

# Revised Comprehensive Conservation Plan

## Summary



## Selawik

## National Wildlife Refuge

The revised 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: USFWS. *A Selawik elder teaches a young woman how to cut and hang fish to dry. For thousands of years the Iñupiat have hunted and fished on lands that are now part of the Selawik Refuge. Providing for subsistence uses is one of the purposes of the refuge.*

Back cover photograph: Steve Hillebrand/USFWS. *The Waring Mountains in the northern portion of the Selawik National Wildlife Refuge feature spruce-birch forests, alpine tundra, and sweeping views of the Selawik and Kobuk river valleys.*

# Revised Comprehensive Conservation Plan for the *Selawik National Wildlife Refuge* Summary

September 2011

Prepared by:  
Region 7  
U.S. Fish and Wildlife Service

If you have any questions or comments about this plan, please contact us at one of the following locations:

**Refuge Manager**

*Selawik National Wildlife Refuge*  
PO Box 270, 160 2nd Avenue  
Kotzebue, AK 99752-0270  
(907) 442-3799  
selawik@fws.gov

**U.S. Fish and Wildlife Service**

*Division of Conservation, Planning & Policy*  
1011 E. Tudor Road, MS 231  
Anchorage, AK 99503  
(907) 786-3357  
selawik\_planning@fws.gov

## 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 Purposes of Selawik Refuge

*The major purposes include:*

*“(i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, the Western Arctic caribou herd, waterfowl, shorebirds, other migratory birds, and salmon and sheefish;*

*(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; and*

*(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.”*

Alaska National Interest Lands Conservation Act of 1980

# Contents

Introduction to the CCP	4
Refuge Description	5
Location	5
Establishment	5
Refuge Vision	6
The Planning Process	7
Refuge Assets	8
Biological Resources	8
Human Presence	8
Special Values	9
Map of Land Management Categories for Selawik Refuge	10
Refuge Goals and Objectives	12
The Revised Plan	20
Fisheries Management	20
Migratory Birds	21
Western Arctic Caribou Herd	21
Invasive Species	21
Environmental Contaminants	22
Subsistence Management	22
Recreation and Outreach	22
Commercial Use of Refuge Lands	23
Map of Area Not Authorized for Commercial Transporters and Guides	24
Shared Administrative Facility	25
Motorized Access to Refuge Lands	25
Local Public Use Needs	26
Local Competitive Events	27
Putting the Plan into Action	28
Plan Amendment and Revision	28
Partnership Opportunities	29

# Introduction to the CCP

**What are comprehensive conservation plans?** Comprehensive conservation plans (CCPs), also called comprehensive plans or long-range plans, guide the way a refuge is managed. A plan helps make sure that management actions line up with the reasons why a refuge was created (its purposes) and with other laws such as the mission of the National Wildlife Refuge System. A conservation plan defines long-term goals and objectives for managing a refuge.

**Why do we update CCPs?** The Alaska National Interest Lands Conservation Act (ANILCA) of 1980 directs us, the U.S. Fish and Wildlife Service, to prepare and periodically revise a comprehensive plan for each refuge in Alaska. This document is a summary of the 2011 revision of the plan, which will provide management direction for Selawik Refuge for the next 15 years.

## Revising the CCP allowed us to:

- update management guidelines according to current national and regional policies and Federal laws;
- incorporate new scientific information on refuge resources;
- reevaluate current refuge management guidelines based on changing public demands for the use of the refuge and its resources;
- ensure that all interested parties have an opportunity to participate in the development of management guidelines;
- establish broad management guidelines for refuge programs and activities;
- provide continuity in refuge management;
- provide a basis for budget requests; and
- provide a basis for evaluating accomplishments.

## Refuge Description

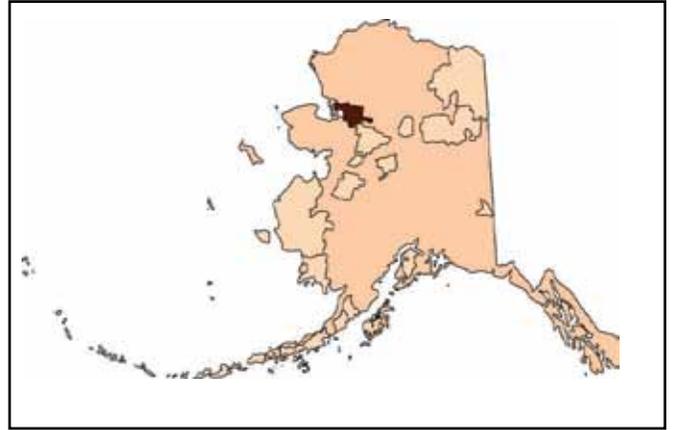
Selawik National Wildlife Refuge straddles the Arctic Circle east of Kotzebue Sound in northwest Alaska. The refuge boundary begins approximately 21 miles east of Kotzebue and extends eastward another 150 miles. The refuge spans 72 miles from north to south at its widest point. With no road connections, the refuge can be reached only by boat, airplane, snowmachine, or dog team. The outer boundary of the refuge encompasses approximately 3.2 million acres, including both private and public lands. When land conveyances under the Alaska Native Claims Settlement Act of 1971 are complete, about 2.5 million acres are expected to remain under the administration of the U.S. Fish and Wildlife Service (Service).

The lands within the Selawik Refuge have been the hunting and fishing grounds of the Iñupiat for thousands of years. Because of its remoteness (350 miles to the nearest road), the refuge is primarily used by people from communities within or near the refuge boundary. The villages of Selawik and Noorvik are within the refuge boundary. The larger city of Kotzebue (population approximately 3,500) and the villages of Ambler, Buckland, Shungnak, Kiana, and Kobuk are all within 30 miles of the refuge. Most residents of these communities are of Iñupiaq descent.

The majority of the refuge lies within a large basin, the Kobuk-Selawik Lowland, made up of broad river floodplains and approximately 21,000 lakes. Major drainages are the Selawik and Kobuk rivers. The lowlands are mostly underlain by permafrost. Highland areas of the refuge include the Waring Mountains in the north, where the Selawik Wilderness Area is located, and the Hockley Hills. The flat summits of the Selawik Hills are located to the south.

The region generally has a maritime climate during the ice-free period of the year (late May to early October), while long cold spells can occur during the winter months when the ocean and inland waterways freeze. Temperature variations can reach annual extremes of near 90°F to -60°F. Strong, persistent wind is one of the region's major climatic features. Prevailing winds blow from northeast in winter and from the west in summer.

Resources on refuge lands and the Alaska Native communities in and near the refuge are vulnerable to accelerating climate change. Predicted changes include drying lakes, erosion, increased shrubs, shifting distributions of wildlife, different patterns of rain and snowfall, and village relocations.



*The Selawik National Wildlife Refuge (in brown) is located in northwestern Alaska, where temperatures can vary from -60°F to nearly 90°F, and wind is a major feature of the climate. A larger map of the refuge can be found on pages 10-11 of this summary.*

### Establishment

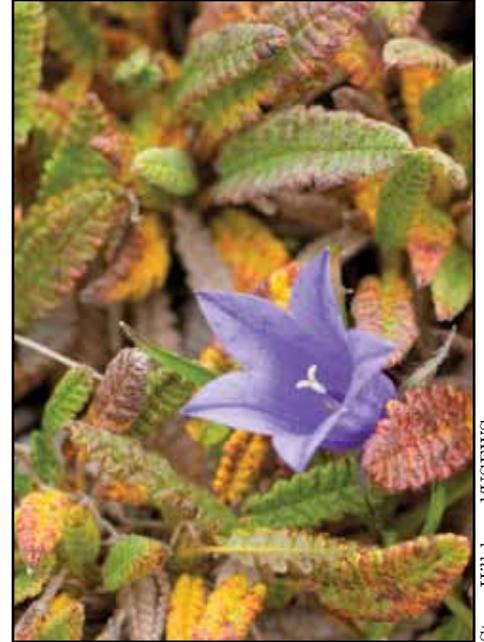
In 1980 President Jimmy Carter signed the Alaska National Interest Lands Conservation Act (ANILCA) into law. This act, among other things, established the Selawik National Wildlife Refuge and its purposes.



*Tundra swans are abundant on the refuge during the summer months. Birds not rearing young gather on lakes in large numbers during the molting season in late July.*

## Refuge Vision (English)

As a trusted resource steward and community partner, the Selawik National Wildlife Refuge will enhance and protect the quality of life found in northwest Alaska by sustaining the ecological integrity of the Selawik River drainage and Kobuk River delta. Fish and wildlife will continue to thrive in this remarkable environment, as will subsistence, cultural, and recreational uses of these resources. With vision and resourcefulness, the refuge will proactively monitor the uncertainties associated with climate change. The refuge will foster productive relationships with local communities and governments, indigenous people, visitors, scientists, neighboring landowners, and others to promote resource health, respond to community and educational needs, and perpetuate an enduring natural legacy for future generations of Americans.



Steve Hillebrand/USFWS

*A myriad of plants spring to life during the short arctic growing season, taking advantage of the midnight sun.*

## Refuge Vision (Iñupiaq)

### Siiļvium Nunañani Niğrutit Annaumaagviat Tallimañat Aglaat

Qiniqquraaglugu sivunniutaat

Tunnavigipluta tamatkuniña qaunaksraptitnik suli piqatigipluta Siiļvium niğrutinun annaksimaagvian nakuqsilaaglugu suli qaunagilugu igliqtillugu suaqhuilaakun taavruma Siiļvium kuñan salumaluni taunuña paañanun suli Kuuvaum paañani.

Qaliutlu aņņutitlu iñuusrugaağutiņ, iñugiaksiłutiņlu innayaqtut salumaruami iñuuviniņmikni, suli taamna aņunialiq, irrusriq suli aliasrunğisaaliq piviqağuni. Taatna qiniqquraaglugu suli savaagiyusriługu, taimma tamanna nuna ittaunğiguta qaunagigisigikput siła atlanułhani. Taamna nuna nautchigisiruq ilağiiłlautağuta nunaaqiurani suli nunaaqiuram aņalataiņi, tamaaniğmiunik. Tamaakņaqtanik, Tamaunnaaqataqtuanik, ilisimarit, qanimi nunaligaat, suli atlat nakuuniaqtitchiruat tamatkuniña, piņņaaruat sumun tikitpan nunaaqiq unniiņ ilisautriłutiņ sumik atuğnakkaptitnik, suli igliqtitchiłutiņ itchumiñaqtuamik piñņaktaaksrañatnik kiñuviagiğich nunaqativut.

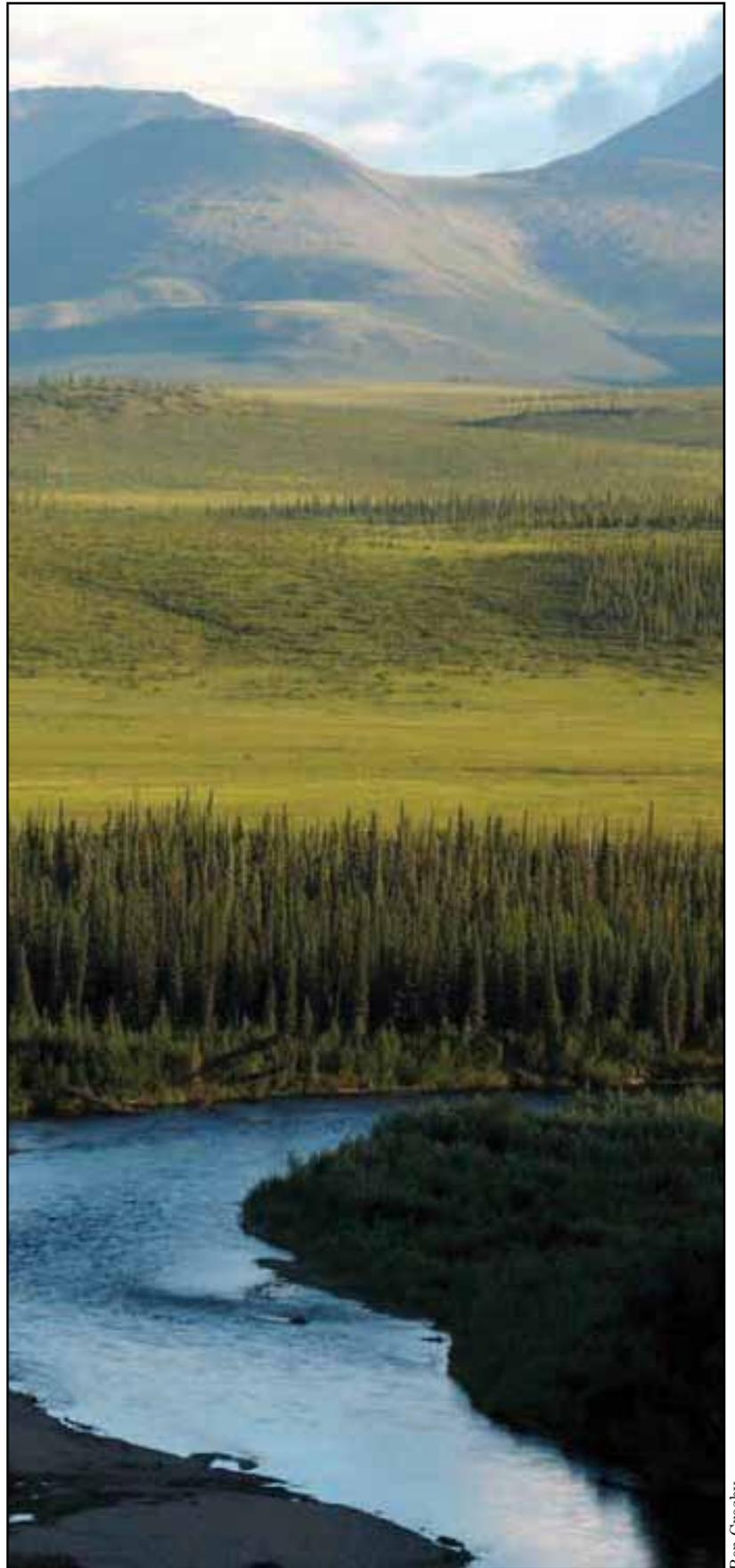


Donna Dewhurst/USFWS

*Red-necked grebes breed on the refuge. The grebe is called suglitçhauraq in Iñupiaq.*

# The Planning Process

This plan followed a public process guided by ANILCA, the National Wildlife Refuge Improvement Act, the National Environmental Policy Act, and U.S. Fish and Wildlife Service policies. In this process we:



*In 1980 Congress designated the upper half of the Selawik River as a "Wild River."*

# Refuge Assets



USFWS

*Caribou, or tuttu in Iñupiaq, are an important species that ranges throughout the area. They cross many rivers in their annual north-south migrations.*

## Biological Resources

Extensive tundra wetlands make up most of the refuge landscape, while boreal spruce forests, alder, and willow thickets trace stream and river drainages. The Selawik Refuge and surrounding area are where the dense forests of the interior open up and give way to arctic tundra. Alpine tundra occurs at higher elevations.

Many species of plants and animals find suitable habitat within the Selawik Refuge. More than 500 vascular plant species have been identified, along with 200 mosses and 80 lichens. There are 30 known mammal species as well as 187 bird species, 100 of which breed here.

Mammals found on the refuge include both grizzly and black bears, caribou, moose, wolves, and occasional muskoxen in addition to multiple furbearers and small game. Huge numbers of migratory waterfowl and shorebirds breed and stage on the thousands of lakes and ponds within the refuge. Fisheries on the refuge are diverse due to the maze of rivers, lakes, sloughs, and extensive adjacent wetlands. A complete listing of all the known plants and animals found on Selawik Refuge is included in the full plan.



Elise Kah/USFWS

*A young woman in Selawik ice fishes with a locally made jigging stick.*

## Human Presence

The Iñupiat have made their living from the lands in and around Selawik Refuge for thousands of years. These subsistence traditions continue today with many people in local communities depending on the natural resources of the area for a substantial portion of their livelihoods. Sheefish, other whitefish, salmon, grayling, northern pike, caribou, moose, seals, small game, and abundant migratory birds are major subsistence resources used by area residents. The meaning of subsistence goes beyond hunting, fishing, and gathering food; it is also about cultural identity, strongly held values, family traditions, self-reliance, spirituality, personal and community health, traditional knowledge and skills, and relationships with time, place, and the natural world.

With no road connections, the refuge is accessible only by boat, airplane, snowmachine, or dog team. The amount of public use on the refuge from people living outside the local area is difficult to estimate accurately. There are no controlled entry points where visitors are counted. No public recreation facilities are located on the refuge. Non-local visitors mainly engage in hunting big game or fishing for sheefish.

## Special Values

According to ANILCA, the U.S. Fish and Wildlife Service is required to identify and describe “special values” of the refuge. The following special values have been identified for Selawik Refuge:

- *The Western Arctic Caribou Herd:* This is currently the largest herd in Alaska with about 348,000 animals. Caribou use refuge habitats seasonally, and are abundant during the spring and fall. Caribou are a highly desirable and important resource to local residents.
- *Wetlands and Waterfowl:* Selawik Refuge contains a diversity of outstanding staging and nesting habitats for migratory waterfowl.
- *Whitefish Spawning:* The upper Selawik River is a spawning area for sheefish and other whitefish. The upper Fish River is also a whitefish spawning area. The names of both the Selawik River and the refuge originated from the Iñupiaq word *siilvik*, meaning “place of sheefish.”
- *Natural Processes:* Flooding, wild fire, and climate are the main processes that shape the refuge.
- *Subsistence Way of Life:* Personal and community identities are shaped by deeply-rooted subsistence activities which provide social, cultural, and economic sustenance.
- *Wilderness Values:* The Selawik Wilderness Area encompasses about 240,000 acres of remote and undeveloped public land.
- *Wild River Designation:* The upper 168 miles of the Selawik River have been recognized for several remarkable values, including fish, wildlife, and water quality.
- *Hot Springs:* Located in a small tributary at the headwaters of the Selawik River, the Selawik Hot Springs are important to local residents for medicinal and recreational reasons.
- *Cultural and Historic Resources:* The Selawik area is archaeologically significant in the region, with hundreds of known sites spanning 10,000 years of human habitation.
- *Dog Sledding Competition:* The Kobuk 440 race passes through area villages, with 80 miles of trail on refuge lands under special use permit. This popular regional event dates back to the 1970s.



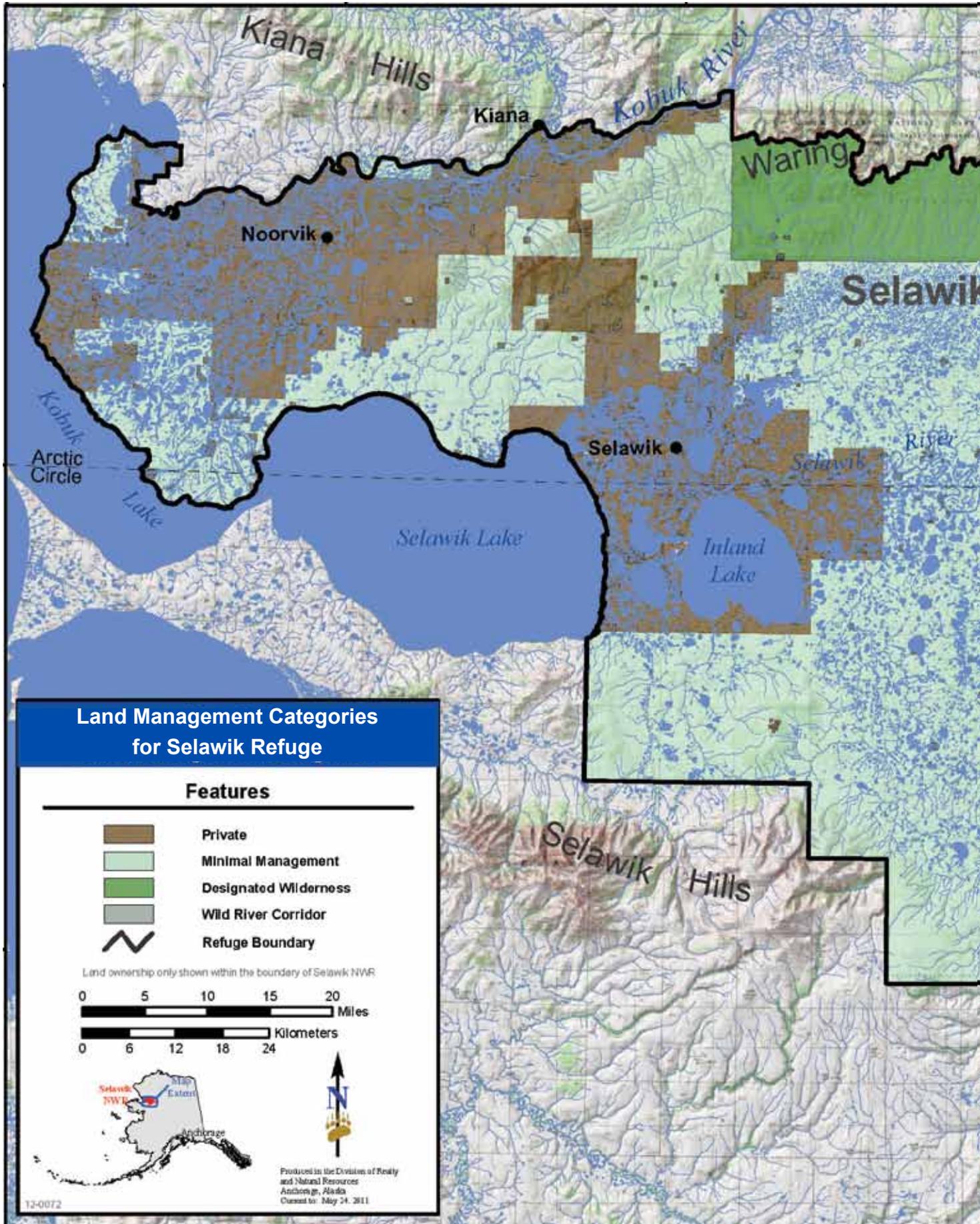
Nichole Hamschaw/USFWS

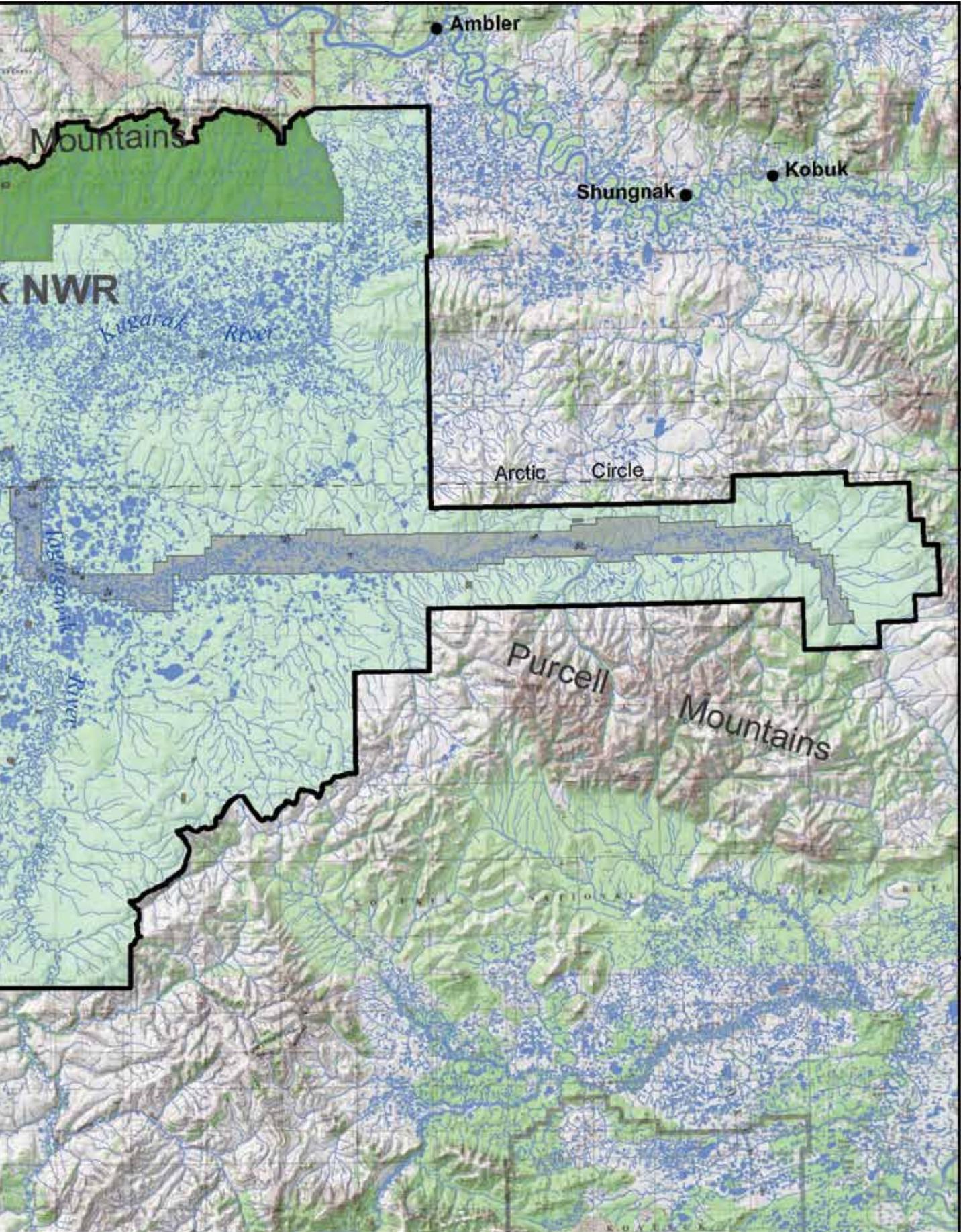
*Sheefish are one of the most important food fishes in the Kotzebue Sound region, and one of the species Selawik Refuge is charged to protect.*



Steve Hillebrand/USFWS

*Subsistence camps are scattered for many miles along the Selawik River and adjacent waterways. Lookout towers, called nasrirvik in Iñupiaq, are a common feature of Selawik camps and used for spotting game in the wide open terrain.*





# Refuge Goals and Objectives

The refuge vision and purposes provided a starting point for developing management goals and objectives. The Service will cooperate with many partners to successfully achieve these objectives.

All of the objectives from the revised plan are presented here. These provide an overview of the refuge priorities from 2011 until roughly 2026. The objectives span different time frames, including current priorities, near-term priorities (within 5-8 years), and long-term priorities (within 15 years). Funding and staffing will need to be increased during the next 15 years for Selawik Refuge to fully achieve many of these objectives.

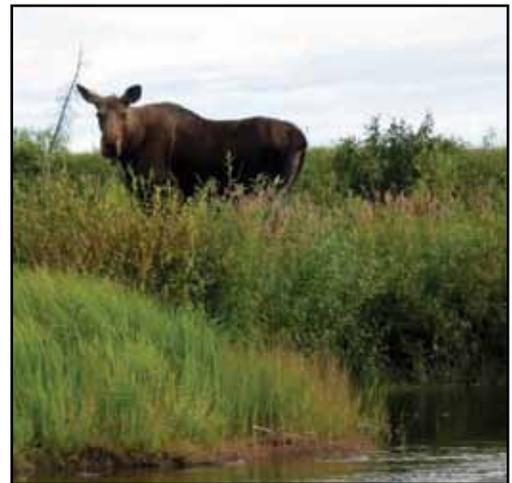
The goals and objectives are not necessarily listed in order of importance. Some of these objectives may not be addressed during the life of the plan, depending on budget and staffing levels. Each objective is based on an in-depth rationale, which can be found in Chapter 2 of the full plan.

## Goal 1: Conserve the diversity of fish and wildlife and their habitats on refuge lands, while allowing ecological processes to shape the environment.

**Tikisaksrat: Sivulliq tikisaksraq  
Iñugiaktinniaglughich atlakaagiich qaluich suli nigrutit suli irvigisruukkanjich tamanna  
annaksimmaviatni nunami, manna kimmutigilugu ifuatluguni ittukaraq avativut suli Nunavut.**

### Objectives:

1. Develop and implement an Inventory and Monitoring (I&M) Plan for the refuge that integrates and directs inventory and monitoring activities of plants, fish, wildlife, and habitats, and complies with national Service policy. Revise and update plan as necessary.
2. Work with international, national, State, local, and private entities to monitor migratory bird species abundance and distribution and assist in maintaining healthy bird populations throughout the United States and Western Hemisphere.
3. Monitor spring and fall migration and staging of waterfowl on the refuge and adjacent areas.
4. Monitor and assist with management of the Western Arctic Caribou Herd to ensure conservation of the herd and the habitats upon which it depends.
5. Inventory and monitor key species of mammals on the refuge to help ensure healthy and sustainable populations, including but not limited to wolves, black and brown bears, beavers, lynx, snowshoe hares, and other furbearers.
6. At intervals of 2-4 years, or more frequently based on conservation concerns, obtain a moose population estimate for the refuge, including age and sex ratios, by conducting aerial surveys in cooperation with neighboring State and Federal land managers when possible.
7. Inventory and monitor the abundance, distribution, and habitats of fish, including pike, sheefish, and whitefish species on the refuge.



*Moose expanded their range from interior Alaska to the Selawik valley beginning in the 1950s. The refuge plans to regularly collect information on moose populations.*



James Magtanz/ADFG

*Whitefish, an important local food, are found in abundance in the rivers of Selawik Refuge. A Fishery Management Plan helps guide fish research and management on the refuge.*

8. Monitor landscape changes of vegetation and physical features at appropriate intervals or after significant disturbance.
9. Develop stronger partnerships with research and academic institutions, including U.S. Geological Survey, University of Alaska Fairbanks, and others, to better understand ecological processes on the refuge.
10. Implement and maintain an updated Fire Management Plan for the Selawik Refuge.
11. Work cooperatively with private landowners and other partners to develop and implement a Land Protection Plan for the Selawik Refuge.
12. Work cooperatively with the Fairbanks Fish and Wildlife Field Office, ADF&G, and others to revise and update the Fishery Management Plan for the Selawik Refuge.
13. Develop a geodatabase model, with a supporting database system, that is compatible with the refuge's geographic information system (GIS). The model and supporting database must be capable of storing and managing the refuge's current data collections and should include provisions for streamlining entry of data in both electronic and paper formats.
14. Complete entry and validation of all legacy, biological, and abiotic data within five years of development of the geodatabase model and supporting system as staffing capability allows.

## **Goal 2: Maintain the integrity and promote the environmental health of waters and aquatic habitats within the refuge.**

**Tuvliq: Napallugu suli pitchuksaagutigilugu puyiasinniafiksrana tamanna imiq kuugum suli qalliviich ittuat annagvinmi tarani.**

### **Objectives:**

1. In cooperation with the Service's Water Resources Branch, collect necessary hydrologic and biological data to quantify stream flow on key spawning areas for sheefish and whitefish, and apply for refuge instream water rights through the State of Alaska.
2. Collaborate with the State of Alaska and others to initiate a water quantity and quality monitoring program for waters within the refuge boundary that includes investigating and addressing impacts to water resources related to human activities and settlements.
3. Formulate a strategy to inventory wetland and lake resources within the refuge, including aquatic plants, fish, wetland-dependent wildlife, aquatic invertebrates, and physical and chemical properties of lakes and wetlands.
4. Assess the feasibility of developing a hydrologic model for the refuge's principal watersheds.
5. Investigate increased sedimentation in the upper Selawik River, especially due to a major thaw slump event in 2004, and determine its effects on water quality and fish habitat.



Nichole Hanshaw/USFWS

*Collecting information about water chemistry, such as the amounts of nitrogen and salt in the water at varying times, can increase understanding of local watersheds.*



Susan Georgette/USFWS

*Youth and community members come together at the annual Selawik Science-Culture Camp to learn outdoor skills. Selawik Refuge is a partner in the camp.*



Susan Georgette/USFWS

*Whitefish, a staple food in the region, are expertly cut and dried by Selawik residents.*

### **Goal 3: Provide and promote opportunities for local residents to engage in subsistence activities on the refuge.**

**Pinayuat: Piviksriġlugich suli pitchuksaaglugich tarani iġuuniaqtuat anuniaġutiġ katitchiġiaqtuksrat tarani annaġviġmi.**

#### **Objectives:**

1. Continue the Refuge Information Technician (RIT) program to enhance information exchange with local communities about refuge issues, particularly those dealing with subsistence. Expand the RIT program to Noorvik and other refuge communities when and where possible.
2. Support community and regional efforts to educate and engage youth and adults in subsistence activities and to share the knowledge and experience of elders.
3. Continue to work closely with tribal councils, ADF&G, State Fish and Game advisory committees, the Office of Subsistence Management, the Northwest Arctic Subsistence Regional Advisory Council, the Western Arctic Caribou Herd Working Group, the Game Management Unit 23 Working Group, and other local and regional groups to address issues and concerns of local subsistence harvesters.
4. Continue to develop outreach tools that make hunting and fishing regulations understandable to the public.
5. Seek opportunities to support and participate in research that contributes to management of subsistence resources and increases our understanding of subsistence practices.
6. Coordinate and cooperate with partners to mark and maintain the winter trail system to provide safer travel on the refuge for subsistence and other activities.
7. Conduct a historical access study in cooperation with the State of Alaska and Alaska Native tribal elders and leaders living in communities within and adjacent to the refuge and NANA Regional Corporation and the Northwest Arctic Borough as necessary.



Susan Georgette/USFWS

*With no roads connecting communities, local residents rely on a network of winter trails to travel by snowmachine between villages and to access subsistence areas. This trail system is the main public access to the refuge for seven or more months of the year. To be reliable and safe these trails must be well marked.*

**Goal 4: Provide quality visitor experiences and enjoyment of resources on refuge lands through compatible recreation activities, including hunting, fishing, wildlife observation, and photography, in ways that minimize conflicts among visitor groups and residents.**

**Sisamanat: Piviqaqtillugich avakḡ aggiqsuat suliaqataagutiḡ piḡḡaḡniaqtuamik qiḡḡiaqtauluni aḡuniaḡutiḡ, qaluḡniaḡutiḡ qiḡḡiaqtaḡutiḡ, agliutruḡutiḡ, nakuqsifugu iluqiatḡi iglaatlu tamaaniḡmiutlu.**

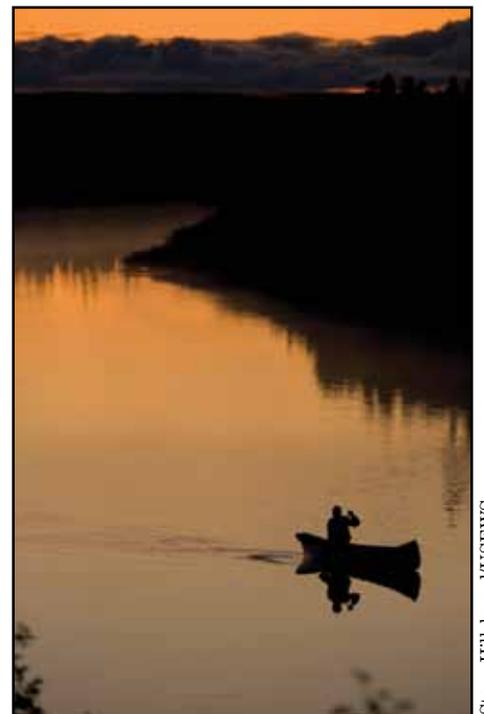
**Objectives:**

1. Continue to implement and strengthen the refuge's special use permit program and increase enforcement of and compliance with permit stipulations. Maintain current permit conditions for commercial transporting and guiding.
2. Coordinate with the State of Alaska, Bureau of Land Management, National Park Service, and NANA Regional Corporation to improve law enforcement effectiveness and efficiency on the refuge and surrounding lands.
3. Consider and, as appropriate, support the initial recommendations of the Game Management Unit (GMU) 23 Working Group and continue to participate in the second phase of this group and any subsequent coordination or education efforts.
4. Produce an appropriate land status map of the refuge of a detail useful for visitors to identify and make a distinction between public and private lands.
5. Provide recreational visitors with information on the refuge, highlighting the Selawik Wilderness Area and the Selawik Wild River.



Steve Hillebrand/USFWS

*Motorboats are commonly used during the ice-free months for transportation to villages, camps, and hunting and fishing areas.*



Steve Hillebrand/USFWS

*Canoes and kayaks, rather than inflatable rafts, are recommended for non-motorized travel on the Selawik River. Strong upstream winds are a common occurrence.*

**Goal 5: Provide outreach and education to foster a sense of stewardship and respect for wildlife, fish, cultural resources, and the environment.**

**Tallimanat: Piviqaqtilugich, pitchuksaaġlugich ilitchuktuat ilisautilugich taluġnaġhatigun makua niġrutit suli iġnuunafiqput maani suli avatiptitni.**

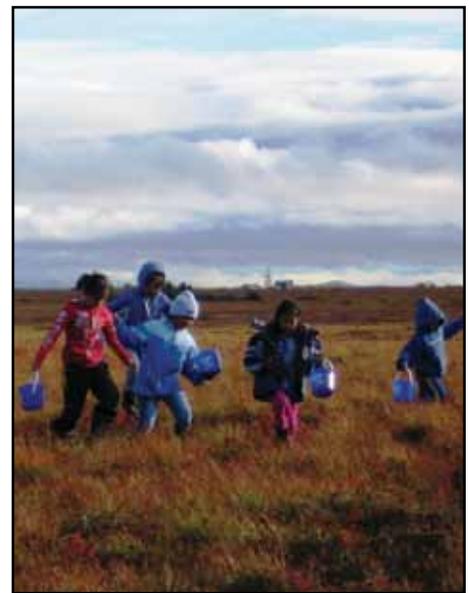
**Objectives:**

1. Continue to provide the public with timely and accurate information about the refuge through a wide variety of communication tools.
2. As a refuge, become better positioned and able to promote education and stewardship programs that are relevant for local residents by contributing to the region as a familiar and responsive community member, striving to understand local needs and culture.
3. Continue to develop methods for delivering resource information in ways that are relevant to the culture by blending local perspectives, traditional knowledge, and scientific information.
4. Participate in and support local science and cultural camps when opportunities arise and time and funding permit.
5. Promote and support the Alaska Native Science and Engineering Program (ANSEP).
6. Increase cooperation with Friends of Alaska National Wildlife Refuges to expand interpretation and environmental education activities in the region.
7. Participate in the Service's national and statewide outreach and education efforts.
8. Promote environmental ethics and "Leave No Trace" standards in the Selawik Wilderness Area and throughout the refuge. Continue to educate commercial operators to do the same for their clients.
9. Ensure that administrative activities in the designated Selawik Wilderness Area are appropriate by conducting a Minimum Requirements Analysis for new activities and reviewing existing analyses when necessary.
10. Complete a Wilderness Stewardship plan for the Selawik Wilderness Area.



Susan Georgette/USFWS

*Youngsters in Selawik spot birds during a spring outing sponsored by the refuge. The Refuge Information Technician plays a key role in the success of these community events. Volunteers from Friends of Alaska Refuges have helped lead local bird watching outings in Kotzebue and Selawik in recent years.*



Susan Georgette/USFWS

*Allowing young people to spend unstructured time outdoors, like these students picking berries, is both healthy for them physically and helps them connect with nature and cultural traditions.*

**Goal 6: Preserve and protect the cultural, historical, and archaeological resources of the refuge.**

**Itchaksrat: Taatna ittillugu tugluaqsimaaglugu iñuuniafiñat qañavak taimakña tarani iñuniaqtuat annagviñmi.**

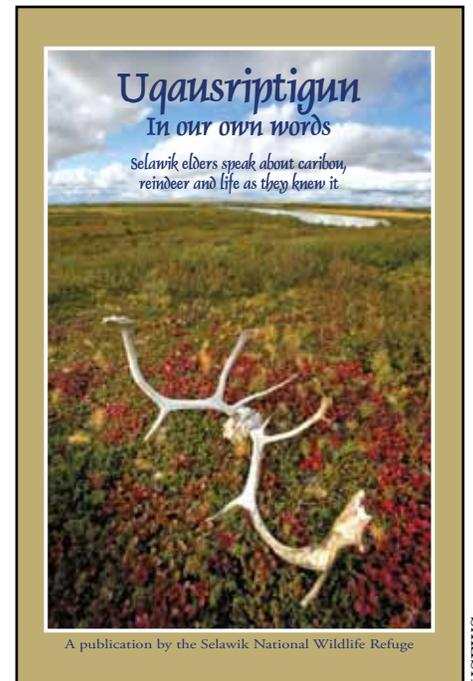
**Objectives:**

1. In cooperation with local communities, develop products that capture traditional place names and information connected to those places for the refuge.
2. Continue to develop programs that document traditional knowledge of elders and others about the cultural and natural history of the refuge.
3. Review and update the refuge's Cultural Resources Management Plan.
4. Support local community efforts to address exposed and eroding grave sites.
5. Research and compile published and unpublished materials containing the cultural history of the refuge, including archival records, historical census data, photographs, audio tapes of interviews with elders, journals, maps, and other sources.
6. Identify areas on the refuge to inventory for archaeological and other cultural or historic sites, giving priority to those areas susceptible to erosion and vandalism.



Courtesy of Hannah Loon

*Iñupiaq elders carry a wealth of knowledge on many topics. Here, Selawik resident Hannah Loon interviews Edward Ramoth for a study on historic use of caribou, the results of which are summarized in the booklet Uqausriptigun.*



USFWS

*Uqausriptigun is a publication by Selawik Refuge in which Iñupiaq elders in Selawik describe their knowledge and experience with caribou hunting and reindeer herding in the mid-20th century. Although abundant today, caribou were scarce in the Selawik area for many decades before the 1950s.*



Tina Moran/USFWS

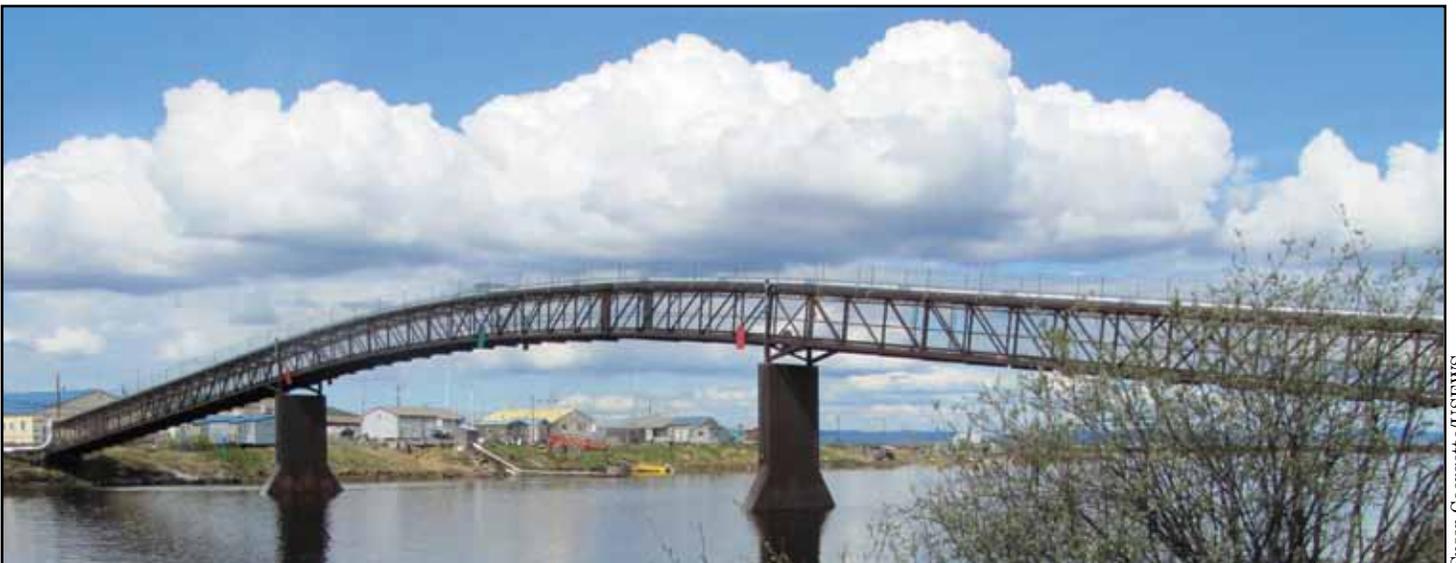
*Continued engagement with the Western Arctic Caribou Herd Working Group is one of Selawik Refuge's priorities. Here, Working Group members analyze a map during one of their meetings.*

**Goal 7: Develop and maintain credibility and open communication with partners in resource management and conservation, including Federal and State agencies, educational institutions, local communities, Native corporations, tribal governments, neighboring landowners, businesses, and organizations.**

**Tallimat Malguk:** Tugluaqsimaaglugu suli napallugu ilumutun uqafiksraqput katiluta uqaaqsiyuqta tamarrumuuna nunakun Qaunaksriqatiuptitnun taavakᅇa ittuanif, naaqaa maligutaksraptitni savaktuat, unnii ifupiaqatiuptitnik. Naaqaa makua Qaukfiuragikkavut nunaqqiuraptitni. Suli tamatkua sunik tasamma napapchiafiaqtuat.

**Objectives:**

1. Maintain a presence in the region by visiting communities on a regular basis to consult with local leaders about management programs on the refuge.
2. Coordinate inventory and monitoring projects with the ADF&G and other agencies to best assure integration and prevent unnecessary duplication.
3. Develop a formal coordination effort with other Federal and State land managers in the region to better communicate and share information on land use planning.
4. Actively participate and engage in regional transportation planning.
5. Support and actively participate in the Western Arctic Caribou Herd (WACH) Working Group and other collaborative management efforts.
6. Establish a formal venue for presenting and publishing previously unpublished reports from refuge research projects (i.e., gray literature) to increase credibility and communication with scientists, academia, and the public.
7. Actively participate in the Western Alaska and Arctic Landscape Conservation Cooperatives.



Susan Georgette/USFWS

*The community of Selawik, divided by two channels of the lower Selawik River, has "Rainbow Bridge" as a distinctive landmark.*

## Goal 8: Develop a leadership role in addressing climate change in northwest Alaska.

**Tallimat Pinasrut: Sivunniuguta qanuqli iñuuniaqsafiksraptitnik uvva silavut atlanuqman maani iñuuniaġviptitni.**

### Objectives:

1. Collaboratively develop and conduct research on accelerating climate change and incorporate new monitoring efforts into the refuge's Inventory and Monitoring Plan to detect short- and long-term changes to resources on refuge lands.
2. Monitor Global Research Initiative in Alpine Environments (GLORIA) site at 3-year intervals according to the standardized protocol.
3. Collaboratively assess and improve climate monitoring on the refuge and in the surrounding region, including installation and maintenance of climate stations.
4. Support efforts to integrate both ecological and social scientific data with local traditional knowledge and observations on climate change.
5. Using a variety of methods, including education programs, share information with the local public about accelerating climate change and its effects on refuge lands and natural resources in the region.



USFWS

*Tracking vegetation changes at alpine sites can contribute specific information on the effects of climate change.*



USFWS

*This large “thaw slump” on the upper Selawik River, caused by the melting of underlying permafrost, is one of the visible results of a changing climate in the region. Selawik Refuge provides logistical support to researchers investigating the slump.*

## The Revised Plan

Management of Selawik Refuge will generally continue to follow the same course of action that it has previously. The new vision statement and the goals and objectives developed during the planning process will become part of the management direction of Selawik Refuge. Regional management policies and guidelines, as modified for Selawik Refuge, will also be incorporated.

Specific management actions in the revised conservation plan include the following:

### Fisheries Management:

Selawik Refuge provides important habitat for a number of fish species, many of which are important food sources for local residents. Scientific studies of whitefish and traditional cultural knowledge about these species have highlighted the importance of having accurate information about these fish for their management on the refuge. The Service will continue working with the State of Alaska, Native elders and communities, and other partners to collect additional information about whitefish and other important fisheries, including Iñupiaq traditional knowledge, as outlined in the Fishery Management Plan for Selawik Refuge.



USFWS

*Working as technicians on various projects, residents of local communities have improved our study methods and increased our understanding of the projects in local communities.*



James Magdanz/ADFG

*As skilled harvesters of fish, the Iñupiat hold much knowledge about these animals' life histories and movement patterns that can help us manage resources more effectively.*



Tina Moran/USFWS

*Aerial surveys are one of the methods used to estimate bird populations. Having a pilot on staff and aircraft available helps Selawik Refuge efficiently accomplish its work.*

## Migratory Birds

Selawik Refuge provides vital breeding and staging habitat for large numbers of migratory waterfowl and shorebirds. The Migratory Bird Treaty Act was amended in 1996 to legalize subsistence hunting and egg gathering in Alaska during spring and summer. This amendment led to the establishment of the Alaska Migratory Bird Co-Management Council. The Service and the refuge will continue to work with the council and other partners to monitor bird populations and subsistence harvests. The goals of this work are to ensure that healthy populations are maintained, subsistence opportunities are provided, and the Service's international treaty obligations under the Migratory Bird Treaty Act are fulfilled.

## Western Arctic Caribou Herd

Selawik Refuge is a signatory of the 2003 Western Arctic Caribou Herd Cooperative Management Plan. The Service will continue to cooperatively manage refuge lands in a manner consistent with this plan and any future revisions or plan amendments.



USFWS

*Participation with the Western Arctic Caribou Herd Working Group and its Cooperative Management Plan will continue. Here, Working Group members work on plan revisions at their 2009 meeting.*



Courtesy of NPS

*As of 2010, the common dandelion is Alaska's most abundant non-native plant species.*

## Invasive Species

Invasive plants and non-native species represent a relatively new and potentially growing threat to the Selawik Refuge and the region, especially in travel corridors and work sites where lands have been disturbed. Visitors to the refuge may spread invasive plant species to refuge lands through their clothing, recreational gear, aircraft, or boats. Animal species such as insects and mammals not seen before in the region may be expanding their range due to changing climate. The refuge will continue to monitor invasive species and work to prevent, control, or eradicate these if necessary.

## Environmental Contaminants

The Service conducted a study of contaminants in water, sediments, and fish on the Selawik Refuge in 1987 and 1988 and recommended that further work be conducted at the refuge to establish baseline data for concentrations of heavy metals.

Routine management activities and public uses have potential to create sources of contamination, including spills on refuge lands or contaminants from the development of facilities nearby. The Selawik Refuge will work with the Service's Environmental Contaminants Program to document baseline environmental conditions and establish a plan for long-term monitoring as development occurs within or adjacent to the refuge.

Comments from the public collected in fall 2008 as part of this planning effort indicated local concern about contamination of water and subsistence resources in the lower Selawik River near the village of Selawik. Although on private land, the aging garbage dump used by residents of the village is near the river and is a potential contaminant site within the external boundary of the refuge. There is also concern over aging sewage facilities and an abandoned airplane submerged in the Selawik River. The Service and the refuge will consult with the village of Selawik, the State of Alaska, and the Service's office of Ecological Services to determine its role in research, monitoring, and potential clean up at this site and other sites where potential sources of contamination may exist.



Susan Georgette/USFWS

*Fishing, a crucial subsistence activity, takes place almost year-round in the Selawik area, with a variety of different methods used to catch fish.*

## Subsistence Management

Providing for continued subsistence opportunities is an important purpose of the Selawik Refuge. The Service and the refuge will increase efforts to monitor fish, wildlife, and plant populations and their harvest to ensure that subsistence uses of these resources remain compatible with other refuge purposes.

## Recreation and Outreach

Wildlife observation and photography, environmental education, interpretation, and recreational fishing and hunting are the six priority public uses identified in the Refuge Improvement Act. The Service and the refuge will encourage these uses where compatible with refuge purposes. The public recreational opportunities that currently exist at Selawik Refuge will continue to be provided, including outreach programs in local communities such as science and culture camps.



USFWS

*Examining the anatomy of local fish is one of the educational activities at the annual Selawik Science-Culture Camp.*



USFWS

*Private lands, including subsistence camps on Native allotments, are found within the boundaries of Selawik Refuge. Preventing trespass on private lands is important to the refuge.*

## Commercial Use of Refuge Lands

Social and cultural conflicts associated with big game hunting have existed in northwest Alaska for many years. The refuge has a responsibility to address these conflicts in a proactive way and to deal with issues of access to wildlife.

The Service and refuge staff will continue to coordinate with their partners in communicating with and educating commercial guides and transporters. We have two goals for this work: (1) to minimize social conflicts on refuge lands and trespass on private lands and (2) to provide safe and high quality experiences for members of the public who hire commercial services for big game hunting or other types of outdoor recreation on the refuge.

In 2008 a multi-stakeholder group, the Game Management Unit (GMU) 23 Working Group, was formed to address social conflicts related to hunting in a deliberate and coordinated way on a region-wide basis. The Selawik Refuge will continue to support and actively participate as a member of the GMU 23 Working Group. The refuge will consider the approved proposals of the Working Group in the same manner it will consider suggestions and proposals from other organizations and the public.

Commercial guides and transporters for big game hunting must have a special use permit issued by the Service to operate on refuge lands. The Selawik Refuge allows one big game guide to operate on the refuge. Special use permits issued by the Service do not allow commercial guiding, outfitting, or transportation services on private or selected lands within the refuge boundary.

The western portion of the Selawik Refuge, where Selawik and Noorvik are located, is a patchwork of private Native corporation lands and public refuge lands. The mixed land ownership in this area combined with the presence of many Native allotments requires the refuge manager to take a proactive approach to permitting commercial uses in order to reduce conflicts among hunters and trespass on private lands.

Under the revised conservation plan, special use permits issued to commercial guides and transporters for big game hunting include a permit stipulation that prohibits use of refuge lands by commercial permit holders in this mixed ownership area in the western part of the refuge (see map on following page). The area affected by this permit stipulation is approximately 376,378 acres of refuge lands.

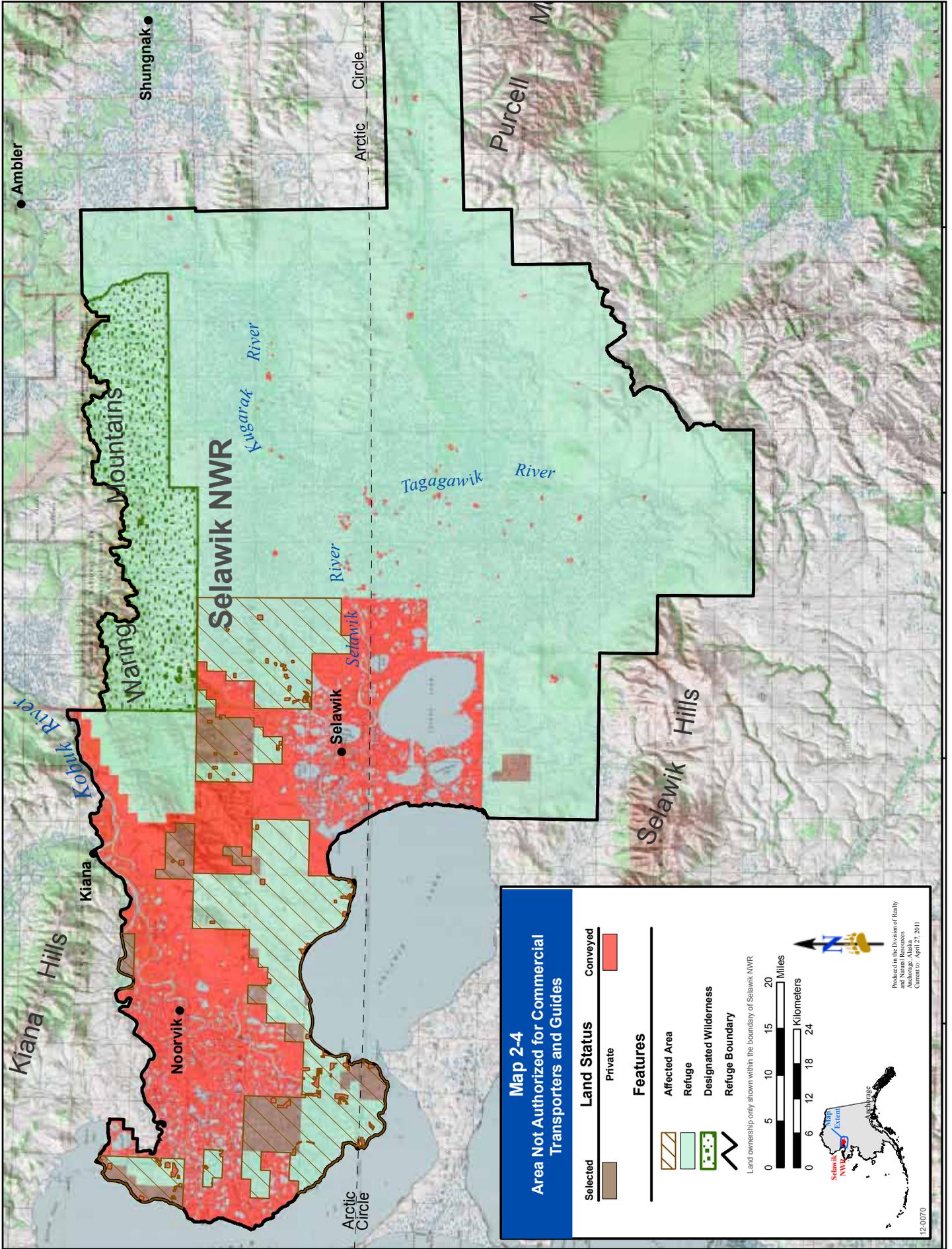
The legal definition of the affected area is on file at the refuge headquarters and is available upon request. As land conveyances continue and other changes occur, the refuge manager will update and revise land status maps showing the affected area and provide these maps to commercial operators as part of their permit packages.

On a case-by-case basis, the Selawik Refuge manager can authorize commercial use by special use permit for a specific area or areas within this larger affected area.



USFWS

*Guides and non-local visitors typically access the refuge by air because there are no roads.*



**Map 2-4**  
**Area Not Authorized for Commercial Transporters and Guides**

Selected	Private	Conveyed
[Brown box]	[Red box]	[Red box]

**Features**

- Affected Area: [Diagonal hatched box]
- Refuge: [Green box]
- Designated Wilderness: [Green box with dots]
- Refuge Boundary: [Black line]

Land ownership only shown within the boundary of Selawik NWR

0 5 10 15 20 Miles  
 0 6 12 18 24 Kilometers

**Alaska**  
 Selawik NWR Extension

Published in the Division of Realty  
 Department of Natural Resources  
 Anchorage, Alaska  
 Current to: April 27, 2011

12-0070

## Shared Administrative Facility

The Service will seek to form a partnership to jointly maintain a shared facility of one or more buildings in the community of Selawik or Noorvik or both. This facility will serve as a multi-purpose community center focused on providing refuge activities and programs, with adequate capacity for office, meeting, storage, and bunkhouse space. Potential participants in a formal partnership and memorandum of understanding (or other voluntary agreement) would be the Selawik Refuge, Northwest Arctic Borough, NANA Regional Corporation, Maniilaq Association, tribal council(s), and city council(s), or some combination of these groups.

## Motorized Access to Refuge Lands

All-terrain vehicles (ATVs) fall under the definition of an off-road vehicle found in the Code of Federal Regulations.

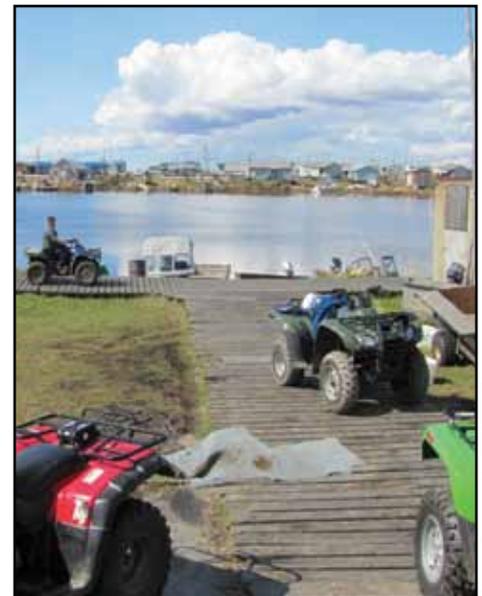
The use of ATVs is not allowed on refuge lands in the Minimal, Wilderness, and Wild River Management categories, which include all the public lands in Selawik Refuge (see map on pages 10-11). ATVs may be authorized only on designated routes by the refuge manager if their use is both appropriate and compatible with refuge purposes. Currently, no routes or areas are designated on Selawik Refuge lands for ATV use. We are not aware of any documented historical or established pattern of ATV use for subsistence purposes on refuge lands.

The Service plans to conduct a traditional access study of motorized use on refuge lands for subsistence purposes. This study will be conducted in close cooperation with the State of Alaska and Native governments, elders, and local communities. The goal of the study is to increase understanding of ATV use in the Selawik area for the Service, the State of Alaska, and their partners in nearby communities. This project offers an opportunity for cooperation and collaboration among the Service, the State of Alaska, and local communities.



Steve Hillebrand/USFWS

*In addition to an office in Selawik, the refuge maintains a cabin upriver near the mouth of the Kugarak River to support field projects.*



Susan Georgette/USFWS

*ATVs, known locally as “four-wheelers” or “Hondas,” are an essential means of transport on the boardwalks of Selawik and in many communities in the region.*



Steve Hillebrand/USFWS

*The community of Noorvik on the Kobuk River delta lies near the northern border of the Selawik Refuge. The region’s first hospital was built here in 1916. The hospital was moved to Kotzebue in 1938.*

## Local Public Use Needs

*Winter Trail Marking.* An informal partnership currently exists to support local efforts to mark the regional winter trail system. Under the revised conservation plan, a formal partnership and memorandum of understanding (or other voluntary agreement) will be created among the Selawik Refuge, the Borough, NANA, and Alaska Department of Transportation to formalize the roles and responsibilities of each partner in performing regular marking of winter trails and maintenance of trail markers. This partnership will address the need for more leadership and oversight of the winter trails network on and near refuge lands.

*Shelter Cabins.* A formal group will be created to set out the roles and responsibilities of each partner in performing regular maintenance and/or replacement of shelter cabins on refuge lands. Potential members of the group include the Selawik Refuge, the Borough, NANA, and local Search and Rescue organizations. Members of the formal partnership will review the need for additional shelter cabins and appropriate location(s) for them, with the option of joint construction of an additional shelter cabin or relocation of an existing shelter cabin on refuge lands.

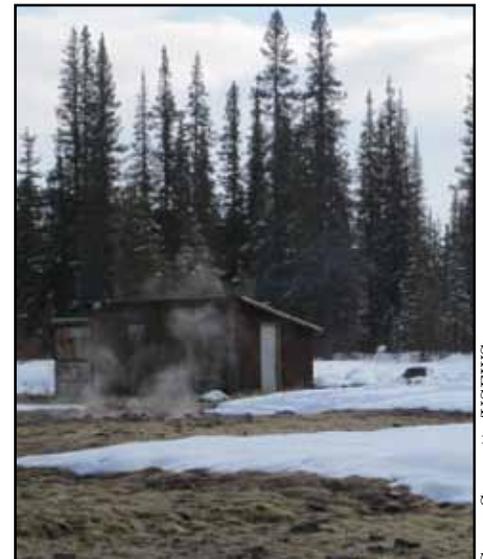
*Sinjaġruk Bridge.* There is a need to assess and deal with issues related to slope, approach, width, and location of the Sinjaġruk Bridge on the winter trail between Noorvik and Selawik. A formal partnership and memorandum of understanding (or other voluntary agreement) will be created between the Selawik Refuge and the Borough to formalize the roles and responsibilities of each partner in jointly re-evaluating the bridge for rebuilding or repairs. Regular management and maintenance of the bridge will become the responsibility of this partnership.

*Hot Springs.* Maintenance is required at the hot springs facilities near the headwaters of the Selawik River. The Selawik Refuge, the Upper Kobuk and Huslia elders, and other partners will set up an official partnership and memorandum of understanding (or other voluntary agreement) to formalize the roles and responsibilities of each partner in performing maintenance at the hot springs site. The partnership will develop and maintain a trash disposal system, identify and conduct major repairs of structures, and perform regular cabin maintenance.



Susan Georgette/USFWS

*Sinjaġruk Bridge along the Noorvik-Selawik winter trail spans a major stream that often has overflow or open water, creating risky travel conditions.*



Susan Georgette/USFWS

*This bathhouse is one of the structures at the hot springs in the headwaters of the Selawik River. Known as Unaaqtaaq (meaning "it's hot") in Iñupiaq, these springs have had important medicinal uses for local people for at least a century, and probably much longer.*

## Local Competitive Events



Susan Georgette/USFWS

*Snowmachines are the primary form of winter transportation in the region and are enjoyed for recreation as well.*

*Dog Sled Racing.* The Service will issue special use permits to authorize the annual Kobuk 440 and the occasional Kobuk 220 dog sled races on winter trail areas on refuge lands. These races are important for both social and cultural reasons to residents of local communities and to mushers from Alaska and outside the State. The Service will evaluate requests for other dog sled races on a case-by-case basis with any new dog sled racing activities subject to the appropriate use and compatibility determination policies.

*Snowmachine Racing.* The Service will authorize, by special use permit, the annual Willie Goodwin/Archie Ferguson historic snowmachine race on winter trail areas on refuge lands. This race predates establishment of the refuge and is locally important to residents of the region. Currently a six-mile segment of the over 200-mile race course is on refuge lands. The Service and the refuge will evaluate requests for all other snowmachine races on a case-by-case basis with any new snowmachine racing activities on refuge lands subject to the appropriate use and compatibility determination policies.



Tina Moran

*The annual Kobuk 440 dogsled race begins with a mass start on the ice in front of Kotzebue in early April. The winner typically crosses the finish line in Kotzebue less than three days later after following a route as far east as the village of Kobuk.*

## Putting the Plan into Action

This long-range plan will be put into action through the goals, objectives, policies, and actions described in this summary and in further detail in the full plan. The vision and goals adopted in the plan are intended to guide management of the Selawik Refuge for the next 15 years (until 2026). The objectives and management actions are the concrete steps the Service will take to reach these goals. The objectives are meant to be a measure of real progress towards our goals for the Selawik Refuge.

Carrying out this comprehensive plan will also be accomplished, in part, through development of step-down plans. Each step-down plan has its own focus (for example, wildlife monitoring or fire management) and identifies the actions, techniques, and tools needed to achieve the objectives outlined in the conservation plan.

### Plan Amendment and Revision

To keep our long-range plan useful and up-to-date, review and revision will be necessary from time to time. Fish and wildlife populations, habitats, local communities, public visitation, management practices on adjacent lands, and other factors change with time, often in unforeseen ways. Challenges may be encountered in trying to implement the plan that will also need to be addressed.

Revisions are a necessary part of the flexible management approach used by the Service. This means that objectives and strategies to reach goals can be adjusted as we learn more.

As key public or policy issues arise, or when the refuge manager determines an important need to do so, the refuge will hold meetings or use other techniques (for example, newsletters, comment cards, and surveys) to gather public comments. This allows everyone an opportunity to express their views on how the refuge is being managed. By encouraging continual public input, the refuge will be better able to serve these interested parties, understand potential problems, and take timely action to resolve existing issues.

Every five years, or as needed, 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. The goal is to fine-tune the plan as needed. Minor changes will be addressed using more detailed permit stipulations, annual work plans, or step-down plans. Major changes would require a new environmental assessment, or possibly an environmental impact statement, and a public involvement process.

Formal review and complete revision of the Selawik Refuge Comprehensive Conservation Plan will occur every 15 years.



Steve Hillebrand/USFWS

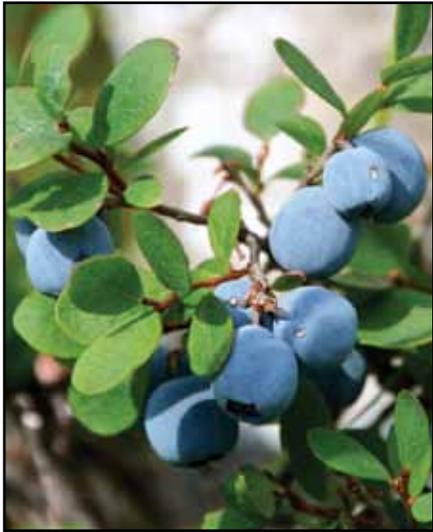
*Black bears make their homes on the lands within Selawik Refuge, especially in brushy or forested areas.*



USFWS

*The bar-tailed godwit is one of about 180 bird species found on Selawik Refuge, where extensive wetlands provide ideal habitat for nesting, rearing young, and feeding.*

## Partnership Opportunities



USFWS

The guiding mission of the U.S. Fish and Wildlife Service reads, “Working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.” Many of the issues on refuge lands are of local, regional, national, and international importance. Successfully accomplishing our goals depends on effective communication, trust, and building relationships with partners.

Partnerships involve voluntary sharing and pooling of resources by two or more stakeholders to address key issues and resolve problems that cannot be addressed by either group acting alone. More than 20 of the objectives in the plan directly address partnering and relationship building. Maintaining existing partnerships and seeking new opportunities to work with others are among the best ways for Selawik Refuge to accomplish its work.

Examples of current, past, and potential partners include:

- NANA Regional Corporation
- Kikiktagruk Inupiat Corporation
- Maniilaq Association
- Northwest Arctic Borough
- Northwest Arctic Borough School District
- Northwest Arctic Federal Subsistence Regional Advisory Council
- Local tribal and city councils
- State of Alaska
- Universities and museums
- National Park Service
- Bureau of Land Management
- U.S. Geological Survey
- National Oceanic and Atmospheric Administration
- Friends of Alaska National Wildlife Refuges
- Nongovernmental organizations
- Local businesses
- Commercial recreation interests

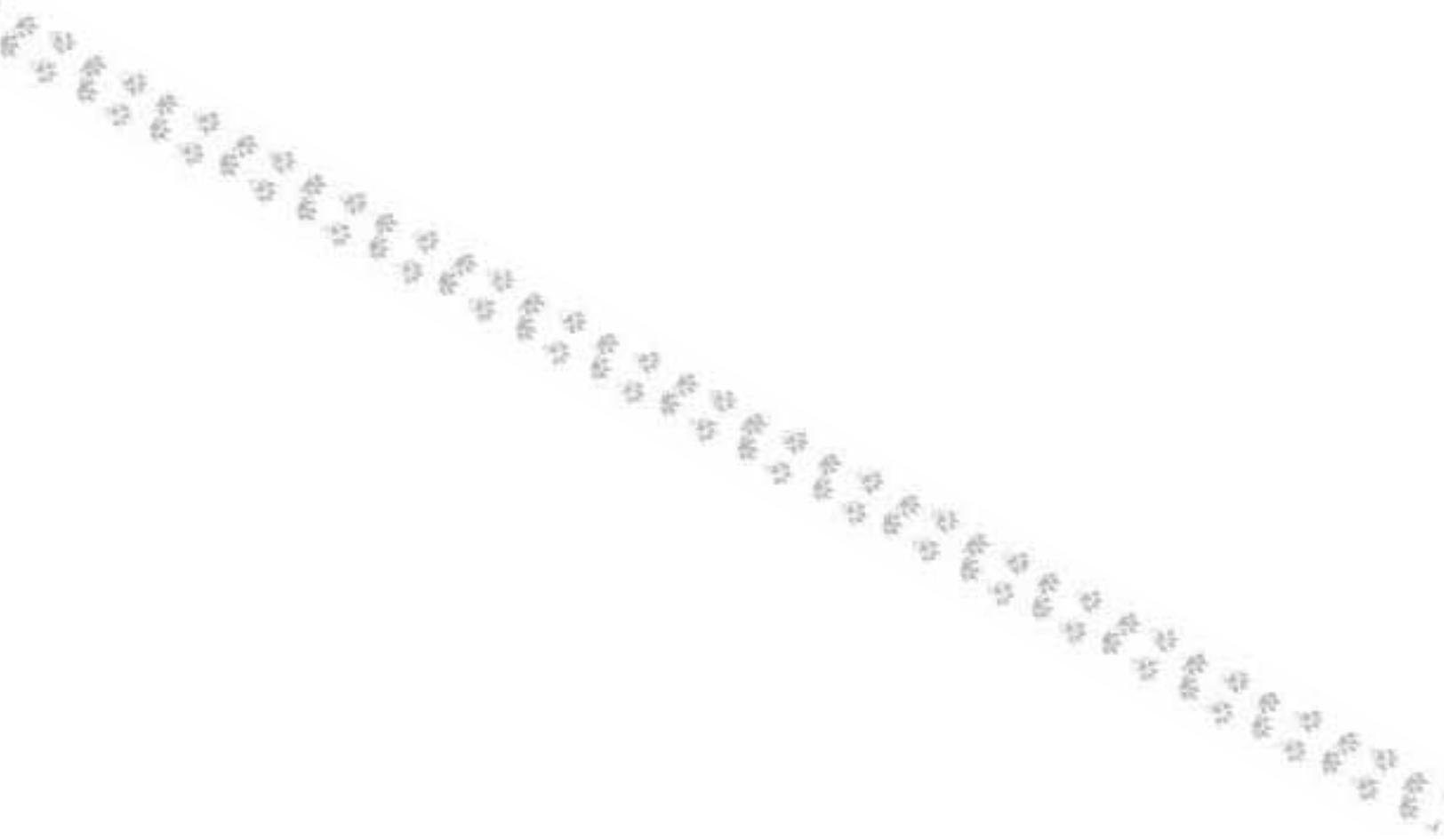


Steve Hillebrand/USFWS

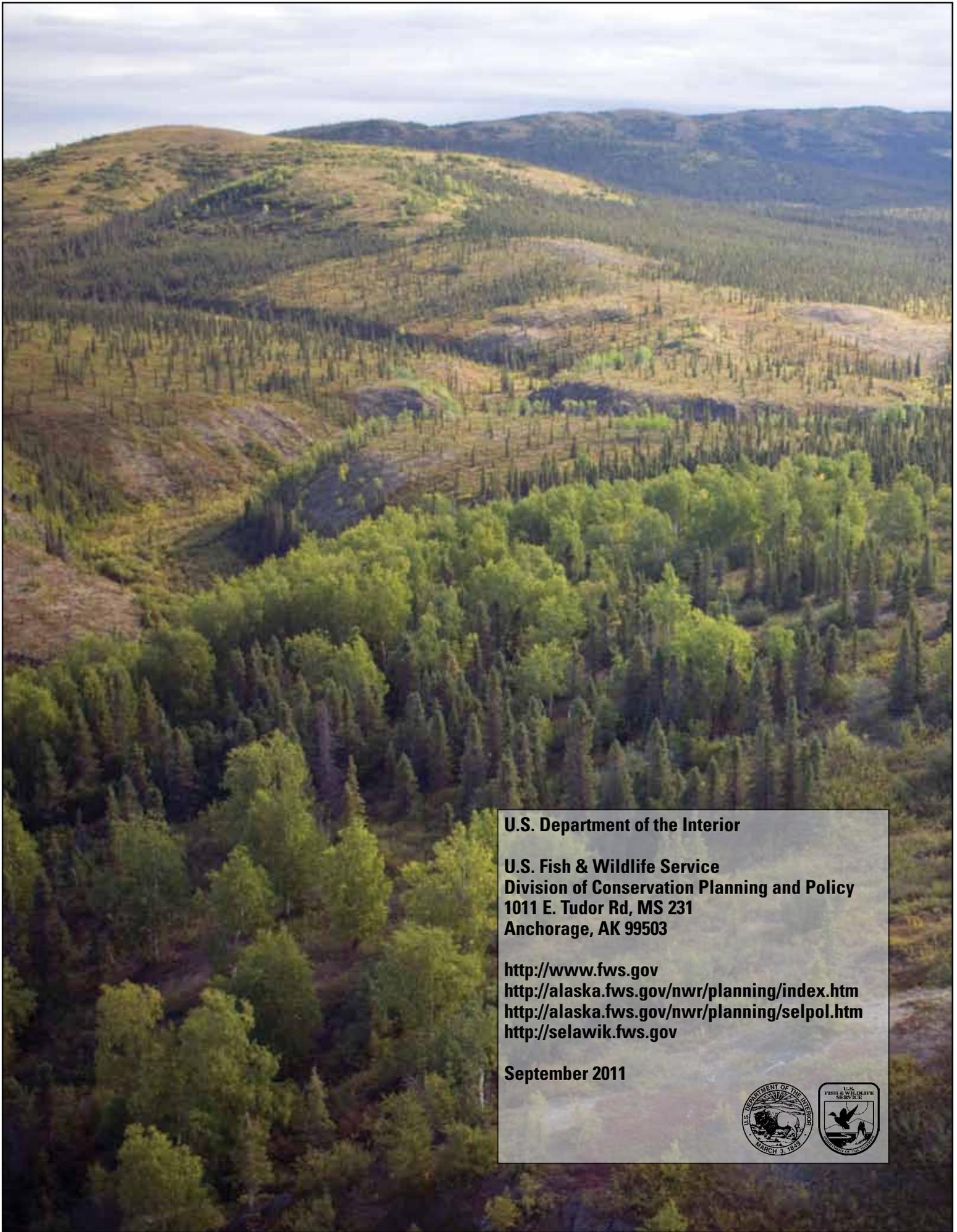


Steve Hillebrand/USFWS

*Collected by the gallons, blueberries (asriavik), cranberries (kikmiññaq) and salmonberries (aqpik) make tasty sauces and desserts throughout the winter.*







**U.S. Department of the Interior**  
**U.S. Fish & Wildlife Service**  
**Division of Conservation Planning and Policy**  
**1011 E. Tudor Rd, MS 231**  
**Anchorage, AK 99503**

<http://www.fws.gov>  
<http://alaska.fws.gov/nwr/planning/index.htm>  
<http://alaska.fws.gov/nwr/planning/selpol.htm>  
<http://selawik.fws.gov>

**September 2011**

