

U.S. Fish & Wildlife Service

Revised Comprehensive Conservation Plan Summary



Tetlin

National Wildlife Refuge

September 2008



The Mission of the U.S. Fish and Wildlife Service

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



The Mission 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.

*National Wildlife Refuge System
Improvement Act of 1997*

The comprehensive conservation plan details program planning levels that are substantially greater than current budget allocations and, as such, is for strategic planning and program prioritization purposes only. This plan does not constitute a commitment for staffing increases or funding for future refuge-specific land acquisitions, construction projects, or operational and maintenance increases.

Front Cover photograph: Hank Timm, USFWS. *Lynx* (*Lynx Canadensis*) is a predator common throughout the northern boreal forests of Tetlin National Wildlife Refuge.

Back Cover photograph: Steve Hillebrand, USFWS. *Trumpeter Swan* (*Cygnus buccinator*)

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Introduction to the CCP

What are Comprehensive Conservation Plans? Comprehensive Conservation Plans (CCPs) provide broad policy guidance and establish overall management direction. They ensure that management actions and refuge uses comply with the purposes for which a refuge was established and with other legal mandates such as the mission of the National Wildlife Refuge System. They define long-term goals and objectives toward which refuge management activities are directed.

Why do we update CCPs? The Alaska National Interest Lands Conservation Act (ANILCA) of 1980, as amended, directs us, the U.S. Fish and Wildlife Service, to prepare and, from time to time, to revise a comprehensive conservation plan for each refuge in Alaska. This document summarizes the 2008 Revised CCP for Tetlin Refuge. It updates and replaces the management direction for the Refuge originally adopted in the 1987 CCP. The 2008 Revised CCP will be in effect for the next 15 years.

Purpose and Need for Plan Revision: The purpose of the revised plan is to ensure activities, actions, and management fulfill the purposes for which Tetlin Refuge was established and provide clear direction to the public and the managers on how the Service intends to meet those purposes. While the 1987 CCP has provided good general direction, we needed to update and revise it to reflect changes in our understanding of the resources and uses on the Refuge, and changes in laws, regulations and policies affecting management of the Refuge that have occurred since the original CCP was developed.

R revising the CCP allowed us to:

- Update management direction according to national and regional policies and guidelines implementing Federal laws governing refuge management;
- Incorporate new scientific information on refuge resources;
- Re-evaluate current refuge management direction based on changing public demands for use of the Refuge and its resources, and changing environmental conditions;
- Ensure that the purposes of the Refuge and the mission of the Refuge System are being fulfilled;
- Ensure that national policy is incorporated into the management of the Refuge;
- Ensure that all interested parties have an opportunity to participate in the development of management direction;
- Provide a systematic process for making and documenting decisions about refuge resources;
- Establish broad management direction for refuge programs and activities;
- Provide continuity in refuge management;
- Provide a basis for budget and personnel requests; and
- Provide a basis for evaluating accomplishments.



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Gray Wolf. Wolves have the greatest natural range of any terrestrial mammal.

Refuge Establishment

In 1980, President Jimmy Carter signed the Alaska National Interest Lands Conservation Act into law. This act, among other things, established the Tetlin National Wildlife Refuge and its purposes.



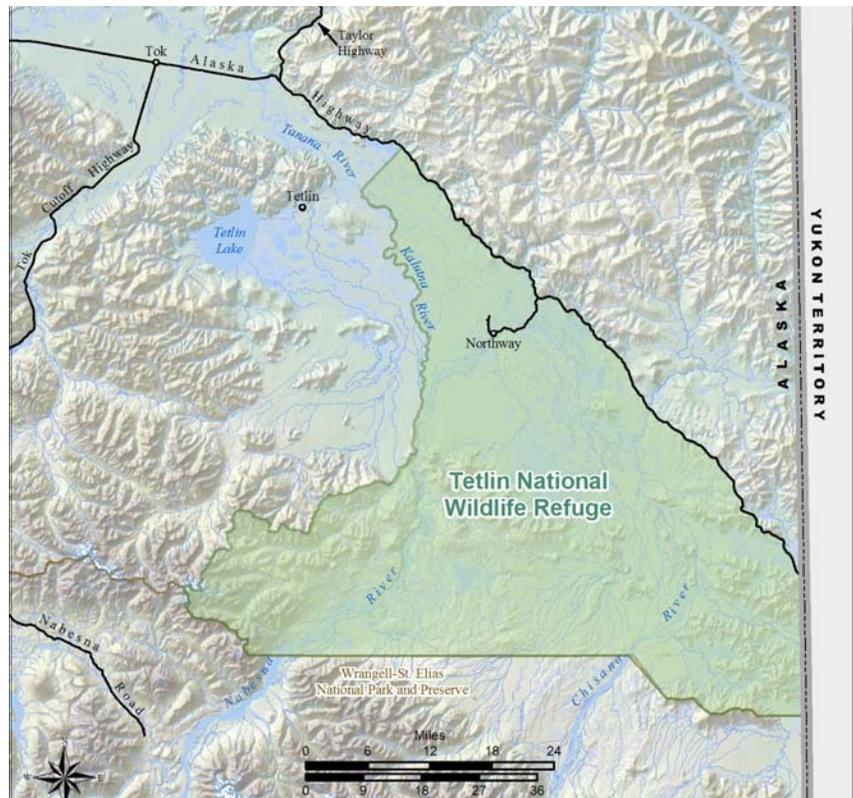
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Porcupines are second in size only to beavers among rodents in Alaska.

Refuge Description

The external boundaries of Tetlin National Wildlife Refuge encompass approximately 923,000 acres; about 700,000 acres of those lands are refuge lands. Other lands belong to Native Corporations, the State of Alaska, or private individuals. The Refuge is located northeast of the Alaska Range, in the Upper Tanana Valley. It is bordered by Wrangell-St. Elias National Park on the south Canada to the east, and the Alaska Highway along its northern border. The Nabesna and Chisana Rivers, both large glacial rivers that drain out of the Alaska Range, join within the Refuge to form the Tanana River. The large, flat basin of the Upper Tanana River is filled with sediments deposited in glacial moraines and outwash plains, creating a landscape dominated by lakes, ponds, and wetland tundra. Although most of the Refuge consists of wetlands and rolling lowlands interspersed with hills, the southwest corner of the Refuge extends into the rugged Mentasta Mountains, which contain glacier-carved peaks reaching elevations of 8,000 feet.

Tetlin Refuge is one of the most diverse interior refuges in Alaska. The vegetation is a complex mixture of spruce forests, mixed woodlands, shrub lands, and tussock peatlands that are interspersed with innumerable streams, ponds, lakes, and other wetlands. The landscape provides valuable habitat for a wide variety of fish and wildlife species, including 14 fish species, nearly 200 bird species, 44 mammal species, and one amphibian species. These species are known to use the Refuge for at least part of each year.



The Tetlin Refuge, one of 16 national wildlife refuges in Alaska, is located near the U.S.-Canada border.



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Providing environmental education opportunities is a purpose of Tetlin Refuge.

Purposes of Tetlin Refuge

Refuges exist to protect wildlife, fisheries, and their habitats, and to provide for wildlife-related public uses, such as hunting, fishing, wildlife photography and observation, and interpretation and education. Section 302(8) of ANILCA identifies the purposes of Tetlin Refuge, stating: “The purposes for which the Tetlin National Wildlife Refuge is established and shall be managed include—

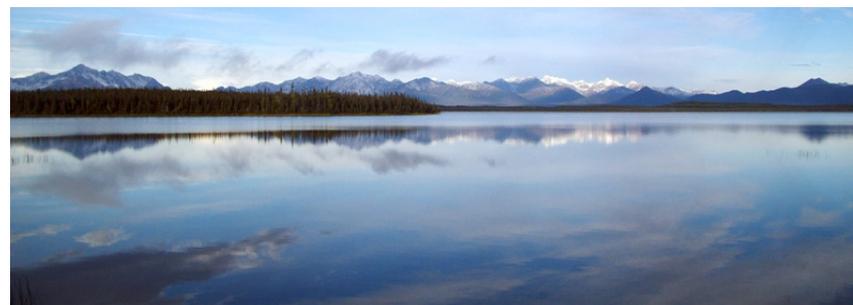
- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including, but not limited to, waterfowl, raptors and other migratory birds, furbearers, moose, caribou including participation in coordinated ecological studies and management of the Chisana caribou herd), salmon and Dolly Varden;
- (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; and
- (v) to provide, in a manner consistent with subparagraphs (i) and (ii), opportunities for interpretation and environmental education, particularly in conjunction with any adjacent State visitor facilities.”



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Refuge Vision

Through collaboration with a diverse network of partners and through the highest principles of conservation, Tetlin National Wildlife Refuge will foster a strong land ethic, scientific leadership, and opportunities for people to discover meaningful relationships with nature in a dynamic and changing landscape. Management will focus on the Refuge’s natural character, biological integrity, and scientific values as driven by biological and physical processes. As stewards of Tetlin Refuge, we will strive to achieve the purposes of the Refuge and the mission of the National Wildlife Refuge System, maintain ecosystem integrity, provide for subsistence opportunities, and facilitate wildlife-dependent recreation. As a result, Tetlin Refuge will perpetuate its unique history and continuing role as a vital passageway for fish, wildlife, plants, people, and cultures.



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Fire and flooding are natural processes that influence the habitats of Tetlin Refuge.



The northern hawk owl breeds on Tetlin Refuge and typically rear several young. These owls prefer sparse, open forest habitats and may be found at the edge of burns or other clearings.

Refuge Goals and Objectives

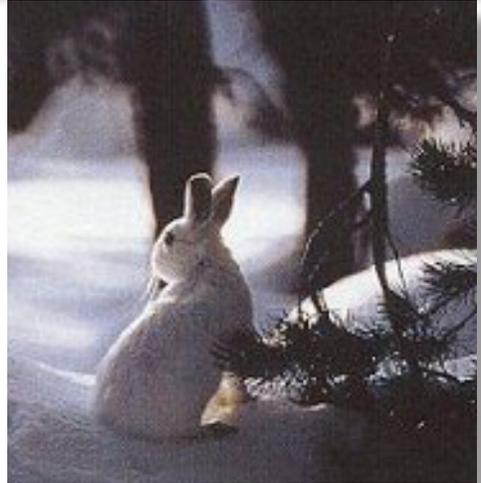
The Tetlin Refuge purposes and vision statement provide the framework for developing management goals and objectives. Goals are broad statements of desired future conditions. Objectives are more concise statements of what the Refuge wants to accomplish. The refuge staff developed twelve management goals; several objectives were identified 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 (ADF&G), other State and Federal agencies, local Native and community organizations, area residents, or other cooperators. Below are the Refuge's management goals, and a summary of objectives for achieving each of those goals. For a complete list of objectives and associated rationale, see section 2.3 of the Revised Comprehensive Conservation Plan for Tetlin Refuge.

Goal A: Conserve fish and wildlife populations representative of the natural diversity of the Upper Tanana Valley and the boreal forest ecosystem.

- Within two years of plan approval, revise the Tetlin Refuge Wildlife Inventory and Monitoring Plan; within three years of plan approval, revise (with assistance of the Fairbanks Fish and Wildlife Field Office) the Tetlin Refuge Fishery Management Plan.
- Continue surveys needed to monitor population trends, distributions, density, abundance, and habitat needs of moose, wolves, black and brown bear, caribou, Dall's sheep, furbearers, and small mammals on and adjacent to the Refuge.
- Monitor stocks, distributions, habitat needs, and harvest of humpback whitefish, burbot, northern pike, Arctic grayling, lake trout, and other fish species harvested by subsistence and recreational fishermen.
- Continue studies (with Ecological Services) of abnormal wood frogs on and near the Refuge.
- Work with partners to develop and implement strategies for inventory of terrestrial invertebrates.
- Continue to implement and update cooperative management plans for refuge resources (e.g. Menatasta Caribou Management Plan); develop new plans with appropriate partners.
- Increase refuge law enforcement staff; improve cooperation with the State of Alaska and U.S. Customs and Border Protection; and improve compliance with rules and regulations to protect and conserves refuge resources through increased public education.



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Conserving the natural diversity of fish and wildlife populations is an important refuge management goal. (Photos clockwise from top: caribou, snowshoe hare, wolves fitted with radio collars, wood frog, and moose.)



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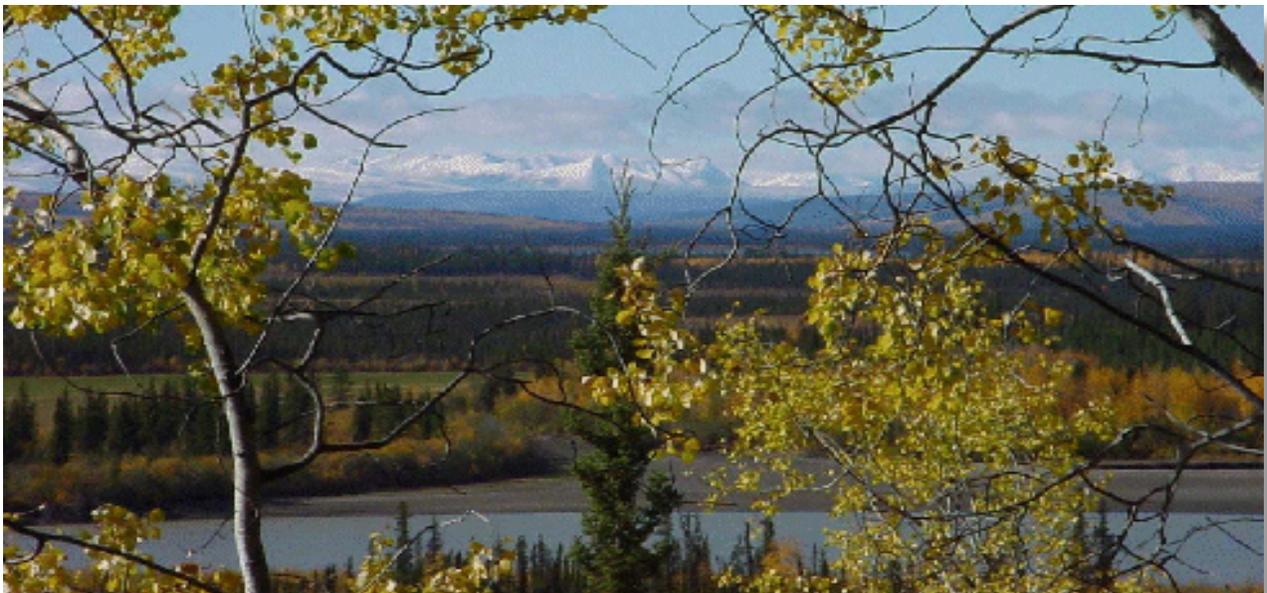


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Fireweed is an opportunistic species that quickly colonizes burns and other disturbed areas.

Goal B: Conserve plant populations and habitats representative of the natural diversity of the Upper Tanana Valley and the boreal forest ecosystem.

- Using satellite imagery, create a landcover map of vegetation communities on and adjacent to the Refuge, and develop data crosswalks to fire fuels classification systems.
- Complete an inventory of plants across all refuge habitat types.
- Develop terrestrial and aquatic invasive species inventory and monitoring strategies and incorporate into the Wildlife Inventory and Monitoring Plan.
- Document fire progression on active refuge fires and, if sufficient data are available, develop fire severity maps within two years of occurrence.
- Initiate research into the effects of development on the natural diversity of fish and wildlife resources and their habitats on the Refuge.
- Every five years or after a significant disturbance, develop and implement strategies to monitor landscape changes of both vegetation and physical features.
- Initiate research into the impacts of snowmobile use on vegetation and hydrology in relation to snow depth on the Refuge.



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Vegetation within the refuge is a complex mixture of spruce forests, mixed woodlands, shrub lands, and tussock peatlands, interspersed with wetlands and streams.



Hank Timm/USFWS

Peregrine falcon brooding chicks on Tetlin Refuge. Previously listed as endangered, peregrines have rebounded throughout much of their range.

Goal C: Recognizing the position of Tetlin Refuge along three major flyways, conserve migratory birds and their habitats to fulfill our international responsibilities under the Migratory Bird Treaty Act.

- Survey and monitor, in cooperation with regional, national and international efforts: long-term trends in population size, distribution, and productivity of landbirds; annual abundance and productivity of waterfowl; and nest occupancy and productivity of breeding populations, habitat use and availability, and food habits of raptors in Game Management Unit 12. Survey distribution, abundance, and productivity of trumpeter swans.
- Establish strategies for monitoring distribution, and migration timing for shorebirds, gulls, terns, and allied species. Incorporate into the Wildlife Inventory and Monitoring Plan.
- Initiate a study of sandhill cranes to estimate population size, timing of migration, and important staging areas in the Upper Tanana Valley.
- Replicate the 1979 study of wetland habitat and water quality as related to waterfowl use in the Scottie-Desper Creek area.
- In cooperation with Boreal Partners in Flight, develop and implement population monitoring surveys for owls in the Upper Tanana Valley.



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The lesser yellowlegs is the most abundant breeding shorebird in the Refuge.



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The Tetlin Refuge lies within the upper Tanana Valley, an area recognized internationally as an important bird area because of the large number of cranes. More than two thirds of the entire mid-continent population of lesser sandhill cranes pass through.



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Stone-cut timber. Several potentially significant cultural resource sites have been identified within Tetlin Refuge.

Goal D: Contribute to the protection and preservation of the cultural heritage of the Upper Tanana Valley.

- Update the 1996 Cultural Resource Guide for the Refuge, in cooperation with Native groups and other local entities.
- Cooperate with Native entities, other agencies, and universities to enhance and develop programs to capture traditional knowledge about cultural and natural history and to increase training and educational opportunities in the fields of natural and cultural resources for local residents.
- Identify, document, map, and research cultural resources in important archaeological areas on the Refuge.



David Johnny/Bear Creek First Nations

Dip net made of mountain willow bark.



USFWS

Fuel reduction around Tetlin village.

Goal E: Maintain a fire management program for Tetlin Refuge that reflects the natural role of wildland fires in maintaining diversity and productivity in the boreal forest and supports refuge purposes and habitat management goals, while providing an appropriate level of protection for human life, property, and identified cultural and natural resources.

- Revise the Refuge Fire Management Plan to reflect changes in the Revised Conservation Plan, in national fire policy, and the best available knowledge and experience regarding use of fire for habitat management.
- In cooperation with affected local communities and landowners, inventory and map structures and other cultural resources in and around the Refuge and develop individual mitigation plans for communities and other sites at risk from wildland fire originating on the Refuge.



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Researchers assess the severity of a wildfire.

- Assess the effectiveness of thinned fuel breaks on the Refuge; monitor long-term changes in thinned areas and any unanticipated consequences.
- Evaluate data from the current refuge weather monitoring system and determine if additional stations would improve the system's predictive capability.
- Assess the Alaska Interagency Wildland Fire Management Plan and submit necessary change recommendations annually.



Gail Collins/USFWS

Stuver Lake in fall.

Goal F: Through partnerships with agencies and institutions in the United States and Canada, continue to coordinate research and monitoring efforts to expand our understanding of the underlying ecological mechanisms related to fire and how these mechanisms effect change in vegetation and animal populations within the Upper Tanana Valley and the boreal forest ecosystem.



Gail Collins/USFWS

Biologists monitor habitat in the Black Hills burn area.

- Fully implement the Land Management Research Demonstration Area program for the boreal forest ecosystem.
- Initiate cooperative research projects to expand understanding of the underlying ecological mechanisms related to fire and how they affect changes in vegetation and animal populations.
- Establish Tetlin Refuge as a regional interagency training facility for management and monitoring the boreal forest ecosystem.
- Develop inventory and monitoring strategies to assess the effects of fire on moose and caribou habitat quality, and on the distribution and relative abundance of furbearers and small mammal populations. Investigate the relationship between berry production and fire severity.



Steve Hillebrand/USFWS

Elders remain closely tied to subsistence resources.

Goal G: Provide subsistence opportunities for rural residents, compatible with other refuge purposes.

- Regularly participate in meetings, provide information on the status of subsistence resources and their use, and comment on proposals related to subsistence management.
- Determine total annual harvest of migratory bird species within the Upper Tanana Valley to ensure long-term conservation.
- Continue outreach and education efforts in local communities that develop understanding and appreciation of resource threats and user conflicts and promote conservation of the resources and their habitats.
- Work with ADF&G to assess the accuracy and reliability of current harvest monitoring strategies for mammals. If necessary, develop and initiate a statistically valid harvest survey.
- Map seasonal distribution and intensity of subsistence activities on the Refuge.



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Water quality parameters are measured periodically throughout the year.

Goal H: Maintain the integrity and environmental health of waters and aquatic habitats within the Upper Tanana River drainage.

- Support efforts to secure instream water rights and monitor long-term water flow and quality on the Refuge.
- Continue to measure monthly snow courses during winter.
- Replicate and expand water parameter sampling of refuge wetland and lake resources.
- Develop and implement strategies for the inventory of aquatic invertebrates in refuge streams.



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Measuring water flow and discharge rate on a Tetlin stream.



Heather Johnson/USFWS

Interpretive panels at refuge headquarters and visitor center inform visitors of refuge management programs and visitor activities.



Heather Johnson/USFWS

Tetlin is one of two refuges in Alaska that are road accessible.



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Tetlin's summer education program for young people include parents and grandparents.

Goal I: Enhance understanding and appreciation of Tetlin Refuge's purposes, special values, and management goals, and promote stewardship of natural and cultural resources through comprehensive environmental education and interpretation programs and visitor services facilities.

- Play a key role in the development, administration, and maintenance of the Tok Interagency Alaska Public Lands Information Center, including construction of outdoor facilities for education and interpretive programs.
- Revise the 1997 Tetlin Refuge Public Use Management Plan (Visitor Services Plan).
- Develop interpretive materials, environmental education curricula, and experiential educational opportunities for all ages that target key refuge resource issues; provide the public with information and encouragement for wildlife-dependent use opportunities available on the Refuge and statewide; and expand education, interpretive, and wildlife-dependent recreation programs at refuge campgrounds.
- Re-evaluate and update refuge outreach tools and develop reliable methods to assess the effectiveness of outreach tools and interpretive and environmental education programs in enhancing the understanding and appreciation of the Refuge.
- Redirect the focus and design of the Tetlin Visitor Center; increase visitation; and upgrade operations to reduce noise, pollution, and cost of operation.
- Continue to maximize long-term partnerships with neighboring conservation units, educational institutions, and community organizations to help meet the Refuge's educational goals; create opportunities to educate youth in traditional subsistence ways; establish a program to provide an annual high school level field research course; develop an integrated multi-site approach to college-level studies; and provide opportunities for all Upper Tanana Valley school children to participate in environmental education programs.
- Develop, in cooperation with the State of Alaska, strategies to standardize refuge signage (including a schedule for repairing and replacing refuge signs).



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Eight week high school summer courses get students out in the wilderness for study and reflection.

Goal J: Provide compatible wildlife-dependent recreation opportunities for people to explore, enjoy, and learn about the dynamic landscape and natural diversity of Tetlin Refuge.

- Develop and implement strategies that provide local residents and visitors (including those with limited mobility) educational, interpretive, and other wildlife-dependent recreational opportunities at the Seaton Roadhouse site, Hidden Lake Trail, refuge campgrounds, and other recreational sites.
- Maintain established trailheads, trails, campgrounds and access roads, and boat launches.
- Improve information related to refuge access from the Alaska Highway.
- Continue to provide backcountry canoeing opportunities and opportunities for multi-day backcountry trips.

Goal K: Enhance stewardship of natural resources through strong local, State, tribal, national, and international partnerships. (No objectives were identified under this goal, however, many objectives included under other goals help the Refuge accomplish this goal.)

Goal L: Improve collaboration and communication with and support for local resource users and the communities of the Upper Tanana Valley through development of a “Good Neighbor Policy” that is sensitive to social, political, cultural, and economic needs within the local area.



Steve Hillebrand/USFWS

Evening cultural programs given daily throughout the summer are a highlight for many visitors.

- Work with local communities, tribes, and community organization to establish staffed satellite facilities and to increase grants and other funding for projects that will benefit refuge resources and local economies.
- Facilitate the training of cultural resource advisors from local communities.
- Establish necessary protocols for formal consultation with the tribal governments of the Upper Tanana Valley.



Donna Dewhurst/USFWS

Mallards are one of many waterfowl species that commonly nest on the Refuge.

The Revised Conservation Plan

Management direction under the Revised Conservation Plan will generally continue to follow the same course of action as under the 1987 conservation plan as modified in subsequent step-down management plans (e.g., public use, fisheries, and fire management). The new vision statement and the goals and objectives developed by the refuge staff will be incorporated into the management direction for Tetlin Refuge. Regional management policies and guidelines, as modified for Tetlin Refuge, will be incorporated.

Specific management actions in the Revised Conservation Plan include the following:

Land Management Categories

Refuge lands will continue to be managed under the same three categories as in the 1987 Conservation Plan. Of the 682,604 acres administered by Tetlin Refuge, about 564,300 acres (82.7 percent) are classified Minimal Management, about 116,600 acres (17.1 percent) are classified Moderate Management, and about 1,700 acres (less than one percent) are classified Intensive Management (see map page 16). Lands classified as Intensive Management form a buffer strip along the Alaska Highway from the Tetlin Refuge Visitor Center to the Alaska-Yukon border where considerable numbers of private inholdings and associated human developments already exist. Forty acres at the Seaton Roadhouse site were reclassified from Minimal Management to Moderate Management to allow development of additional recreation facilities and increased wildlife-dependent public use opportunities, as called for in the 1997 Public Use Management Plan.



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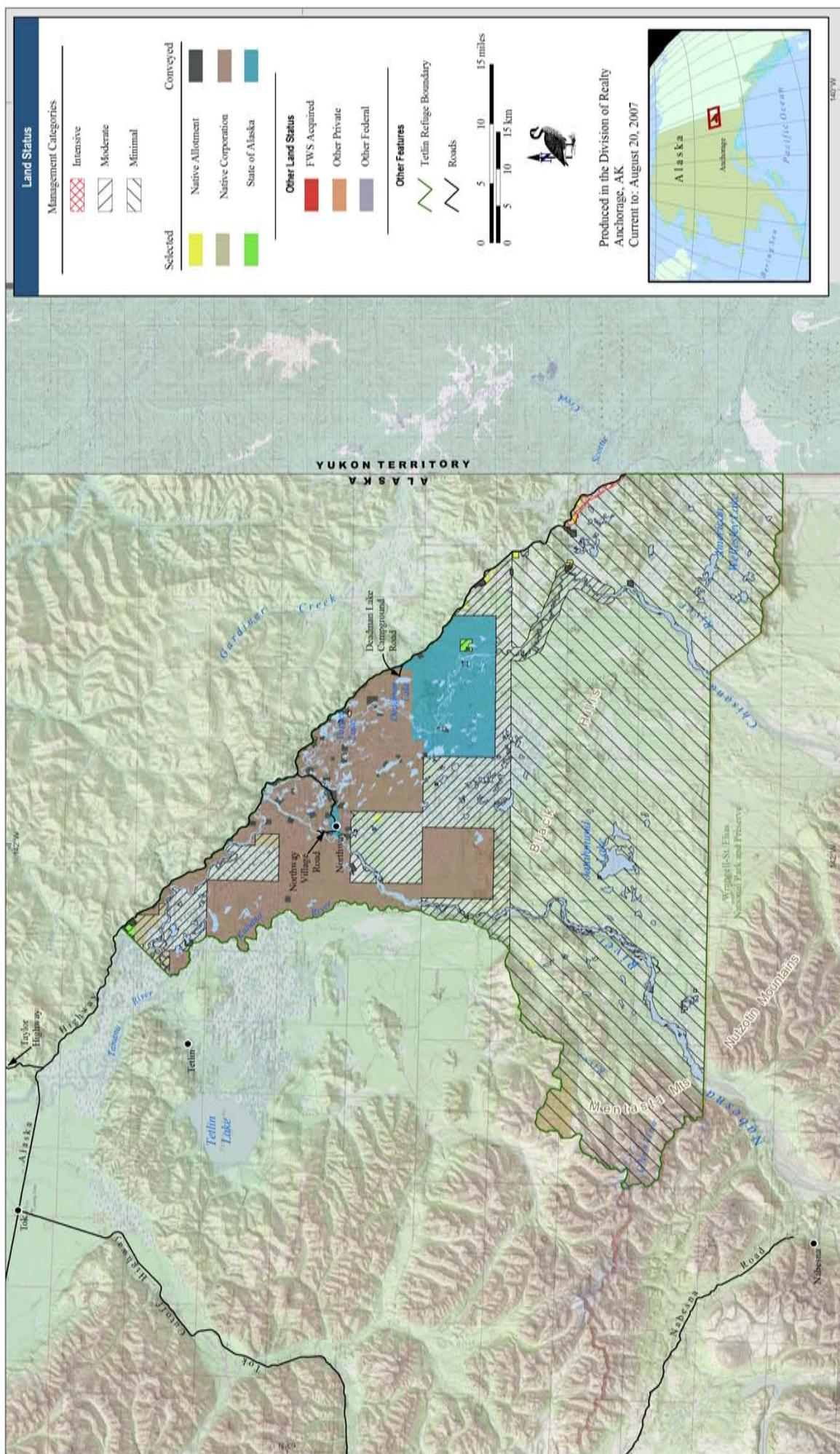
School groups make frequent field trips to the refuge bird banding station in the fall.



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The Upper Tanana Migratory Bird Festival sponsored by the Refuge and community partners is well attended by local residents.

U.S. Fish & Wildlife Service
Tetlin National Wildlife Refuge
Alaska



Management Direction by Program

Visitor Services and Public Use Management: As a key participant and provider of environmental education, interpretation, and recreation in the Upper Tanana Valley, the Refuge will actively seek cooperative agreements with local communities, tribal governments, and refuge partners that enhance the number and quality of environmental education, interpretation, and recreational opportunities available both on and off-refuge. The Revised CCP seeks formal recognition of Tok as a “Gateway Community,” where essential services are provided in support of public use and administration of the Refuge. This will encourage extended visitation to the Upper Tanana Valley and Tetlin Refuge by summer travelers and increase participation in local activities and events throughout the area by residents as well.

Public Use Facilities and Access: Existing facilities and points of access to the Refuge provide both subsistence and wildlife-dependent recreational opportunities to the public. The Refuge will maintain, improve, and provide access to these facilities and provide for new opportunities. Specific actions to enhance visitor experiences, new proposed facilities, and other details to implement management direction will be spelled out through a new Visitor Services Plan for Tetlin Refuge (revision of the 1997 Tetlin Refuge Public Use Management Plan).



Karen Laubenstein/USFWS

A food cache is displayed at the Tetlin Refuge visitor center.



Heather Johnson/USFWS

Visitors learn about the landscape, wildlife, management and cultural history of the Refuge from interpretive panels along the Alaska Highway.



USFWS

Interpretive panel at Lakeview campground.

Visitor Centers and Kiosks. Continue to work with the Alaska Public Lands Information Center, the Alaska Department of Transportation and Public Facilities (DOTPF), other agencies, tribes, and partners to finalize plans and construct an interagency visitor center in Tok. The visitor center will provide interpretive exhibits and presentations on the natural, cultural, political, and economic history of State and Federal lands, and will describe available public recreation opportunities and resources. Outdoor facilities at the visitor center will include interpretive trails and areas for picnicking, resting, and parking.



Heather Johnson/USFWS

Deadman Lake Campground sign.

Interpretive Pullouts. Pullouts along the Alaska Highway will be maintained, providing opportunities for wildlife viewing, photography, and interpretation of the Upper Tanana Valley and Tetlin Refuge. Interpretive panels at each pullout will provide information about the natural processes and wildlife resources of the Refuge and the people who live with and depend on them. Refuge signage will be improved to make pullouts more visible and informative. The Refuge will work with DOTPF to provide restrooms and trash facilities at some pullouts and will seek partners to participate in a cooperative agreement for the maintenance of all highway pullouts between Tok and the Alaska-Yukon border.



Kay Lynn Odle-Moore/USFWS

Camping spot at Deadman Lake Campground.

Development of the Seaton Roadhouse Site. The Seaton Roadhouse Site will be developed to provide additional recreational, environmental education, and interpretation opportunities. Initial developments will include: rehabilitation of the abandoned section of the Alaska Highway leading to the site, parking adequate to accommodate anticipated use, and short hiking and interpretive trails with a wildlife-viewing platform and benches. Longer hiking trails will be constructed in the future, providing additional wildlife viewing and photography opportunities in the summer and enhancing subsistence opportunities for local residents. Campsites will be established in remote areas on the site, providing a quieter and more primitive experience than at existing refuge campgrounds. Trail segments closest to the parking area will be barrier-free to accommodate visitors who have limited mobility.

Campgrounds. Tetlin Refuge will continue to administer and maintain the Deadman Lake and Lakeview campgrounds along the Alaska Highway under a long-term lease with the State of Alaska, and explore purchase of the campgrounds from the State. Site rehabilitation, basic maintenance, and a variety of repairs and improvements will be done to meet or exceed basic standards for campsites, including fully graveled and leveled parking areas, fully functional picnic tables, fire rings with grating, and provision of potable water sources. Each campground would include clean and fully functional waste facilities and posted written information regarding campground rules, precautions, and etiquette. Additional public use facilities will be constructed at both campgrounds, designed to provide additional wildlife-dependent recreational opportunities for overnight campground guests and for day-use visitors. Access roads from the Alaska Highway will be upgraded to improve access and allow for a longer season of use.



Heather Johnson/USFWS

A new photoblind at Lakeview Campground receives high marks from visitors.

The same number of overnight camping opportunities will be provided, but increased day-use will be possible through additional facilities. Consistent with the visitor services role of the Refuge, the Refuge will cooperate with the State, local communities, tribal governments, and other partners to encourage additional camping opportunities outside the Refuge.

River and Trailhead Access. The Refuge will continue to maintain the public boat launch and parking area at the Chisana River Bridge near Northway. Modifications will be made to the launch, as necessary, to provide reliable, safe, and easy access. We will work with partners to establish cooperative agreements for the maintenance of this and other boat launch sites that may be developed for public access to the Refuge.

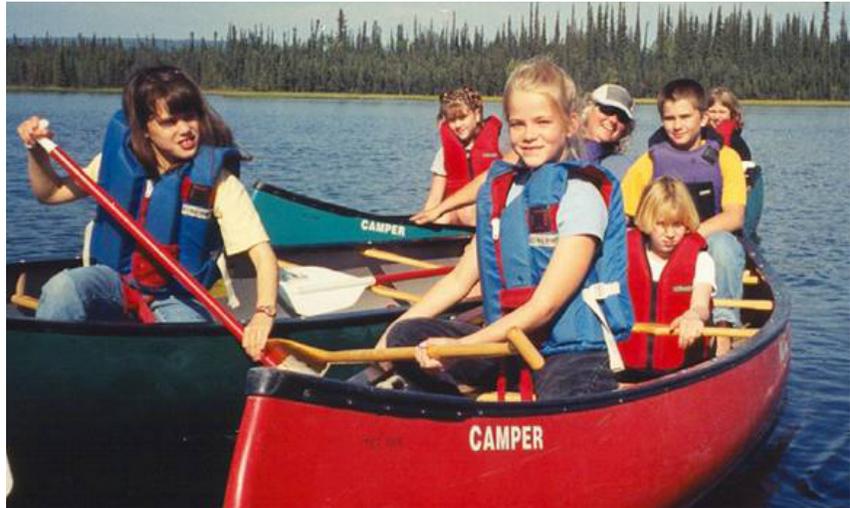


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Pullouts along the Alaska Highway will continue to be maintained.

Private lands have been identified in the past that could provide additional public access to the Refuge. The Service will continue working with willing landowners to acquire public access easements across these lands or to buy lands from willing sellers to permanently secure public access to areas within the Refuge. In addition, marking and signing of existing refuge access points will be improved; some points of access to primitive backcountry trails within the Refuge will also be marked.

Canoe Routes. Canoe routes will be established within the Refuge. Public launches, take-out areas, portages, and points of interest will be signed and marked on maps available to the public.



USFWS

The Refuge has a public boat launch at the Chisana River. Small boats and canoes can also access the Refuge at Desper Creek and Lakeview Campground.

Trails. The Refuge will continue to maintain or improve trails at the Seaton Roadhouse site, the Tetlin Refuge Visitor Center, Deadman Lake Campground, Hidden Lake, and Airs Hill. Other trails are used primarily in the winter by snowmobiles and dogsleds and are not maintained. Some of these trails will be marked and cleared of deadfalls and brush to make travel easier and safer while preserving their primitive character. These primitive trails will receive minimal maintenance with improvements or realignments only for resource protection.

Cabins. The Refuge will continue to maintain the three administrative cabins on the Refuge (at Jatahmund and American Wellesley lakes and on the Nabesna River), making them available for public use when not needed for refuge projects or programs. A cabin reservation system and public outreach will be used to avoid scheduling conflicts.



USFWS

Administrative cabin on Jatahmund Lake.





Heather Johnson/USFWS

Tetlin Refuge provides excellent opportunities for wildland photography.



USFWS

Local residents continue to depend on moose to meet their subsistence needs.



N.A. Easton

Whitefish is an important subsistence resource.

Fire Management: Fire activity on the Refuge will continue to be managed using a variety of tools, including suppression, wildland fire use, prescribed fire, thinning and other non-fire fuel treatments, and emergency rehabilitation and restoration. The emphasis under the revised plan will shift from suppression and landscape-scale prescribed burning based on fixed annual acreage targets to Wildland Fire Use and fuel reduction treatments designed to increase the number of acres that can be burned safely under a Fire Use strategy. Prescribed fire may be used to achieve specific management objectives related to habitat maintenance and restoration, the Land Management and Research Demonstration Program, and environmental education.

General Fire. The Alaska Department of Natural Resources, Division of Forestry will continue to coordinate suppression of fires in the Upper Tanana Valley, including those on refuge lands. Tetlin Refuge will continue to maintain personnel and equipment in Tok with secondary fire suppression capabilities, and will work with landowners, native groups, the Division of Forestry, and the Bureau of Land Management's Alaska Fire Service (AFS) to help provide the Upper Tanana Valley with integrated and effective fire management.

Protection of Property. Suppression activities will continue to be conducted according to the 1998 Alaska Interagency Wildland Fire Management Plan (AIWFMP) and the 2001 Tetlin Refuge Fire Management Plan. Some changes in location and distribution of the four AIWFMP fire management options will be made to accomplish management goals (see map page 22). These changes will add a buffer of Full Management in the eastern part of the Refuge in order to protect the increased human residency and development that has occurred in this area. The concept of a continuous 13-mile-long fuel break across the Refuge (south of the Native- and State-owned lands) will be abandoned in favor of localized fuels treatments. In addition, the Refuge will explore the possibility of staging a Type VI Engine module in the community of Northway.

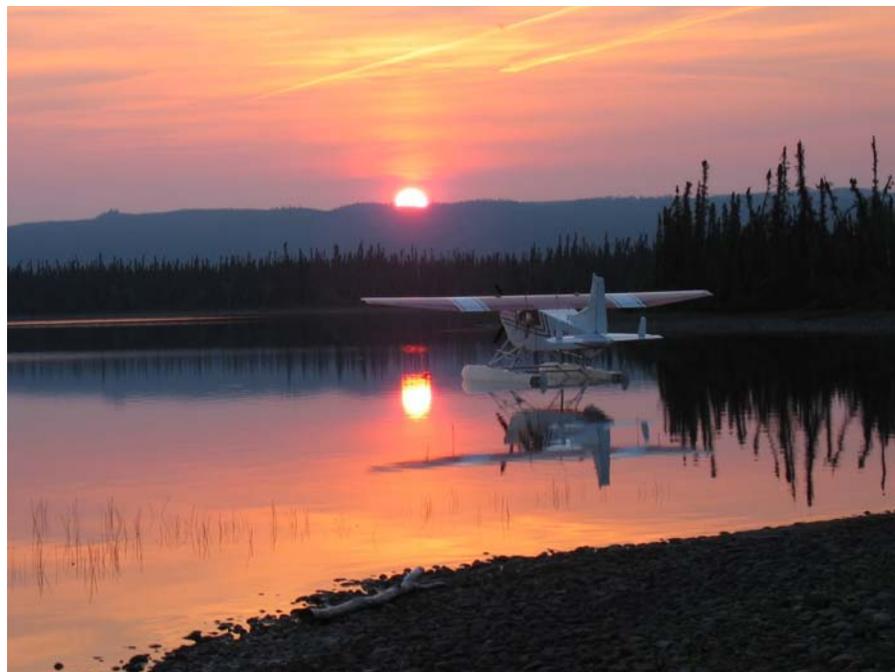


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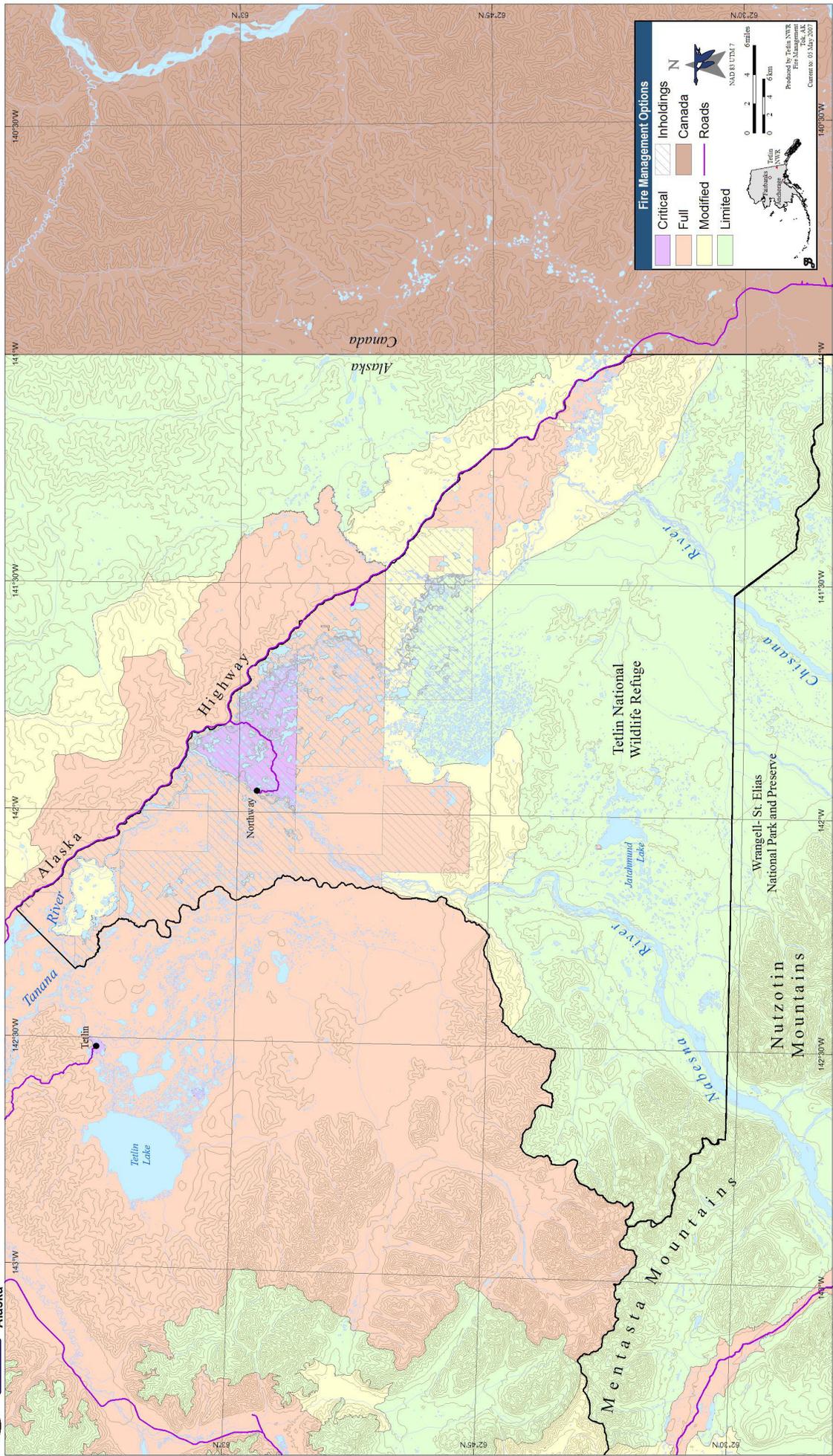
Clockwise from left: the 2003 Blackhills fire; flying surveillance on the 2003 Fish Lakes fire; smoke from the 2004 Taylor Complex fires colors the sky over Jatahmund Lake.



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Fish, Wildlife, and Habitat Management: The fish, wildlife, and habitat goals and associated objectives are directed toward conserving and monitoring the Refuge's natural diversity of species and habitats. Management will allow continued inventory and monitoring to provide information necessary to understand and protect fish and wildlife resources and habitats on the Refuge. As funding and resources permit, proactive inventory and monitoring, and targeted research will be conducted to expand knowledge of fish, wildlife, and habitat resources. Fish, wildlife, and habitat research and management activities will emphasize maintenance of the natural environment.

Habitat Management. The Revised Conservation Plan emphasizes use of wildland fires to maintain ecological diversity and achieve management objectives. Prescribed fire will continue to be used as a management tool, but annual prescribed burning acreage targets will be smaller as treatments will be focused on protecting specific locations identified in individual treatment plans. Wildland fire use will be permitted on all refuge lands falling within the AIWFMP Limited management option and on lands within the Modified option after the conversion date (normally July 10, but it may vary depending on weather conditions in any given year).



Marten

Burned trees eventually topple and create habitat for small mammals including marten and weasel.



Filleting whitefish.

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Fisheries Management. Fisheries management under the Revised Conservation Plan will focus on providing important habitat for a number of fish species including many that are important subsistence resources. Work will continue with the ADF&G, Native entities, and others to gather additional life history information about whitefish and other important fisheries within the Refuge as further defined in the revised Fisheries Management Plan for Tetlin Refuge.

Under the Revised Conservation Plan, the management intent for larger fish to provide trophy recreational fishing opportunities will be dropped and the Refuge will be managed consistent with the Service's Policy on Maintaining Biological Integrity, Diversity, and Environmental Health of the National Wildlife Refuge System (Service Manual 601 FW 3) to ensure native species are managed in their natural diversity and abundance. The Refuge will work with the State of Alaska to conserve fish populations, recognizing that populations may experience fluctuations in abundance because of environmental factors and may require management actions for conservation purposes.

Although refuge management will focus on maintaining the genetic variability of wild, native fish stocks, ADF&G will be allowed to continue periodic restocking of Hidden Lake with rainbow trout to enhance highway-accessible fishing opportunities. Though rainbow trout are not native to the Upper Tanana Region, there is minimal risk of the trout escaping the lake and becoming established on the Refuge. Hidden Lake is an isolated water body that does not support natural fish populations; the ADF&G stocking program includes provisions to safeguard against potential escapement of stocked fish and establishment of rainbow trout populations outside of the stocked lake.



Fourteen fish species, including northern pike and three species of whitefish are known to occur on the Refuge.

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The Tetlin Refuge Fishery Management Plan, completed in 1990 in cooperation with ADF&G, guides Service fisheries management activities on the Refuge. Scheduled for revision in 2011, this step-down plan will provide more specific guidance for management of refuge fishery resources and use opportunities.



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Rusty blackbirds are among the many species that nest on the Refuge.

Migratory Bird Management. In 2001, the Migratory Bird Co-management Council proposed amendments to the International Migratory Bird Treaty Act that were adopted to allow subsistence hunting and egg-gathering opportunities during the nesting season. Subsequently, liberalized regulations were adopted for subsistence use of migratory birds and their eggs (presently 92 species). In light of these changes, more accurate and extensive baseline population and harvest information would be gathered under the Revised Plan to ensure healthy populations are maintained, to continue providing for subsistence opportunities, and to fulfill the Service's obligation in meeting the requirements of the International Migratory Bird Treaty Act.



Steve Hillebrand/USFWS

First documented in the early 1980s, a breeding population of trumpeter swans has been rapidly expanding in the Upper Tanana Valley in recent years. Both trumpeter and tundra swans use the Refuge in large numbers during annual migrations.



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White sweet clover is an invasive species within the refuge.

Invasive Species. Invasive plants and other non-native species represent a relatively new and growing threat to the environmental integrity of the Upper Tanana Valley. Proximity of the Refuge to the Alaska Highway allows visitor access to the Refuge through trails and streams. These visitors may provide the means of spreading invasive plant species into refuge lands through their clothing, vehicles, and recreational gear. Other non-native species, such as mammals and insects, may be expanding their range due to changes in climate that may allow them to thrive in Alaska. A program has been initiated to detect and monitor invasive plant species along the Alaska Highway. This program would be expanded to include direction for preventing, controlling and eradicating invasive species within and adjacent to the Refuge. Plans for eradication of invasive species will be subject to internal review, and will require specific environmental analysis including NEPA evaluation and a compatibility determination.

Environmental Contaminants: Past development and construction activities—primarily associated with World War II era military facilities such as the Northway (Staging Field) Airfield, Canol Pipeline, and the Haines to Fairbanks Pipeline (used by the Army to transport petroleum products from 1954 to 1973), and construction of the Alaska Highway—within and adjacent to Tetlin Refuge have introduced a variety of contaminants into the Upper Tanana Valley and the Refuge itself. Petroleum hydrocarbons are the primary contaminants of concern at these former military sites. Concerns have also been raised regarding reported past use of herbicides along the pipeline corridor; however, sampling in 2005 did not detect persistent residues. Another known contaminant site on the Refuge is the former Seaton Roadhouse, which included a gas station and automotive repair shop. Contaminants cleanup at this site will be required.

Current and future planned activities also have the potential to create additional sources of contamination, including spills or development activities outside of refuge boundaries. In 2007, the Service’s Environmental Contaminants Program completed an assessment of known contaminant threats on the Refuge. In the future, they could work with the Refuge to document baseline environmental conditions and establish a plan for long-term monitoring as developments occur within or adjacent to the Refuge.



Old batteries are among the debris to be removed from the Seaton Roadhouse site which is being developed as an interpretive area.

Implementation

Implementation of the Tetlin Refuge Revised Conservation Plan will be accomplished, in part, through development of various step-down plans. Each step-down plan has its own program focus (e.g. wildlife inventory and monitoring, environmental education, visitor services, and fishery management), identifying and directing the implementation strategies (actions, techniques, and tools) designed to achieve programmatic objectives outlined in the Revised Conservation Plan (see Goals and Objectives).

Another aspect of the implementation process includes identifying partnership opportunities (e.g., with Native corporations, the State of Alaska, local communities, other Federal agencies, universities and museums, nongovernmental organizations, and other appropriate entities) that result in implementing strategies and accomplishing refuge objectives.



Refuge visitors on the trail to Hidden Lake. A group of volunteers from Wilderness Volunteers, a non-profit organisation promoting volunteer service to America's wild lands, teamed with refuge staff to improve this trail.

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 within 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 Tetlin Refuge staff looks for opportunities to coordinate activities with the following (among others):

- Local village councils
- Tanana Chiefs Conference
- Various State of Alaska agencies
- Other federal agencies
- Yukon government
- Universities (e.g. University of Alaska Fairbanks and Yukon College) and museums
- Local businesses, Native corporations, and Native associations
- Nongovernmental organizations (e.g. Alaska Bird Observatory, Alaska Geographic Association, Tok Chamber of Commerce, Tok Lions Club, Ducks Unlimited, Friends of Alaska Refuges)
- Alaska Gateway School District

Monitoring and Evaluation

Monitoring helps refuge staff track the progress of plan implementation. It is accomplished by a variety of methods, including surveys, inventories, and censuses. Proposed monitoring will be refined and additional monitoring strategies will be developed as data analyses are completed, biological and visitor services reviews are conducted, and wildlife and habitat inventory plans and fishery, visitor services, and other step-down management plans are prepared or revised. Results of monitoring show how refuge objectives are being achieved and help measure progress towards accomplishing refuge goals. Evaluation of these results may lead to amendments or revisions to the Revised Conservation Plan. Such changes are a necessary part of the Service's adaptive management approach.



Northern hawk owls breed on the Refuge.

Plan Amendment and Revision

Periodic review and change of this comprehensive conservation plan 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. Only if a major change is required in management of the Refuge will it be necessary to revise this Conservation Plan with a new environmental document.

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.

Every three to five years, refuge staff will review public comments, local and state government recommendations, staff recommendations, research studies, and other sources to determine if revisions to the plan are necessary. If major changes are proposed, public meetings may be held, and new environmental assessments and environmental impact statements may be necessary. Full review and updating of the conservation plan will occur every 15 years.



Yarger Lake on Tetlin Refuge.

**U. S. Department of the Interior
Fish and Wildlife Service
Region 7, Alaska**

FINDING OF NO SIGNIFICANT IMPACT

Revised Comprehensive Conservation Plan
Tetlin National Wildlife Refuge, Alaska

The U.S. Fish and Wildlife Service (Service) has completed the Revised Comprehensive Conservation Plan (Plan) for the Tetlin National Wildlife Refuge. The draft revised plan and Environmental Assessment (EA) (herein incorporated by reference) describe the three alternatives for managing the Refuge and associated effects on the human environment. No changes in the preferred alternative, Alternative B, were made in response to public comments. Alternative B was selected for implementation.

Alternatives Considered

The Alaska National Interest Lands Conservation Act requires the Service to designate areas according to their respective resources and values and to specify programs and uses within the areas designated. To meet this requirement, the Alaska Region established management categories for the refuges including Wilderness; Minimal, Moderate, Intensive, and Wild River management. Appropriate activities, public uses, commercial uses, and facilities are identified for each management category. Only Minimal, Moderate, and Intensive management are applied to Tetlin Refuge.

Three alternatives were considered in the environmental assessment. Alternative A, the no-action alternative, would continue current management. Alternative B (preferred alternative) would include additional opportunities to enhance access to and public use of Tetlin Refuge while placing more emphasis on use of natural processes (e.g. wildfire) to protect refuge resources and maintain long-term ecological health. Fisheries would be managed to maintain natural diversity in the region; any additional reintroductions would be based on historic distribution of fish. Alternative C would further expand and upgrade access and public use opportunities on the Refuge, would rely on fire management (suppression) as the primary tool to protect resources and property throughout the Refuge. Fisheries management would be the same as under Alternative B. Under both alternatives B and C, management of the refuge would generally continue to follow the current course of action, but would include the vision statement, goals, and objectives developed for the refuge and would incorporate new regional management policies and guidelines. The distribution and amount of land in the Minimal, Moderate, and Intensive management is the same under all three alternatives.

Public Review

Public comments on the draft plan and EA were solicited from October 3, 2007 through January 18, 2008. During the public comment period meetings were held in Fairbanks, Northway, Tanacross, Tetlin, and Tok. We received a number of comments which supported

plans for additional recreational opportunities and facilities, additional access to the Refuge, and that all terrain vehicle use be restricted. Support was expressed for use of natural fire management regimes, restricted use of prescribed fire, and use of aggressive fire control only in or near intensive use areas and around private inholdings. Several comments were made regarding management of fish and wildlife populations—related specifically to invasive species, non-native species, predator control, and trophy fisheries.

Revisions from Draft Plan

No revisions to Alternative B, the preferred alternative, were made as a result of the public comments on the Draft Revised Tetlin Plan.

Alternative B, the preferred alternative, provides a realistic balance between public use of the Refuge and the conservation needs of the Refuge. Alternative B best accomplishes refuge purposes, best helps achieve the missions of the National Wildlife Refuge System and the Service, and best meets the vision and goals identified in the plan. It provides long-term protection of fish and wildlife populations and their habitats while allowing for appropriate levels of fish and wildlife-dependent recreation, interpretation and environmental education, subsistence, and other public uses.

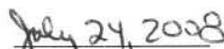
Analysis of Impacts

The EA analyzed direct, indirect, and cumulative impacts on refuge resources of fish and wildlife and on subsistence and wildlife dependent recreation, refuge facilities, cultural resources, the refuge environment, and the refuge communities. No significant effects were identified in the analysis.

Conclusions

Based on review and evaluation of the information contained in the EA and revised plan, I have determined that there will be no significant individual or cumulative impacts to the human environment, within the meaning of section 102(2)(c) of the National Environmental Policy Act of 1969, as amended. I have determined that the activities prescribed in this plan are not major Federal actions. Accordingly, the Service is not required to prepare an environmental impact statement.


Thomas O. Melius
Regional Director


Date

**U.S. Department of the Interior
U.S. Fish & Wildlife Service**

<http://www.fws.gov>

September 2008



Requests for additional information about Tetlin Refuge and its Revised Comprehensive Conservation Plan should be directed to:

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Requests for a CD-ROM or paper copy of the Revised Comprehensive Conservation Plan for Tetlin Refuge should be directed to:

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