akiachak, and Tuluksak
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 Nuyakuk Lake, northeast to the point where the Unit 17 boundary intersects the Shotgun Hills	Rural residents of Kwethluk
Unit 17B, that portion of Togiak National Wildlife Refuge within Unit 17B	Residents of Bethel, Goodnews Bay, Platinum, Quinhagak, Eek, Akiak, Akiachak, Tuluksak, Tuntutuliak, and Napakiak
Unit 18	Rural residents of Unit 18, St. Michael, Stebbins, Togiak, Twin Hills, Upper Kalskag, and Manokotak
Unit 19A and 19B	Rural residents of Units 19A, 19B, 18 (within the Kuskokwim River drainage upstream from, and including, the Johnson River), St. Marys, Marshall, Pilot Station, and Russian Mission

## Regulatory History

State and Federal regulations for the MCH were liberalized during the dramatic population increase that occurred in the 1990s. These regulations allowed hunters the opportunity to harvest sustainable levels of surplus animals. Numerous modifications were made to the Federal regulations for various units as the MCH population increased and as it expanded into new range. Following the population decline, regulations became more restrictive in 2006 and 2007.

In March 2006, the Alaska Board of Game adopted new state regulations to reduce harvest limits within the range of the MCH from five to two caribou. In March 2007, the Alaska Board of Game further restricted caribou harvest to allow no more than one bull to be taken, and no more than one caribou to

be taken Aug. 1–Jan. 31. In 2007, the Federal Subsistence Board followed suit and adopted proposal WP07-23 with modification to reduce the harvest limits in Unit 9B; portion of Unit 17A; Unit 17B; portion of Unit 17C; Unit 18; portion of Unit 19A; and Unit 19B; from five caribou to three due to a large population decline. In March 2009, the Alaska Board of Game eliminated nonresident harvest on the MCH due to the harvestable surplus being lower than the amount needed for subsistence.

While regulations allowed MCH harvest in many of the units that the MCH inhabit, regulations have also worked to protect other caribou herds that inhabit the same units. The Northern Alaska Peninsula Caribou Herd is found within Unit 9C, the Nushagak Peninsula Herd in 17A and 17C, and the Beaver Mountains Herd and Sunshine Mountains Herd in Unit 19A. Therefore, regulations have portioned these units to accommodate MCH harvest, but restrict harvest on other herds.

The State regulations, however, do not protect the Beaver Mountains Herd and Sunshine Mountains Herd in Unit 19A through portioning the unit as do the current Federal regulations. The habitat in 19A north of the Kuskokwim River has generally been unoccupied by caribou in recent years (Seavoy 2009, pers. comm.).

### **Biological Background**

The Alaska Department of Fish and Game (ADF&G) management objectives for the MCH were to maintain a population of 100,000–150,000 with a minimum bull:cow ratio of 35:100 and to maximize opportunity to hunt caribou (Woolington 2007). However, at the Feb. 27–Mar. 9 2009 Southcentral/Southeast meeting in Anchorage, the Alaska Board of Game reduced the population objective to 30,000–80,000 caribou stating that these numbers are more realistic for this herd (ADF&G 2009). The Alaska Board of Game also reduced harvest objective from 6,000–15,000 to 2,400–8,000 during this meeting (ADF&G 2009).

Results from the July 2006 photocensus conducted in July 2006 provided an estimate of 45,000 caribou (Woolington 2007; **Table 1**). Results from the 2008 photocensus conducted in July 2008 provided a minimum estimate of 30,000 caribou (Woolington 2009). Bull:cow ratios have been estimated at less than 35 bulls:100 cows since 2001 (**Table 1**). These estimates indicate a substantial reduction in herd size and bull:cow ratios and suggests that it is near the minimum population for the ADF&G management objectives.

The MCH increased at an average annual rate of 17% between 1981 and 1996 and near 28% from 1992–1994. Overall herd size peaked at 200,000 with a peak bull:cow ratio of 42:100 in 1996 (Woolington 2007). The dramatic population growth is attributed to mild winters, movements onto new range, low predation, and an estimated annual harvest of less than 5% of the population since the late 1970s (Woolington 2007). Since 1996, the population, bull:cow ratio, and calf:cow ratio have significantly declined (**Table 1**). Possible signs of stress in the MCH include an outbreak of hoof rot in 1998 and low calf:cow ratios in fall 1999 (Woolington 2001).

The MCH ranges across approximately 60,000 square miles and primarily within Units 9B, 9C, 17, 18, and 19 (**Map 1**). Wintering areas during the 1980s and early 1990s was along the north and west side of Iliamna Lake, north of Kvichak River but telemetry data indicated the MCH had been moving to the south and west for wintering (Van Daele and Boudreau 1992 *cited* in Woolington 2007). Starting in the mid-1990s, caribou from the MCH began wintering in Unit 18 south of the Kuskokwim River and southwestern Unit 19B in increasing numbers. During the winter of 2004/05, much of the herd wintered in Unit 18, south of the Kuskokwim River, and another large part of the herd in the middle Mulchatna drainage. During 2005/06, large numbers wintered near the lower Kvichak River.

**Table 1.** Mulchatna caribou herd composition counts and population estimates, 1991–2009 (Woolington 2007, 2009).

Regulatory Year	Bulls:100 Cows	Calves:100 cows	Composition Sample Size	Estimate of Herd Size
1991/92	—	—	—	90,000 <sup>a</sup>
1992/93	—	—	—	115,000 <sup>a</sup>
1993/94	42.1	44.1	5,907	150,000 <sup>a</sup>
1994/95	—	—	—	180,000 <sup>a</sup>
1995/96	—	—	—	190,000 <sup>a</sup>
1996/97	42.4	34.4	1,727	200,000 <sup>a</sup>
1997/98	—	—	—	— <sup>b</sup>
1998/99	40.6	33.6	3,086	— <sup>b</sup>
1999/00	30.3	14.1	4,731	175,000 <sup>c</sup>
2000/01 <sup>e</sup>	37.6	24.3	3,894	— <sup>b</sup>
2001/02	25.2	19.9	5,728	— <sup>b</sup>
2002/03	25.7	28.1	5,734	147,000 <sup>d</sup>
2003/04 <sup>f</sup>	17.4	25.6	7,821	— <sup>b</sup>
2004/05 <sup>g</sup>	21	20	4,608	85,000 <sup>h</sup>
2005/06 <sup>i</sup>	13.9	18.1	5,211	— <sup>b</sup>
2006/07 <sup>j</sup>	14.9	25.5	2,971	45,000 <sup>k</sup>
2007/08 <sup>l</sup>	23	15.8	3,943	— <sup>b</sup>
2008/09 <sup>m</sup>	19.3	23.4	3,728	30,000 <sup>n</sup>

<sup>a</sup> Estimate derived from photo-counts, corrected estimates, subjective estimate of the number of caribou in areas not surveyed, and interpolation between years when aerial photo surveys not conducted.

<sup>b</sup> No current population estimate based on surveys.

<sup>c</sup> Estimate based on photocensus conducted July 8, 1999.

<sup>d</sup> Estimate based on photocensus conducted June 30, 2002.

<sup>e</sup> NOTE: Fall 2000 bull:cow ratio and bull percentages corrected from previous table.

<sup>f</sup> Based on pooling data from surveys conducted 10/11/2003 and 10/14/2003.

<sup>g</sup> Based on pooling data from surveys conducted 10/12/2004 and 10/30/2004.

<sup>h</sup> Estimate based on photocensus conducted July 7, 2004.

<sup>i</sup> Based on pooling data from surveys conducted 10/10/2005 and 10/14/2005.

<sup>j</sup> Based on pooling data from surveys conducted 10/13–14/2006 and 10/22/2006.

<sup>k</sup> Based on photocensus conducted July 11, 2006

<sup>l</sup> Based on pooling data from surveys conducted 10/7–8/2007 and 10/11/2007.

<sup>m</sup> Based on pooling data from surveys conducted 10/7 and 10/8/2008.

<sup>n</sup> Minimum estimate (Woolington 2009)

## Harvest History

Caribou harvest continues to decline (Woolington 2007). Total reported MCH harvest was 2,171 in 2005, but had declined to 516 by 2008 (**Table 2**). Both resident and nonresident harvest has declined. Harvest within each unit has fluctuated and appears to have been highest in Units 9B, 9C, 17B, and 18 since 2005 (**Table 2**). The harvest of males was as high as 86% in 1991/92, but decreased to 48% of the reported harvest in 2005/06 (Woolington 2007).

Most of the harvest occurs in August and September (66% in 2004/05 and 47% in 2005/06) (Woolington 2007). Additionally, March also accounts for a relatively high amount of the harvest: 10% in 2004/05 increasing to 23% in 2005/06. Data indicates an increase in the proportion of caribou taken during late winter when compared to the harvest chronology for previous years (Woolington 2007).

Reported harvest during the other nine months has always been relatively low. Between 1991–2006, harvest in July accounted for  $\leq 0.2\%$  of the total annual harvest; October, November, December, January, and February accounted for  $\leq 6\%$ ; and April accounted for  $\leq 9\%$  (Woolington 2007). It should be noted, however, that these data only account for the reported harvest and some harvest may be occurring that is unreported.

## Effects of the Proposal

### WP10-51

If this proposal is adopted it would lengthen the harvest seasons in Units 9A, 18, and 19A north of Kuskokwim River, while shortening the seasons in Units 9B, 17B, that portion of 17C east of the Wood River and Wood River Lakes, 19A south of the Kuskokwim River, and 19B.

Extending the winter portion of the season, when weather and daylight are more favorable, will likely increase harvest, particularly in units where the season is extended to the end of March. Opening the season earlier will likely have little effect as most harvest occurs after July and the majority of the reported harvest has been in September (Woolington 2007).

This proposal will only affect Federally qualified subsistence users; non-Federally qualified users will not be affected as the season will remain the same under State regulations.

### WP10-53

If this proposal is adopted, harvest limits would be reduced to two caribou for Units 9A, 9B, 17A, 17B, 17C, 18, and 19A south of the Kuskokwim River and 19B, however harvest limits would increase from one to two caribou for Units 9C—that portion in the Alagnak River drainage and 19A—that portion north of the Kuskokwim River. Nonetheless, overall harvest would be expected to decrease because relatively high harvest has occurred within the other units that the MCH inhabits. Reported caribou harvest in Units 9B and 9C have been relatively low in recent years (**Table 2**). Decreasing the harvest limit to a consistent number of animals across the range of the herd should help the population stabilize.

Restricting harvest so that no more than one bull may be taken, and no more than one caribou be taken Aug. 1–Jan. 31 in Units 9A, 9B, a portion of 9C, a portion of 17A, 17B, a portion of 17C, 18, 19A, and 19B (excluding Lime Village) may help reduce harvest overall and reduce harvest on bulls. These restrictions would prohibit the harvest of more than one bull, but would allow the harvest of more than one cow. Reducing bull harvest may help increase the bull:cow ratio. Reducing the harvest limit to one

**Table 2.** Caribou harvest by unit and residency, 2005–2008 (ADF&G 2009).

Year 2008										
	Unit 9A	Unit 9B	Unit 9C	Unit 17A	Unit 17B	Unit 17C	Unit 18	Unit 19A	Unit 19B	Grand total
Resident	0	16	153	16	39	5	196	2	6	-
Nonresident	0	1	0	0	29	1	4	1	16	-
Other	0	0	0	5	2	3	21	0	0	-
<b>Total</b>		17	153	21	70	9	221	3	22	516

Year 2007										
	Unit 9A	Unit 9B	Unit 9C	Unit 17A	Unit 17B	Unit 17C	Unit 18	Unit 19A	Unit 19B	Grand total
Resident	1	13	190	17	62	5	352	14	19	-
Nonresident	0	3	0	0	76	1	19	1	27	-
Other	0	0	0	2	4	0	3	0	0	-
<b>Total</b>	1	16	190	19	142	6	374	15	46	809

Year 2006										
	Unit 9A	Unit 9B	Unit 9C	Unit 17A	Unit 17B	Unit 17C	Unit 18	Unit 19A	Unit 19B	Grand total
Resident	1	158	10	22	96	89	272	13	24	-
Nonresident	0	18	1	0	163	6	47	6	34	-
Other	0	1	0	0	2	1	5	0	0	-
<b>Total</b>	1	177	11	22	261	96	324	19	58	969

Year 2005										
	Unit 9A	Unit 9B	Unit 9C	Unit 17A	Unit 17B	Unit 17C	Unit 18	Unit 19A	Unit 19B	Grand total
Resident	0	287	112	38	378	312	447	35	46	-
Nonresident	0	46	5	3	252	23	80	4	75	-
Other	0	4	0	9	6	4	5	0	0	-
<b>Total</b>	0	337	117	50	636	339	532	39	121	2171

caribou between Aug. 1–Jan. 31 instead of Aug. 1–Nov. 30 will further restrict some caribou harvest and will align with the State regulations.

This proposal will only affect Federally qualified subsistence users through a reduced harvest. Non-Federally qualified users will not be affected as harvest limits will remain the same under State regulations.

## OSM PRELIMINARY CONCLUSIONS

**WP10-51—Support with modification**, to make the season ending date Mar. 15 for all units.

### WP10-53—Support

The modified regulations should read:

#### **Units 9A, 9B, and 9C—Caribou**

*Unit 9A—~~4~~ 2 caribou; however, no more than 2 caribou 1 bull may be taken, ~~Aug. 10–Sept. 30~~ and no more than 1 caribou may be taken ~~Oct. 1–Nov. 30~~ Aug. 1–Jan. 31*

*~~Aug. 10–Mar. 31~~  
Aug. 1–Mar. 15*

*Unit 9B—3 2 caribou; however, no more than 1 caribou bull may be taken, and no more than 1 caribou may be taken Aug. 1–Jan. 31 from July 1–Nov. 30*

*~~July 1–Apr. 15~~  
Aug. 1–Mar. 15*

*Unit 9C, that portion within the Alagnak River drainage—~~4~~ 2 caribou; however no more than 1 bull may be taken, and no more than 1 caribou may be taken Aug. 1–Jan. 31*

*Aug. 1–Mar. 31 15*

*Unit 9C remainder—Federal public lands are closed to the taking of caribou.*

*No Federal open season*

*Federal registration permits may be issued in conjunction with the State Tier II hunt. Both Federal and State agencies will decide how many total permits to issue to make sure that the actual harvest will not significantly exceed the harvestable surplus.*

#### **Units 17—Caribou**

*Unit 17A, all drainages west of Right Hand Point—3 2 caribou; however, no more than 1 caribou bull may be taken, and no more than 1 caribou may be taken from Aug. 1–Nov. 30 Jan. 31*

*Aug. 1–Mar. 31 15*

*The season may be closed and harvest limit reduced for the drainages between the Togiak River and Right Hand Point by announcement of the Togiak National Wildlife Refuge*

*Units 17A and 17C, that portion of 17A and 17C consisting of the Nushagak Peninsula south of the Igushik River, Tuklung River and Tuklung Hills, west to Tvativak Bay—Up to 2 caribou by Federal registration permit.*

*Aug. 1–Sept. 30  
Dec. 1–Mar. 31*

*The season may be closed by announcement of the Togiak National Wildlife Refuge Manager.*

*Federal public lands are closed to the taking of caribou except by the residents of Togiak, Twin Hills, Manokotak, Aleknagik, Dillingham, Clark’s Point, and Ekuk hunting under these regulations.*

*The harvest objective, harvest limit, and the number of permits available will be announced by the Togiak National Wildlife Refuge Manager after consultation with the ADF&G and the Nushagak Peninsula Caribou Planning Committee. Successful hunters must report their harvest to the Togiak National Wildlife Refuge within 24 hours after returning from the field.*

*Units 17A remainder and 17C remainder—Selected drainages, a harvest limit of up to 5 2 caribou will be determined at the time the season is announced.*

*Season, harvest limit, and hunt area to be announced by the Togiak National Wildlife Refuge Manager between Aug. 1–Mar. 31*

*Units 17B and that portion of 17C east of the Wood River and Wood River Lakes—3 2 caribou; however no more than 1 **bull may be taken, and no more than 1 caribou may be taken from** Aug. 1–Nov. 30 **Jan. 31***

*Aug. 1–Apr. 15  
Aug. 1–Mar. 15*

**Unit 18—Caribou**

*Unit 18—3 2 caribou; however, no more than 1 caribou **bull may be taken, and no more than 1 caribou may be taken from** Aug. 1–Nov. 30 **Jan. 31***

*Aug. 1–Mar. 15*

**Unit 19—Caribou**

*Unit 19A north of the Kuskokwim River—1 2 caribou; **however, no more than 1 bull may be taken, and no more than 1 caribou may be taken Aug. 1–Jan. 31***

*Aug. 10–Sept. 30  
Nov. 1–Feb. 28  
Aug. 1–Mar. 15*

*Units 19A south of the Kuskokwim River and 19B (excluding Lime Village)—3 2 caribou; however, no more than 1 **bull may be taken, and no more than 1 caribou may be taken from** Aug. 1–Nov. 30 **Jan. 31***

*Aug. 1–Apr. 15  
Aug. 1–Mar. 15*

*Unit 19C—1 caribou*

*Aug. 10–Oct. 10*

*Unit 19D south and east of the Kuskokwim River and North Fork of the Kuskokwim River—1 caribou*

*Aug. 10–Sept. 30  
Nov. 1–Jan. 31*

*Unit 19D remainder—1 caribou*

*Aug. 10–Sept. 30*

*Unit 19—Rural residents of Lime Village only—no individual harvest limit, but a village harvest quota of 200 caribou; cow and calves may not be taken Apr. 1–Aug. 9. Reporting will be by a community reporting system.*

*July 1–June 30*

## **Justification**

Based on the declining MCH population, conservation concerns necessitate a reduction in harvest.

### WP10-51

Adopting WP10-51 with modification would reduce season lengths in many units, thus reducing some harvest and providing more consistency within the Federal regulations for MCH harvest. In addition, the Federal season would match the State season.

The only unit that would have the season extended would be in Unit 19A north of Kuskokwim River, where little harvest occurs. Season extensions at the front-end are anticipated to have little or no effect on the overall harvest due to the preference to harvest caribou after July as indicated by the timing of reported harvest.

Season dates for the MCH should be consistent for all units. A season ending date of March 15 is supported over a March 31 date, to reduce harvest. Given that a significant portion of the caribou harvest occurs in March, a season extension in Unit 18 may increase harvest even if harvest limits were to be reduced. In Unit 18, where the majority of harvest has been occurring in recent years, a season ending date of March 31 would extend the season by 16 days and would likely further increase caribou harvest overall. Other benefits of a March 15 deadline over March 31, is less harassment from hunters with snowmachines on caribou during a time when caribou can be nutritionally stressed; and less potential damage to tundra from snowmachines during a time when snow is often scarce.

### WP10-53

Adopting WP10-53 would help reduce overall harvest and provide more consistency within the Federal and State regulations for MCH harvest. However, harvest limits would be increased for Units 9C—that portion in the Alagnak River drainage and 19A—that portion north of the Kuskokwim River by one caribou. A harvest reduction overall will still be expected to reduce overall harvest.

Restricting harvest to one bull is needed to help increase the bull:cow ratio. Since 2001, the bull:cow ratios have been below ADF&G's management objective of 35 bulls:100 cows. Reducing the bull harvest should help increase the number of bulls in the herd and ensure that pregnancy rates and calf production is adequate to help increase the population.

Restricting harvest so that no more than one caribou may be taken from Aug. 1–Jan. 31 instead of Aug. 1–Nov. 30 will further reduce harvest, although slightly. The opportunity to harvest a second caribou would be reduced by approximately two months for hunters that want to harvest more than one caribou in early winter. Harvest would decrease for the hunters that opportunistically harvest more than one caribou in early winter, but do not hunt in late winter. However, opportunity would still exist for subsistence hunters that wish to harvest two caribou after Jan. 31.

It is not necessary to have different caribou regulations in Unit 19A to protect the Beaver Mountains Herd and Sunshine Mountains Herd and still allow MCH harvest. The habitat in 19A north of the Kuskokwim River has generally been unoccupied by caribou in recent years (Seavoy 2009, pers. comm.).

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## Fall 2010 Regional Advisory Council Meeting Window

*August 30–October 15, 2010 current as of 11/03/09*

Meeting dates and locations are subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Aug. 22	Aug. 23	Aug. 24	Aug. 25	Aug. 26	Aug. 27	Aug. 28
		<b>NS—Barrow</b>				
Aug. 29	Aug. 30 WINDOW OPENS	Aug. 31	Sept. 1 <b>NWA— Kotzebue</b>	Sept. 2	Sept. 3	Sept. 4
Sept. 5	Sept. 6 <b>HOLIDAY</b>	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
		<b>KA—TBA</b>	<b>BB—Naknek</b>			
Sept. 26	Sept. 27	Sept. 28	Sept. 29	Sept. 30 <small>END OF FY2010</small>	Oct. 1	Oct. 2
		<b>SE—Sitka</b>			<b>YKD—TBA</b>	
Oct. 3	Oct. 4	Oct. 5	Oct. 6	Oct. 7	Oct. 8	Oct. 9
		<b>WI—McGrath</b>				
Oct. 10	Oct. 11 <b>HOLIDAY</b>	Oct. 12	Oct. 13	Oct. 14	Oct. 15	Oct. 16
			<b>EI—Central</b>		WINDOW CLOSES	
			<b>SC—Cordova</b>			
			<b>SP—Nome</b>			

## Winter 2011 Regional Advisory Council Meeting Window

*February 15–March 24, 2011 current as of 01/25/10*

Meeting dates and locations are subject to change.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<i>Feb. 13</i>	<i>Feb. 14</i>	<i>Feb. 15</i> <i>Window Opens</i>	<i>Feb. 16</i>	<i>Feb. 17</i>	<i>Feb. 18</i>	<i>Feb. 19</i>
<i>Feb. 20</i>	<i>Feb. 21</i> <b>HOLIDAY</b>	<i>Feb. 22</i>	<i>Feb. 23</i>	<i>Feb. 24</i>	<i>Feb. 25</i>	<i>Feb. 26</i>
<i>Feb. 27</i>	<i>Feb. 28</i>	<i>Mar. 1</i>	<i>Mar. 2</i>	<i>Mar. 3</i>	<i>Mar. 4</i>	<i>Mar. 5</i>
<i>Mar. 6</i>	<i>Mar. 7</i>	<i>Mar. 8</i>	<i>Mar. 9</i>	<i>Mar. 10</i>	<i>Mar. 11</i>	<i>Mar. 12</i>
<i>Mar. 13</i>	<i>Mar. 14</i>	<i>Mar. 15</i>	<i>Mar. 16</i>	<i>Mar. 17</i>	<i>Mar. 18</i>	<i>Mar. 19</i>
<i>Mar. 20</i>	<i>Mar. 21</i>	<i>Mar. 22</i>	<i>Mar. 23</i>	<i>Mar. 24</i> <i>Window Closes</i>	<i>Mar. 25</i>	<i>Mar. 26</i>