

# Chapter 1: Introduction and Background

In this chapter:

[Introduction](#)  
[The U.S. Fish and Wildlife Service](#)  
[The National Wildlife Refuge System](#)  
[Refuge Purpose](#)  
[Refuge Vision](#)  
[Purpose and Need for Plan](#)  
[History of Refuge Establishment](#)  
[Legal Context](#)

Throughout this document, five national wildlife refuges (NWRs, refuges) are discussed individually—such as the Gravel Island NWR or the Green Bay NWR. This document also discusses all five NWRs collectively as one entity and when doing so, refers to the group as the “Great Lakes islands refuges” or “Great Lakes islands NWRs.”

## Introduction

The Great Lakes of North America contain one-fifth of the world's fresh surface water or 95 percent of water in the United States. Only the polar ice caps and Lake Baikal in Siberia contain more fresh water. The surfaces of these water bodies encompass more than 94,000 square miles, and the coastline stretches along 10,900 miles. The Great Lakes shoreline is equal to almost 44 percent of the circumference of the earth. These figures are impressive and well known to many who live in the surrounding states and provinces. Of lesser renown are the 35,000 islands that dot the lakes and serve as a terrestrial base or “hubs” for aquatic ecosystems of the Great Lakes.

For many, the thought of islands can evoke a sense of mystery, isolation, history, and wildness, or they can provide dreams of an exotic, private hideaway from a fast-paced world. Islands are a place of sanctuary and protection from the harsh elements of the open water. Islands also serve as a refuge for rare plants and animals, protected by miles of water from predators, diseases, and urban development. That is why both people and wildlife are attracted to these island havens.



*View from Plum Island Lighthouse, Green Bay NWR*

The Great Lakes islands have unique landforms, plants and animal assemblages, and cultural history. They are living laboratories of natural selection. The Great Lakes islands contain globally-rare conservation targets, such as alvar plant communities—found only in Scandinavia and the Great Lakes ecosystem—and they provide breeding habitat for endangered species, such as the Great Lakes Piping Plover and the Lake Erie water snake. Many Great Lakes islands offer important breeding and stopover

sites for migratory birds, and they provide climatic buffers and other special protection for fish nurseries.

The Great Lakes islands we will examine in this Comprehensive Conservation Plan (CCP) are part of the National Wildlife Refuge System (NWRS, Refuge System) in Lake Huron, Lake Michigan, and Lake Superior. The CCP will include Gravel Island, Green Bay, Harbor Island, Huron, and Michigan Islands NWRs (figures 1-1 through 1-3, table 1-1).

The CCP will set wildlife, habitat, and public use priorities and guide management decisions on these refuges for the next 15 years. All aspects of the island refuges will be addressed by the CCP, including important fish and wildlife habitats, public use, and current management activities. By law, six wildlife-dependent recreational uses receive a priority on national wildlife refuges: fishing, hunting, wildlife observation and photography, and environmental education and interpretation.

**Table 1-1: Great Lakes Islands**

State/Lake	Refuge Name	Responsible Office	Island Name	Acreage
Wisconsin/Lake Michigan	Green Bay NWR	Horicon NWR	Hog Island	2
Wisconsin/Lake Michigan	Green Bay NWR	Horicon NWR	Plum Island	325
Wisconsin/Lake Michigan	Green Bay NWR	Horicon NWR	Pilot Island	3
	Green Bay NWR (3 islands) Total Acreage			330
Wisconsin/Lake Michigan	Gravel Island NWR	Horicon NWR	Gravel Island	1.2
Wisconsin/Lake Michigan	Gravel Island NWR	Horicon NWR	Spider Island	17.7
	Gravel Island (2 islands) Total Acreage			18.9
Michigan/Lake Superior	Huron NWR	Seney NWR	Lighthouse Island (aka West Huron Island)	44.1
Michigan/Lake Superior	Huron NWR	Seney NWR	Unnamed Island near Lighthouse Island	0.4
Michigan/Lake Superior	Huron NWR	Seney NWR	Cattle Island	8.5
Michigan/Lake Superior	Huron NWR	Seney NWR	McIntyre Island	81
Michigan/Lake Superior	Huron NWR	Seney NWR	Gull Island	8.9
Michigan/Lake Superior	Huron NWR	Seney NWR	Unnamed Island near Gull Island	0.9
Michigan/Lake Superior	Huron NWR	Seney NWR	Unnamed Island near Gull Island	2.3
Michigan/Lake Superior	Huron NWR	Seney NWR	Unnamed Island near Gull Island	0.9
	Huron NWR (8 islands) Total Acreage			147.07
Michigan/Lake Huron	Harbor Island NWR (1 island)	Seney NWR	Harbor Island	695
Michigan/Lake Huron	Michigan Islands NWR	Shiawassee NWR	Thunder Bay Island	195.09
Michigan/Lake Huron	Michigan Islands NWR	Shiawassee NWR	Sugar Island	144
Michigan/Lake Huron	Michigan Islands NWR	Shiawassee NWR	Scarecrow Island	4.31
Michigan/Lake Huron	Michigan Islands NWR	Shiawassee NWR	Scarecrow Island	1
Michigan/Lake Huron	Michigan Islands NWR	Shiawassee NWR	Big Charity Island	250.8
Michigan/Lake Huron	Michigan Islands NWR	Shiawassee NWR	Little Charity Island	16.99
Michigan/Lake Michigan	Michigan Islands NWR	Seney NWR	Gull Island	243.32
Michigan/Lake Michigan	Michigan Islands NWR	Seney NWR	Pismire Island	2
Michigan/Lake Michigan	Michigan Islands NWR	Seney NWR	Hat Island	16.07
Michigan/Lake Michigan	Michigan Islands NWR	Seney NWR	Shoe Island	1.32
	Michigan Islands (9 islands) Total Acreage			874.9

## The U.S. Fish and Wildlife Service

The Great Lakes islands refuges are administered by the U.S. Fish and Wildlife Service (FWS, 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, 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 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 Refuge System is a network of 556 refuges and 38 wetland management districts covering more than 150 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 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 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. 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 and photography, and environmental education and interpretation. Many refuges have visitor centers, wildlife trails, automobile tours, and environmental education programs. Nationwide, approximately 30 million people visited national wildlife refuges in 2004.

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 CCPs is one of those mandates. The legislation directs the Secretary of the Interior to ensure that the mission of the 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 Refuge System.

The goals of the 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 interjurisdictional 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.

Figure 1-1: Michigan Islands National Wildlife Refuge

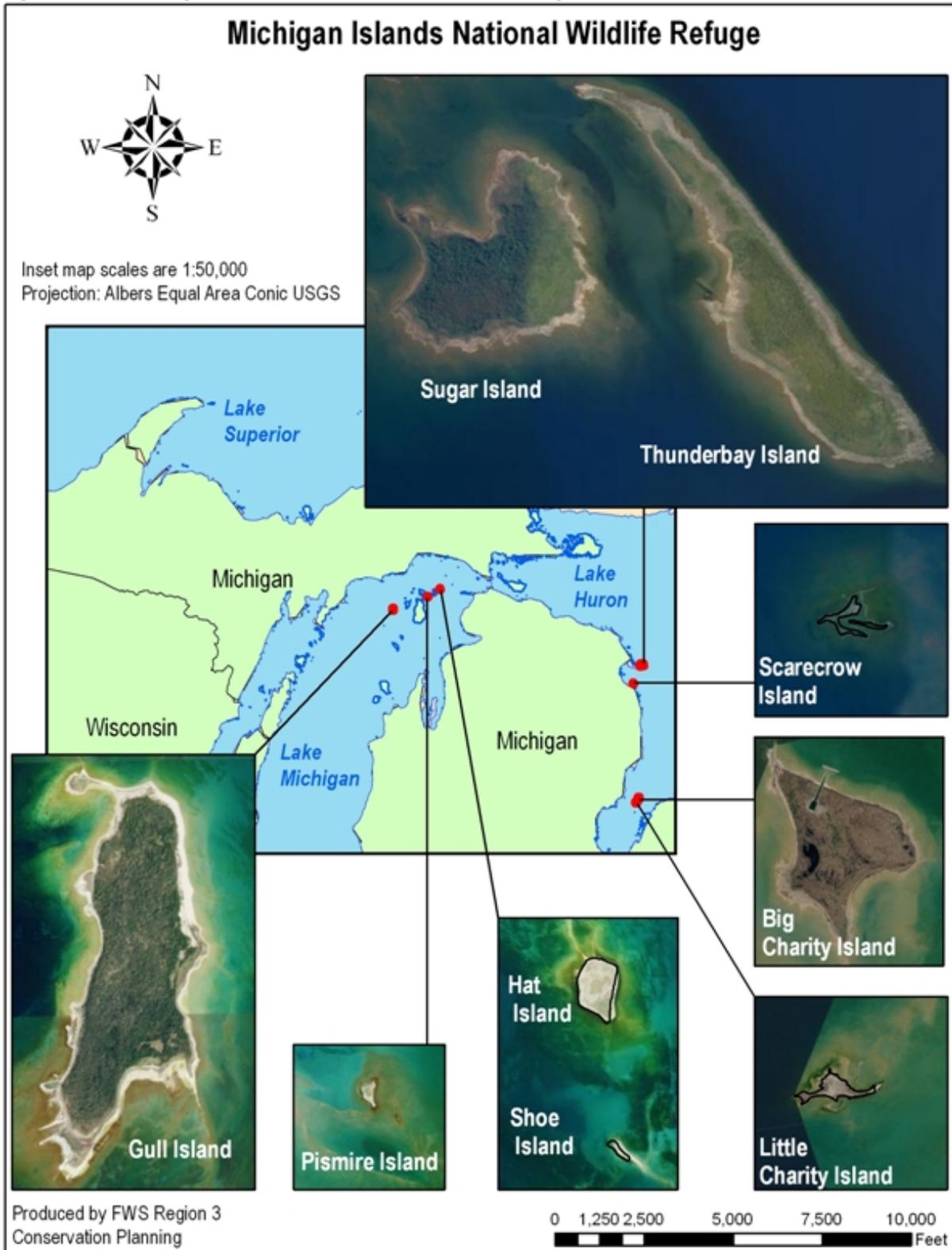


Figure 1-2: Green Bay National Wildlife Refuge

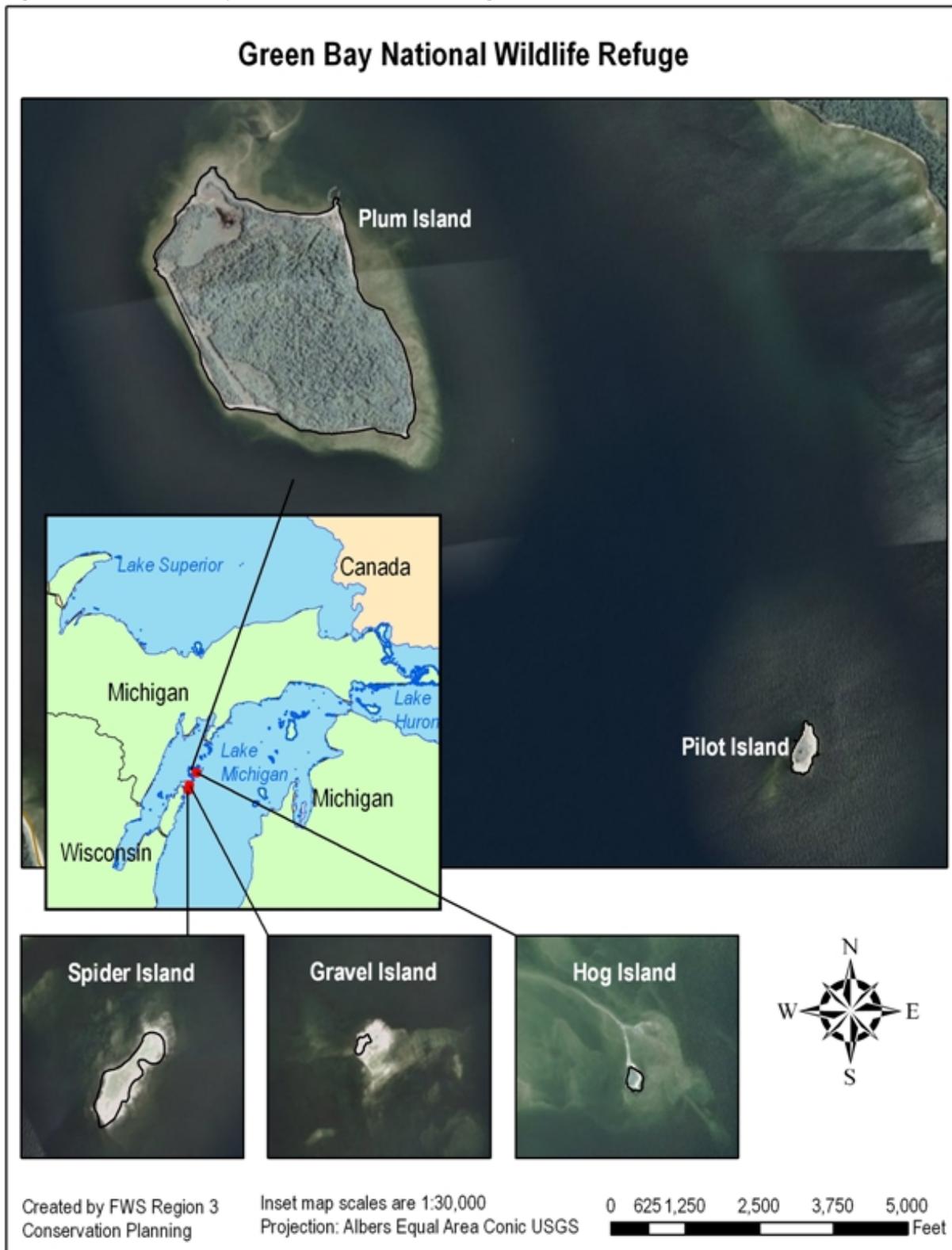
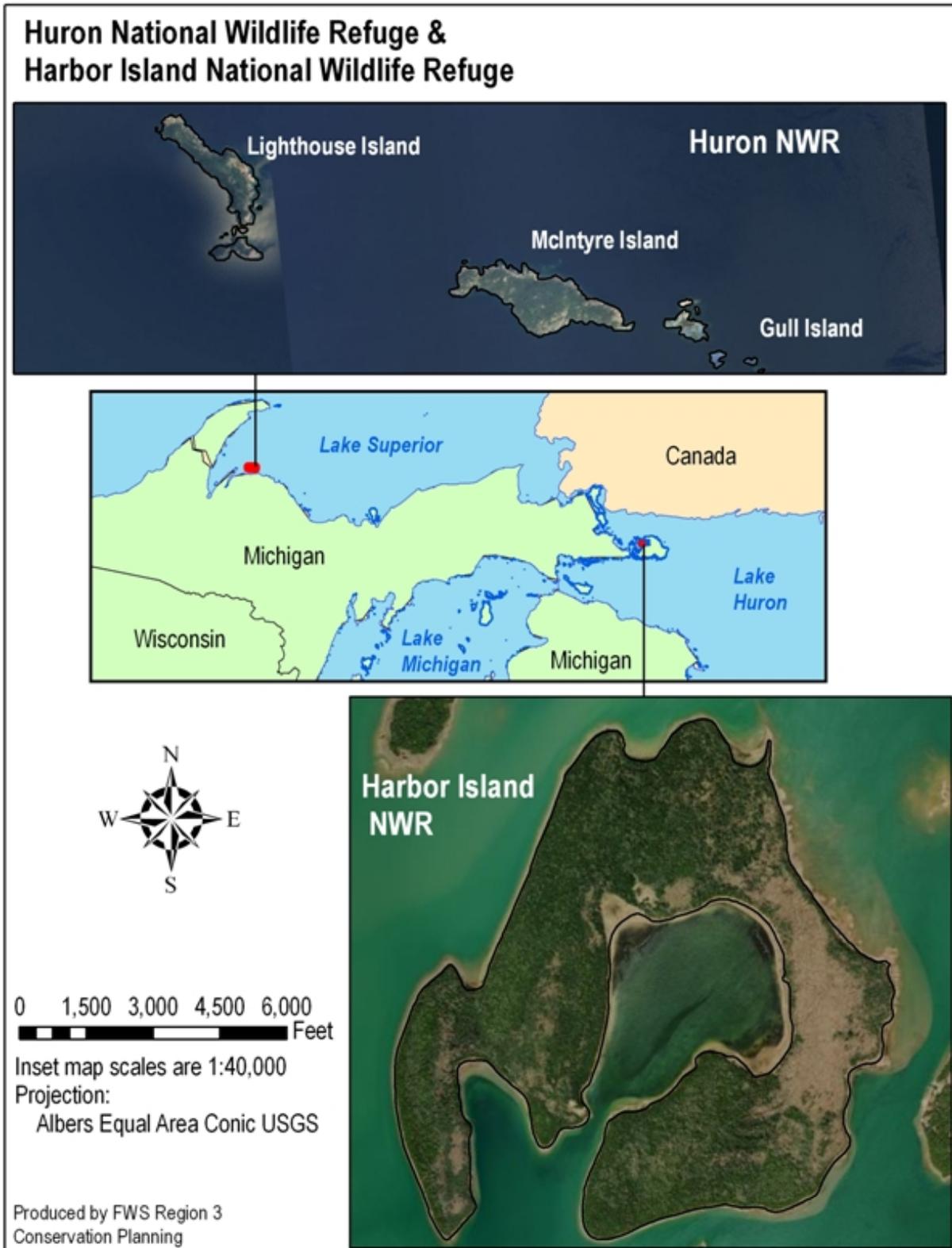


Figure1-3: Huron and Harbor Island National Wildlife Refuges



## Refuge Purpose

**Gravel Island NWR was established by Executive Order 1678, dated January 9, 1913 . . .**

“ . . . as a preserve and breeding ground for native birds.”

Public Law 91-504, October 23, 1970 designated the Gravel Island NWR as a Wilderness Area.

**Green Bay NWR was established by Executive Order 1487, February 21, 1912 . . .**

“ . . . as a preserve and breeding ground for native birds.”

Public Law 91-504, October 23, 1970 designated the Green Bay NWR as a Wilderness Area.

**Green Bay NWR, Plum and Pilot Islands Additions were established by Public Land Order 7681, dated October 17, 2007 . . .**

“ . . . to protect native and migratory bird habitat and endangered species habitat within the Great Lakes Basin ecosystem.”

**Harbor Island NWR was purchased in 1983 under authority of the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j) . . .**

“ . . . (for the) 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. n 668dd(a)(2) (National Wildlife Refuge System Administration Act)

**Huron NWR was established by Executive Order dated October 10, 1905 . . .**

" . . . as a Refuge and breeding ground for migratory birds and other wildlife . . . " 16 U.S.C. 71 5d (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. n 668dd(a)(2) (National Wildlife Refuge System Administration Act).

Public Law 91-504, October 23, 1970 designated the Huron NWR as a Wilderness Area.

**Michigan Islands NWR was established by Executive Order 265 in 1943. . .**

" . . . as a refuge and breeding ground for migratory birds and other wildlife . . . "

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

" . . . 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. n 668dd(a)(2) (National Wildlife Refuge System Administration Act)

Public Law 91-504, October 23, 1970 established Shoe, Pismire, and Scarecrow Islands as designated Wilderness Areas.

## Refuge Vision

The planning team considered the past vision statements and emerging issues and drafted the following combined vision statement of the desired future state for all of the Great Lakes islands refuges:

“Management of Great Lakes islands refuges will reflect the mission of the National Wildlife Refuge System by conserving in perpetuity a rich mosaic of island habitats and, enabling nesting and migrating birds, and other wildlife of conservation concern in the Great Lakes, to thrive here. With the help of our conservation partners, we will apply sound, scientific principles based on research and studies and adaptive management strategies to sustain the long-term health and integrity of Great Lakes habitats; expand community outreach and environmental education and interpretation programs; and, stimulate visitors to embrace stewardship of natural resources.”

## Purpose and Need for Plan

This CCP articulates the management direction for the five Great Lakes islands refuges for the next 15 years. Through the development of goals, objectives, and strategies, this CCP describes how each refuge also contributes to the overall mission of the 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 and photography, and 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 refuges 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 the Great Lakes islands refuges by:

- Providing a clear statement of direction for the future management of each refuge.
- Making a strong connection between refuge activities and conservation activities that occur in the surrounding area.
- 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 the refuge actions and programs are consistent with the mandates of the 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

### Gravel Island NWR

Gravel (4 acres) and Spider (23 acres) Islands comprise the Gravel Island NWR. These islands are located in Lake Michigan, approximately 1 mile east of the northern tip of the Door County Peninsula, Wisconsin. The islands were set aside by Executive Order 1678 in 1913 as a preserve and breeding ground for native birds.

### Green Bay NWR

Green Bay NWR consists of Hog Island (2 acres), Plum Island (325 acres), and Pilot Island (3.7 acres). The islands are located in Lake Michigan, near Washington Island, off the tip of Wisconsin's Door Peninsula. Hog Island was set aside by Executive Order 1487 in 1912 as a preserve and breeding ground for native birds. Plum and Pilot Islands were transferred from the U.S. Coast Guard (USCG) to the Service in 2007.

### Harbor Island NWR

Harbor Island (695 acres) is located one mile north of Drummond Island, MI and 3.5 miles south of the United States–Canadian (Ontario) border in Potagannissing Bay on Lake Huron. Harbor Island was purchased from The Nature Conservancy (TNC) in December 1983 as part of the Unique Ecosystem program.

### Huron NWR

Huron NWR in Lake Superior was established in 1905 by executive order of President Theodore Roosevelt and is the oldest refuge in the Great Lakes and in the Midwest Region (Region 3).

### Michigan Islands NWR

Shoe and Pismire Islands in Lake Michigan and Scarecrow Island in Lake Huron were acquired in 1943 and were the first islands that established the Michigan Islands NWR. Thunder Bay Island in Lake Huron was added in 1965 by a USCG /Service agreement.

The USCG ceded Lake Michigan's Gull Island to the Service in 1969. A sixth island was added to the refuge in 1995, when TNC transferred Hat Island in Lake Michigan to the Service. Big and Little Charity Islands in Lake Huron's Saginaw Bay were added to the refuge in 1999.

In 2000, Scarecrow and Thunder Bay Islands were designated part of the Thunder Bay National Marine Sanctuary and Underwater Preserve. The designation gives federal protection to more than 100 well-preserved shipwrecks that litter the bottom of Thunder Bay, located near Alpena, MI. Once part of a major shipping channel, this 448-square-mile sanctuary is the first national marine sanctuary in fresh water and is located in an area that was known as "Shipwreck Alley" in the 1800s.

Sugar Island, near Thunder Bay Island, was purchased by the Service in 2011.

See Chapter 3, The Environment, for more details on individual island history, natural features and current management.

## **Legal Context**

In addition to the authorizing legislation for establishing each NWR that comprises Great Lakes NWR and the National Wildlife Refuge System Improvement Act of 1997, several federal laws, executive orders, and regulations govern administration of Refuge System lands. Appendix F contains a partial list of the legal mandates that guided the preparation of this plan and those that pertain to refuge management.