



U.S. Fish & Wildlife Service

Summary of the Draft Revised Comprehensive Conservation Plan *Koyukuk, Northern Unit Innoko, and Nowitna National Wildlife Refuges*

What are we doing?

Koyukuk, Northern Unit Innoko (locally known as Kaiyuh Flats), and Nowitna National Wildlife Refuges (Refuge) are revising their Comprehensive Conservation Plans (CCPs). Since the first CCPs for the Refuge were completed in 1987, laws and policies have changed, issues have arisen, and new scientific information has become available. The revised plan will incorporate the two individual refuge CCPs into one document, address these changes, and provide management direction for the next 15 years. The draft revised CCP and environmental assessment (EA) are available for public review. Comments are due

What is a Comprehensive Conservation Plan (CCP)?

A CCP guides overall refuge management. It ensures that management actions comply with all appropriate laws, regulations, and policies, and keeps the refuge focused on the purposes for which it was established. A CCP provides a framework for management decisions and ensures consistency in those decisions through time. It is also an opportunity for the public to be involved in setting the future direction for refuge management. 🐾



Melanie Hans/USFWS

Fall colors at the mouth of the Nowitna River.

What is in this summary?

This summary of the draft revised CCP includes:

- a Refuge vision statement;
- a summary of the major issues raised during scoping;
- Refuge goals; and
- management alternatives developed during the planning process. 🐾



Donna Dewhurst/USFWS

American Wigeon drake.

See the last page of this summary for information on how you can obtain a full copy of the draft plan and environmental assessment.



Melanie Hans/USFWS

Wetlands on the Northern Unit of the Innoko Refuge, locally known as Kaiyuh Flats.

Refuge Vision

The National Wildlife Refuges in the Koyukon region of Alaska encompass a vast area of boreal forest, wetlands, lakes and rivers that is home to an abundance of waterfowl, songbirds, mammals and fish. An experience of solitude in this intact ecosystem imparts the sense that this place is completely untouched by man. And yet, the land is thoroughly known and essential to people whose lives are intertwined with its bounty. We use our understanding of the respect, value and love of this place by the people who live in, use, or simply treasure this wild land and sound biological research and monitoring to ensure proper stewardship of the Koyukuk, Northern Unit Innoko, and Nowitna National Wildlife Refuges. 🐾



Melanie Hans/USFWS

The Little Mud River on the Nowitna Refuge in early spring. The Nowitna Refuge has more forested lands than the other refuges.



Tim Bowman/USFWS

White-fronted goose on nest.



Melanie Hans/USFWS

The Dulbi Slough on the Koyukuk Refuge is an important breeding area for waterfowl.

The Refuge is part of the National Wildlife Refuge System. The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.



Why was the Refuge established?

The Alaska National Interest Lands Conservation Act (ANILCA) states that the purposes of the refuges include—

- (i) (Koyukuk Refuge) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, waterfowl, raptors and other migratory birds, furbearers, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), furbearers, and salmon;
- (i) (Innoko Refuge) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, waterfowl, peregrine falcons, other migratory birds, black bear, moose, furbearers, and other mammals, and salmon.
- (i) (Nowitna Refuge) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, marten, wolverines, and other furbearers, salmon, sheefish, and northern pike.
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.



Karin Lehmkuhl/USFWS

The Nogabahara Sand Dunes are part of the Koyukuk Wilderness. This active dune area contains about 16,000 acres. The individual dunes have been recorded to be 50 to 200 feet high and 300 feet or more in length.



Melanie Hans/USFWS

The grassy margins of the lower Nowitna River, surrounding lakes, and waterways provide breeding habitat for trumpeter swans, white-fronted geese, canvasback ducks, cranes, and many other migratory bird species.

The purpose of the **Koyukuk Wilderness** is to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer the area for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

The lower 223 miles of the **Nowitna River** is managed as a **Wild River** under the Wild and Scenic Rivers act. This segment of the river was recognized for its outstandingly remarkable scenic, geologic, wildlife, historic, and recreational values. 🐾



Refuge Goals

We developed management goals for the Refuge. Each goal has numerous objectives that specify how it is to be achieved. See Chapter 2 of the full plan for a list of objectives.

Goal 1: Fish and Wildlife

Conserve fish and wildlife populations and habitats in their natural diversity in a manner consistent with natural ecological processes.

Goal 2: Ecosystem Health

Ensure the natural character, vigor, and species diversity of the boreal forest and tundra environments by perpetuating a fire regime both natural and prescribed, which maintains a mosaic of habitats native to Interior Alaska.

Goal 3: Fire Management

Maintain a fire management program that helps achieve Refuge goals and objectives while providing for the protection of human life, private property, and identified cultural and natural resources.

Goal 4: Water Resources

Ensure the natural function and condition of water resources necessary to conserve fish and wildlife populations and habitats in their natural diversity.

Goal 5: Communication

Provide information and maintain open communication for a greater understanding and appreciation of fish and wildlife ecology, habitat preservation, and refuge management that assists in addressing resource issues important to local residents, the U.S. Fish and Wildlife Service (Service), and others.

Planning Process

CCPs follow a process guided by planning requirements identified in ANILCA, the National Environmental Policy Act (NEPA), and U.S. Fish and Wildlife Service policies. In this process, we:



Goal 6: Outdoor Recreation

Continue to provide quality opportunities for hunting, fishing, wildlife observation and photography, and other outdoor recreation in a natural setting.

Goal 7: Subsistence

Provide and promote the opportunity for local residents to continue their subsistence activities on the Refuge, consistent with the subsistence priority and with other Refuge purposes.

Goal 8: Wild Character

Maintain the special values of the Nowitna Wild River and Koyukuk Wilderness and the wild character of the Refuge.

Goal 9: Cultural Resources

Conserve, appreciate, and interpret the cultural, historic and prehistoric resources of the Refuge.

Goal 10: Cooperation with Partners

Promote close working relationships through effective coordination, interaction, and cooperation with other federal agencies, State agencies, local communities, tribes, organizations, industries, the general public, and the landowners within and adjacent to the Refuge whose programs relate to Refuge management activities.

Goal 11: Facilities and Equipment

Provide and maintain adequate facilities and equipment in Galena to ensure a safe and secure working environment to accomplish Refuge purposes, goals, and mandates.

Goal 12: Staffing

Ensure the Refuge has adequate personnel to meet operational needs. 🐾



Nathan Schwalen/USFWS

Obsidian artifacts were found on the Refuge in 2001.



Jenny Bryant/USFWS

Wildland fire on the Kaiyuh Flats. Wildland fires are one of the main ecological drivers in the boreal forest.



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Local residents in the communities in and adjacent to the Refuge rely on locally available natural resources for subsistence.

Issues

How will the Refuge maintain and manage wildlife populations, especially moose, in the face of competition between users and predators?

The number and range of general comments about moose hunting and salmon fishing regulations indicates that this is a major concern of a large proportion of Refuge users. Many people expressed concern for moose and salmon numbers, the difficulty of getting a moose, competition with non-locals for moose and salmon, predation of moose by black bear and wolf, the need for changes in both the moose hunting season and the salmon fishing season, and the concern for retaining as much of a subsistence lifestyle as is possible in today's society.

How will the Refuge address future (off-refuge) mining, oil, and gas development and its effect on the Refuge environment?

Local and non-local residents expressed concern for future mining developments and its effect on the environment especially water quality. There is a fair amount of concern regarding the development of future oil and gas leases on and off the Refuge.

How will the Refuge identify and address contaminants that affect the wild food we eat and water quality?

There are two concerns: (1) is the food gathered from Refuge land contaminated and (2) how are off-refuge mining activity and the abandoned Air Force sites affecting water quality on the Refuge.

How will the Refuge monitor and address the effects of climate change?

This was a general issue that was brought up in each village visited during the scoping period. One village, Huslia, has been actively discussing climate change for the past five years and working with various groups to document its occurrence. Climate change is predicted to have far reaching impacts to the boreal forests across the world.



Refuge staff member measuring antlers of harvested moose at the annually maintained hunter check station at the Nowitna River mouth.

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The village of Huslia is situated along the Koyukuk River at the center of the Koyukuk Refuge.

USFWS



Subsistence fish wheel used to catch salmon.

How will the Refuge address maintaining the wild character of the Refuge and wilderness quality?

This concern was shared by local and non-local residents alike. One of the reasons for visiting the Refuge is because of its wild character and the experience gained. Several of the Refuge users have visited the Koyukuk Wilderness and the Nowitna River and valued the experience they obtained there.

How will the Refuge address future public use of the Refuge?

Two areas of concern were expressed regarding future uses of the Refuge. Most of the comments focused on the use of all terrain vehicles for recreational use and air boats for moose hunting. Concern for future development, such as an interior road system and oil and gas exploration, was expressed.

How can the Refuge fire management program help villages address their hazardous fuel accumulations?

Individuals in the villages visited during scoping expressed concern for adequate wildland fire protection. They recognize fire as a necessary natural process but are concerned for the protection of life, property, and the natural and cultural resources of the Refuge.

How will the Refuge address the need for more outreach and better communication with the public?

People in the villages expressed the need for more outreach in the schools, sharing of Refuge Inventory and Monitoring results, and a better understanding of overall Refuge activities and policies. 🐾



During the summer months many areas on the Refuge are accessible by float plane only.



Weasel on the Nowitna Refuge.

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Melanie Hans/USFWS

Melanie Hans/USFWS

How do we address the Issues?

Federal law requires that we develop a range of reasonable alternatives. We considered two alternatives, both of which continue to protect the Refuge and its resources. Traditional subsistence activities, wildlife-dependent recreational activities, and current methods of access would continue to be allowed.

Our alternatives have the same amount of land within the Minimal, Wild River, and Wilderness management categories. Minimal management maintains the natural environment with very little evidence of human-caused change. Wilderness is managed to retain “its primeval character and influence.” Wild rivers are managed to maintain their unique values.

Alternative A (Current Management): This is the “No-Action” alternative, as required by the National Environmental Policy Act. It describes what would happen if current management activities were to continue. Refuge lands have been classified in a mixture of Minimal, Wilderness, and Wild River management and would be managed according to the policies and guidelines governing each category.

Alternative B (The Proposed Action): This alternative manages Refuge lands under the same management categories as Alternative A, but incorporates new management policies and guidelines and goals and objectives. The two tables on pages 10-13 display how the alternatives address the issues and compare other aspects of the alternatives. 🐾

What are Alternatives?

Alternatives represent different options for future management. They are different ways to respond to issues and meet refuge goals and objectives. Alternatives are developed with the refuge system mission and the refuge’s purposes in mind. 🐾



Melanie Hans/USFWS

Refuge biologist watching for birds during the annually conducted breeding bird survey.



Melanie Hans/USFWS

Refuge biologists put radio collars on moose to gain a better understanding of mortality and movement.

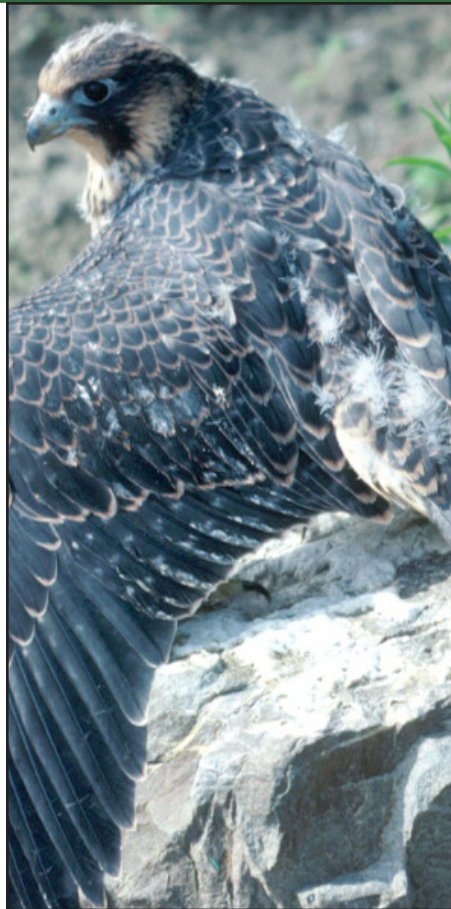


Melanie Hans/USFWS

Refuge pilot installing high-visibility snow marker to measure snow depth through the winter months.

How will the Refuge integrate regional policies and guidelines into its management?

Management of refuges in Alaska is governed by federal laws including the National Wildlife Refuge System Administration Act and ANILCA, regulations implementing these laws, treaties, Service policy, and principles of sound resource management, all of which establish standards for resource management and address the range of potential activities that may be allowed on refuges. Management policies and guidelines described in the plan under Alternative B were developed for national wildlife refuges in the Alaska Region. These policies and guidelines are essentially the same for all of the refuges in this region. 🐾



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Juvenile Peregrine falcon.



Melanie Hans/USFWS

Black bear along the Nowitna River.



Melanie Hans/USFWS

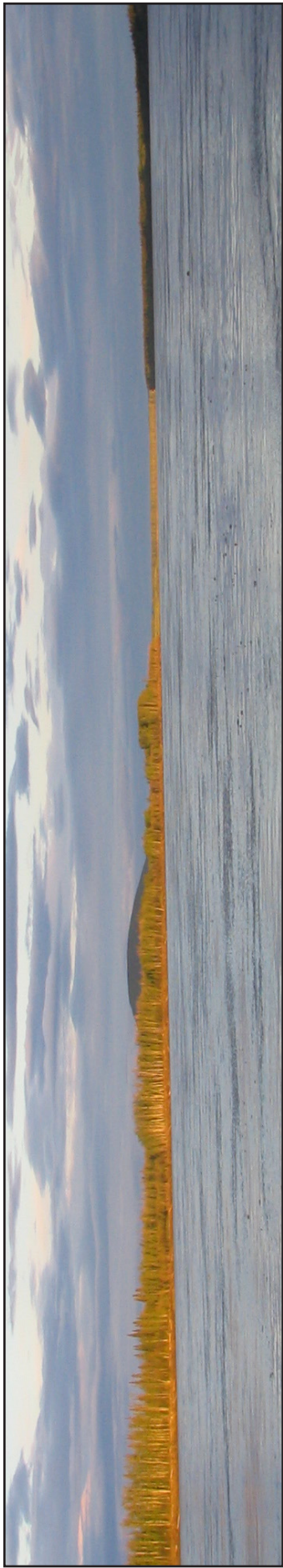
The Wolf Mountain caribou herd near the Koyukuk Refuge.

Why do we have different management categories?

The Alaska National Interest Lands Conservation Act (ANILCA) requires us to designate areas according to their resources and values and to specify programs and uses within those areas. To meet this requirement Minimal, Moderate, and Intensive management categories were established as part of the U.S. Fish and Wildlife Service's Alaska-wide planning effort. Permissible uses of designated Wilderness areas and Wild and Scenic Rivers are subject to the Wilderness and Wild and Scenic Rivers acts and ANILCA. Appropriate activities, public uses, commercial uses, and facilities are identified in the plan for each management category. 🐾

Issue	Alternative A (Current Management)	Alternative B (Proposed Action)
How will the Refuge maintain/manage wildlife populations, especially moose, in the face of predation and competition between users?	The Refuge would continue to annually monitor moose populations; share data and cooperate with the Alaska Department of Fish and Game (ADF&G); and informally monitor predator populations. The Refuge would continue to cooperate/co-fund research looking at moose, wolf, and bear populations and their interactions.	Same as Alternative A plus: (1) continue to implement and update the Wildlife Inventory and Monitoring Plan, (2) work cooperatively with the Fisheries Office, ADF&G, non-governmental organizations, the Yukon River Drainage Fisheries Association, and the public to identify key fisheries issues, (3) continue to work closely with the Tribal Councils, State Fish & Game Advisory Committees, the Federal Subsistence Western Interior Regional Advisory Council, other local/regional groups, ADF&G, and the Office of Subsistence Management to address subsistence concerns, (4) hire additional staff, (5) work collaboratively with the University of Alaska, other federal agencies, the State, and others regarding climate change, (6) continue to implement the Refuge fire management plans, (7) develop a wetland inventory and monitoring program, (8) share biological program information annually with villages and others, and (9) continue to work collaboratively with partners and other agencies.
How will the Refuge address future (off-refuge) mining oil and gas development and its effect on the Refuge environment?	The Service would ensure that oil and gas development follow federally mandated procedures and agency policy. Service Water Resources staff would be requested to assist in monitoring downstream water quality monitoring.	Same as Alternative plus: (1) develop a wetland inventory and monitoring plan, (2) re-survey the 1985-1988 baseline evaluation of the placer mining sedimentation and occurrence of heavy metals, (3) promote a close-working relationship with other agencies, local communities, and organizations, and (4) add a fisheries biologist/hydrologist to the Refuge staff.
How will the Refuge identify and address contaminants that affect the wild food we eat and water quality?	The Refuge would continue to cooperate with the State of Alaska Departments of Environmental Quality and Natural Resources on monitoring water quality. The Water Resources staff is scheduled to conduct a Refuge inventory of water resources/quality in 2012.	Same as Alternative A plus: (1) develop a wetland inventory and monitoring program, (2) promote a close-working relationship with other agencies, local communities, and organizations, and (3) add a fisheries biologist/hydrologist to the Refuge staff.
How will the Refuge monitor and address the effects of climate change?	The Refuge would participate in the Service's national and regional efforts to monitor the effects of climate change. The Refuge would cooperate with agencies in climate change studies and assist universities with climate change research.	Same as Alternative A plus: (1) continue to implement and update the current wildlife Inventory and Monitoring plan which will include a section on climate change monitoring, (2) continue to work collaboratively with other federal and State fire management agencies in studying Alaska's fire regimes, and (3) promote a close-working relationship and share information with other federal agencies, State agencies, local communities, tribes, organizations, and the public.

Issue	Alternative A (Current Management)	Alternative B (Proposed Action)
How will the Refuge address maintaining the wild character of the Refuge and wilderness quality?	The Refuge would periodically (at a minimum every time this CCP is revised) evaluate overall use of the Refuge to ensure wild character is being maintained. Compatibility Determinations would take into consideration maintaining the Refuge's wild character.	Same as Alternative A plus: continue to monitor activities on the Nowitna River and in the Koyukuk Wilderness for compliance with the Wild and Scenic Rivers and Wilderness acts and ANILCA.
How will the Refuge address future public use of the Refuge?	This would be addressed through the Service's Compatibility Determination process.	Same as Alternative A.
How will the Refuge fire management program help villages address their hazardous fuel accumulations?	The Refuge Fire Management staff would assist requesting villages with formulating a hazardous fuels management plan and a Community Wildland Fire Protection Plan along with finding possible funding for fuels reduction work (this would occur as time, staff, and funding permitted).	Same as Alternative A.
How will the Refuge address the need for more outreach and better communication with the public?	The Refuge Park Ranger would be the primary contact for public outreach/ education.	The Refuge would annually hold at least one public information meeting in each village. All Refuge staff would assist with public outreach through various ways. The Refuge Park Ranger would continue to be the major point of public contact.



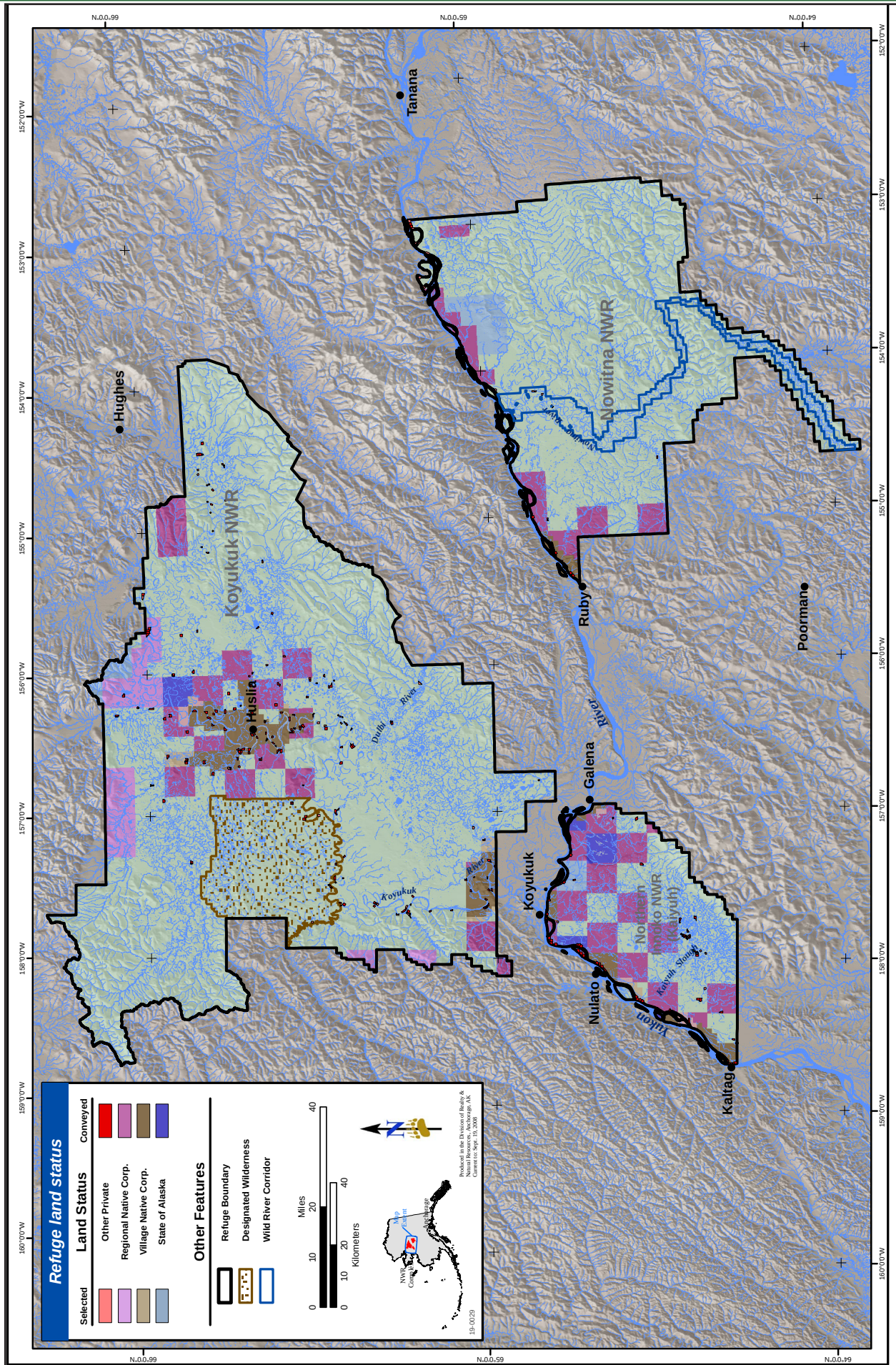
Yukon River shore in early morning sun.

Melanie Hans/USFWS

Alternative A (Current Management)		Alternative B (Proposed Action)	
MANAGEMENT CATEGORIES			
Minimal Management	5,502,078 acres (91% of total)		Same as Alternative A
Wild River	142,400 acres (2% of total)		Same as Alternative A
Designated Wilderness	400,000 acres (7% of total)		Same as Alternative A
SPECIFIC MANAGEMENT DIRECTION			
Ecosystem and Landscape Management			
Habitat Management Prescribed Fire	Koyukuk/Northern Unit Innoko: will be used for hazardous fuels reduction or restoration of natural vegetation patterns in Wilderness and Minimal Management. Nowitna: Permitted in Wilderness, Wild River, and Minimal Management.		May be allowed; Wilderness Management will require a minimum requirements analysis. Allowed in Minimal and Wild River Management.
Fish and Wildlife Population Management			
Fish and Wildlife Control Chemical Habitat Modifications.	Koyukuk/Northern Unit Innoko: In all management categories may be permitted on a case-by-case basis subject to provisions of NEPA and a compatibility determination. Permanent facilities would normally not be permitted in Wilderness. Nowitna: In all management categories may be permitted on a case-by-case basis subject to the provisions of NEPA and a compatibility determination.		May be allowed in all Management categories. Wilderness Management will require a minimum requirements analysis.
ACCESS			
Snowmobiles	Koyukuk/Northern Unit Innoko and Nowitna: Permitted for traditional activities, on or off designated trails, in periods of snow cover, subject to reasonable regulations.		Same as Alternative A.
Off-Road Vehicles (All-Terrain Vehicles) Includes air boats and air cushion vehicles.	Koyukuk/Northern Unit Innoko and Nowitna: Includes all other motorized vehicles (e.g., cars, 4x4s, tracked vehicles, off-road vehicles, air boats, and air-cushion boats) permitted only on designated routes or areas; airboats and air-cushion vehicles not permitted.		Not allowed,with very few exceptions.
PUBLIC USE, RECREATION, AND OUTREACH ACTIVITIES			
Administrative Facilities			
Administrative Field Sites Permanent facilities.	Koyukuk/Northern Unit Innoko: Permitted in Minimal Management. Under Wilderness Management, may be built if needed for the protection of public health and safety. Nowitna: Permitted in all Management categories.		Use of existing sites allowed including replacement of existing facilities as necessary; new sites may be allowed in Wild River, and Minimal Management. Wilderness Management will require a minimum requirements analysis.
Public Use and Recreation Facilities			
Boat Launches and Docks Designated sites for launching and storing watercraft or tying up a float plane.	Koyukuk/Northern Unit Innoko: Not permitted in Minimal and Wilderness Management. Nowitna: No permanent sites permitted in Minimal, Wilderness, or Wild River Management.		May be allowed. Wilderness Management will require a minimum requirements analysis.

Visitor Contact Facilities A variety of staffed and unstaffed facilities providing information on the Refuge and their resources to the public; facilities range from visitor centers to kiosks and signs.	Koyukuk and Northern Unit Innoko Plan: not provided under the Minimal, Wilderness, and Wild River Management categories. Nowitna Plan: permitted under the Minimal, Wilderness, and Wild River.	Allowed under Minimal and Wild River Management categories; generally not allowed in Wilderness.		
Temporary Facilities Includes tent frames, caches, and other similar or related facilities; does not include gravel pads for tents, hardened trails, and/or primitive toilets.	Koyukuk/Northern Unit Innoko: May be permitted subject to reasonable regulations under the provisions of Section 1316 of ANILCA; tent platforms require a special use permit. Nowitna: May be permitted under the provisions of ANILCA 1316; a special use permit may be required per 50 CFR 27.92.	May be authorized in the Wilderness and Wild River Management categories and allowed under the Minimal Management Category.		
COMMERCIAL USES				
Other Commercial Activities				
Transportation and Utility Systems Includes transmission lines, pipeline, telephone and electrical power lines, oil and gas pipelines, communications systems, roads, airstrips, and other necessary related facilities. Does not include facilities associated with on-refuge oil and gas development.	Roads: May be permitted subject to Title XI of ANILCA. Not permitted in Minimal, Wilderness, and Wild River Management categories. Airstrips: Primitive airstrips may be designated; no new construction allowed under all Management categories.	Roads and Airstrips: Must be authorized by Congress under Wilderness Management. May be authorized under Wild River Management category. May be authorized under the Minimal Management category but would require a plan amendment.		
STAFFING AND BUDGET NEEDS				
	Short-Term	Long-Term	Short-Term	Long-Term
Permanent Full-Time Employees	13	14	13	16
Permanent Seasonal Employees	1	1	1	3
Temporary Seasonal Employees	3	3	4	4
Volunteers	2-4	2-4	3-5	3-5
Total Annual Budget Needs	\$1,913,900	\$2-2.4 million	\$2-2.4 million	\$2.4-2.8 million





All federally owned land within the refuge is in the Minimal management category unless noted as Designated Wilderness or Wild River Corridor.



Refuge staff at Refuge Headquarters in Galena.

USFWS

We would like to hear your comments!

The full-length Draft Revised Koyukuk, Northern Unit Innoko, and Nowitna CCP/EA is available online at <http://alaska.fws.gov/nwr/planning/koynowpol.htm>. Please contact us if you would prefer a paper-copy or a compact disk (CD) of the document. We will be hosting public meetings in the near future (times and places will be announced).

Comments, requests for CD's or further information about the planning effort should be directed to:

Helen Clough, Chief of Planning
U.S. Fish and Wildlife Service
1011 East Tudor Road, MS 231
Anchorage, AK 99503
907/786-3357
Koyukuk/Nowitna_planning@fws.gov

For more information about the refuge visit
<http://koyukuk.fws.gov/> or
<http://nowitna.fws.gov/> or contact
 Refuge Manager Kenton Moos at
 800/656-1231

Comments should be submitted to the address above by **December 15, 2008.**

U.S. Fish & Wildlife Service

Koyukuk/Nowitna National Wildlife Refuge Complex
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Fax: 907/656-1708

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<http://nowitna.fws.gov/>

e-mail: Koyukuk/Nowitna_planning@fws.gov



Moose, or “deneege” in Koyukon Athabaskan, are abundant on the refuge, particularly in the Koyukuk River floodplain. Refuge biologists conduct aerial counts of moose to keep track of population size.



Moose cow and calf.