

Chapter 1: Introduction and Background



Photograph by Scott Shurkey

Introduction

In the midst of 2.5 million people, down the road from the largest shopping mall in the nation, Minnesota Valley National Wildlife Refuge is a small vestige of Minnesota wildness. Bald Eagles nest here, Woodcock preen, and Black-crowned Night Herons stand poised on the edge of ponds, still as statues, waiting for the glint of an unlucky fish. Waterfowl nest here, and Tundra Swans rest up from a long migration. River otters play, beavers build their meticulous and highly effective dams, and foxes den within a few miles of the Twin Cities of Minneapolis and St. Paul, Minnesota.

It is a truly unique place. Of the more than 500 national wildlife refuges managed by the U.S. Fish and Wildlife Service (Service), Minnesota Valley National Wildlife Refuge (Refuge) is one of only four urban refuges. Long Meadow Lake, the northern most unit of the Refuge, is just 10 miles south of downtown Minneapolis.

Established in 1976, the Refuge was borne out of citizen concern for the diverse and abundant fish, wildlife, and plant communities of the Lower Minnesota River Valley. Today it consists of eight units along a 34-mile stretch of the Minnesota River located between historic Fort Snelling and the City of Jordan (Figure 1). The Savage Fen Unit is also located in the valley but is not immediately adjacent to the river. Nearly 12,500 acres of the authorized 14,000 acres are currently owned in fee or managed as part of the Refuge. Some areas are not owned by the Service but are administered through management agreements. Although the Refuge is the single largest landowner along this portion of the river, the valley itself contains a patchwork of ownerships including private landowners, non-profit organizations, corporations, cities, counties, and lands administered by Minnesota Department of Natural Resources (MnDNR). This mosaic of ownerships offers great opportunities for partnerships but also requires a great deal of coordination and cooperation among all land managers.

Minnesota Valley National Wildlife Refuge provides the Service a great opportunity to showcase a variety of activities that occur within the National Wildlife Refuge System. From strong citizen support to a variety of wildlife-dependent recreational programs to an active habitat restoration and management program, this Refuge has a wonderful story to tell. These features, plus the opportunity to significantly expand the Refuge land base over the next 15 years, offers a very bright future for both the Service and the citizens who support this effort.

The Round Lake Unit (Figure 2), a 152-acre tract containing a large permanent wetland located in the City of Arden Hills, is also administered as a remote part of the Refuge.

Figure 1: Minnesota Valley National Wildlife Refuge

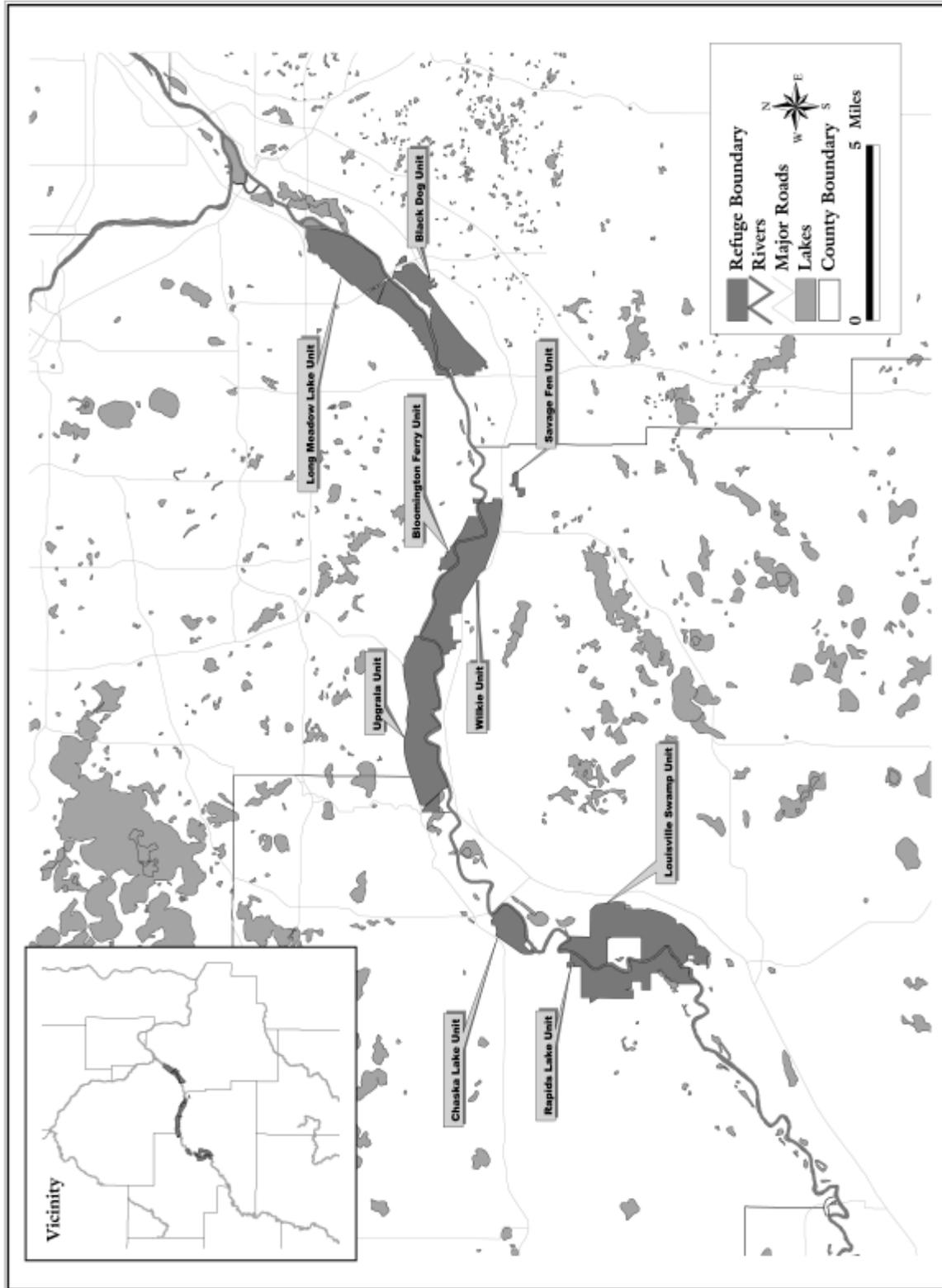


Figure 2: Round Lake Unit

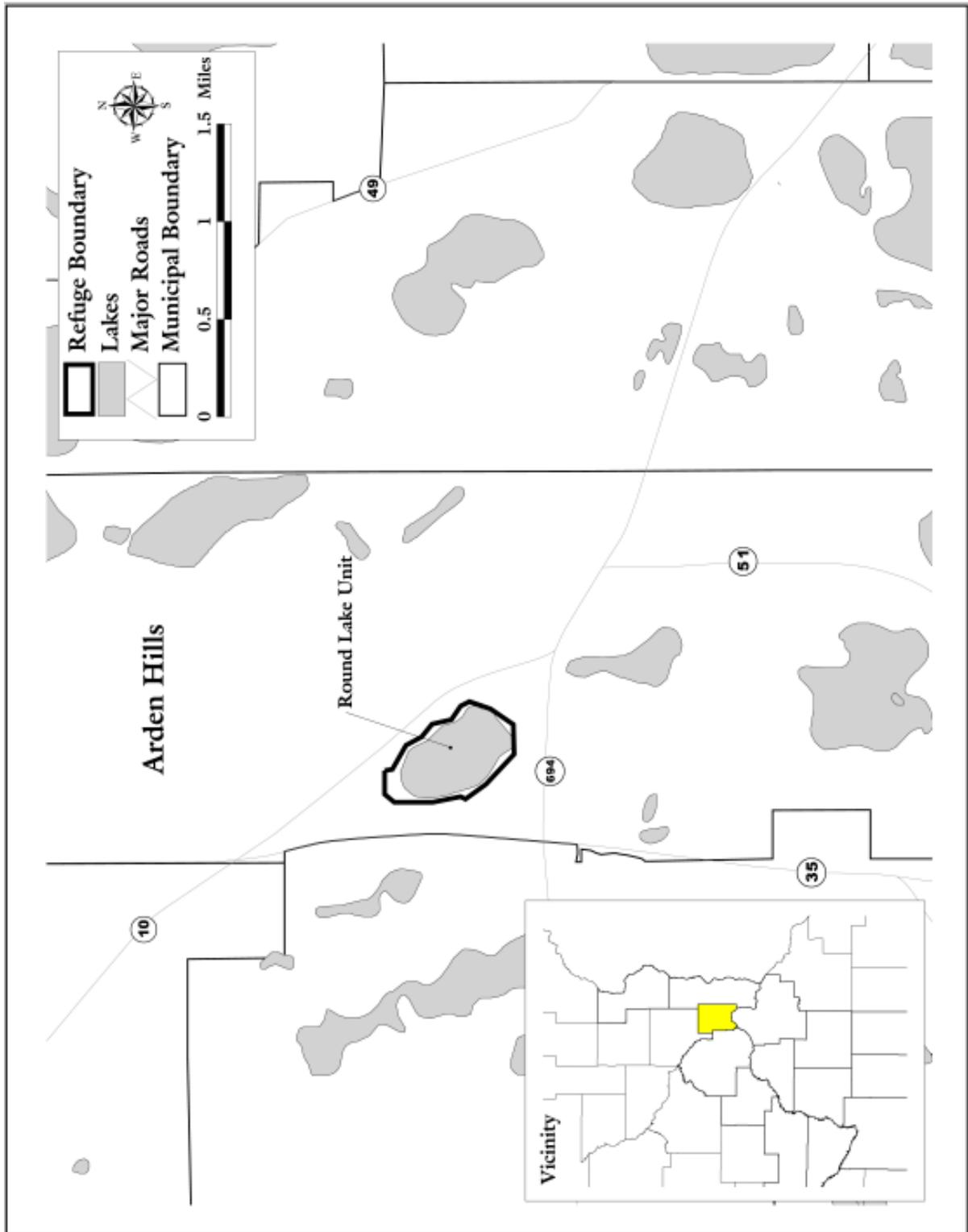
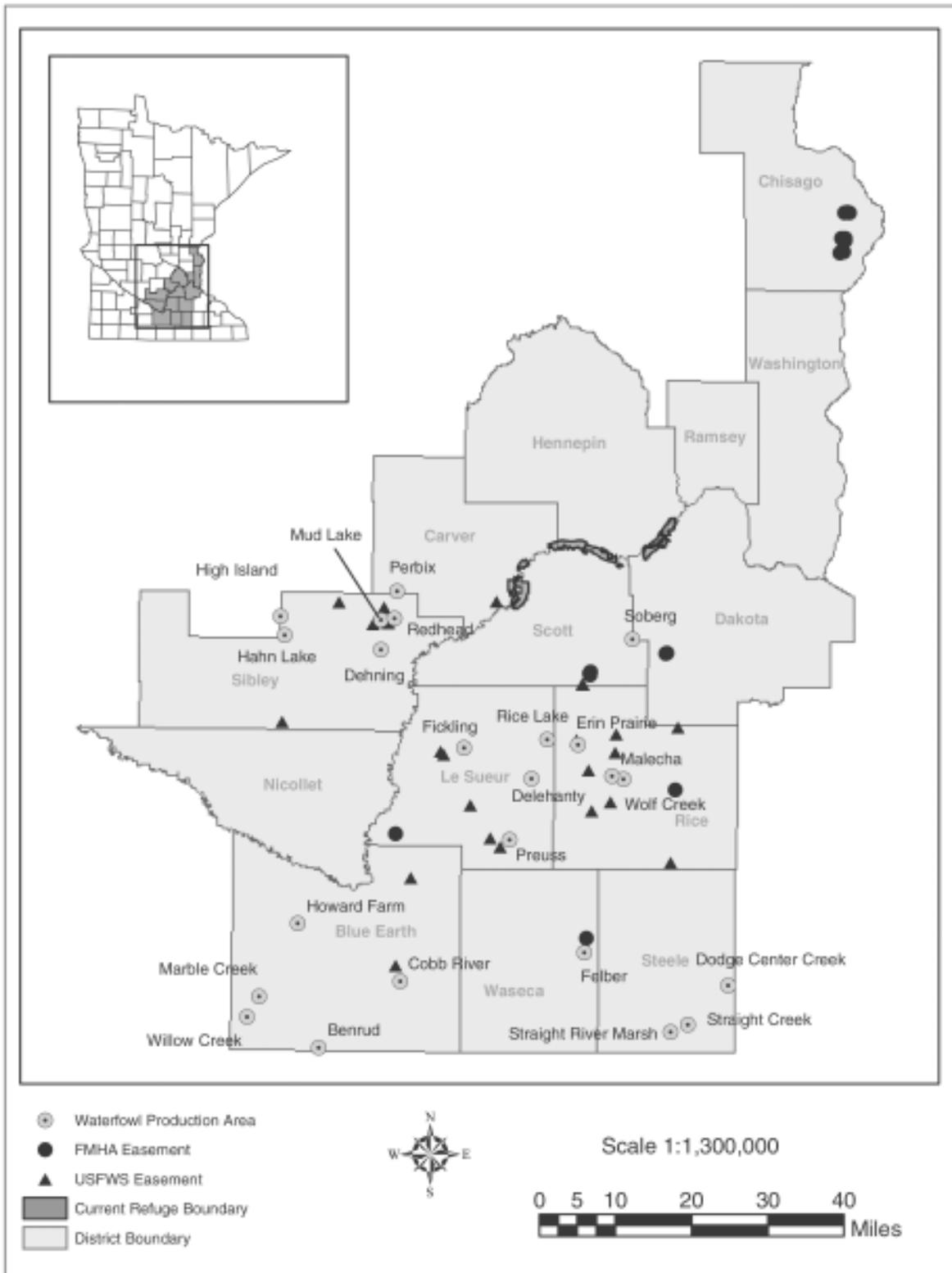


Figure 3: Minnesota Valley National Wildlife Refuge and Wetland Management District



Minnesota Valley National Wildlife Refuge and Wetland Management District

Unless stated otherwise, the use of the term “Refuge” in this document refers to all Refuge units including Round Lake and the Savage Fen.

The Refuge is also responsible for a 14-county region known as the Minnesota Valley Wetland Management District (District). It currently consists of more than 5,000 acres of waterfowl production areas and conservation easements (Figure 3). District activities, plus a very active Partners for Fish and Wildlife program, are seamlessly applied within the watershed to complement the Refuge as well as other important natural areas associated with the Minnesota River and the Cannon River watersheds.

A state-of-the-art Visitor and Wildlife Interpretive Center was completed in 1990 and serves as the gateway to the Refuge at its Bloomington location, near the Mall of America. Its exhibits, environmental education classrooms, and 125-seat auditorium help make the Refuge a place where students and citizens of all ages have the opportunity to learn, enjoy, respect, and develop an appreciation for wildlife in their natural habitats. An estimated 300,000 visitors annually visit the Refuge and its associated waterfowl production areas for a variety of reasons, including hunting, fishing, wildlife observation and interpretive programs. Minnesota Valley is truly a place where modern technology and development coexist with some of nature’s most primitive and timeless rhythms of life.

The U.S. Fish and Wildlife Service



The Refuge and District are administered by the U.S. Fish and Wildlife Service (Service), the primary federal agency responsible for conserving, protecting, and enhancing the nation’s fish and wildlife populations and their habitats. The Service oversees the enforcement of federal wildlife laws, management and protection of migratory bird populations, restoration of nationally significant fisheries, administration of the Endangered Species Act, and the restoration of wildlife habitat such as wetlands. The Service also manages the National Wildlife Refuge System.

The National Wildlife Refuge System

Refuge and District lands are part of the National Wildlife Refuge System, which was founded in 1903 when President Theodore Roosevelt designated Pelican Island in Florida as a sanctuary for brown pelicans. Today, the System is a network of over 500 refuges covering more than 93 million acres of public lands and waters. Most of these lands (82 percent) are in Alaska, with approximately 16 million acres located in the lower 48 states and several island territories. The National Wildlife Refuge System is the world’s largest collection of lands specifically managed for fish and wildlife. Overall, it provides habitat for more than 5,000 species of birds, mammals, fish, and insects. As a result of international treaties for migratory bird conservation as well as other legislation, such as the Migratory Bird Conservation Act of 1929, many refuges have been established to protect migratory waterfowl and their migratory flyways from their northern nesting grounds to southern wintering areas.



Refuges also play a vital role in preserving endangered and threatened species. Among the most notable are Aransas National Wildlife Refuge in Texas, which provides winter habitat for the whooping crane. Likewise, the Florida Panther Refuge protects one of the nation’s most endangered predators.

Refuges also provide unique opportunities for people. When it is compatible with wildlife and habitat conservation, they are places where people can enjoy wildlife-dependent recreation such as hunting, fishing, wildlife observation, photography, environmental education, and environmental interpretation. Many refuges have visitor centers, wildlife trails, automobile tours, and environmental education programs. Nationwide, approximately 30 million people visited national wildlife refuges in 1997.

The National Wildlife Refuge System Improvement Act of 1997 established several important mandates aimed at making the management of national wildlife refuges more cohesive. The preparation of Comprehensive Conservation Plans is one of those mandates. The legislation directs the Secretary of the Interior to ensure that the mission of the National Wildlife Refuge System and purposes of the individual refuges are carried out. It also requires the Secretary to maintain the biological integrity, diversity, and environmental health of the National Wildlife Refuge System.

Goals of the National Wildlife Refuge System:

- Fulfill our statutory duty to achieve refuge purpose(s) and further the System mission.
- Conserve, restore where appropriate, and enhance all species of fish, wildlife, and plants that are endangered or threatened with becoming endangered.
- Perpetuate migratory bird, interjurisdictional fish, and marine mammal populations.
- Conserve a diversity of fish, wildlife, and plants.
- Conserve and restore, where appropriate, representative ecosystems of the United States, including ecological processes characteristic of those ecosystems.
- 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.

The Mississippi Headwaters/Tallgrass Prairie Ecosystem

The Refuge and District are located in the Mississippi Headwaters/Tallgrass Prairie Ecosystem as currently defined by the U.S. Fish and Wildlife Service. This ecosystem is primarily located in Minnesota and North Dakota with small sections extending into Wisconsin and Iowa. This ecosystem occupies a major portion of the Prairie Pothole Region of North America. The Prairie Pothole Region produces 20 percent of the continental waterfowl populations annually.

Historically, this portion of North America was subject to periodic glaciation and consequently, glacial meltwaters were instrumental in forming the five major river systems located or partly located within this ecosystem. These river systems are the Mississippi River, St. Croix River, Red River, Missouri River, and the Minnesota River. Likewise, glacial moraines and other deposits resulted in a myriad of lakes and wetlands that are common throughout this area. Significant variation in the topography and soils of the area attest to its dynamic glacial history.

The three major ecological communities within this ecosystem are the tallgrass prairie, the northern boreal forest, and the eastern deciduous forest. Vegetation common to the tallgrass prairie includes big bluestem, little bluestem, Indian grass, sideoats grama, and switch grass. Native prairie also supports numerous ecologically important forbs such as prairie cone flower, purple prairie clover, and blazing star. The northern boreal forest is primarily comprised of a variety of coniferous species such as jack pine, balsam fir, and spruce. Common tree species in the eastern deciduous forest include maple, basswood, red oak, white oak, and ash. Current land uses range from tourism and timber industries in the northern forests to intensive agriculture in the historic tallgrass prairie. Of the three major ecological communities, the tallgrass prairie is by far the most threatened with more than 99 percent of it having been converted for agricultural purposes.

Due to its ecological and vegetative diversity, this ecosystem supports at least 121 species of neotropical migrants and other migratory birds. It provides breeding and migration habitat for significant populations of waterfowl plus a variety of other waterbirds. The ecosystem supports several species of candidate and federally-listed threatened and endangered species including the Bald Eagle, Piping Plover, Higgins eye pearly mussel, Karner blue butterfly, prairie bush clover, Leedy's roseroot, dwarf trout lily, and the western prairie fringed orchid. The increasingly rare paddlefish and lake sturgeon are also found in portions of this ecosystem.

Refuge Purpose

The Refuge was established by Congress in 1976 through the Minnesota Valley National Wildlife Refuge Act (*Public Law 94-466; October 8, 1976*). In general, its purposes are to (1) provide habitat for a large number of migratory waterfowl, fish, and other wildlife species; (2) to provide environmental education, wildlife recreational opportunities, and interpretive programs for hundreds of thousands of Twin Cities residents; (3) to protect important natural resource areas from degradation; and to (4) protect the valley's unique social, educational, and environmental assets.



Photograph by Scott Starkey

The Act authorized the purchase of 9,500 acres for the Refuge. It also acknowledged the presence of the Minnesota Valley State Trail and the establishment of a wildlife recreation area, both to be administered by MnDNR. The specific lands, waters, and interests of the Refuge and the adjacent recreation area were to be identified through the development of a cooperatively prepared conservation plan. That plan was completed in 1984 and has served as the basis for Refuge development and management since that time. In 1984, the Act was amended to include an additional 2,000 acres in the Refuge. This amendment plus the addition of the Mittelstad tract (Rapids Lake Unit) in 1995 has now increased the authorized Refuge size to approximately 14,000 acres.

Of particular note is Section 9 of the Act entitled "Continued Public Services." This section acknowledges the Refuge's urban presence and does not allow the prohibition of *vital public services*. Vital public services are defined in the Act as the continuation of commercial navigation of the Minnesota River; the construction, improvement, and

replacement of highways and bridges; or any other activity that the Secretary of Interior determines to be necessary. Consequently, several of these projects that directly affected Refuge lands have occurred since establishment. Where these projects occurred, Refuge staff have worked to minimize the impact of these projects through mitigation.

Wetland Management District Purpose

Minnesota Valley Wetland Management District was established in 1988 when the Midwest Region of the Service implemented its broad-based Partners for Wildlife program. Between 1988 and 1994, several Farmers Home Administration easements within this 14-county district were assigned to Minnesota Valley National Wildlife Refuge for management purposes. The Farmers Home Administration easements were obtained by the Service through the Consolidated Farm and Rural Development Act 7 (U.S.C. 2002) for “conservation purposes....” In addition, numerous quality wetlands were restored on private lands as part of this effort. The first waterfowl production area, Soberg WPA, was purchased in 1994. Since 1988, over 5,000 acres of fee and easement lands have been acquired as part of the District.

The Wetlands Loan Act of 1961 initiated the Small Wetlands Acquisition Program in Minnesota. Lands are acquired under the authority of the Migratory Bird Hunting and Conservation Stamp Act, and since 1958, under Public Law 85-585 as “Waterfowl Production Areas”. The purpose of lands acquired under the Migratory Bird Hunting Conservation Stamp Act is “...as Waterfowl Production Areas” subject to “...all the provisions of such act (the Migratory Bird Conservation Act of 1929, 16 U.S.C. 715d) ...except the inviolate sanctuary provisions...,” and “...for any other management purpose, for migratory birds.”

The primary purpose of Minnesota Valley Wetland Management District, or District, is to administer a complex of wetlands, grasslands, and limited amount of forests that provide good habitat for waterfowl, grasslands nesting birds, and associated species. Secondary objectives of the District include providing wildlife-dependent recreation, wildlife interpretation, and environmental education to area citizens. In addition, the restoration of wildlife habitats on fee, easement, and private lands contributes to the restoration and protection of the Minnesota River watershed as well as the Cannon River in the Mississippi River drainage basin.

Refuge and District Vision

The Refuge and the District will add richness to the social, cultural, economic, and ecological communities by holding in public trust, a portion of the natural heritage of the Minnesota River Basin and the Cannon River Watershed for the continuing benefit of the American people. Within its area of influence, the Refuge and District will make significant contributions toward:

- Establishing an unbroken corridor of floodplain and hillside forest, wetlands, oak savanna, and native prairie along the Minnesota River beginning at historic Fort Snelling and proceeding up river to its origin at Big Stone Lake;

- Managing diverse and abundant native fish and wildlife populations that use healthy and productive native plant communities of the Minnesota River and its watershed plus the Cannon River and its watershed;
- Providing Minnesota citizens the opportunity to revitalize their spirits through quality wildlife-dependent recreation such as hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation;
- Supporting a community-based effort where citizens, businesses, private conservation organizations, and local, state, and federal agencies combine their efforts to restore and protect the Minnesota and Cannon rivers and their watersheds for future generations.

Purpose and Need for Plan

This Comprehensive Conservation Plan (CCP) articulates the management direction for the Refuge and the District for the next 15 years. Through the development of goals, objectives, and strategies, this CCP describes how the Refuge and District also contribute to the overall mission of the National Wildlife Refuge System. Several legislative mandates within the National Wildlife Refuge System Improvement Act of 1997 have guided the development of this plan. These mandates include:

- Wildlife has first priority in the management of refuges.
- Wildlife-dependent recreation activities, namely hunting, fishing, wildlife observation, wildlife photography, environmental education and interpretation are priority public uses of refuges. We will facilitate these activities when they do not interfere with our ability to fulfill the Refuge’s purpose or the mission of the Refuge System.
- Other uses of the Refuge will only be allowed when determined appropriate and compatible with Refuge purposes and mission of the Refuge System.

The plan will guide the management of Minnesota Valley National Wildlife Refuge and the Minnesota Valley Wetland Management District by:

- Providing a clear statement of direction for the future management of the Refuge and the District.
- Making a strong connection between Refuge activities and those activities that occur off-Refuge in the District.
- Providing Refuge and District neighbors, users, and the general public with an understanding of the Service’s land acquisition and management actions on and around the Refuge.
- Ensuring the Refuge and District management actions and programs are consistent with the mandates of the National Wildlife Refuge System.
- Ensuring that Refuge and District management is consistent with federal, state, and county plans.
- Establishing long-term continuity in Refuge and District management.

- Providing a basis for the development of budget requests on the Refuge's and District's operational, maintenance, and capital improvement needs.

In addition to the above, this CCP will identify specific projects that will mitigate impacts upon the Refuge from the construction and operation of runway 17/35 being built by the Minneapolis-St. Paul International Airport. This issue will be discussed in greater detail in Chapter 4 and Appendix L of the CCP.

Friends of the Minnesota Valley

Minnesota Valley National Wildlife Refuge owes its existence to a group of citizens who were concerned about protecting the important fish, wildlife, and plant resources of the Lower Minnesota River Valley in the early 1970s. Through hard work and determination, they enlisted the support of more than 40 private groups and many citizens for conserving these important resources through the establishment of a national wildlife refuge. Subsequent to their efforts, Minnesota Senator Walter Mondale introduced a bill to establish the Refuge on July 11, 1975. On October 8, 1976, Congress passed the Minnesota Valley National Wildlife Refuge Act.



File Photograph

The Friends of the Minnesota Valley incorporated as a non-profit organization on June 21, 1982. Its mission is to support conservation and management of the natural and cultural resources of the Lower Minnesota River Watershed, and to promote environmental awareness. The organization has a membership of approximately 500 and is governed by a Board of Directors. Since 1982, The Friends of the Minnesota Valley has been very supportive of Refuge acquisition and development and due to its efforts, the Refuge has been able to acquire nearly 11,500 acres and to complete its visitor and wildlife interpretive center in 1990.

In 1991, the Friends employed part-time staff to begin implementing the Heritage Registry program. This program is designed to encourage Refuge neighbors and other private landowners in the Minnesota River Valley to adopt land management practices that benefit fish, wildlife and plant communities. The Friends of the Minnesota Valley has enrolled more than 125 private landowners in this program, including several corporations.

Due to very similar goals and objectives, the Friends of the Minnesota Valley merged with the Minnesota Valley Interpretive Association (MVIA) in 1998. Up until that time, MVIA was a cooperating association and was largely responsible for administering the Blufftop Bookshop, which is located in the Refuge visitor center. The Friends currently serves as the cooperating association for this sales outlet. The Friends of the Minnesota Valley employs full-time staff who are responsible for a variety of programs beyond the Heritage Registry. Of particular note is the Leadership in Stewardship campaign, which seeks to promote a healthy Lower Minnesota River Valley through an informed and involved citizenry.

History and Establishment

The Lower Minnesota River Valley was long recognized as an important natural resource. Individuals as well as local, regional, state, and federal agencies supported specific legislation to protect and enhance the natural, recreational, and cultural resources of the valley. A major milestone of their efforts was the passage of the Minnesota Valley National Wildlife Refuge Act of 1976 (PL 94-466). This Act established the original 9,500-acre Refuge, which was later expanded to 14,000 acres, and acknowledged an adjacent 8,000-acre wildlife recreation area. In addition, the Act acknowledged that the Minnesota Valley State Trail would provide an integral link between the Refuge and wildlife recreation area along the lower 36 miles of the Minnesota River.

Among other items, the Act called for the completion of a comprehensive plan for the Minnesota Valley National Wildlife Refuge, Recreation Area and State Trail. This plan was completed in 1984 as a cooperative effort between the MnDNR and the Service. Since its completion, this plan has provided guidance for the acquisition and management of Minnesota Valley National Wildlife Refuge as well as the management and development of the State Trail and Recreation Area.

The Round Lake Unit of Minnesota Valley National Wildlife Refuge was transferred as U.S. Army surplus property to the U.S. Fish and Wildlife Service in October, 1973. This 152-acre tract was administered by Sherburne National Wildlife Refuge until 1979, when management was assumed by Minnesota Valley.

The first portion of the Savage Fen Unit (26 acres) was added to the Refuge in 1987. It came about as a settlement between the U.S. Army Corps of Engineers (COE) and Fabcon, Inc., which had filled a portion of the wetland. Other lands have since been added to this unit either through donations or actions initiated by the COE. The Service first accepted management of these lands with the understanding that MnDNR would consider them for exchange for habitats more closely aligned with the mission of the Refuge.



Photograph by Scott Sharkey

The 114-acre Soberg Waterfowl Production Area, which is located in Scott and Dakota counties, was purchased in 1994 and became the first Waterfowl Production Area to be administered by the District. Since that time, 23 Waterfowl Production Areas totaling 4,105 acres have been acquired within the 14-county District. In addition, more than 1,000 acres of wetland conservation easements have been acquired. The Refuge also administers several conservation easements obtained from the Farmers Home Administration.

Lands Managed Under Leases or Agreements

The 1,400-acre Black Dog Lake Unit stretches along the south bank of the river from Interstate Highway 35 on the west and Highway 77 on the east. In 1982, the Service entered into a 50-year lease with Northern States Power to manage the area as part of the Refuge. A portion of the Black Dog Preserve is managed as a Scientific and Natural Area, a program run by the Minnesota Department of Natural Resources that preserves

certain lands for their unique habitats. In 1997, the Service entered into a Memorandum of Understanding with the City of Bloomington to manage the 735-acre Bloomington Bluffs Open space. The Agreement calls for the area to be kept in a natural state while still allowing for recreational use by the public. In addition, several small parcels of land adjacent to the west side of the Rapids Lake Unit are managed under a Memorandum of Agreement with the State of Minnesota.

Legal Context

In addition to the Refuge's establishing legislation and the National Wildlife Refuge System Improvement Act of 1997, several Federal laws, executive orders, and regulations govern administration of the Refuge. Appendix F contains a partial list of the legal mandates that guided the preparation of this plan and those that pertain to Refuge management activities.