

I. Introduction/Background

Comprehensive Conservation Plans

The National Wildlife Refuge System Improvement Act (Refuge Improvement Act), an amendment to the National Wildlife Refuge Administration Act of 1966, was passed by Congress in October of 1997. This historic “organic act,” the first in the National Wildlife Refuge System’s history, required that Comprehensive Conservation Plans (CCPs) be prepared for all refuges within 15 years. Lands covered by this Act include National Wildlife Refuges and Wetland Management Districts, including grassland, wetland, and conservation easements. The Refuge Improvement Act also clarified compatibility and public use issues on Refuge System lands.

The U.S. Fish & Wildlife Service (Service) worked with Congress to craft the Refuge Improvement Act and supported the planning requirement. This planning effort will assist each station, and the entire National Wildlife Refuge System, to meet the changing needs of wildlife and the public. Public input during the CCP process will provide opportunities to consult with neighbors, customers, and other agencies to ensure that plans are relevant and address natural resource issues and public interests. This Draft CCP discusses the planning process, Waubay Complex’s characteristics, and the direction management will take in the next 15 years on Waubay Complex

Waubay National Wildlife Refuge History

Waubay National Wildlife Refuge was established on December 10, 1935, by Executive Order 7245 “as a refuge and breeding ground for migratory birds and other wildlife.” Originally known as “Waubay Bluebill Refuge,” it consists of 4,650 acres and was purchased from private landowners through 16 different purchase agreements. At the time of purchase, the upland and water acres were 2,587 and 2,063, respectively. The total cost of acquisition was \$62,788.97. Approximately 2,402 acres of meandered lakes were withdrawn from public domain and 2,249 acres were purchased; furthermore, the acres were purchased for about \$27.92/acre.

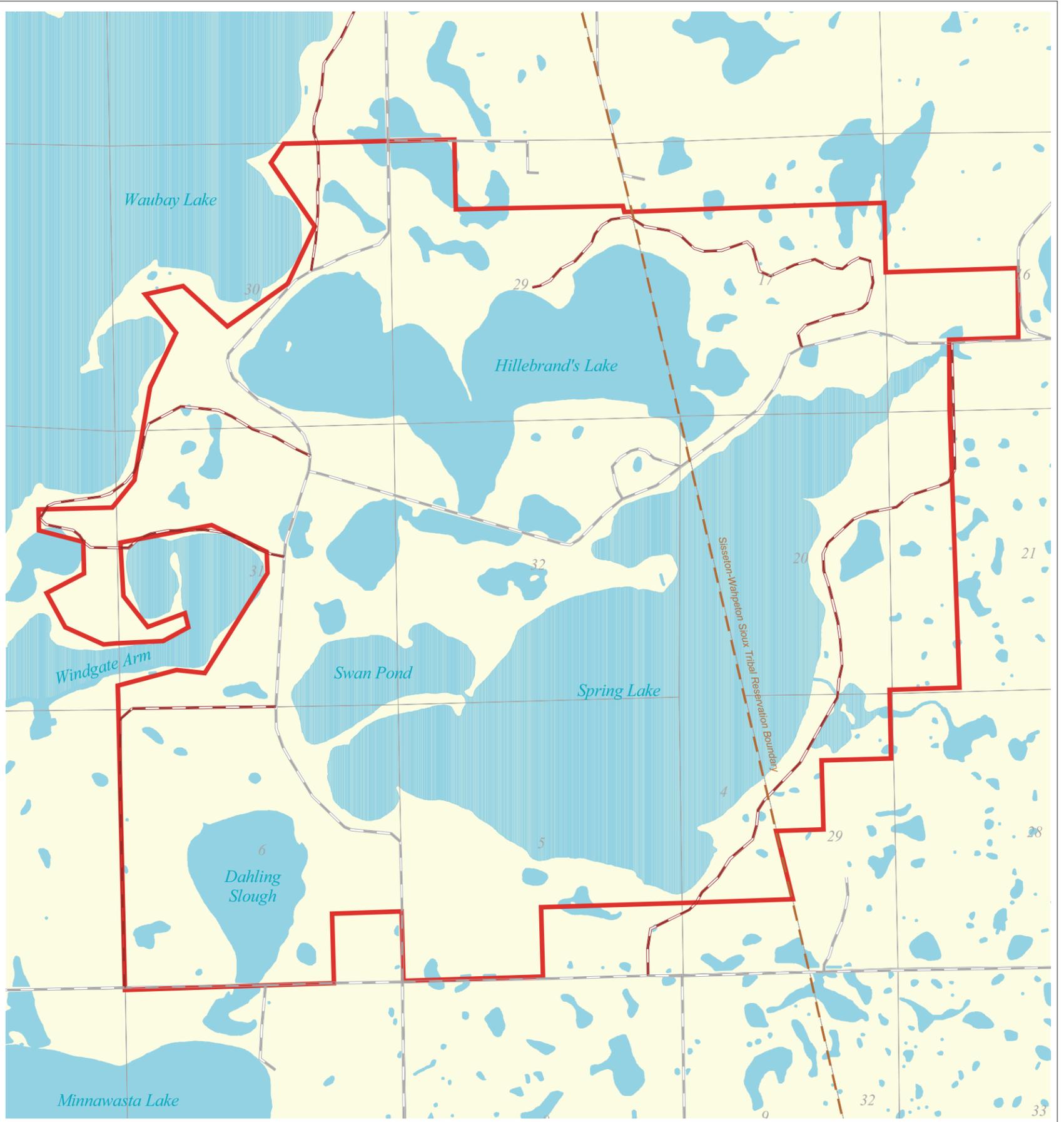
In the “Dust Bowl” days of the 1930s, the Refuge lakes were almost entirely dry, contributing to record low waterfowl populations. Water levels and duck populations gradually rose to an “acceptable” or normal level and remained relatively static until the 1990s (Map 2). Heavy precipitation between 1993 and 1999 caused lake levels to rise more than 15 feet to all-time recorded highs, flooding 100-year-old trees (Map 3). In 1995, when Waubay Lake spilled into Hillebrand’s Lake, a sport fishery developed for the first time on the Refuge. Currently perch, northern pike, and walleye populations thrive in Refuge waters. With such drastic water fluctuations came changes in bird species, numbers, and habitats. Today, wood ducks, double-crested cormorants, and great-blue herons thrive on the flooded, wooded islands of the Refuge, while over-water nesting species have virtually disappeared along with the emergent cover.

Time Line/Significant Dates of Waubay NWR

- 1935 - Waubay Refuge established.
- 1936 - First manager, Watson E. Beed, reported for duty.
- 1937 - Refuge land acquisition completed.
 - Waubay giant Canada goose flock started with 30 donated captive geese.
 - Refuge observation tower built.
- 1938 - Famous wildlife artist Frances Lee Jaques, standing on the shore of Spring Lake with Watson Beed, called Waubay “the perfect refuge.”
- 1942 - Highest number of pheasants recorded on the Refuge - over 10,000.
- 1947 - Deer hunting allowed for the first time.
- 1948 - “By this time, the Refuge was the only place in the area where prairie chickens could be found.” Prairie chickens soon disappeared from the Refuge.
- 1957 - Five pair of Coturnix quail released on the Refuge - failed.
- 1959 - Annual Refuge deer hunts began.
- 1960 - Nature trail established.
- 1963 - Twenty-five Rio Grande turkeys released on the Refuge - all disappeared by 1964.
- 1966 - User fees were charged for the picnic area; use dropped by 50 percent - user fees discontinued after one year.
- 1973 - Activities within the State of South Dakota and administration of Waubay NWR transferred from Region 3 to Region 6 with an Area Office established in Pierre.
- 1986 - New Refuge headquarters office built.
- 1993 - Waubay and Refuge lakes, Spring and Hillebrand’s, begin to rise because of heavy precipitation.
- 1995 - Waubay and Hillebrand’s Lakes equalize.
- 1996 - Refuge east entrance road raised four feet.
- 1997 - Winter of 1996-1997 totals 80.2 inches of snow (average is 30 to 35 inches).
 - Waubay/Hillebrand’s Lakes equalize with Spring Lake.
 - Refuge east entrance road raised 3.3 feet.
- 1998 - Refuge east entrance road raised 7 feet.
 - Refuge opened to ice fishing only.

Waubay National Wildlife Refuge

Historic Water Levels (pre-1995)

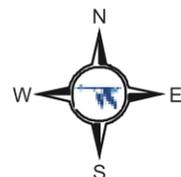


Vicinity Map



Legend

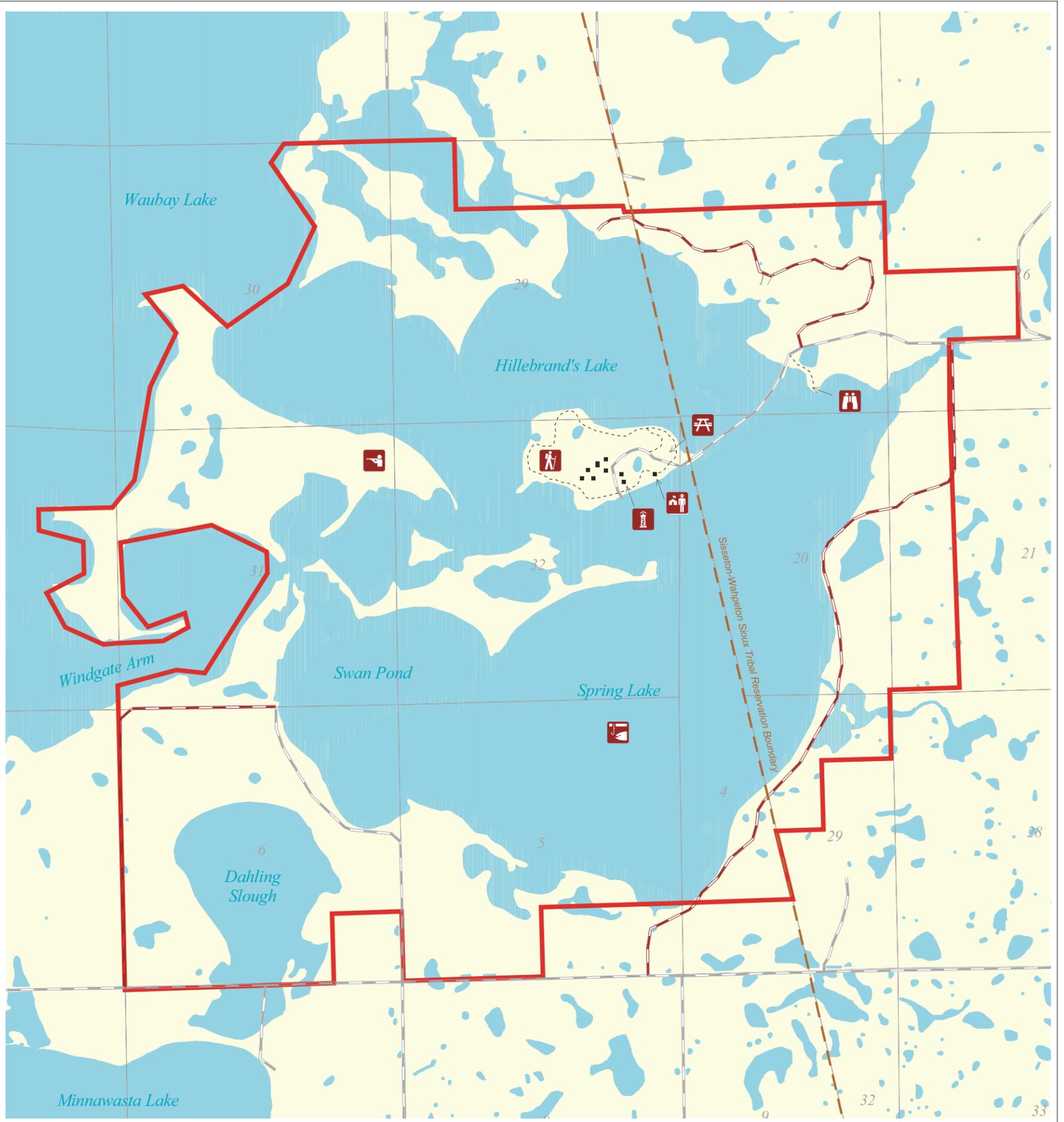
- Public Road
- Administrative Road
- National Wildlife Refuge Boundary
- Lake/Wetland (1987 NWI Data)



Map 2 - Waubay NWR Historic Water Levels Map, Pre-1995

Waubay National Wildlife Refuge

Base Map



Vicinity Map



■ Waubay NWR
■ Waubay WMD

Legend

Public Use

- Refuge Headquarters/Visitors Center
- Lake Overlook
- Picnic Area
- Observation Tower
- Refuge Open To Deer Hunting
- All Refuge Waters Open To Ice Fishing Only
- Nature Trail

Infrastructure/Other

- Public Road
- Administrative Road
- Trail
- National Wildlife Refuge Boundary
- Lake/Wetland (1998 water levels)



Map 3 - Waubay NWR Base Map - Current Water Levels, 1998

Waubay Wetland Management District History

Waubay Wetland Management District (WMD) is one of 37 WMD's throughout the prairie pothole region. They were started as part of the Small Wetlands Acquisition Program (SWAP) in the 1950s to save wetlands from various threats, particularly draining. The passage of Public Law 85-585 in August of 1958, amended the Migratory Bird Hunting and Conservation Stamp Act (Duck Stamp Act) of 1934, allowing for the acquisition of "Waterfowl Production Areas" (WPAs) and "Easements for Waterfowl Management Rights" (easements). The nation's first WPA was acquired within the Waubay study area (now known as the WMD), when the 160-acre McCarlson WPA in Day County was purchased from Arnold McCarlson on January 19, 1959.

The Wetlands Loan Act (P.L. 87-383) was passed on October 4, 1961, and allowed for the advancement of funds against future revenues from Duck Stamp sales. As a result, WMDs were created in 1962. In 1966, Waubay WMD consisted of 10 counties: Brookings, Clark, Codington, Day, Deuel, Grant, Hamlin, Kingsbury, Marshall, and Roberts. In 1970, Brookings, Deuel, Hamlin, and Kingsbury counties were transferred to Madison WMD, leaving the remaining six which make up Waubay WMD today. The grassland easement acquisition program was started in 1989 to help protect upland habitat to compliment the wetland easement program. Waubay is currently the nation's second largest WMD with over 250,000 acres of waterfowl habitat being protected through easements and fee-title lands. Protected areas under fee-title total 39,885 acres, while wetland and grassland easements protect approximately 105,000 and 126,000 acres, respectively. An additional 5,260 acres are protected under conservation easements.

Like Waubay NWR, the WMD has varying wetland and upland habitat types and needs to be managed to benefit waterfowl and other wildlife, as well as human users. Today, prescribed burning has taken the place of prairie wildfires and is one tool used to rejuvenate grasslands. Although prescribed burning has proven effective, constraints such as time, money, and staff limit its use in the past. With additional staff and funding, prescribed burning will be used more extensively as a management tool. Another tool available is haying, but it also has limiting factors. Haying is allowed on fee-title lands by permit only; furthermore, it can only be accomplished after July 15 to protect nesting birds. This deters some producers, because the quality of forage may be reduced. Grassland manipulation within Waubay WMD is primarily accomplished through livestock grazing. This method is most closely related to the natural way of managing grasses with livestock replacing the bison of the past.

Recently, increased precipitation has benefitted the WMD and waterfowl populations dependent on these lands. In 1999, statewide wetland counts exceeded one million for the first time and increased 104 percent above the 10-year and long-term averages. Breeding mallards in South Dakota for 1999 exceeded 3 million for only the third time in history (USFWS 1999).

Time Line/Significant Dates of Waubay WMD

- 1959 - McCarlson WPA, the nation's first WPA, purchased in Day County.
- 1961 - Wetland easement program began.
- 1963 - Wetland Management Office established in Webster; first manager - James Pullium.
- 1964 - Wetland Management Office closes and function taken over by the Refuge.
- 1968 - Pheasant restoration program on WPAs started under Karl Mundt funding.
- 1973 - Activities within the State of South Dakota and administration of Waubay NWR transferred from Region 3 to Region 6 with an Area Office established in Pierre.
- 1989 - Grassland easement program began.
- 1994 - Hundreds of township, county, and state roads across the WMD flood from rising waters of wetlands and lakes.

Purpose of and Need for Comprehensive Conservation Plan

Waubay Complex was established to provide “. . . a refuge and breeding ground for migratory birds and other wildlife.” The purpose of the CCP is to accomplish the goals established for the Complex, including:

- **Habitat Goal:** *To preserve, restore and enhance the ecological diversity of grasslands, wetlands, and native woodlands of the Prairie Pothole Region of the Great Plains on Waubay National Wildlife Refuge Complex.*
- **Wildlife Goal:** *To promote a natural diversity and abundance of native flora and fauna of the Prairie Pothole Region of the Great Plains on Waubay National Wildlife Refuge Complex.*
- **Cultural Resources Goal:** *Protect and interpret significant historic and prehistoric cultural resources associated with Waubay National Wildlife Refuge Complex.*
- **Wildlife-dependent Recreation Goal:** *To foster an understanding and appreciation of the ecology and management of the fauna and flora and of the role of humans in the Prairie Pothole Region of the Great Plains by providing Complex visitors of all abilities with compatible wildlife-dependent recreational experiences.*

The CCP, with its clear management direction laid out in specific objectives and strategies, is needed for several reasons. Since the establishment of the Refuge in 1935 and the WMD in the 1960s, many changes have occurred to the landscape. Much habitat has been lost to agriculture, roads, towns, and other development. This loss of habitat has had a profound effect on wildlife populations that once depended on vast expanses of undisturbed grasslands and wetlands. Management of the Complex as outlined in the CCP will help to stem these losses and help to restore biodiversity to the landscape.

The CCP also addresses the need to provide an understanding and appreciation of wildlife and of people's role in the environment. Providing more environmental programs and better interpretation will increase the public's knowledge about the biological values that continue to be lost each day and the need to prevent further losses. The Plan also calls for increased opportunities for wildlife-compatible recreation.

It is the Service's job to protect and provide habitat for migratory birds and other wildlife - this is our purpose and reason for being. We must do this in a vastly changed landscape, balancing the effects of saving wildlife with economic realities and human needs. By preparing this CCP, documenting our goals and objectives, and involving our partners and the public in the process, we can all gain a better understanding of the issues - from all sides. It doesn't have to be wildlife versus people because all will benefit, economically and personally, from a healthy environment. This CCP will help explain how Waubay Complex fits into the landscape and our role in protecting our natural resources for present and future generations.

National Wildlife Refuge System Mission and Goals

The U.S. Fish & Wildlife Service, which administers the Refuge System, is the only agency of the U.S. government whose primary responsibility is fish, wildlife, and plant conservation. The National Wildlife Refuge System (System) is the world's largest and most diverse collection of lands set aside specifically for wildlife. The Mission of the 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."* Goals of the System are aimed at fulfilling this mission. Some major goals are to provide for specific classes of wildlife species for which the Federal government is ultimately responsible. These "trust resources" are defined by the purpose of the Refuge and include threatened and endangered species, migratory birds, and anadromous fish. Most refuges provide breeding, migration, or wintering habitat for these species. Nearly all refuges also supply habitat for big game species and resident or nonmigratory wildlife as well.

"When one tugs at a single thing in nature, he finds it attached to the rest of the world"
John Muir

Goals of the National Wildlife Refuge System are:

- a. *To fulfill our statutory duty to achieve refuge purpose(s) and further the System mission.*
- b. *Conserve, restore where appropriate, and enhance all species of fish, wildlife, and plants that are endangered or threatened with becoming endangered.*
- c. *Perpetuate migratory bird, interjurisdictional fish, and marine mammal populations.*
- d. *Conserve a diversity of fish, wildlife, and plants.*
- e. *Conserve and restore, where appropriate, representative ecosystems of the United States, including the ecological processes characteristic of those ecosystems.*
- f. *To foster understanding and instill appreciation of fish, wildlife, and plants, and their conservation, by providing the public with safe, high-quality, and compatible wildlife-dependent public use. Such use includes hunting, fishing, wildlife observation and photography, and environmental education and interpretation.*

Individual refuges provide specific requirements for the preservation of trust resources. For example, waterfowl breeding refuges in South and North Dakota provide important wetland and grassland habitats to support populations of waterfowl as required by the Migratory Bird Treaty Act and the North American Waterfowl Management Plan. Waubay Complex supports breeding populations as well as providing migration habitat during spring and fall periods. Sabine NWR, and other refuges in Louisiana and Texas, provide wintering habitat for these populations. The network of lands is critical to these birds' survival; any deficiency in one location will affect the species and the entire network's ability to maintain adequate populations. Other refuges may provide habitat for endangered plants or animals that exist in unique habitats found only in very few locations. Refuges in these situations ensure that populations are protected and habitat is suitable for their use. Refuges, by providing a broad network of lands throughout the United States, help prevent species from being listed as endangered by providing secure habitat for their use and opportunities for recovery.

Under the National Wildlife Refuge System Improvement Act of 1997, six wildlife-dependent recreational uses are recognized as priority public uses of refuge lands. These are hunting, fishing, wildlife observation, wildlife photography, environmental education and interpretation. These and other uses are allowed on refuges only after finding that they are compatible with the purpose of the refuge. Uses are allowed through a special regulation process, individual special use permits, and sometimes through State fishing and hunting regulations.

Waubay National Wildlife Refuge Complex Purpose

Waubay NWR Purpose

“ . . . as a refuge and breeding ground for migratory birds and other wildlife . . . ”
Executive Order 7245, dated December 10, 1935. Later Executive Orders allowed
for expansion of the Refuge under the same purpose.

Waterfowl Production Area Purpose

“ . . . as Waterfowl Production Areas” subject to “ . . . all of the provisions of such
Act [Migratory Bird Conservation Act] . . . except the inviolate sanctuary
provisions . . . ” 16 U.S.C. 718 § (Migratory Bird Hunting and Conservation Stamp
Act)

“ . . . for any other management purpose, for migratory birds.” 16 U.S.C. § 715d
(Migratory Bird Conservation Act)

“ . . . for conservation purposes . . . ” 7 U.S.C. § 2002 (Consolidated Farm and Rural
Development Act)

Waubay Complex Vision Statement

A vast landscape of native prairie splashed with sparkling blue jewels of pristine wetlands with its variety of wildlife, where people can learn about the unique features and enjoy the bounty of the Coteau des Prairie region.

Although this vision has a dreamlike feel to it, it is founded in a real need to restore the health of the Northern Great Plains. Restoring grasslands and wetlands and protecting and promoting their long-term health will be good not only for wildlife, but for humans as well. The economic health of this region may also soon depend on the soundness of these natural systems as farming becomes economically challenging and more and more people turn to tourism and the fishing/hunting industry to make a living. Already this is becoming a reality with the increased fishing opportunities available with the onset of new and expanded lakes and wetlands. More and more people are also filling their leisure time with outdoor activities such as bird-watching, hiking, or fishing. By restoring and enhancing native habitats, Waubay Complex can help attract visitors providing additional economic opportunities in the area.

Legal and Policy Guidance

The National Wildlife Refuge System started nearly 100 years ago with an Executive Order, signed by President Theodore Roosevelt, protecting a small and unpretentious island full of pelicans, ibises, and spoonbills from market hunters. It wasn't until 1997 that the National Wildlife Refuge System Improvement Act was passed which set the mission and administrative policy for all refuges in the System. It also outlined the importance of the six priority public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education and interpretation) and how they should be promoted except where incompatible with the purpose of the individual Refuge or the system as a whole. A formal process for determining compatibility was also established with this Act. From the first act to the most recent, the overriding principle that guides the Refuge system is wildlife comes first.

Other key legislative policies that direct management of Refuges include the Endangered Species Act (1973), Clean Water Act (1977), Land and Water Conservation Fund Act (1965), Migratory Bird Treaty Act (1918), and Executive Order 12996 Management and General Public Use of the National Wildlife Refuge System (1996). These and other Acts and Executive Orders that guide Refuge System activities are listed in Appendix F. The U.S. Fish & Wildlife Service also provides its own policy guidelines which can be found in Refuge Manuals.

Existing Partnerships

Waubay Complex staff work with a variety of individuals and organizations to accomplish habitat management, outreach, and environmental education projects. Some past and current partners include Sisseton-Wahpeton Sioux Tribe; Ducks Unlimited; County Conservation Districts; South Dakota Game, Fish and Parks; The Nature Conservancy; Ne-So-Dak (Glacial Lakes Outdoor School); local Boy and Girl Scout troops; and numerous private landowners. Far less would be accomplished within and beyond our borders without these partnerships. A complete listing of partners is included in Appendix K.

