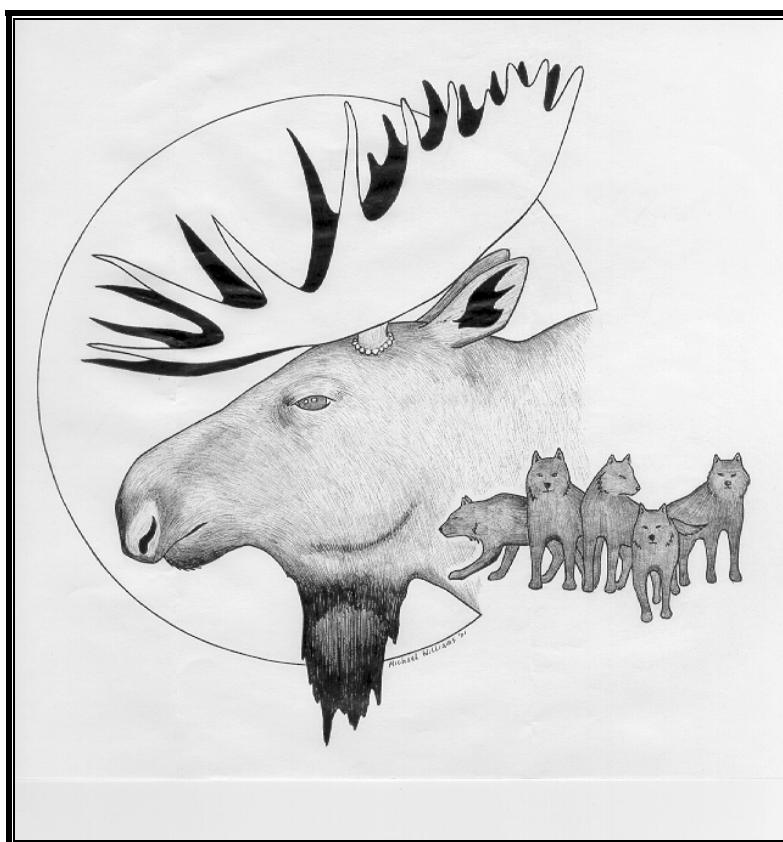


# Yukon Flats Cooperative Moose Management Plan



Drawing by Michael Williams

Alaska Department of Fish and Game  
Division of Wildlife Conservation

*In cooperation with the:*

Yukon Flats Moose Management Planning Committee  
Yukon Flats Fish and Game Advisory Committee  
Council of Athabaskan Tribal Governments  
Yukon Flats National Wildlife Refuge  
Yukon Flats Tribal Governments

May 15, 2002

**STATE OF ALASKA**  
**Tony Knowles, Governor**

**DEPARTMENT OF FISH AND GAME**  
**Frank Rue, Commissioner**

**DIVISION OF WILDLIFE CONSERVATION**  
**Wayne L. Regelin, Director**

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**Credit for artwork used in this plan:**

The Yukon Flats Moose Management Planning Committee sponsored a contest for artwork related to Yukon Flats moose. Michael Williams from Beaver was the winner in the adult category and several pieces of his artwork appear in the plan. Winners in the youth category were Shaylene Fields from Fort Yukon, Jennie Wade and Ethan Eric from Beaver. The Planning Committee greatly appreciates the efforts of all the participants in the art contest.

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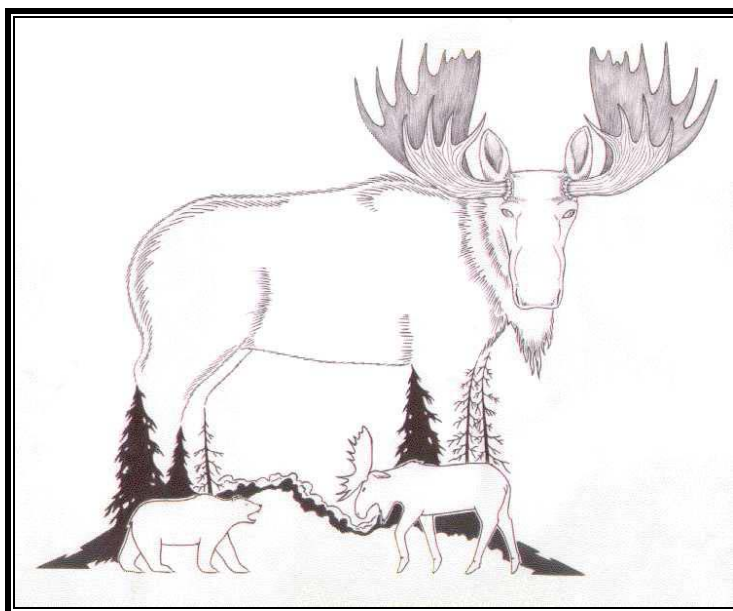
## PURPOSE OF THE PLAN

***Protect, maintain and enhance the Yukon Flats moose population and habitat, maintain traditional lifestyles and provide opportunities for use of the moose resource.***

The Yukon Flats Moose Management Plan is designed to promote an increase in the Yukon Flats moose population in the following ways.

- Improve moose harvest reporting to better document subsistence needs and improve management.
- Reduce predation on moose by increasing the harvest of bears and wolves.
- Minimize illegal cow moose harvest and reduce harvest of cows for ceremonial purposes so that more calves are born.
- Inform hunters and others about the low moose population on the Yukon Flats and ways people can help in the effort to increase moose numbers.
- Use both scientific information and traditional knowledge to help make wise management decisions.

***The Yukon Flats Moose Management Planning Committee recognizes that increasing the moose population can only be accomplished with the support of elders, tribal councils, and hunters.***



Drawing by Michael Williams

## INTRODUCTION

Moose are the most desired and sought-after large mammal for all Upper Yukon-Porcupine River communities except Arctic Village, where caribou are a more significant resource. Moose hunting for food and recreation is also an important activity for other residents of Alaska and for non-residents. Due in part to low moose numbers, there has not been a large amount of hunting on the Yukon Flats by non-local residents in recent years. However, habitat is believed to be some of the best in Interior Alaska and an increased moose population would benefit both local residents and other wildlife users.

Athabascan Indians of the Yukon Flats region have always relied heavily on subsistence use of wild renewable resources. Richard Nelson's observations of the significance of moose to the residents of Chalkyitsik hold true for most of the communities in the Yukon Flats area:

It is impossible to say just how vital a role moose played in the traditional Kutchin economy, but there is little question about its importance to people today. The Chalkyitsik Kutchin consider moose the game in their country. They always want to have moose meat on hand, and if they run out they think and talk about how they will get more. "Meat" is almost synonymous with moose. Whereas other animals may be considered delicacies or treats, moose is probably the one meat they could least think of doing without. During some years the volume of foods, such as fish, may exceed the volume of moose, but the people still seem to consider it the most important.

Today, moose continue to be an important subsistence resource in the upper Yukon basin. The decline in salmon runs and harvests has made moose and their management even more important. Although, moose numbers are low their physical and cultural importance to local

communities remains high. Moose management faces several challenges. Cow moose continue to be harvested both illegally, and legally for ceremonial potlatches, which contributes to keeping moose numbers low. Wolves, black bears and grizzly bears have a major effect on moose numbers, with bears killing most of the calves that are born each year. Residents of the Yukon Flats are concerned about this important resource and the availability of moose for future generations. Others who hunt, guide or recreate on the Yukon Flats are also interested in maintaining and enhancing opportunities to use and enjoy this wildlife resource. Most people familiar with the Yukon Flats understand the area's potential to support a greater abundance of moose that would benefit all wildlife users. At the same time, some residents are concerned that a large increase in moose numbers would lead to an influx of non-local moose hunters and create conflicts, such as competition for campsites and hunting areas along rivers.

The major goal of this plan is to increase the moose population and the number of moose available for human harvest. As in many parts of Alaska, predation by wolves and bears is the most important factor limiting moose numbers. Federal and state policies and political controversy make predator control difficult, limiting the tools that can be used to increase the moose population. Thus, the future of the Yukon Flats moose population depends largely on local efforts to increase the survival of cow and calf moose by increasing the harvest of wolves and bears, and reducing or eliminating the harvest of cow moose. That is one reason the plan recommends a stronger role for tribal governments in regulating moose harvest by tribal members. Guides and hunters from other areas can also contribute to the effort to increase the harvest of bears and wolves.

#### **PLANNING AREA**

The planning area includes about 39,000 square miles in the upper Yukon River drainage in northeast Alaska and encompasses the Yukon Flats National Wildlife Refuge and part of the Arctic National Wildlife Refuge (Figure 1). The planning area was designed to include areas that are important for moose hunting for villages represented on the Yukon Flats Advisory Committee and includes Game Management Unit 25D, northern Unit 25B, eastern Unit 25A, and a small portion of Unit 25C near Circle (Figure 2). The planning area does not include the western portion of Unit 25A or southern portion of Unit 25B because those areas are not used extensively by residents of Yukon Flats.

The area's human population includes about 1,400 people in the communities of Fort Yukon, Chalkyitsik, Arctic Village, Birch Creek, Beaver, Stevens Village, Venetie, and Circle. Native residents of the area are primarily Gwitch'in Athabascan, but there are also Koyukon Athabascan people in Beaver and Stevens Village.

Major landholders include the U.S. Fish and Wildlife Service (FWS), Doyon Ltd. Regional Corporation, Native village corporations, Venetie Tribal Government, the Bureau of Land Management and the State of Alaska. Land below the ordinary high water mark of navigable waterways is owned by the State of Alaska. Native corporations or Tribal governments own much of the land around villages and adjacent to the Yukon River (Figure 3, individual Native allotments are not shown).

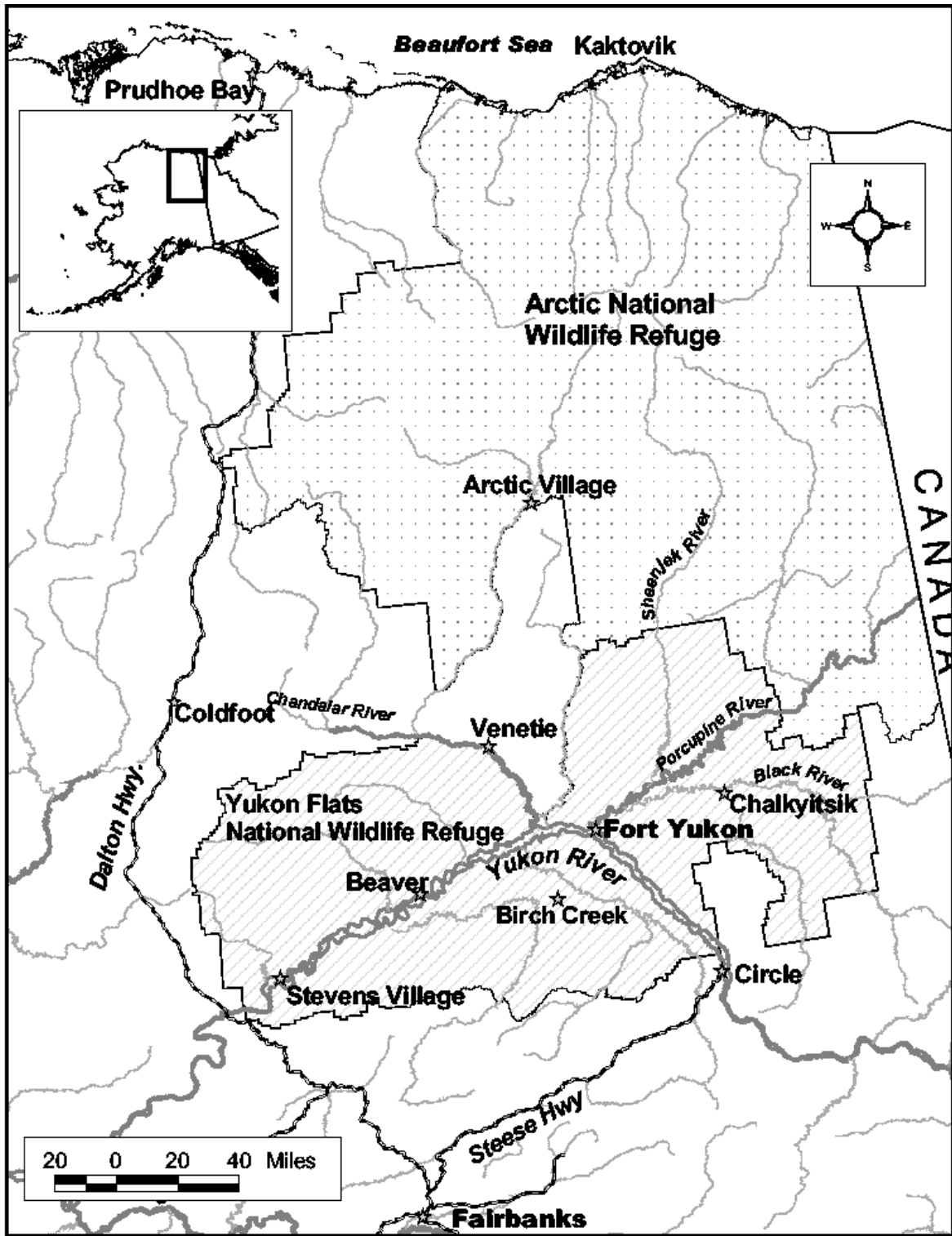


Figure 1: Regional Setting and National Wildlife Refuge Boundaries

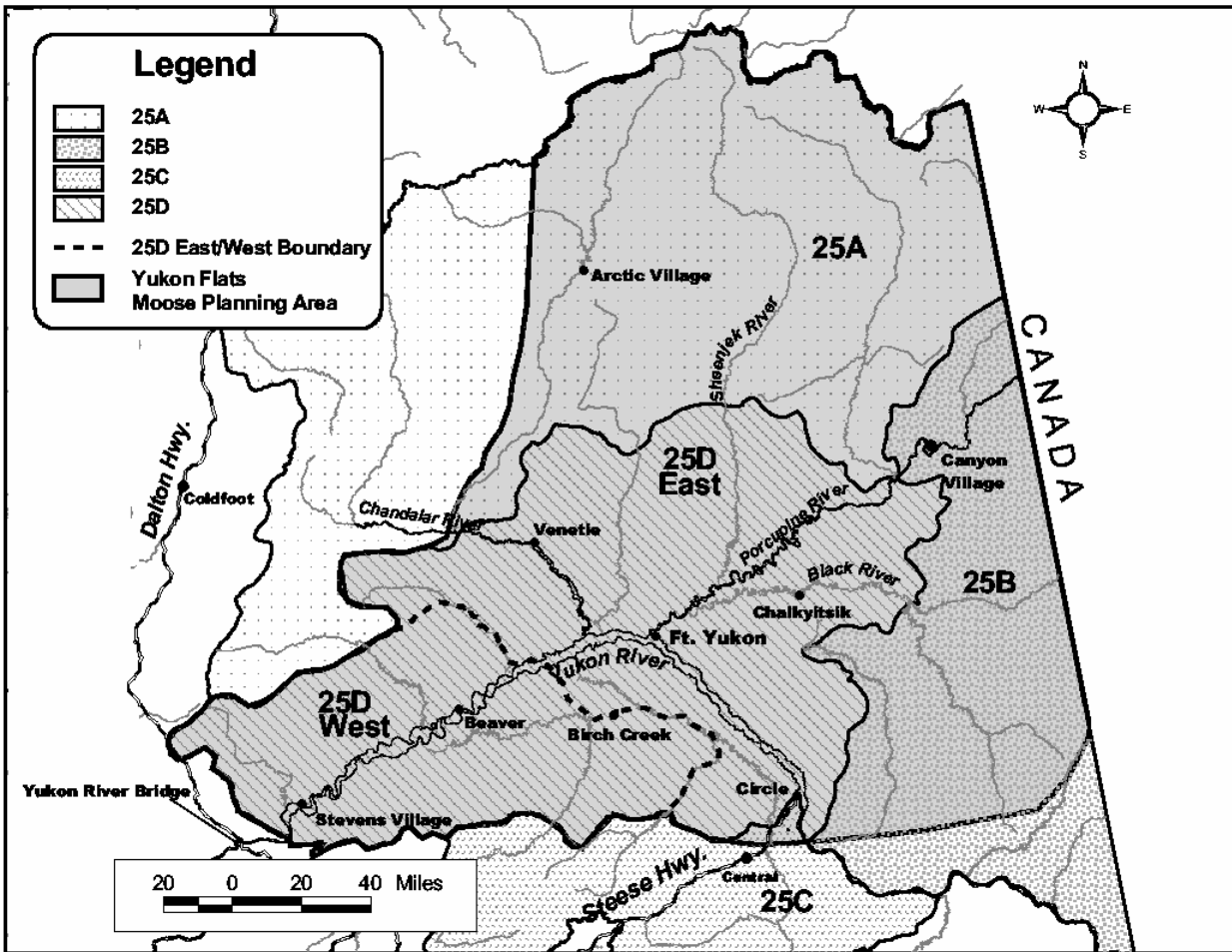
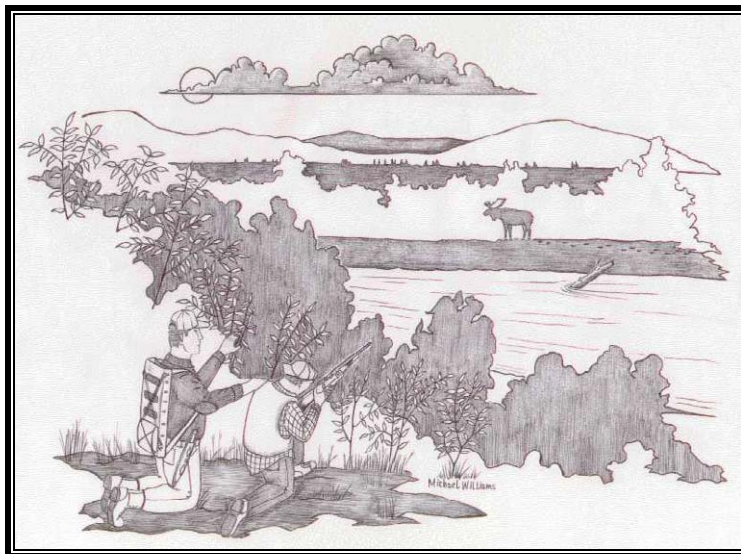


Figure 2: Map of the Planning Area and Game Management Units



Drawing by Michael Williams



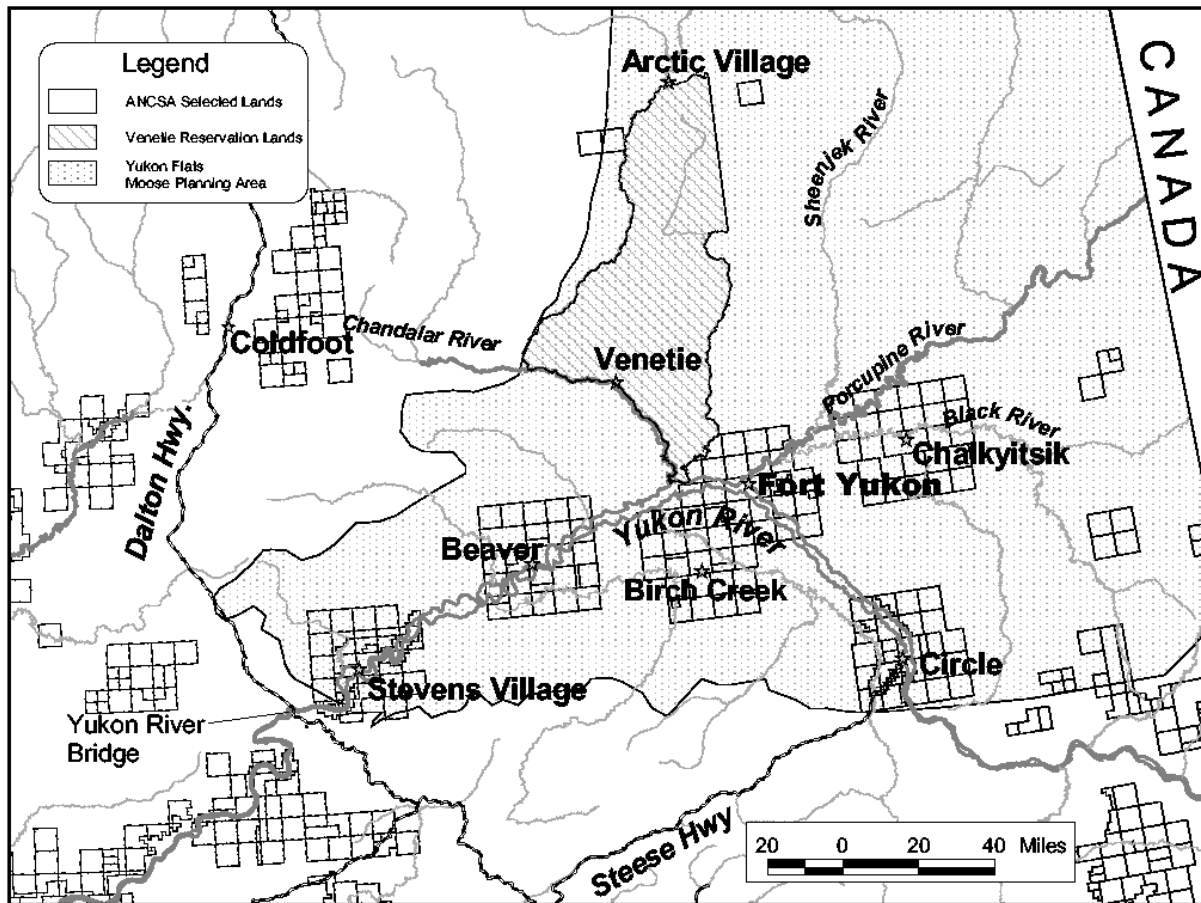


Figure 3: Major blocks of Native Corporation or Tribally Owned/Selected Lands

### THE PLANNING PROCESS

This plan was developed under the guidance of the Alaska Department of Fish and Game, Division of Wildlife Conservation (ADF&G / DWC). The planning effort was conducted in cooperation with the Yukon Flats Fish and Game Advisory Committee (YFAC), through the Yukon Flats Moose Management Planning Committee (YFPC or Planning Committee), a temporary group created specifically for the planning project. Other stakeholders and participants include the Council of Athabascan Tribal Governments (CATG), individual tribal governments, the Yukon Flats National Wildlife Refuge (YFNWR), the FWS Office of Subsistence Management and other interested users of the Yukon Flats moose resource.

Most members of the Planning Committee also serve on advisory committees or regional councils, which helps ensure good coordination with these groups. The work of the Planning Committee supplements the work of advisory committees and regional subsistence councils in their role as advisors to the state and federal regulatory boards.

In March 2002 the Alaska Board of Game considered the draft plan and regulatory proposals submitted by the Planning Committee. The Board adopted the regulation proposals with only a few minor modifications and voted unanimously to endorse the Yukon Flats Cooperative Moose Management Plan. The Federal Subsistence Board endorsed the plan in May 2002.

This plan will be periodically reviewed through the Yukon Flats Fish and Game Advisory Committee and the Eastern Interior Regional Subsistence Council systems and updated as needed. If moose numbers increase or decrease significantly harvest regulations and other aspects of management will be reevaluated. Additional information on the planning process is provided in Appendix A.

Members of the Yukon Flats Moose Management Planning Committee are:

**Joel Tritt**, Arctic Village  
**Paul Williams Sr.**, Beaver  
**Eddie James, Sr.**, Birch Creek  
**James Nathaniel, Sr.**, Chalkyitsik  
**Larry Nathaniel**, Circle  
**Craig Fleener and Bruce Thomas**, Fort Yukon  
**Gary Lawrence**, Fort Yukon  
**Bonnie Thomas**, Fort Yukon  
**Jay Stevens**, Stevens Village  
**Larry Williams**, Venetie  
**Bob Stephenson**, ADF&G / DWC  
**Mark Bertram**, Yukon Flats National Wildlife Refuge

Many other people also contributed to the development of this plan by participating in meetings of the YFPC, submitting written and verbal comments or helping in other ways.

#### **ORGANIZATION OF THE PLAN**

The following section describes a few of the primary management considerations applied in developing the management program for Yukon Flats moose. Next, the major issues identified by the Planning Committee are listed. The heart of the plan is the “Management Recommendations” section where the goals, objectives, actions and guidelines recommended by the Planning Committee are laid-out, moose, black bear, grizzly bear and wolf hunting regulation changes made by the Board of Game in March 2002 are summarized, and implementation priorities are identified. Following the management recommendations, additional background information is provided on the status of moose, wolf and bear populations and harvest levels, and some key state regulations that affect Yukon Flats moose management. Appendix A provides further detail on the planning process. Appendix B describes alternative hunt management systems that were considered for Unit 25 D East. Appendix C provides a summary of the public comment on the draft plan and village meetings and includes a list of persons who participated in meetings or submitted comments during the planning process.

## **MANAGEMENT CONSIDERATIONS**

State laws include a priority for subsistence use of fish and game, and an intensive management law that sets criteria for restoring abundance or productivity of moose populations to achieve human consumptive use goals adopted by the Board of Game. Federal law also significantly influences both subsistence management and other aspects of management, such as predator control. The following is a general review of these laws and policies as they affect Yukon Flats moose management.

### *Subsistence Priorities*

State allocation of hunting opportunities must be done according to the subsistence use and allocation criteria in AS 16.05.258. Under state law, all Alaska residents are potentially eligible as subsistence hunters. This conflicts with the federal requirement in the Alaska National Interest Lands Conservation Act for a subsistence priority for rural residents only. Nonetheless, both state and federal law identify subsistence as the priority consumptive use of wildlife.

### *Predator Control*

Predator control is not specifically prohibited under the Alaska National Interest Lands Conservation Act, which established the YFNWR, or by FWS policy. However, FWS policy requires full analysis and public review under the National Environmental Policy Act before implementing a predator control program on a national wildlife refuge, and a determination that it is consistent with refuge purposes.

The policy of Governor Tony Knowles that has been in place during development of this plan is that a predator control program will not be authorized unless 1) It is based on solid science; 2) A full cost-benefit analysis shows that it makes economic sense for Alaskans; and 3) It has broad public support.

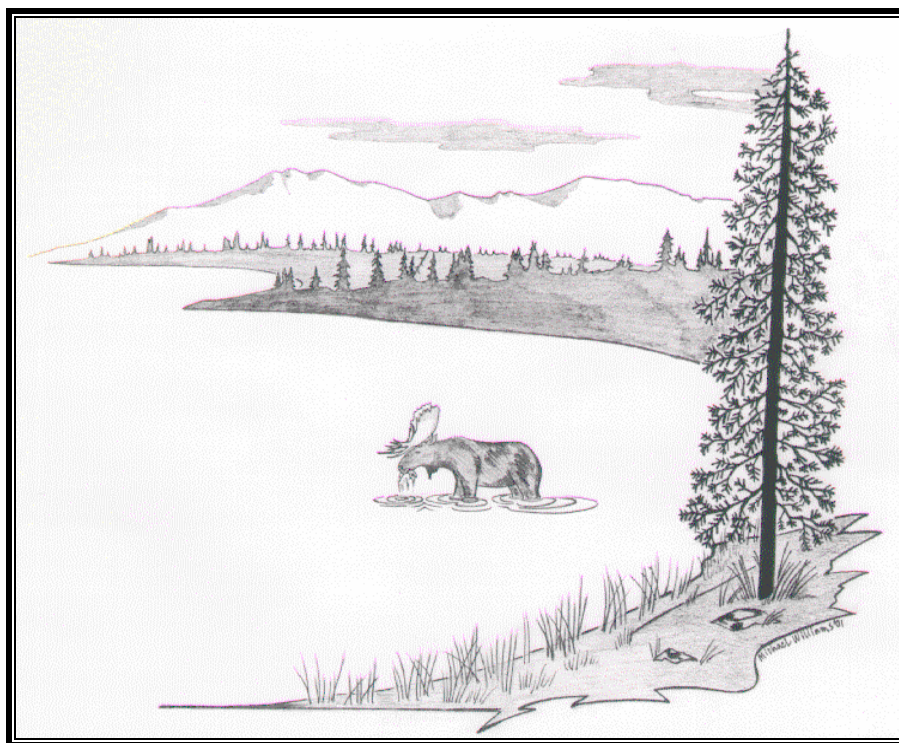
During the planning process several people advocated government sponsored wolf predation control. Although the Planning Committee recognized that predator control can be an effective and economical wildlife management tool in some situations, they also recognized the existing legal and political constraints and did not regard government predator control as a viable management option for the Yukon Flats at this time. Instead, the plan emphasizes providing increased opportunities for the public to harvest bears and wolves, which are relatively abundant, and thereby improve the status of the moose population, particularly in key hunting areas.

The Planning Committee examined many ideas and approaches for reducing predation on moose by wolves and bears. Committee members acknowledged the need for conserving viable populations of predators and emphasized the need to ensure all animals are treated with the proper cultural respect and that waste must not be encouraged.

### *Enforcement of Hunting Regulations*

It is difficult to enforce wildlife regulations in an area as large and remote as the Yukon Flats. As in other parts of Alaska, effective enforcement depends largely on the public reporting violations promptly and with sufficient detail so the Division of Fish and Wildlife Protection (FWP) can investigate them. FWP often has a presence in the field during the fall and winter hunting

seasons, but local residents often take moose during closed seasons. Enforcement is also made difficult by laws that authorize taking big game for religious ceremonies outside of the general hunting season. The harvest of cow moose is an important factor contributing to low moose populations, and is difficult to control in remote areas through conventional state or federal enforcement programs. Local residents believe that some non-local hunters waste meat, while non-local residents are often surprised to learn that cow moose are commonly taken by local residents.



Drawing by Michael Williams

### **PRIMARY MANAGEMENT ISSUES**

- How can moose and predator harvest regulations be changed to help increase the Yukon Flats moose population?
- How can users of the Yukon Flats moose resource become more involved in management?
- How can the factors limiting Yukon Flats moose be changed to increase the moose population?
- What informational materials should be developed to educate people about the low moose population and encourage actions to help increase moose numbers?
- How can scientific and traditional ecological knowledge be integrated and additional information collected to provide for better management?

## MANAGEMENT RECOMMENDATIONS

### CATEGORY 1: MOOSE POPULATION, HARVEST AND PREDATION MANAGEMENT

**Goal 1.1:** Increase the harvestable surplus of bull moose in key hunting areas near local communities by reducing mortality from bear and wolf predation.

**Goal 1.2:** Double the size of the moose population in key hunting areas and, if possible within the entire planning area, in the next ten years.

The number of moose available for human harvest could be increased by reallocating some moose presently taken by predators to humans. For example, if local residents are successful in reducing the number of black bears and wolves and can thereby increase calf survival rates, more moose could be available for human harvest in key hunting areas, even though moose numbers might remain fairly stable. This may be the most realistic way to maintain or increase the allowable harvest while efforts are made to increase overall moose numbers.

#### **Moose Population Objectives:**

- A. Double the number of moose in the Unit 25D East and West survey areas within the next 10 years. This should also reflect some increase in numbers in other parts of Unit 25D. A secondary objective is to increase the number of moose in the Unit from 4,000 moose to 8,000 by 2012.
- B. Maintain a minimum of 40 bulls per 100 cows as observed in fall surveys.

The objective of doubling the Yukon Flats moose population in the next 10 years is ambitious given the obstacles to reducing predation on moose over a wide area. However, this objective is more conservative than the Intensive Management Population and Harvest Objectives established by the Board of Game for Unit 25D (10,000 – 15,000 moose with a harvest of 600 – 1,500 moose; see Background Information for details).

#### **Moose Harvest Objectives:**

- A. Reduce the effort and expense needed to harvest moose in important hunting areas near local communities. Monitor changes in hunter effort through household harvest surveys.
- B. Maintain a harvest level sufficient to provide the amount of moose necessary for subsistence uses and also maintain or increase general harvest opportunities for all hunters.

**Goal 1.3:** Develop cooperative management programs involving State, Federal and Tribal management organizations to help improve local harvest monitoring and reporting.

Improved harvest reporting and monitoring is an important part of this plan. The most effective way to gather good data on local harvest is through organizations such as CATG or tribal councils. Local organizations could also assist local residents in filling out applications where permits are required.

**Strategy 1:** Work with tribal councils and other local organizations to establish local harvest monitoring and enforcement programs that contribute to increasing the moose population and local involvement in management.

**Objective A:** Improve moose harvest reporting to attain 90% or greater reporting compliance during the next 3 years.

**Objective B:** Minimize cow moose harvest while the population is rebuilding, recognizing that some cows will probably be taken for ceremonial purposes when bull moose are in poor condition.

**Objective C:** Improve compliance with state and federal permit requirements in 25D West to 90% or greater within the next 3 years.

**Actions, Guidelines and Methods:**

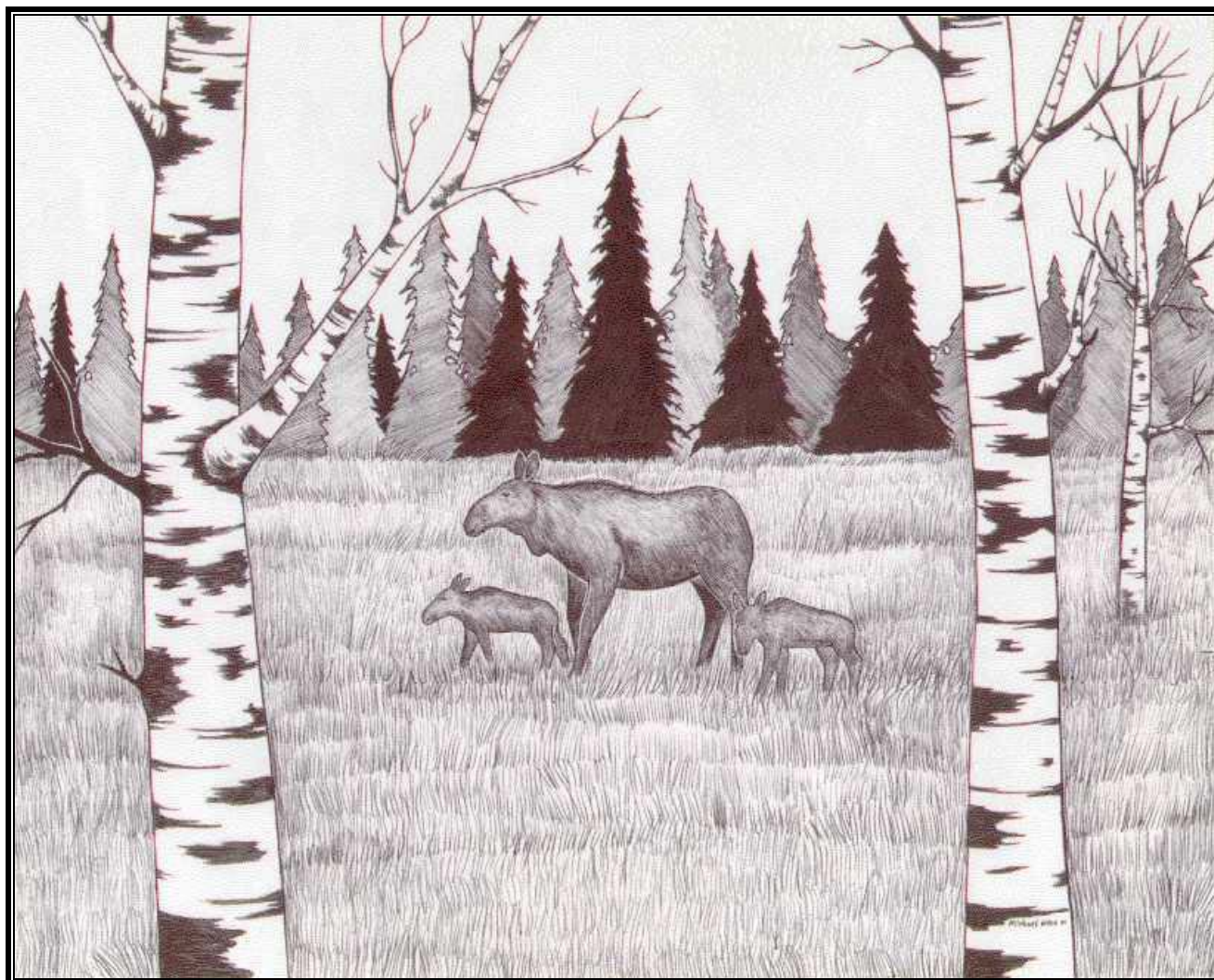
1. Maintain tribal council involvement in Yukon Flats moose management and planning.
2. Request resolutions of support for the Yukon Flats Moose Management Plan from local tribal councils and other organizations.
3. Support funding agreements for moose harvest monitoring, reporting and research for CATG and/or Yukon Flats tribal councils.
4. Through projects conducted by CATG, tribal councils or state and federal managing agencies:
  - Conduct household moose harvest surveys to improve accuracy of moose harvest information.
  - Work with residents of 25D West to ensure availability of state and federal permits and assist interested persons in obtaining applications.
  - Measure changes in hunter effort through household harvest surveys.
5. Encourage tribal councils to adopt codes and ordinances to control moose harvest by tribal members for potlatch and ceremonial purposes. These tribal codes might specify, for example, how a council will:
  - Designate the number and kind of moose taken by tribal members for potlatch and ceremonial purposes.
  - Direct potlatch harvest towards bull moose to the greatest extent possible.
  - Ensure reporting of the harvest as required by ADF&G or FWS.
6. Explore opportunities to develop wildlife law enforcement programs for tribal members.
7. Encourage prompt reporting of violations through the Fish and Wildlife Safeguard program.
8. Support efforts by Fish and Wildlife Protection to enforce regulations in a fair and consistent manner.

**Strategy 2:** Use cooperative management to develop moose harvest regulation recommendations for the Board of Game and Federal Subsistence Board.

**Actions, Guidelines and Methods:**

1. Moose hunting regulations should be designed to help increase the moose population, ensure reasonable opportunities for moose hunting, and promote legal hunting practices.

2. Coordinate state, federal and tribal management through the planning process and existing advisory committee and regional subsistence council systems.
3. Explore opportunities to alter hunting seasons to match traditional use patterns, while keeping harvest within sustained yield and meeting moose population objectives.
4. Consider recommending community harvest programs where local communities express interest.
5. Support statewide regulations that would allow moose hunters to hunt in only one GMU each year.



Drawing by Michael Williams

**Strategy 3:** Increase harvest of black bears, grizzly bears and wolves to help increase moose survival rates while maintaining viable populations of predators.

Actions, Guidelines and Methods:

1. Encourage hunters to take black bears as allowed under regulations.
2. Develop a way to keep track of the number of bears taken, such as a harvest monitoring program conducted by CATG or others, Community Harvest Permit systems or state harvest tickets
3. Sponsor wolf trapping and bear baiting clinics.
4. Encourage guiding to increase bear harvest.

The Planning Team supports the concept of allowing sale of black bear hides and parts but also agreed the idea is controversial and would have to be addressed on a statewide basis. Sale of bear parts continues to be discussed by the Board, ADF&G and the public, with both support and opposition from various interests. Because it is unlikely that a proposal to allow sale of bear hides or other parts on the Yukon Flats would pass, the Team decided to support the concept in the Yukon Flats Cooperative Moose Management Plan and encourage agencies and others to continue to work to find a way to accomplish this goal.



Drawing by Jennie Wade

**Strategy 4:** Manage habitat to maintain or improve moose productivity.

Recommended methods:

1. Assess moose habitat quality and quantity.
2. If habitat assessments indicate a need, cooperate with ADF&G, USFWS, Native Corporations and other landowners to improve habitat.
3. Use prescribed fire to rejuvenate decadent upland willow stands.



*State Regulatory Changes Resulting From the Plan*

The Planning Committee developed proposals for several changes to hunting regulations in the planning area. One of the most significant proposals would have established a registration permit system in GMU 25D East and would have closed the subunit to non-residents. Following public review and comment the committee decided to recommend withdrawing this proposal. If the moose population continues to decline in Unit 25D East a change in moose hunting regulations may be needed at some point. Information on the alternative hunt management systems considered for Unit 25D East is included in Appendix B. The Board adopted other proposals submitted by the Planning Committee as outlined below.

**Moose Season in the Upper Porcupine River in Unit 25B** (above and excluding the Coleen River drainage). – The new season will open September 10 and close Sept. 25. The old season was Sept. 20-30.

**Moose Antler Size Limit For Non-residents in Unit 25A**--The Board passed a proposal to only allow non-resident hunters to take a bull with antlers 50 inches or greater in width or four brow tines on at least one side.

**Fall Black Bear Baiting** – The Board added a fall baiting season so that it is now legal to use bait for black bear hunting from April 15 to June 30 and from August 1 to Sept. 25.

**Hunting Seasons and Bag Limits for Brown Bears in Unit 25** –The new season for Unit 25D is March 1 to Nov. 30 for Alaska residents. The Board decided to close the resident season from Dec. 1 to Feb. 28, when bears are denning. This means Alaska residents can take grizzly bears during the summer as well as during spring and fall. Federally qualified subsistence hunters can take grizzly bears year-round on federal lands in Unit 25D. The season for non-resident hunters in Units 25 A, B and D now closes on June 15 instead of May 31.

**Higher Bag Limit for Wolf Hunting** – The new bag limit for wolf hunting is 10 wolves per year. This applies to people who only have a hunting license. There is no bag limit for wolf trapping.

**Community Harvest Program for Black Bears** – The Board established a community harvest area for black bears in Unit 25D, similar to the Chalkyitsik Community Harvest Area for moose that was established two years ago. The Community Harvest system was set up because a small number of hunters often harvest a large share of the resources used by small communities. A community or other group of people now has the option of applying for a Community Harvest Permit for black bears. This allows people to combine bag limits so more active hunters can each take more than 3 black bears. People can still hunt under the present bag limit of 3 bears per hunter if they choose.

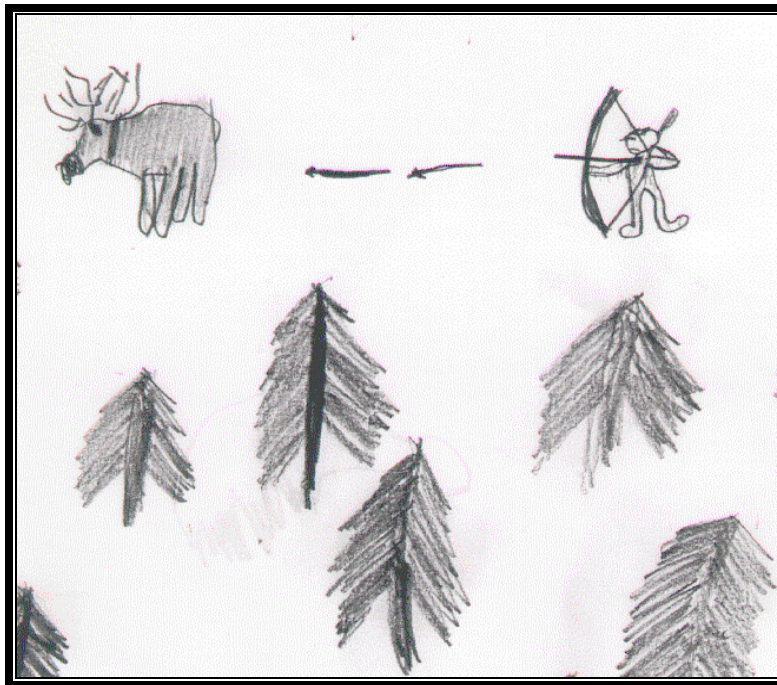
**CATEGORY 2: PUBLIC INFORMATION, EDUCATION AND INVOLVEMENT**

**Goal 2.1: Prepare and distribute information about causes for the low moose population and encourage public participation in the effort to increase moose numbers.**

**Goal 2.2: Develop cooperative management programs that increase user involvement in management and support local efforts to increase moose numbers.**

Actions, Guidelines and Methods:

1. Distribute at least one Yukon Flats Moose Management Newsletter each year to keep local residents informed on the status of the moose population and implementation of the moose management plan.
2. Conduct presentations in Yukon Flats area schools to educate youth about the moose population and management programs.
3. Issue Public Service Announcements on local radio to inform residents about moose management issues and concerns.
4. Establish a web site for Yukon Flats moose management information.
5. Produce a new educational video on Yukon Flats moose management.
6. Provide for continuing and increased involvement of local residents in moose and predator population surveys and harvest monitoring.
7. Support development of programs for local residents to learn more about and be involved in wildlife management issues.
8. Increase public awareness of fire management plans and support for burning.



Drawing by Ethan Eric

### **CATEGORY 3: MANAGEMENT INFORMATION NEEDS**

#### **Goal 3.1: Integrate scientific and traditional ecological knowledge and develop programs to fill information needs.**

##### Actions, Guidelines and Methods:

1. Develop an inventory of existing sources of scientific and traditional ecological knowledge.
2. Use existing forums such as the Yukon Flats Fish and Game Advisory Committee and the Eastern Interior Regional Subsistence Advisory Council to promote consideration of scientific and traditional knowledge in management decision-making.
3. Increase the use of trend count areas to monitor moose populations in key hunting areas near local communities.
4. Conduct a workshop on traditional ecological knowledge on the Yukon Flats.

### **PLAN IMPLEMENTATION PRIORITIES**

This section identifies the priority actions that should be taken by the cooperating parties.

1. Review of the draft plan and regulatory proposals by advisory committees, the EIRAC and general public.
2. Exchange information about the draft plan at meetings in Yukon Flats villages.
3. Adoption of regulatory proposals and endorsement of the plan by the BOG and FSB.
4. Agency sign-off on the plan and resolutions of support from Tribal Councils.
5. Adoption of tribal codes for managing ceremonial and potlatch take of moose.
6. Secure funding for harvest monitoring through household surveys.
7. On-going moose, bear and wolf harvest monitoring through household surveys.
8. On-going monitoring of predator populations.
9. Make sure residents in moose permit areas have an opportunity to obtain and submit permit applications.
10. Continue assessing hunter effort through household surveys.
11. Conduct annual moose surveys to assess population and productivity.
12. On-going habitat assessment and habitat improvement where appropriate.
13. Production of at least one issue of the Yukon Flats Moose News each year.
14. Periodic public service announcements and speaking engagements in schools.
15. Conduct a workshop on traditional ecological knowledge on the Yukon Flats.
16. Monitor and re-evaluate the plan and moose hunting regulations every two years.

#### *ADF&G Implementation Priorities*

1. Work with the Planning and Advisory Committees to submit regulatory proposals to the Board of Game.
2. Prepare and distribute a newsletter and draft moose management plan for public review.
3. Work with Planning and Advisory Committee members and Village Councils to exchange information about the draft plan at meetings in each Yukon Flats village.
4. Compile responses to the draft plan and review them with the Planning and Advisory Committees.

5. Work with the Planning and Advisory Committees to finalize recommendations to the Board of Game.
6. Work with federal subsistence staff to prepare and submit proposals to the Federal Subsistence Board.
7. Actively support funding proposals from CATG or others to continue household harvest surveys.
8. Conduct annual moose surveys to assess populations and productivity.
9. Produce of at least one issue of the Yukon Flats Moose News each year.
10. Work with CATG, FWS and others to conduct a workshop on traditional ecological knowledge on the Yukon Flats.

*Yukon Flats NWR Implementation Priorities*

1. Actively support funding proposals from CATG or others to continue household harvest surveys.
2. Work with federal subsistence staff to prepare proposals for the Federal Subsistence Board.
3. Work with CATG, ADF&G and others to conduct a workshop on traditional ecological knowledge.
4. Conduct annual moose surveys to assess populations and productivity.
5. On-going habitat assessment and habitat improvement where appropriate.
6. Periodic public service announcements and speaking engagements in schools.

*Tribal Government Implementation Priorities*

1. Assist in sponsoring village meetings to discuss the draft plan and regulatory proposals.
2. Adopt tribal codes for managing ceremonial and potlatch take of moose.
3. Assisting in administering community harvest programs or registration permits.
4. Actively support funding proposals from CATG or others to continue household harvest monitoring surveys.
5. Make sure residents in moose permit areas have an opportunity to submit permit applications.
6. Contribute information for the Yukon Flats Moose News

*CATG Implementation Priorities*

1. Make sure residents in moose permit areas have an opportunity to submit permit applications.
2. Work with ADF&G, YFNWR and others to conduct a workshop on traditional ecological knowledge.
3. Assist in organizing village meetings to discuss the draft plan and regulatory proposals.
4. Secure funding for harvest monitoring through household surveys.
5. Assist ADF&G and YFNWR in moose and wolf surveys.
6. Periodic public service announcements and speaking engagements in schools.
7. Continue assessing hunter effort through household surveys.
8. Assist Tribal Councils in developing codes regulating potlatch moose harvest.

## BACKGROUND INFORMATION

### MOOSE POPULATION STATUS

Prior to the mid-1900s, moose were generally scarce on the Yukon Flat. Accounts from people familiar with the area suggest that numbers increased during the 1960s and 1970s, and that moose were most abundant during the 1970s and 1980s. This increase was probably related to higher harvests of predators prior to and during this period. Changing socio-economic factors and changes in wolf harvest regulations have combined to reduced predator harvests, while moose hunting pressure has remained fairly constant or increased. Population surveys (Figure 4), as well as observations of local residents, guides and pilots, suggest moose numbers have declined during the last decade or so.

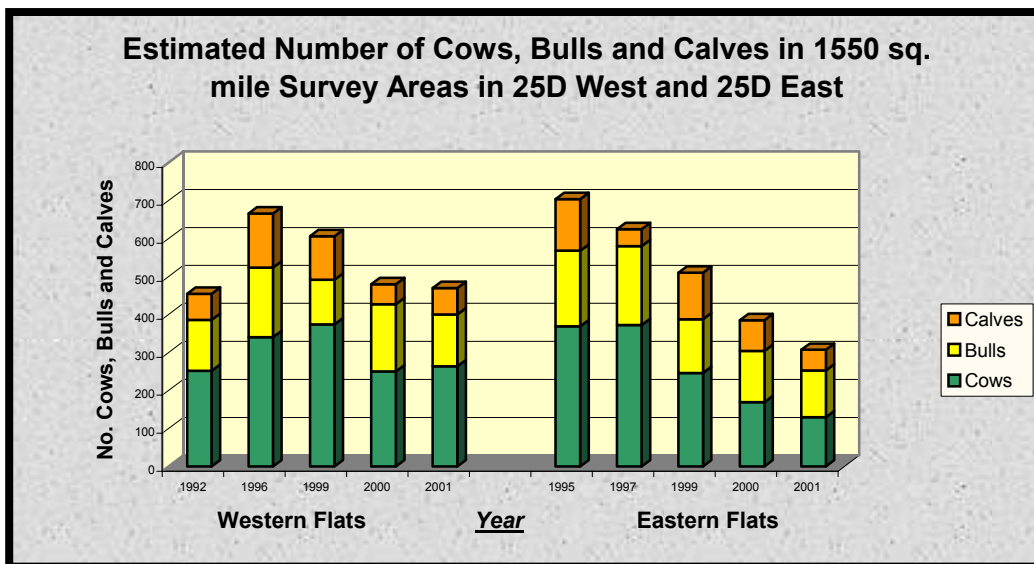


Figure 4 Moose Population Trends in Survey Areas on Western and Eastern Yukon Flats.

Annual population surveys in eastern and western 25D provide estimates of moose density and population composition. Estimated population density in fall 2001 was .20 moose/mi<sup>2</sup> in the eastern survey area (2936 mi<sup>2</sup>) and .30 moose/mi<sup>2</sup> in the western area (2269 mi<sup>2</sup>). Bull:cow ratios generally range from 40 to 70 bulls per 100 cows, and calf:cow ratios have ranged from 22 to 42 calves per 100 cows in 25D West and from 37 to 59 per 100 cows in 25D East. The reason for the higher calf:cow ratios in eastern 25D is not known, but the higher human population and higher harvest of bears may be a factor. Despite moderately high fall calf:cow ratios, moose numbers appear to be declining in the eastern part of the flats. The population on the western flats appears to be more stable, although survey results and anecdotal information suggest numbers are lower than in the 1980's. Moose density in Unit 25D is lower than in most areas with comparable habitat in interior Alaska (Figure 5). Wolf predation, bear predation and hunting are the most important sources of moose mortality.

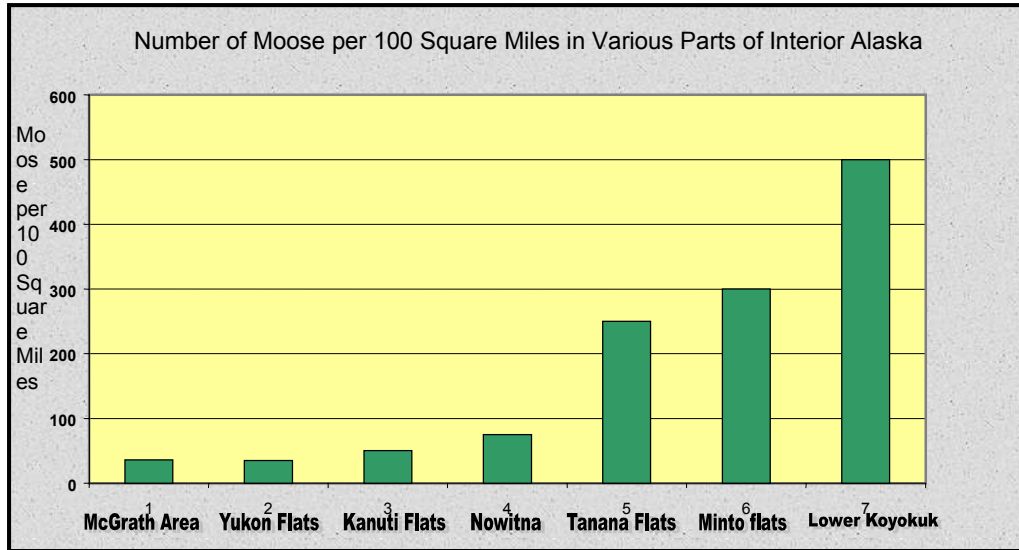


Figure 5 Number of moose per 100 square miles in various parts of Interior Alaska.

There have been no systematic moose surveys in northern Unit 25B, but reconnaissance surveys and anecdotal information suggest moose numbers are relatively low and have declined in recent years. Population surveys are conducted periodically along the south slope of the Brooks Range in eastern Unit 25A. A comparison of surveys conducted by FWS in 1991 and 2000 indicates that moose numbers declined by about 50% during this period. The 2000 survey indicated there were approximately 100 bulls and 32 calves per 100 cows.

*Factors Affecting Moose Numbers*

**Habitat**

The Yukon Flats provides excellent moose habitat. Low precipitation, high summer temperatures, and an abundance of thunderstorms create the most extreme fire climate in Alaska, resulting in extensive stands of grass and low shrubs. Willows and other trees and shrubs that are preferred by moose are abundant. Habitat surveys indicate that moose browsing intensity is low in both riparian and upland sites and that a large amount of good to high quality forage is available in both habitat types. Feltleaf willow provides high quality food for moose, and is the most common shrub in riparian habitats. Other common trees and shrubs which are potential forage species for moose include sandbar willow, little tree willow, pacific willow, blueberry willow, diamond leaf willow, fire willow, bebb willow, barren ground willow, red osier dogwood, balsam poplar, and aspen. Snow depths exceeding 24 inches are rare and widespread malnutrition caused by deep snow has not occurred in recent decades.

Favorable habitat conditions are reflected in a high pregnancy rate, the fact that over 60% of cows have twins each year, and large body size of calves. Unit 25D West (6500 mi<sup>2</sup>) could probably support at least 5000 moose, and Unit 25D East (11,000 mi<sup>2</sup>) could support at least 8500 moose. There are currently an estimated 1500 moose in 25D West and 2000 to 3000 in 25D East.

### ***Predation***

A two-year study of calf mortality in 25D West conducted by Mark Bertram, YFNWR, showed the major source of mortality for calf moose in early summer is predation by black bears and brown bears (Figure 6). Thirty cow moose and 62 calves were radio collared. Only 20% of calves survived each year, with black bears killing 45%, and grizzlies 39%, of the calves that died. Brown bears also killed some adult moose. Wolf predation accounted for 3% of the mortality. Drowning accounted for 8% of the calves that died, but it should be noted that bears appeared to be involved in causing cows and calves to enter water where calves drowned. The annual survival rate for cows was 88%.

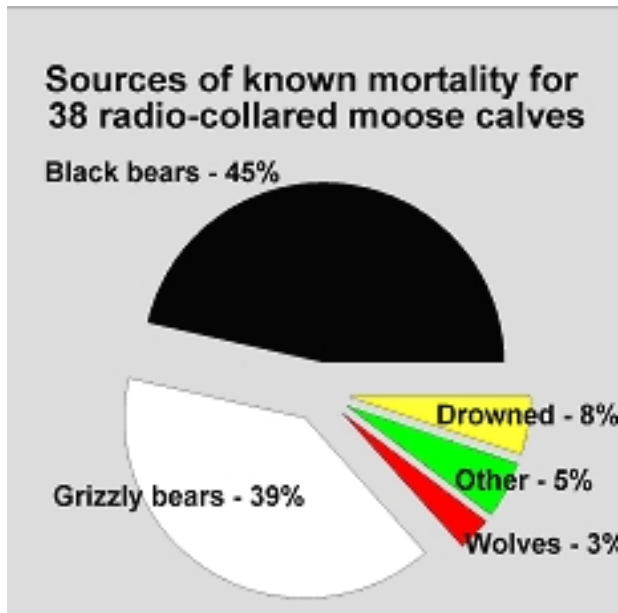
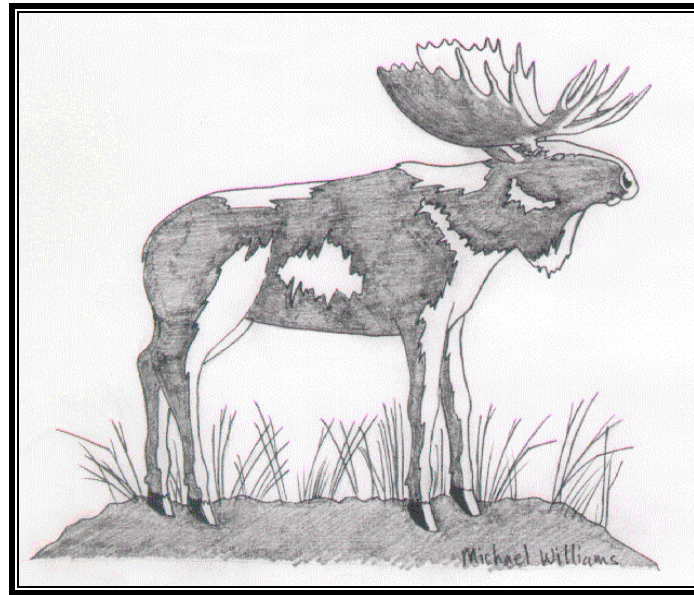


Figure 6. Sources of known mortality of 38 radio-collared moose calves

Wolves kill a substantial number of adults and calves during winter, and are likely the most important source of mortality after snowfall. The harvest of cow moose is a significant source of mortality in some areas, and further limits the number of calves born each year.

### ***Moose Harvest***

Moose hunting in 25D West is currently allowed only under State Tier II or Federal Subsistence permits, with a harvest quota of 60 bull moose. During the past 5 years the harvest reported through state Tier II and federal permit systems has ranged from 2 to 27 moose. The actual harvest probably averages 50 to 60 moose each year, with a harvest rate of about 4%. In Unit 25D East, community harvest surveys conducted by local Natural Resource Specialists and the Council of Athabaskan Tribal Governments, combined with harvest reported on state and federal permits, indicate that local residents take about 150-200 moose each year. Based on harvest tickets, the reported harvest in 25D East ranged from 14 to 53 during 1989-1998 and shows a declining trend. Assuming a total harvest of 225 moose, the current harvest rate in 25D East appears to be from 6 to 9%. This is relatively high for a low and declining moose population, particularly because it includes the harvest of some cow moose.



Drawing by Michael Williams

A considerable number of moose are taken in connection with funerary or mortuary ceremonies. Cow moose are often taken, especially in early and mid winter when bull moose are generally in poor condition. Harvest data for Game Management Units in the planning area are summarized in Table 1. Harvest data for 25A and 25B represent the entire Units, parts of which are not included in the planning area.

**Figure 7 Summary of reported moose harvest in Units 25A, 25B and 25D**

Regulatory Year	Reported <sup>a</sup> harvest			
	25A	25B	25D East	25D West
1986–1987	47	27	39	Na
1987–1988	41	26	47	Na
1988–1989	39	28	32	Na
1989–1990	25	24	38	7
1990–1991	56	47	53	15
1991–1992	47	32	29	14
1992–1993	17	18	19	9
1993–1994	27	43	28	10
1994–1995	24	33	27	12
1995–1996	37	32	23	17
1996–1997	39	20	14	17
1997–1998	31	21	19	15
1998–1999	47	31	23	27
1999–2000	25	37	16	30
2000–2001	31	37	18	16

<sup>a</sup> Source: Moose harvest reports. Harvest data for 25D West are from state and federal permit reports. These data substantially underestimate local harvest in some areas. Unreported harvest is probably about 150 moose annually in Unit 25D East and 20 to 30 in 25D West. Some unreported harvest also occurs in Units 25A and 25B.



### **WOLF POPULATIONS AND HARVEST**

Approximately 60-80 wolves inhabit 25D West, and about 120-160 occur in 25D East, with population density averaging 10-14 wolves per 1000 mi<sup>2</sup>. The annual harvest of wolves in Unit 25D (17,500 mi<sup>2</sup>) during 1989-98 ranged from 5 to 32 and averaged 17 per year. Trapping effort has generally been low in recent years.

There have been no systematic aerial wolf surveys in Unit 25A (21300 mi<sup>2</sup>) in recent years. Anecdotal information and the results of surveys in the adjacent northern Yukon suggest population density is about 8-14 wolves per 1000 mi<sup>2</sup>, similar to Unit 25D, with an estimated population of 220-270 wolves. Annual harvests during 1989-98 ranged from 14 to 27, and averaged 19 wolves. Aerial surveys and anecdotal information from Unit 25B (9100 mi<sup>2</sup>) indicate wolf population density is also similar to Unit 25D, with a total estimated population of 100-120 wolves. From 5 to 16 wolves were harvested each year from 1989 to 1998, with an average harvest of 12 wolves.

### **BEAR POPULATIONS AND HARVEST**

The Yukon Flats is has long been known for its abundance of black bears. Assuming densities of 1 black bear per 5-10 mi<sup>2</sup>, and 60% females and 40% males in the population, the total population in Unit 25D would include 1750-3500 black bears, with from 700 to 1400 males and 1050 to 2100 females. The annual harvest of black bears is estimated at 75-150 , based on local harvest monitoring.

Sows with cubs are protected and harvest affects primarily single bears, especially males. Current harvests are probably lower than the estimated annual recruitment of 175 to 350 bears. Harvesting male bears has little long-term effect on bear numbers and usually has little effect on cub production. A recent FWS study indicates the annual recruitment rate of 2-year-old black bears may be 28%.

There are an estimated 380 grizzly bears in 25D, or about 1 bear per 46 mi<sup>2</sup>. Based on a 5% sustainable harvest rate, the estimated sustainable harvest is about 19 bears, assuming some harvest of female bears. The reported harvest of grizzly bears averages 3-4 each year and some additional bears are taken but not sealed. Increased awareness and concern about the effects of bear predation on moose has resulted in greater local interest in harvesting bears.

### **HUNTING REGULATIONS OF SPECIAL INTEREST**

The following section describes some of the hunting regulations with particular significance to Yukon Flats moose and predation management. . Changes to basic hunting regulations that resulted from the planning effort are described briefly under "Management Recommendations." Current Alaska Hunting Regulations and Federal Subsistence Management Regulations provide detailed information on seasons and bag limits and other hunting regulations.

#### *Chalkyitsik Community Harvest Program*

In March 2000 the Board of Game adopted regulations establishing a community harvest program that is unique within the state of Alaska. This program resulted from a 1998 proposal

from the YFAC. The new regulations established a Chalkyitsik Community Hunt Area and a framework for establishing a group harvest quota. The program allows people in a community or other group to pool their individual harvest limits (one bull moose) so that one hunter may harvest more than one moose each year for use by the community or group. The program requires a hunt administrator who signs up participants, distributes harvest permits to participating hunters and monitors and reports harvest to ADF&G. The program is not likely to increase harvest, and is intended to better accommodate traditional subsistence hunting and sharing practices and improve harvest reporting. Participants are required to have a valid community harvest permit for each moose taken. In March 2002 the Board of Game also established a community harvest permit program for black bears in Unit 25.

*Subsistence Findings and Amounts Reasonably Necessary*

The Board of Game has found that moose in Units 25 A, B, and D have customarily and traditionally been used for subsistence purposes. The current Board determination of the amounts reasonably necessary for subsistence uses are as follows:

- GMU 25A: 25 – 75 moose
- GMU 25B: 15 – 37 moose
- GMU 25D West: 50 – 70 moose
- GMU 25D East: 150 – 250 moose

*Intensive Management Findings and Population and Harvest Objectives*

The Board of Game determined that moose populations in Unit 25D are important for providing high harvest for human consumptive uses, but that moose populations in Units 25A, B, and C are not. In November 2000 the Board of Game established the following population and harvest objectives for moose in Unit 25D:

- The Intensive Management population objective for Unit 25D is 10,000 – 15,000 moose.
- The Intensive Management harvest objective for Unit 25D is 600 – 1500 moose.

The long-term objectives established by the Board of Game are higher than the population and harvest objectives outlined in this plan. However, progress towards meeting the interim objectives recommended in this plan will represent progress towards meeting the Intensive Management population and harvest objectives, as has been recognized by the Board.

*Taking of Big Game for Religious Ceremonies (5 AAC 92.019)*

Alaska game regulations authorize the taking of moose for use as food in customary and traditional Alaska Native funerary or mortuary religious ceremonies. Moose can be taken outside of the normal seasons and bag limit restrictions without a written permit. The regulations require that anyone who takes a big game animal under these regulations submits a report to the Department as soon as practicable and not more than 20 days after the ceremony. Cow moose can be legally harvested, even where this is not allowed under general hunting regulations.

## **APPENDIX A – DESCRIPTION OF THE PLANNING PROCESS**

For several years residents of Yukon Flats villages had expressed interest in working with the Department of Fish and Game to develop a moose management plan for the area. In October 1998, the YFAC discussed the new state Intensive Management (IM) laws and moose population and harvest objectives. The committee passed a motion asking “ADF&G to work with the Yukon Flats Advisory Committee to look at all options to increase the moose population in GMU 25D under the Intensive Moose Management Plan.” The ADF&G Yukon Flats Area Biologist and Wildlife Planner held preliminary discussions with the Council of Athabascan Tribal Governments (CATG), Stevens Village Tribal Natural Resources Program, the Yukon Flats National Wildlife Refuge (YFNWR), the Eastern Interior Regional Advisory Council (EIRAC) and others that helped identify issues, concerns and possible solutions to problems. In November 2000 the Board of Game established Intensive Management population and harvest objectives for Unit 25D and asked ADF&G to “work with local and other users of 25D to develop management strategies that provide improved hunting opportunities for all Alaskans while minimizing negative impacts on local residents.”

At the December 2000 meeting of the YFAC, DWC staff presented a proposal to establish a planning committee and initiate a collaborative, consensus based, planning process involving the advisory committee and other stakeholders. The YFAC endorsed the planning proposal, discussed basic issues and ideas the plan should include, and identified four representatives to serve on the Yukon Flats Moose Management Planning Committee.

In January 2001 a letter requesting nominations to the Planning Committee was sent to village councils in communities represented by the YFAC and also to the Central and Fairbanks Advisory Committees. The Fairbanks Advisory Committee initially appointed a representative but later decided not to participate. The Central Advisory Committee decided they did not need a representative but wanted to be kept informed and have opportunities for comment. Some changes in representation took place during the process, however, the Planning Committee ultimately included representatives from all Yukon Flats communities.

The YFNWR appointed Wildlife Biologist Mark Bertram to serve on the YFPC. Bob Stephenson represented the Division of Wildlife Conservation and Randy Rogers served as planner and facilitator for the group. Dave Andersen and Donald Mike attended YFPC meetings to represent the ADF&G Division of Subsistence and FWS Office of Subsistence Management, respectively.

Through March 2002, the Planning Committee conducted seven meetings, as follows:

February 22-23, 2001	Fort Yukon
April 19-20, 2001	Fort Yukon
June 5-6, 2001	Chalkyitsik
August 23-24, 2001	Beaver
October 2-3, 2001	Fort Yukon (bad weather prevented full attendance)
November 28-29, 2001	Fairbanks
March 1, 2002	teleconference

The Planning Committee emphasized holding their meetings in a variety of villages in the Yukon Flats to seek participation, ideas and comments from local residents. The meeting held in Beaver was designed to bring in elders and key hunters from each village to learn about the direction the Planning Committee was taking, and obtain feedback regarding the goal of increasing the area's moose population.

In March 2001 a Yukon Flats Moose Planning News flyer was sent to all post office box holders in Yukon Flats communities to inform them about the planning process and to highlight the importance of protecting cow moose. In June 2001 a more detailed newsletter was distributed to box holders and others expressing interest in the planning process, and to hunters who submitted harvest tickets indicating they hunted moose in Units 25 A, B or D in 1999 and 2000. This newsletter included a public comment workbook that outlined the proposed purpose; goals, objectives and strategies for the plan, and asked for feedback on the draft material and eight specific questions. Approximately twenty responses were received. All were supportive of the effort to increase the Yukon Flats moose population.

In January 2002 a summary of the draft Yukon Flats Cooperative Moose Management Plan was distributed in the third issue of the Yukon Flats Moose Planning News. Thirty written responses were received and all supported the draft plan. The draft plan and proposed regulations were presented to the Yukon Flats Fish and Game Advisory Committee at their meeting in Venetie on January 30-31, 2002. Public meetings to discuss the draft plan were held in Stevens Village, Beaver, Fort Yukon, Chalkyitsik and Circle. The draft plan was presented to the Eastern Interior Regional Subsistence Advisory Council at their meeting at Circle Hot Springs on February 27, 2002.

The goal of increasing the moose population was strongly supported by people attending public meetings in Yukon Flats villages. Many people emphasized the need to continue to provide information on the reasons why the moose population is low and work with tribal councils and other organizations to reduce harvest of cows. There was a lot of discussion about the pros and cons of using federal and/or state permits for moose hunting in GMU 25D East. Many people were not familiar enough with these permitting systems to make an informed choice, and the general preference was to keep the existing harvest ticket system.

On March 1, 2002 the Planning Committee conducted a teleconference to consider the public input on the draft plan and regulatory proposals and to formulate final recommendations to the Board of Game. Based on public input and concern that a complex permit system in Unit 25D East might discourage compliance with moose hunting regulations, the Yukon Flats Moose Management Planning Committee recommended withdrawing proposals for a registration hunt system and to close Unit 25D East to non-residents.

In March 2002 the Alaska Board of Game reviewed the draft plan and regulatory proposals submitted by the Planning Committee. The Board adopted the regulation proposals with a few minor modifications, and voted unanimously to endorse the Yukon Flats Cooperative Moose Management Plan. In May 2002 the Federal Subsistence Board also endorsed the plan.

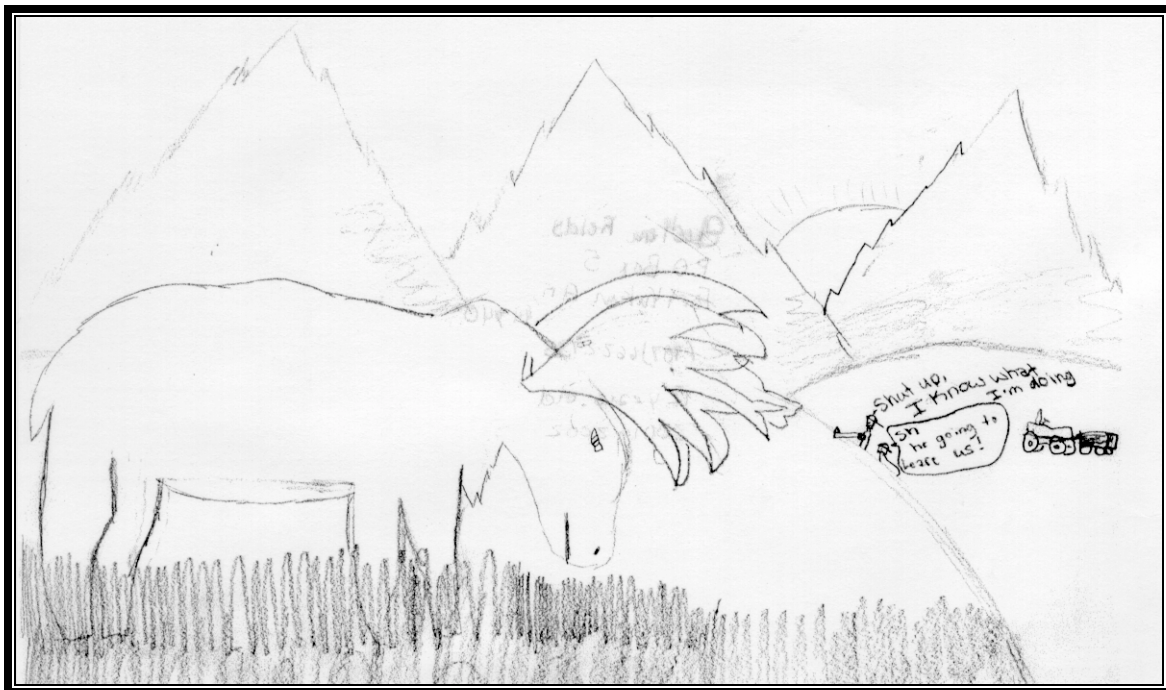
## **APPENDIX B – ALTERNATIVE MOOSE HUNTING MANAGEMENT APPROACHES CONSIDERED FOR UNIT 25 D EAST**

The Planning Committee discussed a suggestion to close federal lands in Unit 25D East to moose hunting, except by federally qualified subsistence hunters. Under current federal subsistence management regulations all rural residents of Unit 25D East have customary and traditional use of moose. They would be the only people allowed to hunt on federal lands in the area if such a proposal were adopted. It was recognized that such a regulation would have a minor effect in improving opportunities for local residents and could complicate the situation. The Planning Committee identified some of the positive and negative aspects of three hunt management alternatives for 25D East.

The three alternate regulatory approaches considered by the Planning Committee for Unit 25D East and some advantages and disadvantages of each are listed below.

1. Continue use of a general hunting season and moose harvest tickets (the current regulatory situation in Unit 25 D East)
  - No limit to participation. No harvest quota.
  - No local record of permit distribution, low harvest reporting.
  - Confusion exists about state and federal regulations and legal boundaries.
  - Easy to establish additional community harvest programs.
  
2. Establish a registration permit hunt: A registration hunt could improve harvest monitoring by requiring prompt reporting to local permit issuing offices. A harvest quota would probably be established and the season would be closed if the quota were reached.
  - Could have a harvest quota if short reporting time was required and enforced.
  - Could achieve better reporting because there would be a record of permit holders and opportunity to contact hunters.
  - There would be a need for permit administration in each village.
  - There would be a need to educate hunters about a new system.
  - Could be less confusing if both state and federal boards recognized a single registration system.
  - Could still increase use of community harvest programs.
  - Issuing permits in local villages could provide an opportunity to educate people about land status and other issues.
  
3. Require use of federal subsistence and/or state Tier II permits: This concept would establish a system in Unit 25D East similar to the current system in Unit 25D West. This could potentially provide for the most conservative moose harvest. However, to be effective it would require compliance with complicated application and reporting requirements, and would probably generate additional confusion because of different legal requirements on federal and private lands. Meeting a harvest quota would require accurate and rapid reporting. Compliance with permit systems in 25D West has not been good and this approach might actually reduce compliance with hunting regulations in 25D East.

- Could have a harvest quota if short reporting time was required and enforced.
- Extensive paperwork required for Tier II permits – Compliance has not been good in 25D West.
- There would be a need to educate hunters about a new system.
- If enough locals did not apply for Tier II permits, could result in equal or more non-local hunters.
- Would reduce or eliminate opportunity for non-subsistence users.
- Would likely increase confusion about state and federal regulations and boundaries.
- More difficult to use state community harvest programs.
- Relatives and friends of residents of Unit 25 D East who live outside the area would find it difficult to join them to hunt moose.
- Could result in increased hunting pressure along the Yukon River in Game Management Units 25B & C.
- Could extend seasons without increasing harvest.
- Would result in two permit regimes for residents of Birch Creek, depending on whether they hunted east or west of Birch Creek, unless the two parts of the Unit were combined under one permit system.



Drawing by Shaylene Fields

## **APPENDIX C – SUMMARY OF PUBLIC INPUT ON THE DRAFT PLAN**

### **Comments from the Yukon Flats Moose Planning News**

The Yukon Flats Moose Planning News has been sent to all post office box holders in the communities of Stevens Village, Beaver, Venetie, Arctic Village, Birch Creek, Fort Yukon, Chalkyitsik, and Circle. It has also been sent to all Alaska resident hunters who submitted a harvest ticket for moose hunting in GMU 25 A, B and D in 1999 or 2000, the Chairpersons of the Central and Fairbanks Advisory Committees and all agencies and persons who have expressed interest in the planning process.

Issue 2, June 2001: Received 20 written comments on the enclosed Public Comment Response Form, one letter and one phone call. All comments were generally supportive of preliminary purpose and goals of the plan.

Issue 3, January 2002: Received 30 responses total; 24 Public Comment Response Forms, 2 letters and e-mail, 2 requests for the complete draft plan, and 2 comments by phone or in person. All comments were supportive of the draft plan. Of the 24 comments received on the Response Form; 7 recommended continuing with the existing harvest ticket system in Unit 25D East, 4 supported using a registration permit system, 2 preferred use of State Tier II and federal subsistence permits, and 11 respondents were not sure which system would be best.

### **Summaries of Public Meetings on the Draft Plan**

#### **Venetie, January 30-31, 2002: Yukon Flats Fish and Game Advisory Committee meeting.**

Advisory Committee members present: Larry Williams and Abraham Henry, Sr. (Venetie), Eddie James (Birch Creek), Joel Tritt and Robert Sam (Arctic Village), James Nathaniel, Sr. (Chalkyitsik). Planes were not able to land in Circle to pick up Paul Nathaniel.

Agency staff present included Bob Stephenson and Randy Rogers (ADF&G) and Mark Bertram and Wennona Brown (Yukon Flats NWR). A total of 22 people signed into the meeting, not including agency personnel.

There was good discussion of the draft plan and several of the regulatory proposals. It was not possible to develop a thorough understanding of the pros and cons of alternative hunt management systems for Unit 25 D (Proposal 80) that would allow members of the advisory committee or community to make a recommendation on one or the other approach (e.g., the existing harvest ticket system, registration permits or Tier II and federal permits).

Results of the meeting: People were generally supportive of the effort to increase the moose population and favored continuing to educate people about the low moose population and the need to protect cow moose, and to encourage tribal councils to take a greater role in harvest reporting and managing potlatch moose harvest.

**Stevens Village, February 5, 2002:** Meeting attendees included First Chief Don Stevens, Randy Mayo, Al Stevens, Robert Joseph, Dewey Schwalenberg, Jay Stevens, and Paul Williams, Sr. Agency personnel included Bob Stephenson and Randy Rogers (ADF&G) and Barry Whitehill and Wennona Brown (Yukon Flats NWR). The meeting took place at the end of a tribal council meeting. Some additional council members came and went and may not have been included in the above list.

One person was concerned that the plan did not provide for a sufficient level of tribal control of moose management and that the community harvest program, as currently being used in Chalkyitsik, requires too much paperwork to make it attractive. It was noted that the Stevens Village Natural Resource Program is already taking an active role in helping with permit applications and harvest monitoring and could be a model for other Yukon Flats communities. There was some discussion of the existing Tier II and federal permit system in Unit 25D West but no suggestions for how it should be changed. People were generally supportive of the planning effort, how local residents had been involved in creating the plan and the emphasis on working with tribal councils to better manage the harvest by local residents. The following morning Paul Williams, Sr. and Randy Rogers visited the Stevens Village school to talk about moose management and the FWS junior duck stamp art contest.

**Beaver, February 6, 2002:** The meeting was held at the Beaver School and participants included Ed Wiehl, Clifford Adams, Craig Edwards, Bobby Winer, Jerry Thomas and Paul Williams, Sr. Agency personnel included Bob Stephenson and Randy Rogers (ADF&G) and Mark Bertram (YFNWR).

Randy Rogers gave an update on what had happened with the moose planning project since the meeting in Beaver last August. The group discussed how many moose and bears had been taken in Beaver so far this year. People noted that the word is getting around on the need to be conservative with the moose population and take fewer cow and calf moose and more bears when possible. Bobby Winer suggested encouraging tribal councils to take a few bull moose in the fall for winter potlatch needs as a way to lessen the need to take cows later. There was also a suggestion to open the fall season earlier so that more bulls could be taken. There was discussion about the number of moose killed by wolves and bears compared to human harvest, and the possibility of trapping clinics and local wolf harvest incentives. There was support for working with tribal councils and CATG to improve harvest monitoring and managing potlatch moose. Paul Williams, Sr., Randy Rogers, Bob Stephenson and Mark Bertram gave presentations at the Beaver school the following morning.

**Fort Yukon, February 12, 2002:** The meeting was held at the Native Village of Fort Yukon office. Participants included Gary Lawrence, Adli Alexander, Bonnie Thomas and Paul Williams, Sr. Agency staff included Bob Stephenson and Randy Rogers (ADF&G) and Mark Bertram (YFNWR). There was a low turnout for the meeting, in part because Fort Yukon Planning Committee members had been out of town or busy with other matters. Those present believed the newsletters and other public information were helping to get the word out and that people were becoming more concerned about the moose population. The following morning Paul Williams, Gary Lawrence, Bob Stephenson, and Randy Rogers participated in a live radio



program on the Yukon Flats moose planning project that was also recorded to be replayed as a public service announcement.

**Chalkyitsik, February 13, 2002:** The meeting was held in the Chalkyitsik Village Council office. Participants included James Nathaniel, Sr., Jeffery Wright, Paul Williams, Sr., and First Chief Isabelle Carroll. Agency staff included Bob Stephenson and Randy Rogers (ADF&G). There was general discussion about the low moose harvest in the community this year and the limitations on control of predation. Those present were supportive of the planning effort involving local people and emphasizing public education about the moose population. Bob Stephenson worked with Jeffrey Wright, the Chalkyitsik Natural Resource Technician, to organize records on the community harvest program. Paul Williams, Randy Rogers and Bob Stephenson spoke with students in the Chalkyitsik School the following morning.

**Circle, February 26, 2002:** The meeting was held in the Circle Tribal Council office. Attendees included First Chief Larry Nathaniel, Paul Nathaniel and Paul Williams, Sr. Agency staff included Bob Stephenson and Randy Rogers (ADF&G) and Ted Heuer and Wennona Brown (YFNWR). Much of the discussion focused on the proposal to change the moose hunting season in Unit 25C near Circle to make it consistent with the season in 25D East. Paul Nathaniel observed that kids growing up now are not learning the traditional ways and have little respect for “outside regulation.” The challenge is to develop ways for youth to develop understanding and respect for both traditional ways and western wildlife management. Kids now have one foot in each world and have a difficult time achieving a balance between them.

**Circle Hot Springs, February 27, 2002: Easter Interior Regional Subsistence Advisory Council meeting.**

Planning Team members present included Jay Stevens (council member) and Paul Williams, Sr. Larry Nathaniel had been present at the start of the council meeting and provided comments supportive of the planning effort. Mr. Nathaniel is also Chairman of the Council of Athabaskan Tribal Governments (CATG). Randy Rogers, Paul Williams and Bob Stephenson participated in reviewing the main parts of the plan and responded to questions from council members. Randy explained that the proposal to establish a registration hunt in Unit 25D East would likely be withdrawn because people had not had time to completely understand the various options and there was concern that a registration or Tier II system might have a negative effect on compliance with state and federal game regulations. Council members expressed support for the way the planning process had involved local residents. The council voted unanimously endorse the plan and to support the proposals to the Board of Game involving increasing opportunities to harvest predators.

### **List of People Who Signed-in at Public Meetings Or Contributed Written or Verbal Comments**

- Adli Alexander, Fort Yukon
- Paul Edwin, Chalkyitsik
- Paul Williams, Jr., Beaver
- Jim Peter, Fort Yukon
- Kris James, Fort Yukon
- Abraham Henry, Sr., Venetie
- Trimble Gilbert, Arctic Village
- Gideon James, Arctic Village
- Joe Druck, Chalkyitsik
- Charlene Fisher, Beaver
- Clifford Adams, Beaver
- Fred Roberts, Fort Yukon
- Paul Nathaniel, Circle
- Joe LeTarte, Fairbanks
- Sandy Jamieson, Fairbanks
- Robert Sam, Arctic Village
- Bobby Tritt, Venetie
- Albert Frank, Venetie
- Jonathan Solomon, Fort Yukon
- Amos Frank, Venetie
- Jerry Frank, Venetie
- Joshua Roberts, Venetie
- Darrell Henry, Sr., Venetie
- Darlene Christian, Venetie
- Charlie Alexander, Venetie
- Ricky Frank, Venetie
- Nena Wilson, Venetie
- Susan martin, Venetie
- Shayna Tritt, Venetie
- Ernest Erick, Venetie
- Don Stevens, Stevens Village
- Randy Mayo, Stevens Village
- Dewey Schwalenberg, Stevens Village
- Robert Joseph, Stevens Village
- Bobby Winer, Beaver
- Ed Wiehl, Beaver
- Craig Edwards, Beaver
- Jerry Thomas, Beaver
- Lois Williams, Beaver
- Isabelle Carroll, Chalkyitsik
- Jeffrey Wright, Chalkyitsik
- Laura Tyrrell, Central
- Bryan Bondurant, Central
- Jim Rustad, Fairbanks
- Ken Corcoran, Circle
- Eugene Des Jarlais, Anchorage
- Fred Ripp, Eagle River
- David May, Fairbanks
- Simon Matthews, Stevens Village
- Bruce Nelson, Fairbanks
- Alvin Johnson, Birch Creek
- Percy Herbert, Fairbanks
- Artie Adams, Beaver
- Eugene Hall, Fairbanks
- Richard Carroll, Fort Yukon
- Mark Copeland, Anchorage
- John Paul Williams, Chalkyitsik
- Ronn Lund, Anchorage
- T. Boquist, Circle
- Russell Sperry, Fort Yukon
- Ron Bennett, North Pole
- M. Ganley, North Pole
- Bill Straub, Circle



Drawing by Michael Williams