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**Subsistence and Recreational Use Issues and Information Meetings**

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## Subsistence and Recreational Use Issues and Information Meetings

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*Abstract.*— The Western Interior Regional Advisory Council raised concerns within the GASH region (includes villages of Grayling, Anvik, Shageluk, and Holy Cross) that populations of northern pike *Esox lucius* and moose *Alces alces* were declining and local subsistence users were being displaced from traditional use areas by non-local users. Meetings were held in the four communities in April 2002 to collect information on resource issues and concerns with a focus on fisheries. Comments were also recorded on moose, waterfowl, bear, wolves, law enforcement, sport hunting, and user conflicts. Northern pike and salmon *Oncorhynchus* spp. were the two fish species of greatest concern. Overall though, concern for the moose population was foremost in all the villages.

### Introduction

Northern pike *Esox lucius* and moose *Alces alces* are important subsistence resources for the residents of the lower Yukon River villages of Grayling, Anvik, Shageluk, and Holy Cross (collectively known as the Gash region). Northern pike is of particular concern because poor returns of salmon in the Yukon drainage in recent years has led to harvest restrictions and closures on that species which may effect the harvest and populations northern pike. GASH residents have voiced concerns to federal and state regulatory bodies and managing agencies about the perceived or potential decline of northern pike and moose populations and other subsistence resources and the displacement of local subsistence users from traditional use areas by non-local users. The Western Interior Regional Advisory Council has since 1996 urged the establishment of an interagency/local user working group to develop a cooperative management strategy for these resources. Lack of meaningful agency response to GASH concerns led to recent proposals to close sport fishing on the Innoko River and to expand the Paradise Controlled Use Area to restrict non-local moose hunting. The Federal Subsistence Board deferred action on the proposals in favor of addressing user conflicts in the area through a cooperative planning process. The Board has supported cooperative planning efforts in several areas of the state and indicated that it would provide funding for a similar effort in the GASH region. Native, state, and federal lands in the area and the consequent jurisdictional considerations will require cooperative and coordinated interagency involvement and representation of all significantly affected user groups. Local residents have a local knowledge that is valuable to biologist and other managers and have the same goal of maintaining the resources for future generations.

Concerns about subsistence fishing and hunting in the GASH region have been increasing for the last several years. During this time, individuals have forwarded proposals to both federal and state agencies directed at fish and wildlife stocks of concern. It was one such proposal to the

Western Interior Regional Advisory Council prompted the Council to request this study. The historical subsistence use in the area has included salmon, northern pike, moose, and waterfowl.

Agency staff from the Alaska Department of Fish and Game, Bureau of Land Management, and U.S. Fish and Wildlife Service met by teleconference on January 17, 2002 to formulate an action to identify issues and concerns of GASH residents. It was decided that holding meetings in each GASH village with open person-to-person dialogue would be the best approach. The objectives of these meetings were to:

1. Improve communication between GASH residents, other users of the area's resources, and resource managing agencies.
2. Identify subsistence status and use issues and evaluate options for resolving concerns.
3. Disseminate available information on local resources and uses and identify information needs.
4. Produce local management recommendations for fish and wildlife populations for traditional subsistence and recreational use.

The U.S. Fish and Wildlife Service, Alaska Department of Fish and Game, and National Marine Fisheries have recently conducted or have on-going fisheries studies in the GASH region. A northern pike radio-telemetry study is being conducted in the Reindeer Lake and Holy Cross area to determine movement patterns and habitat. Sheefish *Stenodus leucichthys* were radio-tagged in the Innoko River and tracked within that drainage and in other tributaries of the Yukon River in 2002. Chinook salmon *O. tshawytscha*, radio-tagged in the mainstem Yukon River near Marshall and in the Innoko River, and chum salmon *O. gorbuscha*, radio-tagged in the Innoko River, have been tracked in the Innoko drainage as an aid in determining spawning areas.

## Methods

Meetings were held in the villages of Grayling, Anvik, Shageluk, and Holy Cross in the April 2002; participation included: local subsistence users, management personnel from the U.S. Fish and Wildlife Service, Alaska Department of Fish and Game, the Bureau of Land Management, Tanana Chiefs Conference, the Western Interior Regional Advisory Council, a sport fish and hunting guide at the Holy Cross meeting, and people spoke up for the local hunting guide in Anvik. The four meetings were announced on the radio and the marine band VHF radios as is the local custom in these villages. Agencies provided reports, summaries of unpublished data on resource status and data on studies in progress at the meetings.

## Results

Meetings were held in the GASH villages on the following dates:

April 9, 2002 in Anvik,  
April 10, 2002 in Holy Cross,  
April 11, 2002 in Shageluk, and  
April 12, 2002 in Grayling

Public participation ranged from six people in Anvik to over 20 in Holy Cross and included the residents and local governments from villages of Grayling, Anvik, Shageluk, Holy Cross, a representative from the Tanana Chiefs Conference,

Alaska Department of Fish and Game

Wildlife Conservation

Sport Fish Division,

U. S. Fish and Wildlife Service

Innoko National Wildlife Refuge

Office of Subsistence Management

Fairbanks Fish and Wildlife Field Office, and

Bureau of Land Management.

While the focus on the meetings was to gather information on the fishery resources, comments were also received and recorded on a number of topics. Major categories were fisheries, elder involvement, youth involvement, law enforcement, moose, waterfowl, sport hunting, bears, and wolves, user conflicts, and general topic comments and are presented in that order below. Perspective issues and concerns in the GASH villages in this assessment process is broad and should not be considered to be complete nor representatives of the views of all residents.

The feeling of many people residing in the villages is lack of information and communications. The subsistence resources of fish and wildlife are becoming harder to gather due to either lower numbers and or dispersal and on top of this is an increased demand for the same resources from nearby communities and from sport and recreational harvest. Many of the comments related to the difficulty in obtaining northern pike, salmon, waterfowl or moose relative to twenty or thirty years ago when harvesting resources occurred close to the villages.

### *Fisheries Issues, Concerns, and Comments*

1. An agency would like to know where the best fishing areas are to do studies.
2. Local residents would like to see a sonar project closer up river around Holy Cross.
3. Fishing used to be the main staple of families before there was moose. Now fish have decreased. Some areas have greatly increased the use of fish for dog food.
4. It is not fair to close down subsistence fishing when commercial fishing is still going on.
5. Holy Cross residents want more information and updates on the fish luminescence.
6. A Grayling resident has noticed less Arctic grayling *Thymallus arcticus* and salmon in Anvik River and more traffic there with lodge.

7. Why cap the customary trade of fish products? Who brought it up, shouldn't fool around with a cap.
8. Change the lead in music for the fishing report from Emmonak.

*Northern pike.—*

1. Local people believe that northern pike are declining because of “catch & release” fishing. Killing more fish than expected (about 10% die with live bait and less than 3% with artificial bait with barbless hooks).
2. Local people concerned over the dead northern pike lying on sandbars/beaches above the Holikachuk area.
3. Holy Cross resident concerned about sled loads of northern pike being hauled down river and wanton waste of the fish in the spring going to lower villages in the Kuskokwim drainage. Kalskag has depleted their own northern pike so they go to the Yukon.
4. Holy Cross resident suggests setting a date for commercial and sport fishing after a certain number of northern pike have already gone upstream to spawn.
5. Some local residents say that there are too many northern pike.
6. Concerns about northern pike fishing around Holy Cross - people got stingy and wanted the river to themselves, they don't like guided fishing. (Anvik)

*Salmon.—*

1. Some local people concerned about the salmon fishing season. Why is salmon decreasing?
2. Some local people asked if salmon fishing would be better if there were no commercial fishing and did only subsistence as they did many years ago.
3. Grayling (village) would like to be a training site for salmon testing.
4. Less salmon on the Yukon due to impacts of commercial fishing.
5. How do they plan to limit selling of fish products?
6. Farm raised fish (salmon) which were given to villages after shortage were not as good as native salmon.

*Sport Fishing.—*

1. Local residents are concerned about too many sport fishing in the Anvik and Innoko rivers.
2. Local residents are concerned over human waste on the Innoko River from the “Midnight Sun” boat.
3. Holy Cross residents are concerned about the guided fishing boat at Reindeer Lake. The boat parked in the middle of the lake affects traditional goose hunting. There is a controversial issue between subsistence and economic use of the resource.
4. Local resident says that sport fishing should be regulated for catch and release.
5. Local resident concerned about the (barbless hook) when releasing fish caught by clients on the “Midnight Sun” boat. On the refuge, they are required to use single barbless hooks and artificial lures.
6. Can fish feed when they have an old hook caught in their mouth?

7. Shageluk resident has been seeing smaller and smaller northern pike since the sport fishing started. Also, saw many dead fish 7 miles above Holikachuk on a 10-mile stretch two years ago.
8. Local resident says that the Anvik River does not have very much Arctic grayling fish for sport fishing.
9. Concern about inappropriate advertising on the web for fishing guides “trophy pike” Would like to have guides regulated more.
10. Sport fishing is affecting local fisheries and locals are not benefitting economically from their presence.
11. Sport fishing does not respect the resource, should eat what they touch, they are damaging gills and you can not expect fish to survive if they swallow a hook.
12. A Grayling resident saw four boats above Holikachuk two summers ago. People were not friendly.

### *Elder Involvement*

Local residents would like to have elders involved in teaching “common sense” about subsistence hunting and fishing. The elders know more about the moose in their area than the biologist who comes from the state to study the moose population.

### *Youth Involvement*

Local residents would like to have more youth development projects involving the GASH region village youth (Shageluk, Holy Cross, and Grayling). Local residents would like to include GASH region village teachers in the youth development projects.

### *Law Enforcement*

1. Local people are concerned over lack of agency response to law enforcement with wanton waste.
2. Person(s) illegally hunting from an airplane and/or spotting for another person in a boat.
3. Local people say that the state Fish and Wildlife Protection Officer in Aniak is friends with a guide/outfitter and that does not seem to be taken well in the village
4. Holy Cross resident says that no one is enforcing the airborne rules. A lot of problems in the Ranger and Stevens Lake area. They have turned in plane numbers and have heard nothing, Bethel Troopers do not help.
5. Check to see what fishing guides have in their freezers, check on disposal of waste.

### *Moose Issues, Concerns, and Comments*

1. Local people believe that the moose populations are declining because of bear and wolves.
2. Local residents are concerned about increasing wolf and bear predation on moose.
3. Some local people would like to see moose hunting proposal changes from February winter hunt to July.

4. Some local residents say that the GASH region has a healthy moose population.
5. While there are many moose this year, they are not seeing very many calves. Possibly from high spring water and bears killing calves.
6. Local resident would like to see moose survey data compiled from the 1970's to the present.
7. The GASH Committee needs to look into the Proposal for the February moose hunt.
8. Some changes need to be made because of other people coming into the area to hunt.
9. February hunts take a toll on Moose.
10. TCC agency says that a "moose management control" group needs to be formed.
11. A Grayling resident would like to see a moose management-working group and ensure full compliance with high enforcement - concentrate all efforts in season, have harvest tickets and permits.
12. Local resident had heard about a "check station" on the Innoko as told from a biologist.
13. A Holy Cross resident concerned about boat traffic during moose breeding season.
14. A Holy Cross resident concerned of airplane traffic during moose hunting season.
15. It is an effort to find moose in Anvik.
16. TCC - It is important to harvest no more than 5 percent of your moose population.
17. A Holy Cross residents used to see 80 moose on the islands in the winter, now they are not seeing as many. Grayling has also seen a decrease in moose on islands.
18. A Holy Cross residents suggest having a hunter check station in Holy Cross where people have to get gas anyway. Currently many people avoid the existing check station by shutting off their motors before they get to it, and the river is not as visible from the existing check station.
19. A Holy Cross resident would like the Paradise control unit expanded and only allow boat traffic in the area for moose hunting.
20. Wolves have been indiscriminately killing moose, they are more aggressive at night, there are no skinny wolves, packs of 8 - 12 in Shageluk the last two years.
21. Moose are declining with the number of hunters and wolves; local people are worried that there will be no more moose in 20 years.
22. Villages are dependent upon moose for food as there is no caribou in the area.
23. Shageluk has seen wolf kills of moose where only the nose is eaten, one where nothing was eaten and one that only the legs were ripped up.
24. Local residents indicated concern about Proposal 31 - disagree with information in the proposal. They feel that the moose population is on the decline (not healthy), they do not think that the lower villages have "historical use." GASH villages do not go downstream to harvest walrus, seals etc.
25. Lower Yukon residents did not paddle up to Grayling to hunt forty years ago.
26. Shageluk resident is blaming guides and hunters on the decline of moose, not the wolves.
27. A Grayling resident has noticed many moose kills from Salmon Creek to Holy Cross. Ten wolf kills were found in the area with very little of the carcasses eaten.
28. A Grayling resident would like to see a moose management plan.
29. Do not want to wait until moose numbers are low like McGrath - want wolf control now.
30. Reduce fall subsistence hunt August to September 10.
31. Limit season to 10 to 15 days only.

32. Have February hunt only for those people who were unsuccessful in the fall.
33. Eliminate February subsistence hunt - villagers will hunt only when they need it.

### *Waterfowl*

1. Some local residents say that there is a decrease in waterfowl on the Innoko.
2. Some residents attribute the decline in waterfowl to northern pike predation on ducklings.
3. For duck hunting, if you do not go early in Anvik, others shoot all the ducks.
4. A local resident in Anvik sees a lot of waterfowl migration in August and September.
5. Another local resident in Anvik is not seeing many ducks in the fall time and believes the population is decreasing. Has noticed an increase in bald eagles and thinks this is a bigger problem than hunters.
6. Need more research to work out regulations for migratory birds.
7. Anvik residents look forward to fresh meat in the spring after the long winter and harvest more waterfowl in the spring than fall.

### *Sport hunting*

1. Outside hunters have all the money results in cut subsistence budget and they are taking villagers' food. Need to talk to the village.
2. Local guide/outfitter uses five boats to take out hunters and they go only for the antlers, what happens to the meat. There are plenty of people who can use the meat for consumption.
3. Would like to see the season changed to July when meat is prime and antlers are not.
4. Big Game hunters are cutting the horns off and not keeping the meat and getting only small fines.
5. Big money people coming in to hunt our moose.
6. Complaints about Bruce Werba leaving moose meat in the field.

### *Bears*

1. Many bears have been seen in the area including 15 - 20 at the dump at one time during the year at Anvik.
2. Local resident says that black bear should be shot once a year and leave for a few years.
3. Local resident says a few brown bear have been sighted but is still concerned about the moose population.
4. A resident in Holy Cross is noticing more black bears in the flats including an area by Iditarod, also noticing brown bear coming into the area.
5. A resident in Holy Cross has seen a decline in black bear from the town to Ranger Lake.
6. Grayling resident has noticed more brown bears in Yukon slough in the last four years. They are looking for calves in the willows.

### *Wolves*



1. Some local people say that the wolves kill moose and only eat a portion of the moose. Should allow wolf control because starvation will come soon.
2. Local residents are concerned with losing many young moose calves to the wolves.
3. All GASH residents would like to see wolf control.
4. Grayling would like a wolf-snaring clinic.
5. In Holy Cross area there are four wolf packs (Reindeer Lake, Pinemut, Bunjulia and Deerhunting slough). Locals have seen 30 in one pack during the winter.
6. Holy Cross residents know of two wolf trappers but none are in their area.
7. What is being done about wolves, they are getting more used to planes.
8. Agencies need more information on wolves including identification of packs, ranges and documented wolf kills.
9. Shageluk resident has seen moose calves pestered to death by mosquitoes.
10. Grayling resident would like an incentive program for wolves.

#### *User Conflicts over the Resources*

1. Local residents are concerned over subsistence users from down river or the Kuskokwim villages who access the GASH region in winter to hunt moose and harvest northern pike.
2. Some local people are concerned about hunting overlapping each village. Each village has their own hunting grounds.
3. Hunters in each of the villages are competitive when hunting waterfowl or moose. Some families buy more licenses and get more subsistence food.
4. There are more non-resident hunters (not from Alaska) near Holy Cross and in the Innoko River above Iditarod (Anvik).
5. There are established hunting areas for villages and an incident with a gun scope has kept outsiders away from the Anvik hunting areas.
6. There are some problems with Grayling people hunting around Anvik
7. There is high hunting pressure from guides moving moose down from corporation lands.
8. Holy Cross has been seeing and increase in hunting pressure from lower Yukon villages during the month of February. There is a lot of snowmobile hunting pressure on the moose (10 - 15 people on one moose) when they are easier to access. Suggestion to have a drawing for permits for these other villages to hunt in the Holy Cross area.

#### *General Comments*

1. Some local people see non-local sport and guided uses as a conservation threat to the area's moose and northern pike populations.
2. Residents would like to have agency reports to past meetings.
3. Local resident would like to see research done to better understand the moose and fish issues.
4. There does not appear to be much information on wolf and bear population numbers or their predation on moose.

5. Some local residents would like to change the Iditarod Route and possibly build cabins on a longer route. Suggest going up the Anvik River through the villages.
6. Agencies and the GASH villages need to improve communication and develop a common understanding of health and resources.
7. Proposals to the Fish and Game need to be submitted in a timely manner and proposals need follow-up letters and comments from all those concerned.
8. Local resident say that lodges operating during the summer season do not sell local crafts to tourists.
9. TCC proposed to make federal employees tribal employees to assist with visitor centers and the collecting of biological data.
10. Things can get chaotic between villages, each village has different ideas - but they need one collective voice.

### **Recommendations**

Most important is the continued two-way communication between local villages and State and Federal agencies. The recommendation is for management agencies and law enforcement to work with residents of the GASH region to monitor fish and wildlife populations and reduce waste of all species. There is also a strong desire among residents to work towards the completion of a moose management plan.