

Chapter 1: Introduction and Background

Introduction

The wild land that today is the Seney National Wildlife Refuge (Seney NWR) has not always appeared so wild. This is a land that was once heavily logged, burned, ditched, drained, and cultivated. Despite repeated attempts, the soils and harsh conditions of this country would not provide a hospitable environment for sustained settlement and agriculture. So, nature claimed it once again. What was viewed as a loss by early 20th century entrepreneurs became a huge gain for the wildlife, natural resources, and the people of Michigan's Upper Peninsula.

Seney NWR is located in the east-central portion of Michigan's Upper Peninsula, halfway between Lake Superior and Lake Michigan (Figure 1). The Refuge encompasses 95,238 acres; the Seney Wilderness Area, which contains the Strangmoor Bog National Natural Landmark, comprises 25,150 acres, or 26 percent of the Refuge. Located in north-eastern Schoolcraft County, the Refuge is removed from major population centers; the three nearest major communities are each more than 80 miles away.

The U.S. Fish and Wildlife Service

Seney NWR is administered by the U.S. Fish and Wildlife Service (Service). The Service is the primary federal agency responsible for conserving, protecting, and enhancing the nation's fish and wildlife populations and their habitats. It oversees the enforcement of federal wildlife laws, management and protection of migratory bird populations, restoration of nationally significant fisheries, administra-



Seney NWR in winter. USFWS photo.

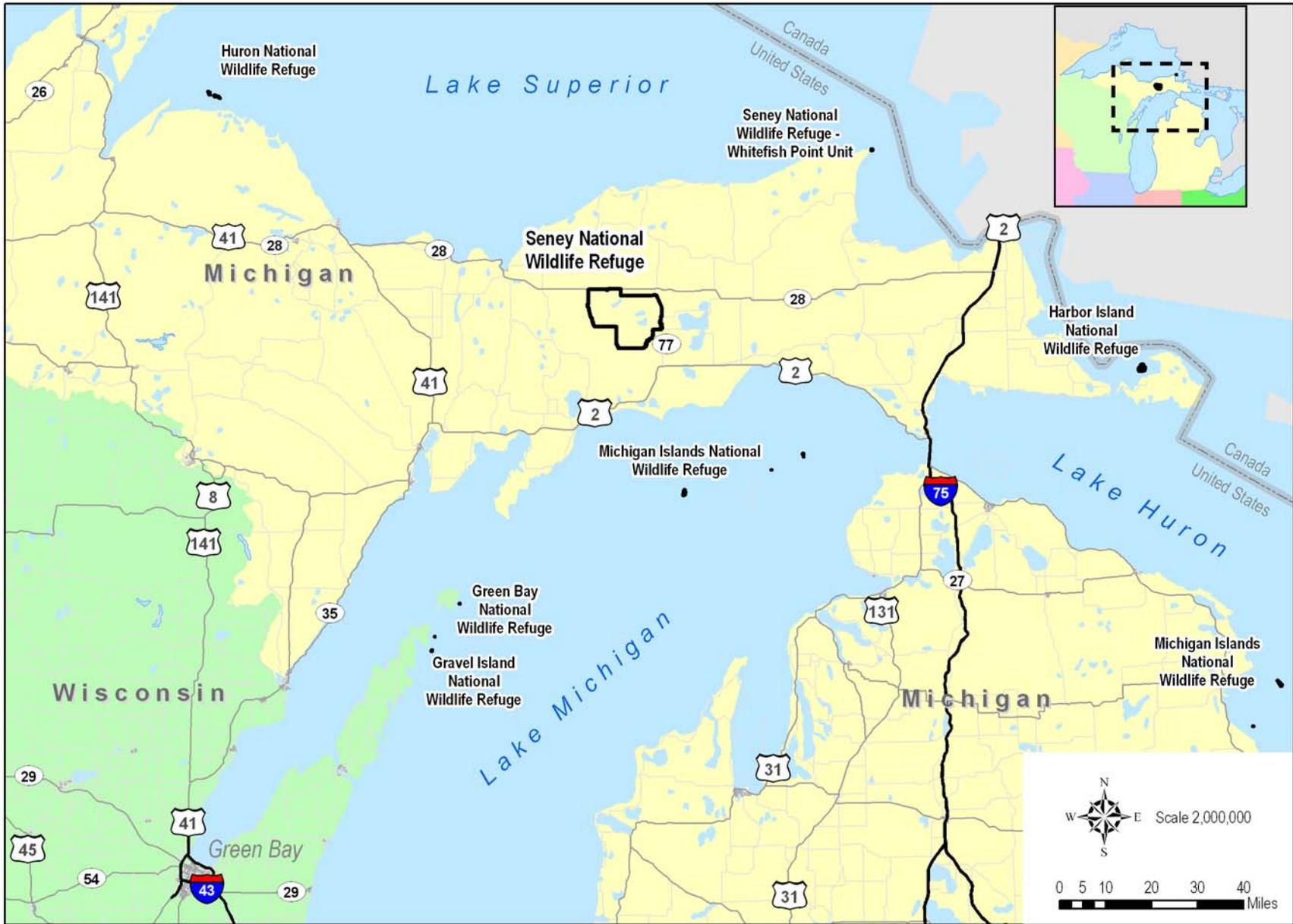
tion of the Endangered Species Act, and the restoration of wildlife habitat. The Service also manages the National Wildlife Refuge System.

The National Wildlife Refuge System

Refuge 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 550 refuges and wetland management districts covering more than 150 million acres of public lands and waters.

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, amphibians, reptiles, and insects. As a result of international treaties for migratory bird conservation and other legislation, such as the Migratory

Figure 1: Location of Seney NWR, Upper Peninsula, Michigan



Bird Conservation Act of 1929, many refuges have been established to protect migratory waterfowl and their migratory flyways.

Refuges also play a crucial role in preserving endangered and threatened species. Among the most notable is Aransas NWR in Texas, which provides winter habitat for the highly endangered Whooping Crane. Likewise, the Florida Panther NWR protects one of the nation's most endangered predators. Refuges also provide unique recreational and educational opportunities for people. When human activities are 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, nearly 35 million people visited national wildlife refuges in 2006.

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 (CCPs) 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.

The goals of the National Wildlife Refuge System are to:

- Conserve a diversity of fish, wildlife, and plants and their habitats, including species that are endangered or threatened with becoming endangered.
- Develop and maintain a network of habitats for migratory birds, anadromous and inter-jurisdictional fish, and marine mammal populations that is strategically distributed and carefully managed to meet important life history needs of these species across their ranges.
- Conserve those ecosystems, plant communities, wetlands of national or international significance, and landscapes and seascapes that

are unique, rare, declining, or underrepresented in existing protection efforts.

- Provide and enhance opportunities to participate in compatible wildlife-dependent recreation (hunting, fishing, wildlife observation and photography, and environmental education and interpretation).
- Foster understanding and instill appreciation of the diversity and interconnectedness of fish, wildlife, and plants and their habitats.

Michigan's Eastern Upper Peninsula Ecoregion

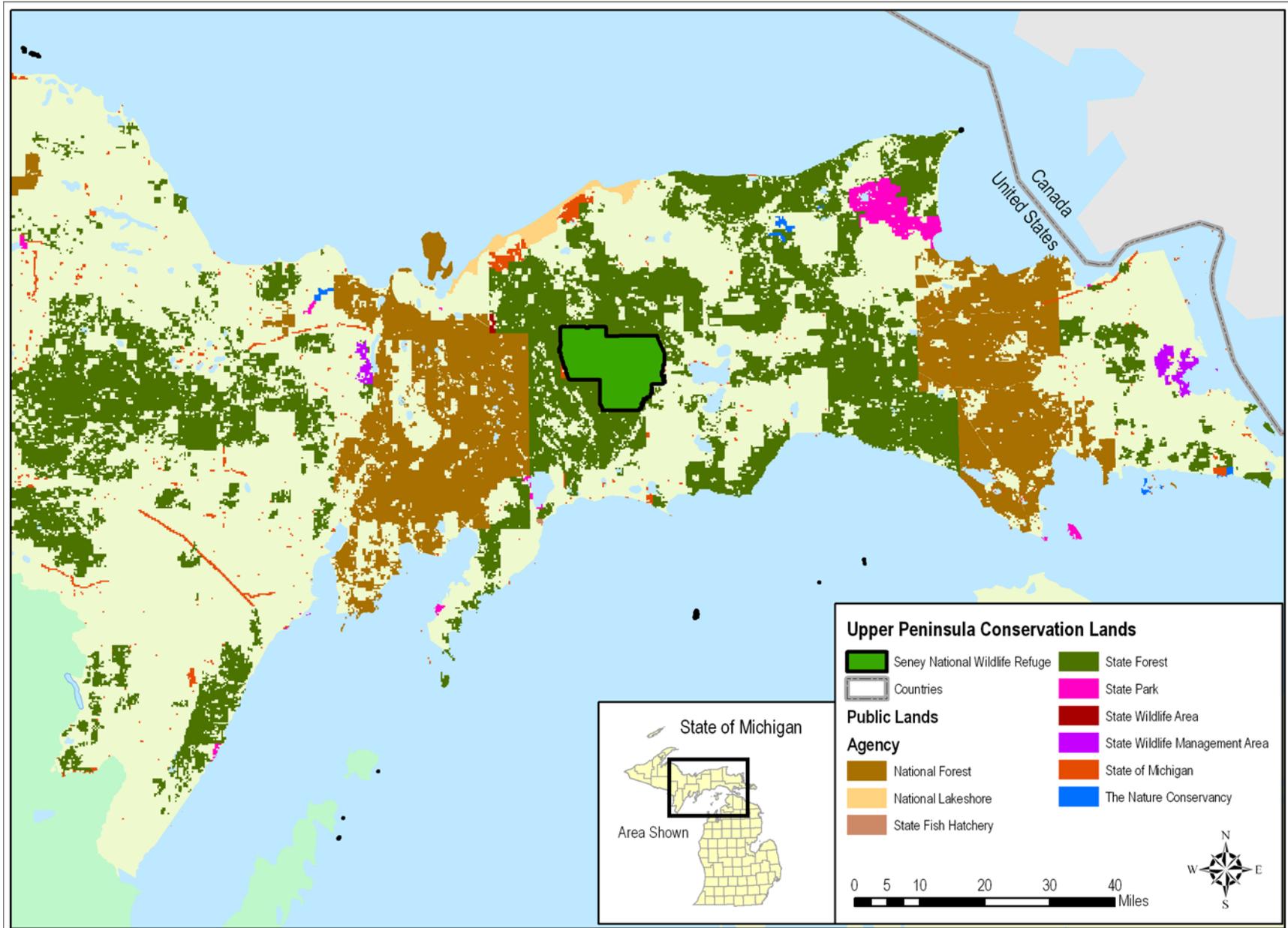
The Eastern Upper Peninsula Ecoregion can be described as having relatively flat topography, with large expanses of open peatlands, forested lowland swamps and extensive upland forests. Today, the majority of the landscape is still forested, except for some agricultural or pastoral lands occurring on ground moraines and the Clay Lake Plain in the easternmost part of the ecoregion.

The ecoregion covers 17,114 square miles, including all of Chippewa, Mackinac, Luce, Schoolcraft, Delta and Alger Counties, and portions of Menominee, Dickinson and Marquette Counties. Landcover consists primarily of forest (67 percent), wetlands (20 percent), with scattered agricultural (4 percent) and urban (2 percent) areas. The remaining 7 percent landcover consists of open grasslands, sparsely vegetated areas, beaches and rock areas. The extensive forests of the region are managed as either national or state forest, with large areas of private and/or corporate forestland (Figure 2).

Ecologically significant communities within the ecoregion include alvar, a globally rare grassland plant community growing on thin soils over limestone or dolomite. Other state and globally significant communities include patterned fens, Great Lakes marsh, wooded dune and swale complex, caves of karst origin and cobble beaches.

One of the greatest threats in this region is invasive species, which includes both the spread of established species and introduction of new species (MDNR 2005). Slightly less severe threats include non-consumptive recreation, land subdivision and

Figure 2: Conservation Lands of the Eastern Upper Peninsula, Michigan



development, and some forestry practices. Altered hydrologic regimes and altered fire regimes have also been identified as growing resource threats.

Seney National Wildlife Refuge

Seney NWR was established in 1935 by Executive Order under the Migratory Bird Conservation Act for the protection and production of migratory birds and other wildlife. The Refuge encompasses approximately 95,238 acres; 25,150 acres comprise the Seney Wilderness Area in which is contained the Strangmoor Bog National Natural Landmark. While management for migratory birds is paramount, the Refuge provides habitat for a diversity of wildlife species, both migratory and non-migratory. Approximately 20 species of reptiles and amphibians, 48 species of mammals, 26 species of fish, and over 200 species of birds have been documented on the Refuge. Many of these species are Conservation Priorities for the Midwest Region of the Service.

Refuge Purposes

Seney NWR was established in 1935...

“... as a refuge and breeding ground for migratory birds and other wildlife: ...” Executive Order 7246, dated Dec. 10, 1935

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

“... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans...” 16 U.S.C. § 668dd(a)(2) (National Wildlife Refuge System Administration Act)

Refuge Vision

The planning team considered the past vision statements and emerging issues and drafted the following vision statements as the desired future state for the Refuge:

Seney National Wildlife Refuge will continue to be a place of excitement and wonder where wildlife comes first. It will be a place where management decisions are made in the best interest of wildlife and their habitats, and people are encouraged to explore and learn about the natural world.

The Refuge’s rich mosaic of habitats and ecosystems will be viewed as part of the greater eastern Upper Peninsula of Michigan ecoregion. Priority will be given to managing for those species, habitats, and ecosystems of regional concern that are best suited to Seney’s unique environment. Management will maintain Refuge-level biological diversity while preserving ecological integrity. Habitats will be managed for an array of ecological conditions, including the preservation of Wilderness character. When and where appropriate, an emphasis will be placed on preserving or restoring historic habitat conditions and ecosystem functions.

As part of a holistic approach to natural resource stewardship, people will be welcomed to use the Refuge to learn about the natural world. The public will be invited to participate in wildlife-dependent experiences that are in concert with the relatively undeveloped nature of the Refuge. Students and researchers will be encouraged to use the Refuge as an outdoor laboratory for biological and ecological research that focuses on understanding natural patterns and processes and developing habitat management techniques.

Seney NWR will continue to be a source of pride for the staff, those who visit, and the local community. It will showcase biological and ecological diversity, habitat management, and wildlife-dependent public use. It will add to the richness of the broader community by holding in trust a portion of the natural heritage of the eastern Upper Peninsula of Michigan for the continuing benefit of the American people.

Purpose and Need for Plan

This CCP articulates the management direction for Seney NWR for the next 15 years. Through the development of goals, objectives, and strategies, this CCP describes how the Refuge also contributes 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 refuges will only be allowed when determined appropriate and compatible with refuge purposes and mission of the refuge system.

This CCP will guide the management of Seney NWR by:

- Providing a clear statement of direction for the future management of the Refuge.
- Making a strong connection between Refuge activities and conservation activities that occur in the surrounding area.



Trumpeter Swans. USFWS photo.

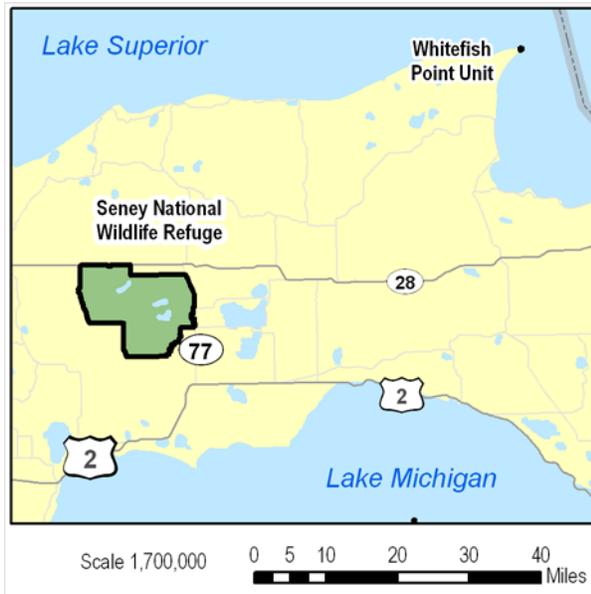
- Providing Refuge neighbors, users, and the general public with an understanding of the Service's land acquisition and management actions on and around the refuge.
- Ensuring that Refuge actions and programs are consistent with the mandates of the National Wildlife Refuge System.
- Ensuring that Refuge management considers federal, state, and county plans.
- Establishing long-term continuity in Refuge management.
- Providing a basis for the development of budget requests on the Refuge's operational, maintenance, and capital improvement needs.

History of Refuge Establishment and Management

Before its establishment, the forests and soils of the Seney NWR area and surrounding Schoolcraft County were exploited to a considerable degree starting in the late 1800s. Early timber cutting favored the best stands of white pine, followed by "high-grading" in the red pine and hardwood-eastern hemlock stands. Slash fires fueled by logging debris occurred annually, with most areas burning time and time again. These fires burned deep into the rich organic soil, damaging its quality and killing the seeds that would have produced a new forest. On many areas of the Refuge, the scars from these lumbering operations remain visible to this day.

As the amount of sawtimber diminished, efforts were shifted to cutting of poles, posts, ties and pulp. At this time, an attempt was made to settle cut-over lands and develop farming communities. By 1912, drainage of the Seney Swamp was underway. A land development company dug many miles of drainage ditches throughout the Seney area. This drained acreage was then sold using extravagant promises of agricultural productivity. The new owners quickly learned that these promises were unfounded. The farms were abandoned one-by-one, and the exploited lands reverted to state ownership.

Figure 3: Location of Whitefish Point Unit, Seney NWR



Poor drainage of peat soils, poor soil fertility, and the short growing season made the farming venture a disaster and most lands were tax-reverted to the State of Michigan by the early 1930s. In 1934, the Michigan Conservation Department recommended to the Federal Government that the Seney area be protected for wildlife. Seney NWR was then established in 1935 by Executive Order under the Migratory Bird Conservation Act for the protection and production of migratory birds and other wildlife.

Physical development of the Refuge land began soon after establishment. With the aid of the Civilian Conservation Corps, an intricate system of dikes, water control structures, ditches, and roads was built. Most of these are still in use today.

Whitefish Point Unit

Under the Coast Guard Authorization Act of 1996, the USFWS received 33 acres of the former Coast Guard Station at Whitefish Point, in Chippewa County. The remaining 11 acres were split between the Great Lakes Shipwreck Historical Society (GLSHS), which received 8.3 acres and the Michigan Audubon Society (MAS), which received 2.8 acres.

The USFWS property is administered as part of Seney NWR and managed as a stop-over location for migratory birds (Figure 3). Currently there are no permanent buildings or designated trails on the property and the USFWS does not administer any programs on site. However, MAS conducts migratory bird research and provides natural resource programs at the Whitefish Point Bird Observatory, which is adjacent to the Refuge's property. Parking and restroom facilities are provided by the GLSHS, which administers the former Coast Guard buildings, including the lighthouse, and interprets the maritime significance of Whitefish Point.

Management of USFWS property at Whitefish Point is governed by the "Human Use/ Natural Resource Management Plan for Whitefish Point" (Michigan Land Use Institute 2002), which is the result of a 2002 U.S. District Court settlement that binds the Service to the provisions of the plan. This document provides a good historical background and explains the roles and responsibilities of each partner in managing the former Coast Guard Property. The CCP reader should refer to that plan (<http://www.fws.gov/midwest/planning/seney>) for more detailed information.

The primary natural features of Whitefish Point are the gravel beaches, sandy beach dunes and stunted jack pine-dominated forest. Soils consist of excessively drained Deer Park soil on ridges and side slopes, while poorly drained Kinross soil is found in depressions and swales. In addition to the abundant jack pine, other tree species include northern white cedar, Eastern white pine, white spruce, black spruce, paper birch, tag alder, and trembling aspen. Many of the jack pines are stunted at an average height of 8 to 10 feet. Some taller specimens of jack pine, white pine, and birch compose the overstory in the forested areas. Tag alder and scrub conifers, such as juniper, are associated with marsh areas. Dunes are dominated primarily by American beachgrass.

Some of the species and plant communities that particularly attract attention are lady-slippers, star-flower, bunchberry, and others that can be found on dry, sandy areas and purple bog-laurel and white Labrador-tea, which grow in interdunal swales.

Another important habitat on Whitefish Point described by the Michigan Natural Features Inventory is the "Wooded Dune and Swale Complex," a "distinctive natural community composed of upland

and wetland features.” This complex only forms under the conditions that exist in the Great Lakes region, and thus cannot be found elsewhere. The varied topography of the complex itself, along with the unique geologic conditions that formed the dune-swale, supports a diversity of species.

Whitefish Point is renowned for its concentrations of birds during migration. Each year thousands of raptors, passerines and waterbirds funnel up the point to cross Lake Superior. They are followed by hundreds of birders. The Whitefish Point Bird Observatory was established by the Michigan Audubon Society in 1997 to document and study migratory birds and their habitats in the Great Lakes. Every year they count and band birds during both the spring and fall migrations. Their data has led to Whitefish Point being recognized as a Globally Important Bird Area. The bird list for Whitefish Point includes 273 species (Appendix C). On April 30, 2001 the USFWS finalized its designation of Critical Habitat for the Piping Plover. All of the property at Whitefish Point was included in that designation.

Legal Context

In addition to the Executive Order establishing the Refuge, and the National Wildlife Refuge System Improvement Act of 1997, several federal laws, executive orders, and regulations govern administration of Seney NWR. Appendix F contains a partial list of the legal mandates that guided the preparation of this plan and those that pertain to Refuge management.