

BLM NPR-A Subsistence Advisory Panel Meeting

November 15 & 16, 2011, Fairbanks, AK

Summary of Public Presentations, Community Concerns, & Panel Recommendations



The NPR-A Subsistence Advisory Panel consists of representatives from seven tribal governments and the North Slope Borough, and provides a forum for government-to-government consultation regarding activities in NPR-A. The Panel reviews plans by industry, current scientific research projects, and other activities authorized by BLM in the NPR-A.

Subsistence Advisory Panel Representatives in attendance:

Joseph Sage, Native Village of Barrow, SAP Chairman
 Clifford Benson, Native Village of Barrow
 Qiñugan Roddy, Iñupiat Community of the Arctic Slope
 Price Leavitt, Iñupiat Community of the Arctic Slope
 Thomas Napageak, Native Village of Nuiqsut
 Andrew Hopson, Naqsragmiut Tribal Council (Anaktuvuk Pass)
 Ira Ungudruk, Native Village of Wainwright
 Peter Panik, Native Village of Wainwright
 Bart Ahsogeak, North Slope Borough Planning Department

BLM Arctic Field Office Employees present:

Lon Kelly, Arctic Field Office Manager
 Steve Hartmann, Fairbanks District Office Manager
 Dave Yokel, Arctic Field Office Wildlife Biologist
 Stacey Fritz, Arctic Field Office Anthropologist (SAP Coordinator)
 Susan Flora, Arctic Field Office Environmental Scientist/Hazmat Specialist

Public Meeting Summary

Tuesday, November 15, 2011

Lon Kelly, Arctic Field Office manager, updated the panel and the audience on the progress of the planning effort for the Integrated Activity Plan/Environmental Impact Statement for the entire NPR-A. The draft is due out in early April 2012, and the final plan is due to be published in early 2013. Kelly also discussed the NPR-A lease sale that was coming up on December 7 and the State lease sale that was occurring on the same day. He showed lease tracts maps and discussed details of the bidding process and lease issuance.

Susan Flora, Arctic Field Office Environmental Scientist and Hazmat Specialist, presented on contaminated sites and cleanup projects in the NPR-A. Sites that have undergone or are undergoing cleanup include several legacy wells (wells drilled between 1945 and 1981). The reserve pits at several of these wells have been threatened by coastal erosion. The BLM has completed the first phase of closures of the four reserve pits that were most threatened: JW Dalton (reserve pit removal completed in 2004); East Teshekpuk (reserve pit removal completed 2007); Atigaru Point (plugged and abandoned, reserve pit removed in 2009); and Drew Point (reserve pit removed in 2010). The Corps of Engineers is currently removing contaminated soils from the legacy well Umiat Well Nine before it can be plugged and abandoned.



Susan Flora, Arctic Field Office Environmental Scientist and Hazmat Specialist

Department of Defense sites that have had and are currently undergoing further cleanup include the Point Lonely DEW Line site and the adjacent Camp Lonely (Husky Oil/USGS). The Wainwright DEW Line site beach dump was removed in 2010. At both the Wainwright and Point Lay DEW Line sites, the Air Force is currently deciding whether to create landfills on-site (the least expensive option) to handle the debris from building demolition. The BLM encourages the military to create landfills in less problematic areas, because landfills near the coast must be constantly maintained to avoid problems stemming from processes such as frost jacking and erosion.

Several military sites are not on BLM NPR-A land, but the military has requested BLM review of its rehabilitation actions on them because the military would like to relinquish ownership and have the land returned to the public domain. The BLM has strict guidelines as to what is acceptable to return to the public domain. For example, the BLM is not supposed to accept land with landfills.

At Point Barrow, the Air Force has been cleaning up contaminated soils and unused fuel storage tanks. Unless the Air Force finds an organization to take over ownership of the blue hangar there, the process to contract the hangar's demolition will begin in 2013. The Navy has been cleaning up the adjacent 600-acre NARL Antennae Farm, including removing old power lines and structures, but that contract funding is exhausted and a new contract will be needed to continue the cleanup.

At the Cape Sabine DEW Line site (south of Point Lay and not within the NPR-A), the Navy did a major cleanup but has a few small sites to address before the BLM can process its environmental review. The upland portion of the Icy Cape DEW Line site is within the NPR-A, and the Navy needs to address old landfills at that site before the BLM can review it. The Corps of Engineers is studying options for removing or stabilizing the landfill at Umiat, which is in the flood channel of the Colville River and will necessitate a long and expensive project.

SAP Chairman Sage expressed concern over the number of eroding landfills on the North Slope and contended that it would be best to completely remove them to protect future generations of subsistence users.

Colleen Richards, Shareholder Relations Manager with **Linc Energy**, presented on that company's proposed NPR-A activities for the 2011-2012 season. Linc is an Australian company that has been in Alaska for two years. Linc acquired Renaissance Alaska in July, and thus has a controlling interest (just over 19,000 acres) in Umiat. Linc planned to be drilling at five sites at Umiat this winter (*update January 2012: Linc is going ahead with permitting for next winter but has abandoned plans to start activities at Umiat this winter*). Linc plans a snowpacked road from the Dalton Highway to Umiat and will use existing gravel roads and build ice roads in field. Richards emphasized that the current State of Alaska's Department of Transportation proposed plan for a road to Umiat is *not* connected to Linc Energy in any way (Linc will go ahead with its plans regardless of whether the road is built). Linc will need a pipeline, but not necessarily a DOT road and a pipeline adjacent to it, and would like to be in production in 5 to 7 years. During the discussion following Ms. Richard's presentation, Chairman Joe Sage and AKP representative Andrew Hopson made several points on the potential for development at Umiat to impact subsistence, particularly if Umiat grew into an industrial site akin to Prudhoe Bay.

Winslow Hansen, a University of Alaska Fairbanks master's degree student, presented on his research into "Changing Wind Speeds, Boating Conditions, and Hunting Opportunities in Wainwright, Alaska." Many hunters surveyed by Hansen were concerned about a greater number of windy days and the associated rougher seas that are affecting access to bowhead whaling in the spring and caribou in the summer. One hunter summed it up by saying, "Sometimes we have lots of open leads, lots of water to use, but too much wind. Lots of whales but we can't get to them – the water is too rough." Based on his analysis of historical wind speed data, Hansen

found that hunters have lost almost seven days of safe hunting per season compared to the 1970s. Hansen also investigated new methods that hunters are employing to adapt to these changing conditions in order to continue harvesting sufficient numbers of animals.

Randy Reed of **CGG Veritas** presented on that company's proposed seismic operations in the Colville River Unit near NPR-A for winter 2011-2012. The project will probably not start until January and will likely be completed by early March. CGG hopes to use existing roads or ice roads near Nuiqsut. Because of changes in technology CGG is able to collect data in the four-dimensional mode, which is three dimensional with time. Now, instead of going back and redoing or reshooting an area that was shot once before, Veritas can plant subsurface receivers that remain in place. They no longer use rubber-tired vehicles, having completely switched to track rigs. Veritas will have up to 180 people in their camp.

The company's subsistence representative maintains daily communication with Nuiqsut, and hunters and travelers are welcome to visit if they are in need of food, fuel, or shelter. Veritas tries to re-route to avoid hunting parties and in other ways minimize the impacts of its activities. Chairman Sage expressed concern about the cumulative impacts resulting from numerous small and conscientious companies. He also noted that the seismic and oil and gas companies could truly minimize impacts to the land and residents by sharing their information and thus avoiding repeat impacts on the same areas. Contact Randy Reed by email at: william.reed@cggveritas.com

Tony DeGange of the **USGS Alaska Science Center** presented on several research activities that are part of the USGS's Changing Arctic Ecosystem project: Measuring and forecasting responses of wildlife population to changes in ecosystem processes on the Arctic Coastal Plain. There are four research sites associated with this project: 1) in the Chipp River area, 2) on the northeast side of Teshekpuk Lake, 3) Colville River Delta and 4) along the haul road from Toolik Lake up to Deadhorse. The USGS has set up four Conexes as camps for the duration of the project. This project is researching, monitoring, and experimenting with a number of physical and biological processes, including: temperature's influence on nutrient cycling, ice amounts, and moisture levels; how ecological processes feed into the food web and how changes in temperature will affect that food web; lake depths and associated fish species; molting ecology of black brandt; white fronted Geese; coastal erosion and salt water inundation of lakes; and several other climate-related experiments. For more information, contact project lead Joel Schmutz at jschmutz@usgs.gov or (907) 786-7186.

Bill Morris, a fisheries biologist with the Alaska Department of Fish and Game, gave an update on the Kuk and Kugrua stream surveys, which are establishing baseline data on fish populations. ADF&G surveyed about 30 different sites gathering information on characteristics that define fish populations such as weight and length relationship, age relationships, and age at maturity relationships. ADF&G is also gathering basic water quality data: oxygen amounts in the water and the acidity, salinity, and temperature of the water. The permitting authority for Fish and Game is the Anadromous Waters Catalog (AWC), and a water body must be legally surveyed into this catalog before ADF&G has the authority to provide proper protections to fish and fish habitat. Morris will be returning to Wainwright for more presentations and always welcomes

input from the SAP and Wainwright residents. Please contact Bill Morris by email at william.morris@alaska.gov or by phone at (907) 459-7282.

Shelley Woods, a University of Alaska Fairbanks master's student in the fisheries and ocean science program, presented on the project she has been working on along with her advisor Dr. Courtney Carothers: "Subsistence Use and Knowledge of Beaufort Salmon Populations." Because off-shore leases sales are ongoing and literature about salmon on the North Slope is inconclusive, project goals are to use local knowledge to follow up on reports on increasing salmon harvests and to answer questions about whether salmon have been spawning in new areas. Subsistence fishers and elders who were interviewed for the project indicated that they supported sharing harvests of salmon but do not want to see a commercial fishery in the Arctic. Environmental changes have resulted in changes in fishing practices, including relocation of camps and ice cellars and increased danger from thin ice and high waves. A complementary study in the Chukchi Sea area by ADFG is Brittany Retherford's project. The interviews conducted for the project will be archived at IHLC, and Woods can be contacted by email at: shelleywoods@gmail.com

Rich Driscoll, a fisheries biologist in the Alaska Department of Fish and Game's habitat division, discussed his ongoing research on the "Assessment of Pacific Salmon Resources in Alaska's North Slope." Rich's project (2008-2011) involves putting together a genetic baseline by documenting salmon species present in all the rivers between Point Hope and Wainwright to understand abundance, subsistence harvest levels, traditional ecological knowledge of salmon harvest and uses, and to determine whether juveniles are surviving and out migrating or if they are just moving into new areas and dying off every year. ADF&G will establish an index of streams for continued monitoring and is also conducting aerial surveys every year to try to get distribution estimates. Pending funding, this project will continue and be expanded to include all fishery resources and a three-year harvest survey: **community involvement by Wainwright residents will be critical – stay tuned for 2012 job opportunities for fishermen, boat drivers, and student interns!** Contact Rich Driscoll at 459-7228; email rich.driscoll@alaska.gov or Brittany Retherford at 459-7371; email brittany.retherford@alaska.gov.

Janet Davis (program lead) and **Judy Haymaker** (grants administrator) with the **Alaska Division of Community and Regional Affairs** gave a presentation on the NPR-A Impact Mitigation Grant Program. Several copies of the NPR-A Impact Mitigation Grant Program Report to the Alaska Legislature were distributed to SAP members. The report includes the history of the program and a list of all the grantees, projects, and amounts granted since the program began receiving money. This report is also available on the ADCRA website: http://commerce.alaska.gov/dca/pub/2011_Report_to_the_Legislature.pdf

Fifty percent of the money received through NPR-A leases is deposited into this impact mitigation grant. The communities that are eligible are municipalities that can clearly demonstrate that they are severely or adversely affected by oil and gas exploration activities within the NPR-A. This has historically meant those communities located within the NPR-A (Barrow, Atkasuk, Nuiqsut, and Wainwright). Anaktuvuk Pass is also eligible because it was determined in 1987 that AKP's subsistence activities take place in the NPR-A, however it has

never applied for a grant. Because NSB is an umbrella organization that has received and distributed a significant percentage of this grant money, other communities (Kaktovik, Point Lay, and Point Hope) benefit as well. Tribal governments are not municipalities and do not qualify.

The Alaska Division of Community and Regional Affairs convenes an application selection committee made up of three people who are familiar with the types of concerns NPR-A communities face. This committee scores and ranks the proposals and provides that list to the commissioner before a determination is made about which project can be funded. Funding levels change because they are based on lease sales; some years a large amount of funding has been available and other it has been less than what was expected. The largest amount of funding was about \$25-\$28 million in 2003.

Activities that are eligible to receive NPR-A grant funding are limited to three categories: 1) planning; 2) construction, maintenance, and operation of essential public facilities by the municipality; and 3) other necessary public services provided by a municipality. Many of the subsistence projects come through “planning” or through “other necessary public services that are provided by the municipality.”

The **SAP representatives presented community concerns** at the end of the first day of the meeting.



Ira Ungudruk, Qiñuğan Roddy with baby Eliana, and Andrew Hopson

- **Ira Ungudruk (Wainwright)** reported that Wainwright has the best hunting grounds on the Slope and that it will always be that way. There is currently a lot of activity in the area due to offshore leasing and exploration in the Chukchi Sea. Ira was glad to learn that research into local fish species is finding healthy populations.
- **Qiñuğan Roddy (ICAS – Barrow)** reported that numerous low-flying aircraft were a problem around her family’s subsistence camp on the Chipp River last summer and they

saw fewer caribou than normal.

- **Andrew Hopson (Anaktuvuk Pass)** reported that the largest concern for AKP was that the caribou migration has not passed close to the community this year.
- **Price Leavitt (ICAS-Barrow)** expressed his support for the SAP and its role in encouraging the tribes to have a voice in North Slope activities. He noted that subsistence is protected in the NPR-A by two federal laws: section 104B under the National Petroleum Reserves Production Act (NPRPA) of 1976, which specifies that any exploration within traditionally used areas with subsistence fish and wildlife shall be conducted in a manner which will assure the maximum protection of surface values to the extent consistent with the requirement of this act for the exploration of the reserve. The second law is Section 810 of ANILCA, which obliges the BLM to protect against impacts to subsistence resources and values. The Iñupiat Community of the Arctic Slope wants a minimum of five years of monitoring studies of subsistence resources before any development is allowed.
- **Clifford Benson (Barrow)** repeated Qiñuğan Roddy’s concerns about the low number of caribou last summer around that family’s subsistence cabin. The family usually catches about 10 caribou in a two-week period. Last summer, however, there were two to three helicopters that were flying around much of the time, often ruining their hunts and causing extreme stress and frustration and significant expenses in terms of time, fuel, and food. Benson believes that the pilot and passengers in the helicopter would have been able to see the boat and the caribou, but they flew over anyway and scared the caribou away. It turned out to be a very poor season as the group caught only about four caribou. Benson reiterated that his primary concern is aircraft, and especially helicopters, disturbing hunting.



Joe Sage, Thomas Napageak Jr., Dave Yokel, and Bart Ahsogeak.

- **Thomas Napageak, Jr. (Nuiqsut)** reported that ConocoPhillips has been responsible for a high level of flight activity in the Nuiqsut area. The cleanup at Umiat is a concern for him because he has been seeing numerous caribou with paralysis and abscesses.

Companies that travel from the Beaufort to the Chukchi are regularly diverting the bowhead whales: Thomas saw one Canadian barge divert hundreds of whales in 2005, the first year he was a whaling captain. He believes that bow hunters may be responsible for delaying caribou herds from migrating away from the Galbraith Lake area because the hunters have taken shots at herd leaders or early herds. Thomas opposes the road to Umiat but suggested that if the road does go in, then Anaktuvuk Pass should demand a spur road so that they would be able to benefit economically by serving as a hub for goods for the North Slope that could be trucked to that point. He noted that there is no point in being located in the heart of industry without getting any benefits from it. He explained that that is why Nuiqsut wants a bridge over the Niġlik Channel: if they opt for an underground pipeline rather than a bridge, there will be significant amounts of air traffic back and forth, which will be bad for the community. If there is a road, however, there will be far less air traffic and other benefits: Nuiqsut could have its own Alaska Clean Seas program; it could expand its airport; and it could become a hub for the oil industry. Nuiqsut would benefit in terms of jobs and in terms of hunting if they could use the roads to access areas. Thomas stated that he only supports a bridge and roads because it would result in less air traffic, and otherwise Nuiqsut would simply suffer from too much air traffic without sharing any benefits of development in their own backyard.

- **Bart Ahsogeak (NSB Planning)** reported that his main concern was the migration of caribou herds near Noatak, where there is a large problem with commercial guides and transporters flying clients in to passes where hunting diverts the entire herd. Ahsogeak supports measures that would stop or limit these guides and transporters during the migration and notes that solving this problem would be beneficial to both the Northwest Arctic Borough and the North Slope Borough. Ahsogeak is also concerned about the effective working relationships between various agencies since the demise of Alaska's Coastal Zone Management Program. It is troubling that oil companies are focusing on the Colville River delta, according to Ahsogeak, because that area is ecologically important with particularly high concentrations of animals. Ice roads in the delta should be constructed in a manner that does not impede fish movement because the fish are being displaced.
- **Joe Sage (Barrow – Chairman of the SAP)** gave an approximately 18-minute community concern report, the verbatim transcript of which is available in the complete minutes of the meeting. Sage expressed his desire to have been born earlier so that he could have resisted development before it started, because today it impacts the way he eats his food. Sage contends that it is becoming a real challenge to subsist on animals and that it is a shame that it is all because of money and oil and gas. The traditional lifestyle is not replaceable. Sage is concerned about the increasing number of roads, pipelines, and traffic on the North Slope and how much more traffic and infrastructure there will be in 30 years. He wishes that the world could reduce its use of oil and gas: “to where we can slowly go through this and slowly develop for the future. Rather than all 50 oil companies, or so whoever knows how many there is, coming all at once and bombarding the whole country. They're basically killing off my food. And that's a huge impact. And that's hard to sit in this position and oversee the NPR-A and basically know that there's almost nothing we can do to stop it.” Joe urged the panel and all tribal members and

subsistence users to work to minimize the traffic on land and on the ocean. He reiterated that oil companies should be required to share information to minimize impacts on subsistence (i.e., to avoid re-surveying the same areas).

Wednesday, November 16, 2011

On day two of the SAP meeting, **Melissa Riordan** with the US Army Corps of Engineers presented “Foothills West: Update on the Road to Umiat Project.” This presentation was specifically requested by the SAP due to widespread concerns, particularly in Anaktuvuk Pass and Nuiqsut, about the possible subsistence impacts that could result from a road to Umiat.

The State of Alaska Department of Transportation is the applicant proposing this project, whose purpose is to support the development of oil and gas resources in the Umiat and Foothills Province areas. The Foothills Province area is a geologic formation that the State would like to target with lease areas that would be for sale west of the Dalton. The Corps must evaluate all the possible ways that the State could meet this purpose. Information and maps are available on the project website: <http://www.foothillswesteis.com/>

Melissa Riordan is a project manager for the Corps of Engineers regulatory division, which does permitting for wetlands and waterways. The reason that the Corps is preparing the Environmental Impact Statement for this road project is because almost the entire area is wetlands and there are several major water crossings for this proposed road. Therefore the Corps has the largest jurisdiction for the area. The Corps does not design or build the road; it merely issues the permit, and the State of Alaska DOT designs and builds it. Most of the land is State land. The Corps is currently writing the Draft EIS, with the BLM and the Alaska State Department of Natural Resources (DNR) as cooperating agencies.

The scoping report is not finalized, but Riordan distributed a handout with some of the information gathered during scoping. The following nine major areas of concern were identified during scoping: biological resources; land use and management; subsistence; economy and costs and benefits; sociocultural systems; oil, gas, and mineral resources; water resources; recreation; and human health and safety. Six of the nine are related to subsistence.

The Corps’ schedule is to have the Draft EIS out in the summer of 2012. However, it is already behind schedule because there are several issues with getting necessary information and coordinating everything with the agency (AECOM) writing the EIS for the Corps. It will likely be two and half years before the Corps makes a decision.

Some road routes that will be considered in the EIS were brought up by the Corps in scoping, and additional routes came out in the public scoping comments. The road is currently proposed as a public access road. The Corps may consider including regulations as part of a management alternative (i.e., that would mitigate the impacts of traffic on the road). However, the Corps is not a landowner, and therefore such actions will likely need to be considered or implemented by those entities that do have jurisdiction (i.e., the State, ASRC, BLM). The Corps has not determined whether it will be able to require a management action on the road as part of the permit.

Issuance of an Army Corps permit differs from most NEPA (National Environmental Policy Act) law in that the Corps can actually deny a permit: they must consider the alternatives and make a

determination of which one is the Least Environmentally Damaging Practicable Alternative (LEDPA). The Corps must deny a permit if it is not the LEDPA. BLM Wildlife Biologist Dave Yokel asked whether “environment” as it is understood by the Corps for the LEDPA means “human environment,” as it does for NEPA. Riordan responded that the Corps is typically looking at aquatic resources, but if and when there are overriding human impacts, then the Corps may consider an alternative that has greater impacts to aquatic resources but fewer for people.

A lengthy discussion ensued among SAP representatives, Melissa Riordan, BLM Managers, and audience members concerning how the SAP or individuals or tribal governments could effectively express their opposition to the road. Members of the SAP, and in particular Chairman Joe Sage, expressed serious concerns about the impact of a road to Umiat – and the future development that it might facilitate – on subsistence for Anaktuvuk Pass and, eventually, for the entire western Arctic. (A pipeline to transport oil from the Chukchi Sea from the Northwest NPR-A to Umiat and then to TAPS will be considered as a reasonably foreseeable action in the EIS.) Sage and other SAP members contended that the existing traffic and interference from trophy hunters are already impacting the caribou migration through AKP, which was settled in its current location precisely because of the caribou migration paths.

Melissa Riordan confirmed that the Corps understands that subsistence is the major issue with this project and that they are taking it very seriously and will try to make a fair and balanced decision. She noted that it is possible that some of the management actions that will be considered will lessen the potential impact and that the No Action Alternative is not off of the table. She suggested that the SAP might be able to be more involved in the process to achieve better outcomes.



Lon Kelly, Arctic Field Office Manager & Steve Hartmann, Fairbanks District Office Manager

Both Fairbanks District Office Manager Steve Hartmann and Arctic Field Office Manager Lon Kelly suggested that the SAP could contact the Corps and DOT directly to express their concerns and beliefs. Kelly noted that it would be appropriate for the SAP to advise the BLM in its role as cooperators on this EIS to be aware of and advocate for the subsistence users in the North Slope communities and their perceptions of impending impacts. Kelly also recommended that the SAP look at ways to mitigate use of the road that BLM could advocate for, as a cooperating agency. He noted that the BLM does not make the decision but can make sure that ideas get on the table. Participating in the political process as individuals and as villages or communicating with industry is something that must be done via the various governmental organizations represented by SAP members.

Chairman Sage expressed his desire to have either the SAP or the mayors or the tribal governments communicate as directly as possible with the State of Alaska and Governor Parnell himself. Kelly noted that the SAP is a semi-autonomous group that could do that. SAP member Qiñugan Roddy asked whether a petition to stop the project would be effective. Audience member Pete Dronkers of the Northern Alaska Environmental Center suggested that there were several possible avenues and that he would be glad to talk to people about them. Riordan agreed that there were possibilities of getting ideas on the table to get things changed from what was originally proposed: she sees the EIS as a constructive way to get issues on the table and find different ways to address them, and she encourages the public to contact and have direct dialogue with the State.

Stacey Fritz, BLM Arctic Field Office Anthropologist, gave a slideshow presentation on her month-long fieldwork trip on the Kuk River in August 2011.

Section 105C of the Naval Petroleum Reserves Production Act of 1976 required an inclusive analysis of resources within the NPR-A, including a comprehensive account of Iñupiaq dependence and livelihood, historic values, and activities on the land. In the mid-1970s, crews of archeologists and anthropologists teamed up with Iñupiaq elders and active land users to travel the NPR-A and document traditional use sites. Fritz contends that in the 35 years since the 105C studies were undertaken, there have been significant changes in land use on the North Slope, particularly due to changing transportation methods, social and economic shifts, and climate change. The 105C Report "Land Use Values Through Time in the Wainwright Area" by Bill Schneider and Pam Ivie served as background and guide for this year's fieldwork. Fritz (with her husband as BLM volunteer captain and carpenter) sailed and paddled up the Kuk River and its tributaries, camped with local subsistence users, went on hunting trips with them, and documented the scores of cabins that have been built in the area since the 1980s.

SAP Recommendations

- Have BLM support to meet with State of Alaska representatives to discuss the proposed road to Umiat
- BLM should encourage the Department of Defense and other agencies who have or are planning on creating coastal landfills to completely remove them from sensitive areas and areas that will be used by future generations of subsistence hunters
- Encourage NSB or City of Wainwright to install a water gauge on the Kuk River (possibly using NPR-A impact funds).