

Revised Comprehensive Conservation Plan

Innoko National Wildlife Refuge Summary





Robin Corcoran/USFWS

Diverse habitats at Innoko National Wildlife Refuge.

Contents

- Introduction
- Innoko Refuge Establishment
- Purpose and Need for Revision of the 1987 Innoko Plan
- Refuge Purposes
- Innoko Refuge Vision
- Goals and Objectives
- The Revised Plan
- Implementation
- Partnerships
- Monitoring and Evaluation
- Plan Amendment and Revision

Introduction

The Alaska National Interest Lands Conservation Act (ANILCA), under which Innoko National Wildlife Refuge (Innoko Refuge or Refuge) was established, requires a Comprehensive Conservation Plan (Conservation Plan or Plan) for all refuges in Alaska. The original Conservation Plan for Innoko Refuge was completed in 1987.

Revision of the Plan began in November 2006. Public meetings were held in communities near the refuge in late 2006 and early 2007. The Draft Revised Plan was released in April 2008 for public review. Comments from the public on the Draft Revised Plan were accepted until late July 2008. In September 2008, the Regional Director signed the Finding of No Significant Impact for the Innoko and adopted the preferred alternative as described in the Draft Revised Comprehensive Conservation Plan and Environmental Assessment.

This Revised Conservation Plan will guide management of Innoko Refuge for the next 15 years, helping the refuge achieve the mission of the National Wildlife Refuge System and the purposes for which the refuge was established.



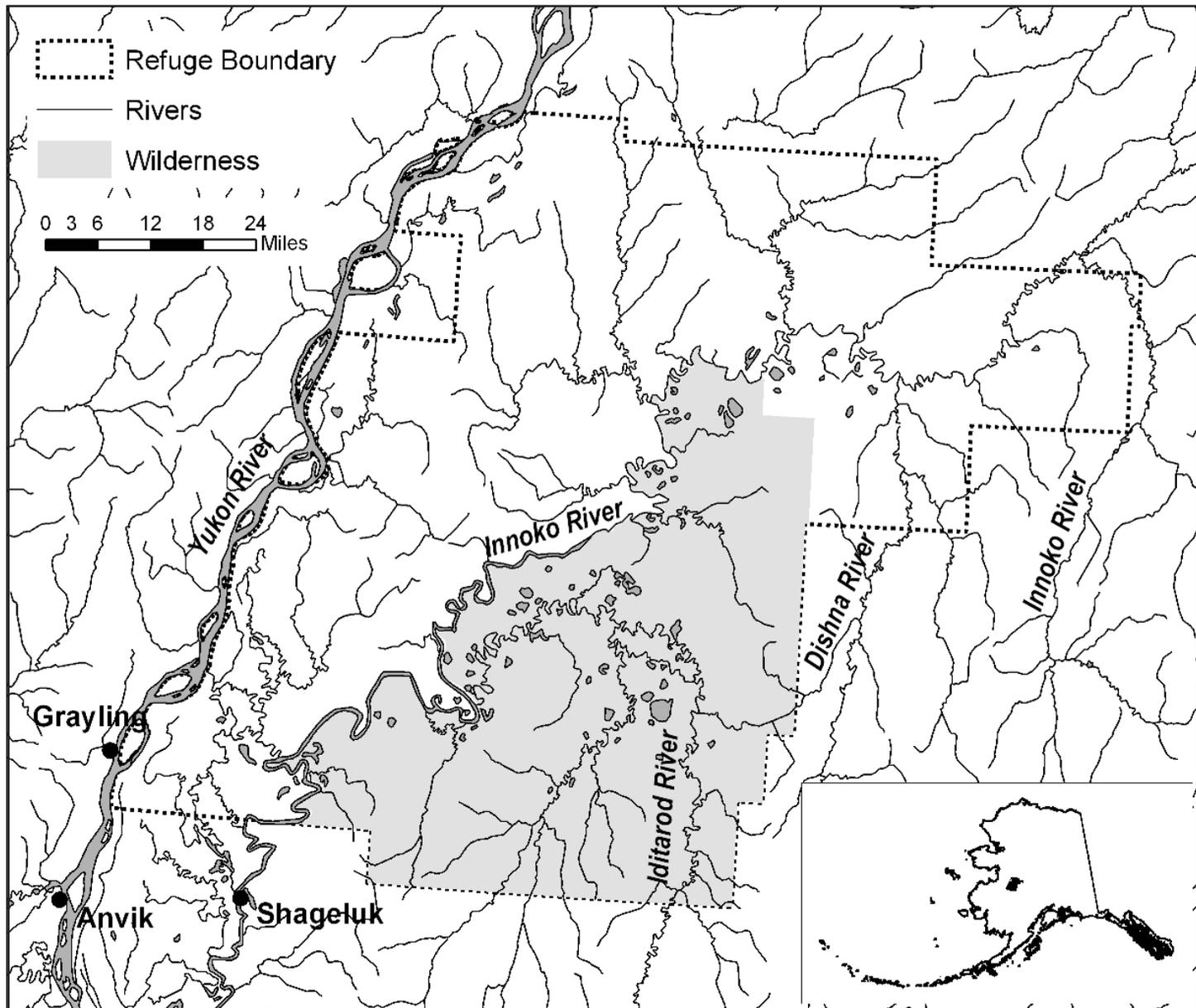
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Wild Berries.

What is a Comprehensive Conservation Plan?

A plan guides overall refuge management. It ensures that management actions comply with the purposes for which the refuge was established and with other legal mandates. It will provide management guidelines and direction for the next 15 years and offers opportunities for public involvement.





Innoko Refuge Establishment

Innoko National Wildlife Refuge was established by ANILCA in 1980, which also established new national parks, other national wildlife refuges, national wild and scenic rivers, and designated wilderness areas in Alaska. One of the primary reasons the Innoko Refuge was created was its importance as a waterfowl area in interior Alaska. The refuge provides a vast area of wetlands that are crucial for waterfowl nesting, resting, staging and molting. Other special values of the refuge include habitat for raptor populations and the natural water and fire regime that creates excellent habitat for moose.

ANILCA established the refuge in two units encompassing 4.6 million acres. The northern unit (751,000 acres) of the refuge, also called Kaiyuh Flats, is located adjacent to the Yukon River southwest of Galena. The southern unit (3.85 million acres) surrounding the Innoko River, is administered by the Innoko National Wildlife Refuge Headquarters in McGrath and is the subject of this plan.

The northern unit's primary users are the residents of Galena, Koyukuk, Nulato and Kaltag. The Service manages the area from the headquarters of the Koyukuk Refuge in Galena rather than the Innoko Refuge in McGrath, some 140 air miles to the southeast. The northern unit of the Innoko Refuge is addressed in the Koyukuk/Nowitna Refuge Comprehensive Conservation Plan.

Purpose and Need for Revision of the 1987 Innoko Plan

The Revised 2008 Innoko Comprehensive Conservation Plan updates the management direction for the refuge adopted in the 1987 Innoko Comprehensive Conservation Plan.

The purpose of the revision is to ensure that activities, actions, and management fulfill the purposes for which Innoko Refuge was established and provide clear direction to the public and managers on how the Service intends to meet those purposes. While the 1987 Plan has provided good general direction, changes in the Service's understanding of the resources and uses on the refuge, and changes in both management and planning policies, identified a need to update and revise the 1987 plan.

Revising the 1987 Innoko Plan allowed the Service to update management direction related to national and regional policies and guidelines implementing federal laws governing refuge planning and management. The revised plan incorporates new scientific information on refuge resources. The revised plan provides current refuge management direction based on public needs for use of the refuge and its resources; and strengthens efforts to monitor, understand, and address the effects of climate change.



Bull moose.

Donna Dewhurst/USFWS

Innoko 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.



The mission of the United States Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.



Refuge Purposes

Section 302(3)(B) of ANILCA states that the purposes of Innoko Refuge include:

- (i) 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;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide the opportunity for continued subsistence by local residents;
- (iv) to ensure water quality and necessary water quantity within the refuge;

The purpose of the Innoko Wilderness is to secure an enduring resource of wilderness, protect and preserve the wilderness character of the wilderness area as part of the National Wilderness Preservation System, and 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.



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Trumpeter Swan.

Innoko Refuge Vision

The Innoko National Wildlife Refuge encompasses a largely unaltered ecosystem dominated by numerous rivers flowing among diverse habitats, including muskeg, tundra, and dense boreal forest. Remote even by Alaskan standards, the natural forces of fire and water, now apparently affected by climate change, dominate the landscape. The refuge is not accessible by road, and only the occasional visitor discovers the many opportunities to hunt, fish, and view wildlife. The refuge hosts hundreds of thousands of breeding and molting waterfowl, and is important rearing habitat for salmon and other species of fish. In addition, moose, black and grizzly bears, and furbearers are abundant. Refuge lands have been important to subsistence hunters for generations, and the area has a rich gold-rush history. A main portion of the Historic Iditarod Trail, the overland winter route from Seward to the gold fields of Nome, crosses refuge land. The Innoko Refuge is a place to discover the vastness and diversity of interior Alaska, to reflect upon Native Alaskan and mining history, and to experience nature in solitude.

Refuge Goals and Objectives

The Innoko Refuge vision statement and refuge purposes provided the framework for developing management goals and objectives. Goals are broad statements of desired future conditions. Objectives are concise statements of what the refuge wants to accomplish. The refuge staff developed eight management goals; a number of objectives were developed for each goal. Some objectives, though identified under a specific goal, may apply to more than one goal. When appropriate, objectives will be carried out in coordination with the Alaska Department of Fish and Game, other State and Federal agencies, or other cooperating partners.

Goal 1: Fish and Wildlife

Improve knowledge of fish and wildlife species on the refuge to maintain healthy populations in their natural diversity.

Objectives under Goal 1 include: hosting a biological program review; preparing an Inventory and Monitoring Plan; monitoring avian biodiversity by conducting annual National Breeding Bird Surveys; developing raptor surveys in cooperation with Boreal Partners in Flight; obtaining moose population estimates for at least one-half of the refuge at 1–3 year intervals in cooperation with neighboring State and Federal land managers; conducting initial surveys to estimate abundance and winter distribution of wolves, wolverine, lynx, and marten; monitoring the beaver population on the refuge by conducting fall aerial surveys of beaver food caches; quantifying snowshoe hare population cycles; initiating field studies of selected wildlife populations and plant communities related to a proposed

wood bison herd; continuing cooperative efforts in annual monitoring of greater white-fronted geese; revising the Innoko Refuge Fisheries Management Plan; and monitoring for fish and wildlife diseases and parasites that may affect the Innoko ecosystem.



Craig Ely/USGS

Greater white-fronted goose with neck collar.



Robin Corcoran/USFWS

Banding northern pintail duck.

Goal 2: Habitat

Perpetuate ecosystem processes that shape habitats within the natural range of variability.

Objectives under Goal 2 include: developing a Habitat Management Plan; inventorying wetland, lake, stream and river resources, including aquatic plants, fish, wetland-dependent wildlife, aquatic invertebrates, and physical and chemical properties of lakes and wetlands; evaluating installation and operation of water gauging stations; developing a hydrologic model for the refuge's principal watersheds; continuing to implement the refuge's Fire Management Plan; incorporating expanded aerial waterfowl breeding pair survey data to identify and classify important waterfowl habitat; developing inventory and monitoring strategies to assess the effects of fire on caribou and moose habitat quality using remotely sensed imagery to determine wetland area loss in response to climate change; and continuing cooperative efforts to document and monitor invasive non-native insect impacts to larch, aspen, and willow.



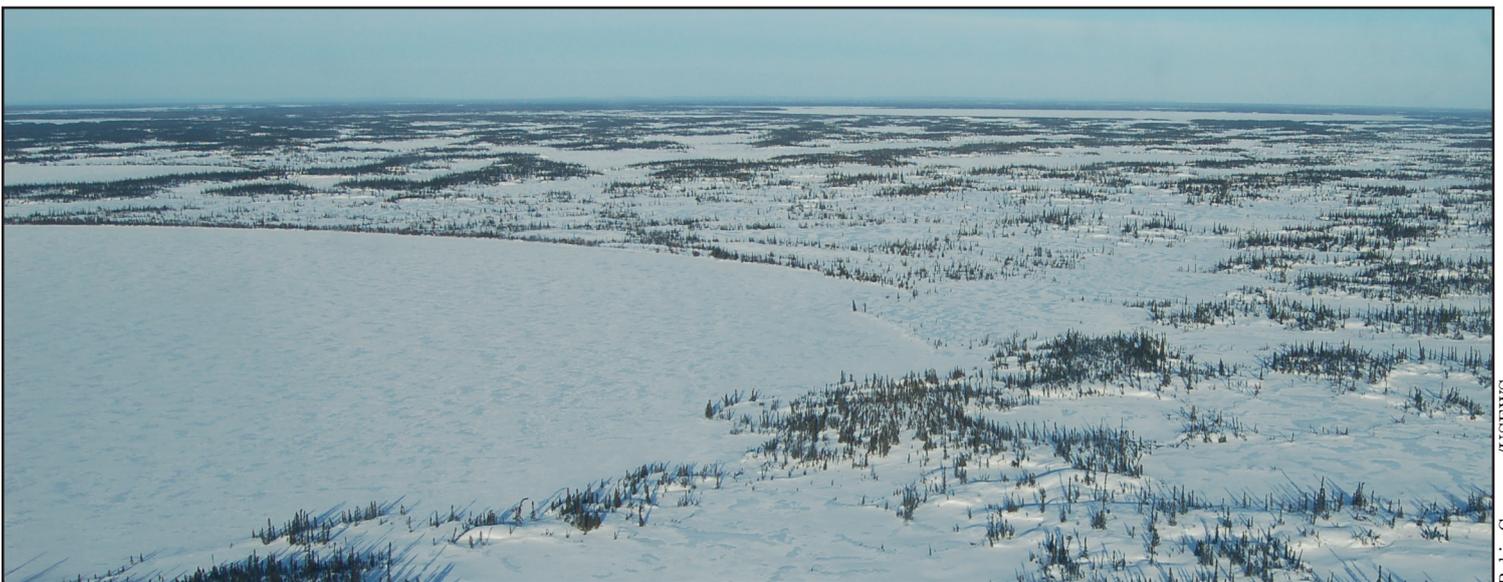
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Natural fires reshape and rejuvenate Innoko's landscape.



Robin Corcoran/USFWS

Hather Creek, a tributary to the Innoko River.



Robin Corcoran/USFWS

Southern Innoko. In winter, temperatures can drop as low as minus 70 degrees Fahrenheit on the refuge.



Polly Wheeler/USFWS

Salmon drying at Kaltag along the Yukon River.

Goal 3: Subsistence

Provide the opportunity for continued subsistence uses of the refuge, consistent with the subsistence priority and with other refuge purposes.

Objectives under Goal 3 include: continuing the Refuge Information Technician (RIT) program to enhance information exchange with local communities on refuge issues, particularly those dealing with subsistence; conducting annual informational meetings in each village associated with the refuge and regularly attending other subsistence-related meetings; continue to work closely with Tribal Councils, the GASH Advisory Committee, the Federal Subsistence Western Interior Regional Advisory Council, and other stakeholders; working with partners to develop and implement a subsistence harvest monitoring plan to conserve migratory bird populations; coordinating with and assisting the Division of Migratory Bird Management in completing the annual Migratory Bird Harvest Survey; coordinating with and assisting the Yukon Drainage Fisheries Association in completing the annual in-season fish harvest assessment; expanding subsistence harvest surveys to include large mammals (i.e., moose, black bear, and brown bear) and furbearers; and mapping the seasonal distribution and intensity of subsistence activities on the refuge.

Goal 4: Recreation/Public Use

Provide opportunities for quality wildlife-dependent recreation, emphasizing short-term, low density uses that require minimal facility development or habitat disturbance.

Objectives under Goal 4 include: providing opportunities for multi-day recreational trips within the refuge which allow the public to experience and explore its dynamic landscape and wildlife; expanding the public-use monitoring program for all uses of the refuge; implementing and strengthening Innoko Refuge's special use permit program, improving permittee documentation of use requirements, and increasing enforcement of and compliance with permit stipulations; working with the State of Alaska and Bureau of Land Management to increase law enforcement patrols on surrounding lands; conducting a visitor services review for the refuge and the administrative site at McGrath; and if necessitated by increased public use, developing a visitor services plan.



Robin Corcoran/USFWS

Northern pike can grow to a considerable size on the refuge.



Steve Kovach/USFWS

Innoko Refuge black bear.



USFWS

The refuge offers great opportunities for skilled outdoor enthusiasts such as river floating, camping, fishing, wildlife viewing and photography.



Robin Corcoran/USFWS

Canoeing on one of the many lakes on the refuge.

Goal 5: Wilderness

Preserve and enhance in perpetuity wilderness values of designated wilderness.

Objectives under Goal 5 include: continuing to provide opportunities for solitude, self-reliance, and other characteristics that depend on a wilderness environment while not impairing other uses and values associated with wilderness; preparing a Wilderness Stewardship and Management Plan; allowing naturally occurring fires to burn within the Innoko Wilderness whenever possible; and ensuring appropriate uses, including administrative uses, of the Innoko Wilderness by conducting a minimum requirements analysis for new activities and reviewing existing minimum requirements for analyses for accuracy.



The area between Six Mile Lake and Mud River is part of the Innoko Wilderness which encompasses 1.24 million acres located south and east of the Innoko River. This congressionally designated area includes much of the lower Iditarod River and many lakes and ponds.



This area is a true wilderness in every sense of the word. It is common to go for days without hearing or seeing signs of another human.



The prickly rose is widespread in Alaska including Innoko Refuge.



Wolf pack following a winter trail on the refuge.



Dramatic lighting conditions can occur at any time of the year in interior Alaska.

Steve Kovach/USFWS

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Danielle Jerry/USFWS

Steve Kovach/USFWS



Donna Dewhurst/USFWS

Innokko Refuge and cooperators sponsor an environmental education camp at Round Mountain located southwest of McGrath.



USFWS

Past camp topics have included fire management, elder stories, fish dissection, water sampling, nature artwork, and berry picking and preserving.

Goal 6: Outreach and Environmental Education

Provide outreach and environmental education programs to develop and/or increase a sense of stewardship for wildlife, cultural resources, and the environment.

Objectives under Goal 6 include: producing and distributing Leave No Trace and other information about the Innokko Wilderness, and working with guides, transporters, and the visiting public to assure adherence to these principles while in the designated Wilderness; providing the public with timely and accurate information about the refuge through a wide variety of communication tools, re-evaluating the tools used, and updating and correcting information at least twice annually; participating when possible in community events, festivals, and programs; and conducting workshops and providing classroom visits and educational materials as requested by educators in the Iditarod Area School District.

Other objectives under the outreach and environmental education goal include developing reliable methods to assess the degree to which environmental education programs enhance understanding and appreciation of refuge purposes, goals, and special values; ensuring that at least 80 percent of District K-12 students have an opportunity to participate in at least one environmental education program; and continuing to maintain and develop the partnership with the Alaska Geographic (formerly Alaska Natural History Association) and/or other cooperating associations to provide interpretive and environmental sales items on the natural and cultural history of the refuge and surrounding public lands.

Goal 7: Cultural Resources

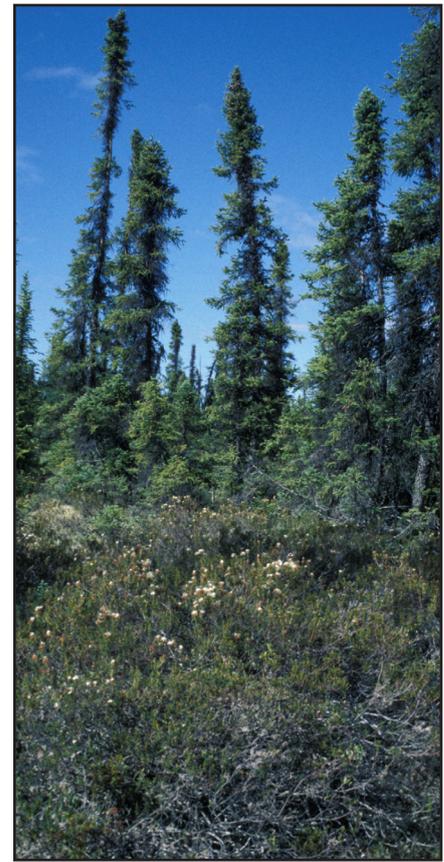
Conserve cultural and archeological resources of the refuge.

Objectives under Goal 7 include: revising the refuge's Cultural Resources Guide to include new cultural resources objectives listed and provide additional details about cultural resources management; cooperating with the Iditarod National Historic Trail Inc. and the local Trailblazers group to commemorate the Centennial of the Iditarod National Historic Trail; seeking funding to manage the trail within the refuge, focusing on documentation, conservation, research, and interpretation; in cooperation with the GASH communities, collecting and incorporating existing place names information; organizing and completing records of the refuge's human history, including oral history collections; consulting with Native groups and other local entities regarding research projects and proposals related to cultural resource management.



Anna Ramsburg/USFWS

Bunchberry or dwarf dogwood occurs frequently in the boreal forest.



USFWS

Typical black spruce forest

Goal 8: Administrative

Provide and maintain the facilities and equipment necessary to ensure and administer a safe and secure environment for the visiting public and Service personnel.

Objectives under Goal 8 include: continuing implementation of the administrative facility plan; continuing an aggressive safety program; continuing to meet legal requirements for the administrative facilities of the refuge (e.g., equipment operation, hazardous materials handling); coordinating with State and local agencies to assist in providing support during emergencies; and establishing up to three new administrative sites on the refuge (one on the Yukon River, one on the upper Innoko River, and one on the lower Innoko River) as funding allows. We will also investigate the possibility of allowing public use of these new administrative sites.



Innoko Refuge headquarters in McGrath.

Donna Dewhurst/USFWS



The Innoko Refuge field camp.

Robin Corcoran/USFWS



Leon Kolankiewicz/USFWS

Many areas of the refuge are only accessible by float plane...



Robin Corcoran/USFWS

...or, in winter, by ski plane.



Leon Kolankiewicz/USFWS

Fuel storage at the field camp.

The Revised Plan

The map on the next page depicts the management categories at Innoko Refuge, as adopted in the Revised Comprehensive Conservation Plan. Two management categories – Minimal Management (2,246,795 acres or 61% of the refuge) and Designated Wilderness (1,240,000 acres or 35% of the refuge) comprise all Federally owned land within the refuge boundary. The remaining lands – about 4% – are in private ownership.



Innokko River in winter.

Jo Godman/USFWS



Least sandpiper.

Eric Duerkop/USFWS

Minimal Management

Minimal management is designed to maintain the natural environment with very little evidence of human-caused change. Habitats should be allowed to change and function through natural processes. Refuge management will ensure that the resource values and environmental characteristics identified in the Plan are conserved. Public uses, economic activities, and facilities should minimize disturbance to habitats and resources. Ground-disturbing activities are to be avoided whenever possible.

Management actions in this category focus on understanding natural systems and monitoring the health of refuge resources. Generally, no roads or permanent structures are allowed (except cabins). Temporary structures may be allowed in situations in which removal is planned after the period of authorized use and the site can be rehabilitated using plants native to the immediate area. Existing cabins may be allowed for administrative, public use, subsistence, or commercial or economic (e.g., guiding) purposes. New subsistence or commercial cabins may be authorized if no reasonable alternatives exist. Public use or administrative cabins may be constructed if necessary for health and safety.

Public use of the refuge for wildlife-dependent recreation and subsistence activities is encouraged. Public use facilities are not generally provided. Mechanized and motorized equipment may be allowed when the overall impacts are temporary or where its use furthers management goals.



Wolf tracks.

USFWS



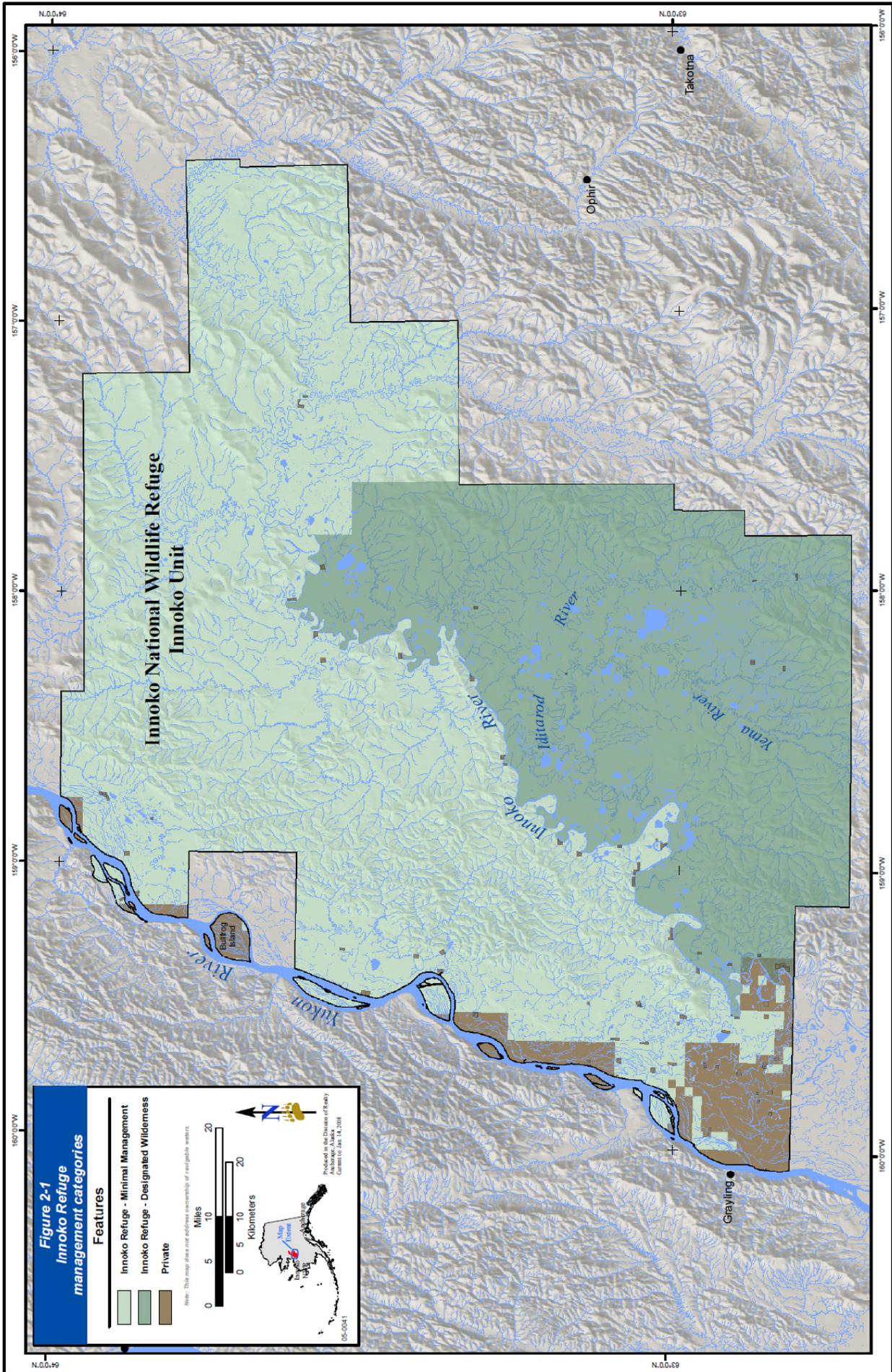
Beaver lodge and cache.

Steve Kovach/USFWS



Wetlands interspersed with woodlands are typical for the Innoko Refuge landscape.

USFWS



The Revised Plan, continued

Designated Wilderness

This category applies only to areas designated by Congress as units of the National Wilderness Preservation System, including the Innoko Wilderness. Wilderness designation applies only to Federal lands within the Wilderness boundary. The history and intent behind the Wilderness Act make Wilderness more than just another category of land management. Wilderness encourages a broadened perspective of the refuge landscape, one that extends beyond managing it solely as wildlife habitat. Wilderness is managed as an area “retaining its primeval character and influence.” In addition, Wilderness provides human visitors with opportunities for solitude or a primitive and unconfined type of recreation, which may be characterized in terms of experiential dimensions such as discovery, self-reliance, and challenge.

Permanent structures are generally prohibited, except for historic and cultural resources and some administrative structures or cabins that predate ANILCA, cabins that are necessary for trapping, and public use cabins necessary for the protection of human health and safety.

The only compatible commercial uses are those that facilitate wilderness recreation (e.g., guided fishing, hunting, and wilderness trips). All commercial activities and facilities require special authorizations.

Actions such as prescribed fires or invasive species control may be conducted when it is necessary to protect life or property or when it is necessary to restore, maintain, or protect wilderness values. Management activities in wilderness must be found to be the minimum requirements for the administration of the area as wilderness.



Raindrops on aspen leaf.

Steve Kovach/USFWS



Rusty blackbird female on nest.

Robin Corcoran/USFWS



Wild Iris.

Steve Kovach/USFWS



Fire, ice and flooding shape Innoko's landscape.

Steve Kovach/USFWS

Implementation

Implementation of the Innoko Refuge Comprehensive Conservation Plan will be accomplished, in part, through development of various step-down plans. Each step-down plan has its own focus (e.g., inventory and monitoring, fisheries management, fire management, land protection), identifying and directing the implementation of strategies (actions, techniques and tools) designed to achieve programmatic objectives outlined in the Plan (see Goals and Objectives above.)

Partnerships

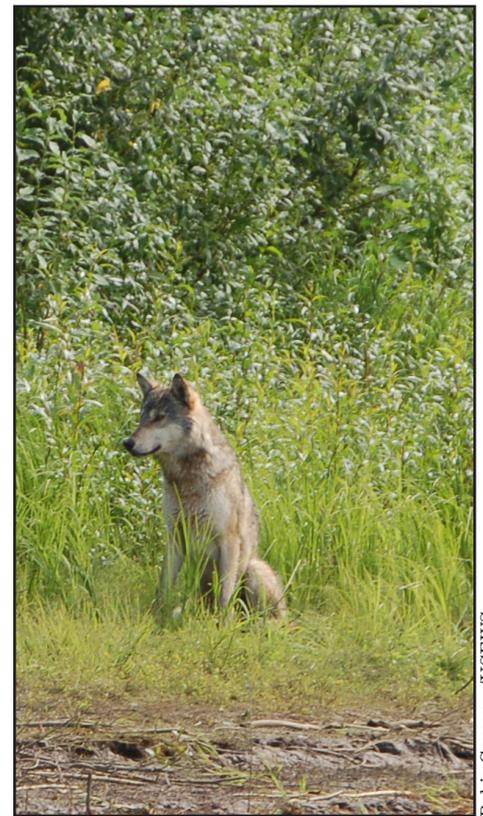
Partnerships with other organizations are among the ways in which the Service fulfills its mission: “Working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.”

The refuge exists within a dynamic ecosystem. Many of the resources on the refuge are of national and international importance. The Service recognizes that the public organizations, and other governmental agencies have interests in the refuge. Implementation of many refuge programs requires community involvement, support, and assistance.

- The Innoko Refuge staff collaborate with the following partners, among others:
- State of Alaska
- Other Federal agencies
- Federal Subsistence Western Interior Regional Advisory Council
- Migratory Bird Co-management Council
- Grayling, Anvik, Shageluk, and Holy Cross village councils
- Grayling, Anvik, Shageluk, and Holy Cross village corporations
- Tanana Chiefs Conference, Inc. (Regional Native non-profit organization)
- City of McGrath
- Iditarod Area School District
- Universities and museums
- Nongovernmental organizations (including Friends of Alaska National Wildlife Refuges, Alaska Geographic, and Ducks Unlimited)

What are step-down plans?

Step-down management plans are plans that deal with specific management subjects. They describe management strategies and implementation schedules and provide details necessary to fulfill management goals and objectives identified in the Comprehensive Conservation Plan.



Robin Corcoran/USFWS

Wolf along Innoko River .



Polly Wheeler/USFWS

Boats at Kaltag along the Yukon River.



Jo Goldman/USFWS

Ptarmigan tracks.



Danielle Jerry/USFWS

Cow moose and calf.



Craig Ely/USGS

Dowitchers.



Brian Anderson/USFWS

Caribou antlers half burried by the snow.



Steve Kovach/USFWS

Canada geese with goslings.

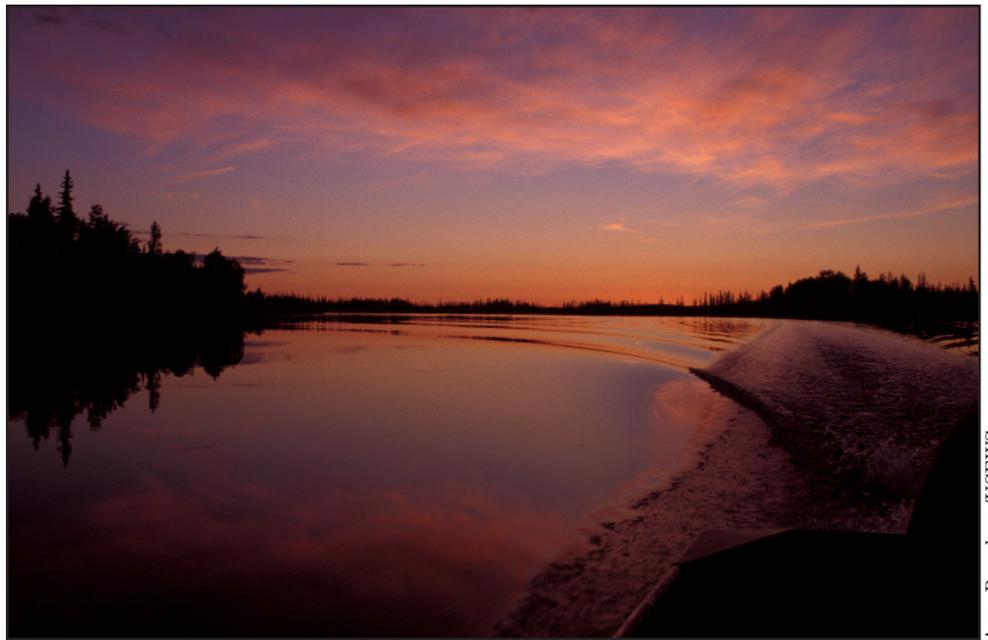


Steve Kovach/USFWS

The Innoko River with its ever changing appearance displays a variety of moods.

Monitoring and Evaluation

Monitoring helps refuge staff track the progress of Plan implementation. Results of monitoring activities show how objectives are being achieved and measure progress towards accomplishing goals. The refuge will be developing an inventory and monitoring step-down plan, and many of the refuge's objectives involve collection of baseline data that may lead to additional monitoring efforts (see chapter 2, section 2.1 of the Plan). The step-down plan will provide detailed methods and frequencies for inventory and monitoring activities. Table 4.3 of the Plan displays possible monitoring indicators and actions to be measured and possible management actions in response to indicators for fish and wildlife, their habitats, plants, recreational uses, and contaminants. Activities will be refined as step-down plans are prepared or revised.



Anna Ramsburg/USFWS

Sunset over the Innoko River.

Plan Amendment and Revision

Periodic review and change of this Revised Comprehensive Conservation Plan and its various step-down plans will be necessary. As knowledge of Refuge resources, users, and uses improves, changes in management may be identified. Fish and wildlife populations, user groups, adjacent land users, and other management considerations change with time, often in unforeseen ways. Challenges also may be encountered in trying to implement the Plan.

Revisions are a necessary part of the adaptive management approach used by the Service. This means that objectives and strategies to reach goals can be adjusted. Most of the resulting changes will fine-tune the plan. These changes will not require modification of this document because minor changes will be addressed in the more detailed Refuge step-down and annual work plans. Once the biological program review has been conducted and the Inventory and Monitoring Plan is approved, there may be a change in the direction of the biological program for Innoko Refuge. Only if a major change is required in management of the Refuge would it be necessary to create a new revised plan with a new environmental assessment.

To enable Refuge users; adjacent landowners; local, State, and Federal agencies; and other interested parties to express their views on how the refuge is being managed, the refuge will periodically hold meetings or use other techniques, such as comment cards and surveys, to solicit comments for evaluation purposes. By encouraging continuing public input, the refuge will be better able to serve the public, to determine potential problems before they occur, and to take immediate action to resolve existing problems.

Periodically, refuge staff will review public comments, local and State government recommendations, staff recommendations, research studies, and other information to determine if revisions to the plan are necessary. If major changes are proposed, public meetings will be held, and a new environmental assessment or an environmental impact statement may be necessary. Full review and updating of this Comprehensive Conservation Plan will occur approximately every 15 years.

For more information about the Innoko National Wildlife Refuge and the Comprehensive Conservation Plan, write to:

Refuge Manager
Innoko National Wildlife
Refuge
P.O. Box 69
McGrath, AK 99627
Phone: 907-524-3251
E-mail: innoko@fws.gov

Or visit: <http://innoko.fws.gov>
on the internet

Or you may contact the Alaska
Regional Office at:

U.S. Fish and Wildlife Service
1011 E. Tudor Road, MS-231
Anchorage, AK 99503-6199
Phone: 907-786-3357
E-mail:
fw7_innoko_planning@fws.gov

The full planning document may
be accessed online at:
[http://alaska.fws.gov/nwr/
planning](http://alaska.fws.gov/nwr/planning)



Innoko Refuge wetlands.