

# Comprehensive Conservation Plan

*Des Lacs National Wildlife Refuge  
J. Clark Salyer National Wildlife Refuge  
Upper Souris National Wildlife Refuge*

**August 2007**

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# Abbreviations

<b>Administration Act</b>	National Wildlife Refuge System Administration Act of 1966
<b>ATV</b>	all-terrain vehicle
<b>AUM</b>	animal unit month
<b>CCC</b>	Civilian Conservation Corps
<b>CCP</b>	comprehensive conservation plan
<b>CFR</b>	Code of Federal Regulations
<b>cfs</b>	cubic feet per second
<b>CRP</b>	conservation resource plan
<b>CWCS</b>	Comprehensive Wildlife Conservation Strategy
<b>DNC</b>	dense nesting cover
<b>EA</b>	environmental assessment
<b>EO</b>	executive order
<b>EPA</b>	U.S. Environmental Protection Agency
<b>FHWA</b>	Federal Highway Administration
<b>FMP</b>	fire management plan
<b>FONSI</b>	finding of no significant impact
<b>FTE</b>	full-time equivalent
<b>GIS</b>	geographic information system
<b>GPS</b>	global positioning system
<b>GS</b>	general schedule (employment)
<b>HAPET</b>	Habitat and Population Evaluation Team
<b>Improvement Act</b>	National Wildlife Refuge System Improvement Act of 1997
<b>NAWMP</b>	North American Waterfowl Management Plan
<b>ND</b>	North Dakota
<b>NDGF</b>	North Dakota Game and Fish Department
<b>NEPA</b>	National Environmental Policy Act
<b>NOI</b>	notice of intent
<b>NRCS</b>	Natural Resources Conservation Service
<b>NWI</b>	National Wetland Inventory
<b>NWR</b>	national wildlife refuge
<b>NWRS</b>	National Wildlife Refuge System
<b>PL</b>	public law
<b>PPJV</b>	Prairie Pothole Joint Venture
<b>Refuge System</b>	National Wildlife Refuge System
<b>region 6</b>	Mountain-Prairie Region of the U.S. Fish and Wildlife Service
<b>RONs</b>	Refuge Operating Needs System
<b>SAMMS</b>	Service Asset Maintenance Management System
<b>Service</b>	U.S. Fish and Wildlife Service
<b>SUP</b>	special use permit
<b>SWG</b>	State Wildlife Grant
<b>Three Affiliated Tribes</b>	Mandan, Hidatsa, and Arikara tribes
<b>USACE</b>	U.S. Army Corps of Engineers
<b>USDA</b>	U.S. Department of Agriculture
<b>USFWS</b>	U.S. Fish and Wildlife Service
<b>USGS</b>	U.S. Geological Survey
<b>VOR</b>	visual obstruction reading
<b>WG</b>	wage grade (employment)
<b>WMD</b>	wetland management district
<b>WUI</b>	wildland–urban interface

*Definitions of these and other terms are in the glossary, starting on page 139.*



# Summary

The U.S. Fish and Wildlife Service has developed this comprehensive conservation plan as the foundation for management and use of the three Souris River basin refuges (Des Lacs, J. Clark Salyer, and Upper Souris). The purposes of the plan are as follows:

- Identify the role that the three Souris River basin refuges will play in support of the mission of the National Wildlife Refuge System.
- Provide guidance for managing refuge programs and activities during the next 15 years.

The comprehensive conservation plan emphasizes restoration of ecological processes important in the evolution and maintenance of native plant communities and wildlife populations in the northern Great Plains. The Service will carry out the plan with assistance from existing and new partner agencies and organizations and the public.

This summary briefly describes the refuges, comprehensive conservation plan, and planning process.

## SOURIS RIVER BASIN REFUGES

The Souris River basin extends from North Dakota into the Canadian provinces of Saskatchewan and Manitoba. The Souris River is the main watercourse in the basin and the Des Lacs River is its primary tributary. Until widespread cultivation of prairie soils beginning nearly a century ago, the major ecological community in the basin was northern mixed-grass prairie.

The Souris River basin is home to three national wildlife refuges, known collectively as the “Souris River basin refuges”:

- Des Lacs National Wildlife Refuge (NWR); 19,500 acres—extends south from the Canada border along 28 miles of the Des Lacs River in Burke and Ward counties, North Dakota
- J. Clark Salyer NWR; 58,700 acres—extends southeast from the Canada border along 75 miles of the east arm of the Souris River in Bottineau and McHenry counties, North Dakota
- Upper Souris NWR; 32,092 acres—extends south-southeast along 35 miles of the west arm of the Souris River in Renville and Ward counties, North Dakota.



*The Souris River basin refuges provide breeding grounds for migratory birds including Canada goose.*

As stated in the executive orders establishing these refuges in 1935, the purpose of each refuge is for a “refuge and breeding ground for migratory birds and other wildlife.”

The Souris River basin refuges are located in a critical area of the Central Flyway, providing resting and breeding habitat for migrating and nesting waterfowl. The J. Clark Salyer NWR, in particular, is one of the most important duck production areas in the United States. The American Bird Conservancy recognizes all three refuges as “Globally Important Bird Areas.” In addition, J. Clark Salyer NWR is designated as a regional shorebird site in the “Western Hemisphere Shorebird Reserve Network.” Lake Darling at Upper Souris NWR is designated critical habitat for the federally threatened piping plover.

The contemporary landscape of the Souris River basin is dominated by annually tilled cropland. Most remnants of the basin’s once vast native prairie are substantially invaded by introduced grasses and native shrubs and trees. Several breeding bird species characteristic of northern mixed-grass prairie—such as burrowing owl, ferruginous hawk, and Baird’s sparrow—are now uncommon or absent throughout the basin. The Souris River has been significantly modified by drainage, channelization, and construction of numerous low-head dams, such that few natural riverine wetlands remain.

Within the Souris River basin, the three national wildlife refuges provide extensive breeding and migration habitat for grassland- and wetland-dependent birds. Representing a comprehensive collection of most North Dakota plant communities, these refuges include important remnants of the Drift Plain prairie, which could be considered an endangered resource. The refuges have potential for restoration of reasonably intact communities of native plants and animals.

In addition, the Souris River basin refuges provide a wide variety of wildlife-dependent recreational opportunities and facilities for visitors including the following:

- hunting of deer and upland birds
- wildlife observation and photography—auto tour routes, hiking trails, observation and photography blinds
- interpretive information—kiosks, panels, and headquarters’ exhibits

Fishing is offered at J. Clark Salyer NWR and at Upper Souris NWR. A canoe trail and an outdoor classroom can be found at J. Clark Salyer NWR. Des Lacs NWR and Upper Souris NWR also offer canoeing opportunities.

## COMPREHENSIVE CONSERVATION PLAN

The plan includes detailed objectives and strategies to carry out the vision and goals for the Souris River basin refuges.

The below vision describes what the refuges will be and what the Service hopes to do, and is based primarily on the mission of the National Wildlife Refuge System and specific purpose of the refuges.

### Vision

*From Paleo-Indians on the tails of the Ice Age—to the Assiniboine and Chippewa, early fur trappers, explorers, and naturalists; eminent bison herds and astoundingly abundant bird life; fires stretching for miles to revitalize treeless prairie; and determined homesteaders and vanquished farms of the Dust Bowl era...*

*The Souris River basin figures prominently in the cultural and natural history of midcontinent North America’s plains and prairies. Three national wildlife refuges of the Souris River basin—Des Lacs, J. Clark Salyer, and Upper Souris—will enhance populations of migratory birds, including waterfowl, and other wildlife native to the landscape by conserving the ecology and natural character of the northern plains region.*

*The refuges will create a sense of awe and wonder by providing an array of wildlife-dependent recreational and educational experiences that enhance visitor awareness of the splendid natural and cultural heritage of the northern plains.*

*Functioning as integral parts of the ecosystems and human communities to which they belong, the Souris River basin refuges will seek collaborative partnerships to attain common goals.*

*A diverse and passionate refuge workforce will rely on sound science to understand and restore or emulate natural processes essential to the integrity and perpetuation of major biological communities with which the refuges are entrusted.*

## Goals

The following goals will direct work toward achieving the vision for the refuges.

### ***Drift Prairie Goal***

Restore and maintain extensive examples of plant communities dominated by native flora characteristic of the mid-1800s drift prairie. Create the temporally and spatially dynamic habitat conditions that will attract most breeding bird species and other vertebrate fauna characteristic of that era. *(Applies to all three Souris River basin refuges.)*

### ***Prairie Slope Goal***

Restore representative examples of prairie slopes to preserve some of the most pristine plant communities that remain in the Souris River basin and promote appreciation and stewardship of prairie resources. *(Applies to all three Souris River basin refuges.)*

### ***Prairie Parkland Goal***

Restore and maintain extensive examples of plant communities characteristic of the mid-1800s prairie parkland. Create the temporally and spatially dynamic habitat conditions that will attract most breeding bird species and other vertebrate fauna characteristic of that era. *(Applies only to J. Clark Salyer NWR.)*

### ***Sandhills Goal***

Restore and maintain plant communities characteristic of the mid-1800s sandhills within the prairie parkland landscape. *(Applies only to J. Clark Salyer NWR.)*

### ***Old Cropland Goal***

On high-priority old cropland areas, establish native-dominated, perennial herbaceous cover that, with modest management, resists invasion by introduced cool-season grasses and noxious weeds. This seeded cover will help form extensive, contiguous blocks of structurally diverse, open grassland for grassland-dependent, breeding bird species. *(Applies to all three Souris River basin refuges.)*

### ***Coulee Woodland and Coulee Woodland Edge Goal***

Acknowledge a nearly irreversible, localized establishment of mature, contiguous woodland and minimally manage these areas as breeding and migration habitat principally for forest-interior, migratory bird species such as veery and ovenbird. Strive to eliminate remaining, noncontiguous, edge-dominated tree and tall shrub cover, particularly near high-priority drift prairie and the largest, most contiguous grassland tracts. *(Applies only to Des Lacs NWR and Upper Souris NWR.)*

### ***Riparian Woodland Goal***

Maintain the approximate presettlement extent of green ash–American elm riparian woodland within the floodplain of the Souris River to benefit a broad suite of woodland-associated, breeding bird species. *(Applies only to J. Clark Salyer NWR and Upper Souris NWR.)*

### ***Meadow Goal***

Restore and maintain extensive examples of plant communities dominated by native flora characteristic of seasonally flooded meadows within the Souris River floodplain to attract grassland- and wetland-dependent bird species and other wildlife. *(Applies to all three Souris River basin refuges.)*

### ***Wetland Goal***

Manage riverine wetlands, including marshes and lakes, to sustain the long-term capacity of riverine wetlands to support diverse plant and wildlife communities. Restore ecological processes that sustain long-term productivity of wetlands. *(Applies to all three Souris River basin refuges.)*

### ***Island Goal***

Manage islands to attract waterfowl and increase nest survival, especially during drought years when wetland habitat outside of the Souris River basin refuges is limited. *(Applies to all three Souris River basin refuges.)*

### ***Cultural Resource Goal***

Discover and protect cultural resources and interpret sites when the interpretation does not adversely affect habitat management. *(Applies to all three Souris River basin refuges.)*



### **Visitor Service Goal**

Provide wildlife-dependent recreational opportunities to a diverse audience when the administration of these programs does not adversely affect wildlife and habitat management. *(Applies to all three Souris River basin refuges.)*



### **Research and Science Goal**

Conduct innovative natural resource management using sound science and applied research to advance the understanding of natural resource function and management within the northern Great Plains. *(Applies to all three Souris River basin refuges.)*

### **Operations Goal**

Efficiently use funding and staffing for the benefit of all natural and cultural resources, the National Wildlife Refuge System, and present and future generations. Effectively manage visitor service programs that complement habitat management. *(Applies to all three Souris River basin refuges.)*

## **Outcomes of the Plan**

Through this comprehensive conservation plan, the Service will prioritize habitats with high probability of restoration for management. Refuge staff will assign priority order to habitats or habitat types on the basis of where funds and resources (1) can be best used, (2) are most needed, or (3) are most likely to achieve success in meeting stated goals and objectives. Other habitats may only be partially restored or minimally managed.

Collaborative research and monitoring will increase, and scientific knowledge required to restore upland and wetland plant and animal communities will be shared (with the public and other resource managers).

Some visitor services are expected to decrease as more staff and funding shifts to habitat restoration. Environmental education will be emphasized, but will rely on volunteers and other groups to contribute more time.

## **PLANNING PROCESS**

Through the environmental analysis process, the Service has selected as the preferred alternative (final comprehensive conservation plan) for the Souris River basin refuges, alternative B from the draft comprehensive conservation plan and environmental assessment published in February 2007.

In 2003, a planning team of refuge and other Service staff gathered and began to analyze resource information. The planning process included designing a vision for the three refuges, along with goals to reach the vision. After identifying key issues related to achieving the vision, the team developed management alternatives.

The team invited the public to participate in the planning process and public scoping. A mailing list of about 220 names was created and included private citizens; local, regional, and state government representatives and legislators; other federal agencies; tribal governments, and nonprofit organizations.

Key issues (habitat, wildlife, water quality, public outreach, public use, and refuge operations) were identified during analysis of concerns raised by refuge staffs, along with analysis of public comments collected during scoping. These issues were addressed throughout the planning process and in the final comprehensive conservation plan.

