



U.S. Fish & Wildlife Service

Ohio River Islands National Wildlife Refuge

Table of Contents

[1. Introduction and Background](#)

- History of Refuge Establishment, Acquisition and Management
- Purpose of and Need for Action
- Refuge Purpose
- Refuge Vision Statement
- [Legal and Policy Guidance](#)
- U.S. Fish and Wildlife Service and its Mission
- The National Wildlife Refuge System and its Mission
- Fulfilling the Promise
- North American Waterfowl Management Plan
- Partners In Flight
- Regional Wetlands Concept Plan
- Ohio River Valley Ecosystem Strategic Plan

[2. Planning Process](#)

- Planning Issues

[3. Refuge and Resource Description](#)

- [Physical Environment](#)
- Water Quality
- Topography/Soils
- Geology/Hydrology
- Air Quality
- [Biological Environment](#)
- Terrestrial Habitats
- Wetland Habitats
- Aquatic Habitats
- Fish and Wildlife
- Rare, Threatened, and Endangered Species
- [Socioeconomic Environment](#)
- History/Archaeology
- Land Use
- Recreational Use

[4. Management Direction](#)

Comprehensive Conservation Plan

INTRODUCTION AND BACKGROUND

This Comprehensive Conservation Plan (CCP) has been prepared for Ohio River Islands National Wildlife Refuge (Refuge). The CCP is a management tool to be used by the Refuge staff. It will help guide management decisions over the next 15 years, and set forth strategies for achieving Refuge goals and objectives within that timeframe. Overriding considerations reflected in the plan are that fish and wildlife conservation requires first priority in refuge management, and that wildlife-dependent recreation is allowed and encouraged as long as it is compatible with, or does not detract from, the mission of the National Wildlife Refuge System or purposes of the Refuge. This chapter discusses the following topics: a brief description of the Ohio River Islands National Wildlife Refuge and how it came into existence; the purpose of and need for the plan; the purpose and vision of the Refuge; the National Wildlife Refuge System mission, goals and guiding principles, including the legal context which guides management; and other relevant plans and partnerships that affect Refuge management.

This plan details program planning levels that are above current budget allocations and, as such, are primarily for Service strategic planning and program prioritization purposes. This plan does not constitute a secure commitment for staffing increases, or funding for future refuge-specific land acquisitions, construction projects or operational and maintenance increases.

Refuge Overview: History of Refuge Establishment, Acquisition, and Management

The Ohio River Islands National Wildlife Refuge was established in 1990 under authority of the Fish and Wildlife Act of 1956, and was the first Refuge in West Virginia. The Refuge (see Figure 1) currently consists of all or part of 21 islands and three mainland tracts in the Ohio River, encompassing 3,221 acres (Figure 2) of valuable fish and wildlife habitat within one of the nation's busiest waterways. As acquisition progresses, the Refuge may include up to 35 river islands. The acquisition focus area stretches nearly 400 river miles from Shippingport, Pennsylvania, to Maysville, Kentucky and includes four states (Pennsylvania, Ohio, West Virginia, and Kentucky).

In addition to the islands, one hundred embayments and wetlands adjacent to the mainland are within the approved boundary for the Refuge. These areas provide excellent fish and wildlife habitat and would be a valuable addition to the Refuge. Thus, the Refuge could potentially add over 8,000 acres of islands, wetlands, back channels and underwater habitat. The plans for additional land protection will be addressed in a future Land Protection Plan (LPP).

There are a total of 40 islands remaining in the Upper Ohio River. Twenty-one

- [Refuge Management Direction: Goals and Objectives](#)

Goal 1 (Habitat)

Goal 2 (Biological Monitoring)

Goal 3 (Priority Public Uses)

Goal 4 (Raise Public Awareness)

Goal 5 (Staff and Facilities)

- Alternatives Considered, but eliminated from detailed study
- Summary of Management Actions and Strategies (Figure 4)
- Summary of Potential Impacts (Figure 5)

[5. Implementation and Monitoring](#)

- Background
- Step-Down Management Plans
- Proposed Staffing Chart (Figure 6)
- Compatibility Determinations
- Plan Performance
- Partnership Opportunities
- Monitoring and Evaluation

Appendices

- Appendix A: Maps
- [Appendix B: Archeological Report of the Ohio River Valley](#)
- [Appendix C: References and Literature Cited](#)
- Appendix D: Species List
- Appendix E: Intra-Service Section 7 Coordination
- [Appendix F: Federal Laws and Mandates](#)
- [Appendix G: RONS and MMS Project Lists](#)
- [Appendix H: Glossary of Terms](#)
- [Appendix I: Responses to Comments and FONSI](#)
- Appendix J: Index

[Contact the planning team or comment on this document](#)

[Return to Planning, Region 5](#)

are part of the Refuge at the present time. These island habitats contain near natural assemblages of plants and animals that are endemic to the river. The distribution of bottomland and riparian habitats, and deep and shallow water aquatic habitats, make these areas extremely beneficial to fish and wildlife species. A huge diversity of species (waterfowl, shore and wading birds, neotropical migratory land birds, furbearers, fish and benthic organisms, including freshwater mussels) find these areas invaluable for resting, feeding, nesting, spawning, and other necessary life functions. The deep and shallow water habitats associated with the islands are major fish and mussel production areas of the Ohio River. The often undisturbed island shorelines, especially the heads and backchannels, are favored sport fishing areas.

Over 200 bird species (76 of which breed there), 42 mollusk species, 15 species of reptiles and amphibians, 101 species of fish, 25 mammals, and 500 species of plants have been identified so far within the Refuge.

The shallow waters of the river provide quality habitat for freshwater mussels, including at least two federally endangered species, the pink mucket and fanshell. Bald eagles, peregrine falcons and Indiana bats also use the Refuge habitats. In addition, many species of plants and animals considered endangered, rare, or of special interest in the four states occur on the Refuge.

The Ohio River is rich in history, and many areas of historical and cultural significance are located on or adjacent to the islands. Some notable examples include early explorers' accounts of Native Americans and their culture, George Washington's survey expeditions, the use of the river as a major transportation route by early settlers and pioneers heading west, battles fought during the Civil War, and finally, use for navigation and industry.

Parcel Name	Land	Underwater	Total
<i>Phillis Island</i>	39	--	39
<i>Georgetown Island</i>	16.2	--	16.2
<i>Wheeling Island</i>	17.8	~30	47.8
<i>Paden Island</i>	80.8	46.9	127.7
<i>Williamson Island, and Witten Towhead Island</i>	125.6	128	261.7
<i>Crab Island</i>	0.6	7.2	7.8
<i>Wells Island</i>	43	81.4	124.4
<i>Mill Creek Island</i>	19	58.8	77.8
<i>Grandview Island</i>	8	85.7	93.7
<i>Grape/Bat Island</i>	44.5	70	114.5
<i>Middle Island</i>	235	91	326
<i>Broadback Island</i>	51	78.6	129.6
<i>Buckley Mainland</i>	49	--	49
<i>Buckley Island</i>	160	75.7	235.7
<i>Muskingum Island</i>	93	167.3	260.3

<i>Neal Island</i>	104	121.6	225.6
<i>Buffington Island</i>	162	85.9	247.9
<i>Letart Island</i>	28.6	142.9	171.5
<i>Manchester #1 Island,</i>	20.4	315.3	429.3
<i>and Manchester #2 Island</i>	93.6		
<i>Buffalo Creek</i>	19	--	19
<i>Captina Island</i>	17	61.4	78.4
<i>Captina Mainland</i>	138	--	138
SUBTOTAL OF			
REFUGE OWNED PROPERTIES	1,573.2	1,647.7	3,220.9

* *Non-Refuge islands are presented in Figure 3 (page 35).*

Public uses of all types have occurred on and around the Ohio River Islands in recent years. The relatively undisturbed nature of many of the islands have made them popular areas for nature study, hunting, fishing, camping, picnicking, and pleasure boating. As islands are acquired for the Refuge, only those uses determined to be compatible with Refuge purposes will be allowed to continue.

Refuge management in the past has concentrated on preserving, restoring, and enhancing the diversity and abundance of fish and wildlife populations characteristic of the floodplain forests and wetlands of the Ohio River.

Purpose of and Need for Action

The purpose of the plan is to provide overall guidance for the protection and use of the Refuge during the next fifteen years. Under the provisions of the National Wildlife Refuge System Improvement Act of 1997, the U.S. Fish and Wildlife Service (Service) is required to develop comprehensive conservation plans for all lands and waters of the Refuge System. The National Environmental Policy Act (NEPA) also ensured that the Service assessed the environmental impacts of any actions taken as a result of implementing the CCP.

This plan is also needed to:

- provide a clear statement of the desired future conditions for habitat, wildlife, facilities and people;
- provide Refuge neighbors and visitors with a clear understanding of the reasons for management actions on and around the Refuge;
- ensure that management of the Refuge reflects the policies and goals of the National Wildlife Refuge System;
- ensure the compatibility of current and future uses of the Refuge;
- provide long-term continuity in Refuge management; and
- provide a basis for Refuge operation, maintenance, and developmental budget requests.

Refuge Purpose

The Fish and Wildlife Act of 1956 outlines the Refuge's primary purpose "*...for the development, advancement, management, conservation, and protection of fish and wildlife resources...*" "*...for the benefit of the United States Fish and Wildlife*

Service, in performing its activities and services."

Refuge Vision Statement

The Ohio River Islands National Wildlife Refuge will create a linked network of over 12,000 acres of floodplain forests, wetlands, and aquatic habitat stretching over 400 miles from Pittsburgh to Cincinnati. These refuge lands and waters will fulfill the needs of fish, wildlife and plants that are native to "big river" ecosystems. Through reforestation, exotic species control, and wetland restoration, the Refuge will serve as an anchor for biodiversity and a model for habitat restoration throughout the Ohio River Valley ecosystem. We will forge habitat and management links with other units of the National Wildlife Refuge System.

The Ohio River Islands National Wildlife Refuge is committed to the preservation, conservation and enhancement of a quality river environment for the people of the Ohio River Valley. In this pursuit, we will work with partners to provide a wide range of environmental education programs and promote high quality wildlife-dependent recreational opportunities, to build a refuge support base and attract new visitors. Just as the Ohio River is an important corridor for transporting people and goods, it is also an important natural corridor for migratory birds, fish, and endangered freshwater mussels. Encouraging an understanding and appreciation for the "wild" Ohio will be a focus of the Ohio River Islands National Wildlife Refuge for generations to come.

Legal and Policy Guidance

This section presents hierarchically, from the national level to the local level, highlights of U.S. Fish and Wildlife Service policy, legal mandates, and existing resource plans which directly influenced development of the CCP.

The U.S. Fish and Wildlife Service and its Mission

National Wildlife Refuges are managed by the U.S. Fish and Wildlife Service, part of the Department of Interior. The mission of the U.S. Fish and Wildlife Service is:

"...working with others, to conserve, protect and enhance fish and wildlife and their habitats for the continuing benefit of the American people."

The Service has specific trustee responsibilities for migratory birds, threatened and endangered species, anadromous fish, and certain marine mammals, as well as for lands and waters administered by the Service for the management and protection of these resources.

The National Wildlife Refuge System and its Mission

The Service's National Wildlife Refuge System is the world's largest collection of lands and waters set aside specifically for the conservation of wildlife and ecosystem protection. Over 530 National Wildlife Refuges covering over 92 million acres are part of the national network today. With over 77 million acres

in Alaska and the remaining 15 million acres spread across the other 49 states and several island territories, over 34 million visitors annually hunt, fish, observe and photograph wildlife, or participate in environmental education and interpretive activities on Refuges.

In 1997 the National Wildlife Refuge System Improvement Act (Refuge Improvement Act) was passed. This legislation established a unifying mission for the Refuge System, a new process for determining compatible public use activities on Refuges, and the requirement to prepare CCPs for each Refuge. The Refuge Improvement Act states that first and foremost, the Refuge System must focus on wildlife conservation. It further states that the national mission, coupled with the purpose(s) for which each Refuge was established, will provide the principal management direction for each Refuge.

The mission of the National Wildlife 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." (National Wildlife Refuge System Improvement Act of 1997, Public Law 105-57)

With regards to public use, the Refuge Improvement Act declared that all existing or proposed public uses must be "compatible" with each Refuge's purpose. Six wildlife-dependent public uses were highlighted in the legislation as priorities to evaluate in CCPs. The six uses are: hunting, fishing, wildlife observation and photography, and environmental education and interpretation.

Fulfilling the Promise

This 1999 report resulted from the first-ever System Conference held in Keystone, Colorado in October 1998, and attended by every Refuge manager in the country, other Service employees, and leading conservation organizations. The report contains 42 recommendations packaged with three Vision statements dealing with *Wildlife and Habitat, People, and Leadership*. The recommendations in the *Fulfilling the Promises* report helped guide the development of goals and objectives in this draft plan.

Administration of National Wildlife Refuges is governed by various international treaties, federal laws, and regulations affecting land and water as well as the conservation and management of fish and wildlife resources. Policies for management options of the Refuge are further refined by the Secretary of the Interior and policy guidelines established by the Director of the U.S. Fish and Wildlife Service. As noted previously, the Fish and Wildlife Act of 1956 outlines the Ohio River Islands National Wildlife Refuge's primary purpose.

Key legislation affecting Refuge management includes:

- The National Wildlife Refuge System Improvement Act of 1997, which is the "organic" law for the System. The Act amends the National Wildlife Refuge System Administration Act of 1966.
- The National Wildlife Refuge System Administration Act of 1966, which authorizes the Secretary of the Interior to permit uses of a Refuge "whenever he determines that such uses are compatible with the major

purposes for which such areas were established."

- The Refuge Recreation Act of 1962, which requires that any recreational use of Refuge lands can be an appropriate incidental or secondary use if it is practicable and not inconsistent with the primary objectives for which a Refuge was established, and that these uses not interfere with other previously authorized operations.
- The National Historic Preservation Act of 1966 and the Archeological Resources Protection Act of 1979, which provide for the protection and rehabilitation of historic and archeological resources that occur on any Refuge.

The Refuge Improvement Act establishes a mission for the System, policy direction, and provides significant guidance for management and public use for all units of the Refuge System. The act ensures that, for the first time, the public is formally involved in decisions on recreation and other public uses on units of America's 93 million acre National Wildlife Refuge System. The legislation requires 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. Continued growth of the Refuge System is to be planned and directed in a way that will contribute to conservation of the ecosystems of the United States.

The Act further stipulates that each comprehensive conservation plan "shall identify and describe:

(A) the purposes of each Refuge comprising the planning unit [*found in Chapter 1 of this document*];

(B) the distribution, migration patterns, and abundance of fish, wildlife, and plant populations and related habitats within the planning unit [*Chapter 3*];

(C) the archaeological and cultural values of the planning unit [*Chapter 3*];

(D) such areas within the planning unit that are suitable for use as administrative sites or visitor facilities [*Chapter 4*];

(E) significant problems that may adversely affect the populations and habitats of fish, wildlife, and plants within the planning unit and the actions necessary to correct or mitigate such problems [*Chapters 1, 2 and 3*]; and

(F) opportunities for compatible wildlife-dependent recreational uses [*Chapter 4*]."

The legislation recognizes that compatible wildlife-dependent recreational uses are legitimate and appropriate public uses of the Refuge System. Several key terms are defined as follows:

Compatible Use - "...a wildlife-dependent recreational use or any other use of a Refuge that, in the sound professional judgement of the Refuge Manager, will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of

the Refuge."

Wildlife-dependent recreational use - "...a use of a Refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation."

Sound professional judgement - "...a finding, determination, or decision that is consistent with principles of sound fish and wildlife management and administration, available science and resources, and adherence to the requirements of this Act and other applicable laws."

Appendix F contains a select list of summaries of other federal laws and treaties used for administration of the Refuge System and management of the Refuge. The Draft CCP, written inclusively as an Environmental Assessment (EA), was written to fulfill compliance with the National Environmental Policy Act.

North American Waterfowl Management Plan

This Plan documents the strategy between the United States, Canada, and Mexico to restore waterfowl populations through habitat protection, restoration, and enhancement. Implementation of the plan is at the regional level. Ten regional habitat "Joint Ventures" are partnerships involving Federal, State and provincial governments, tribal nations, local businesses, conservation organizations, and individual citizens. The Ohio River Islands Refuge lies on the edge of the Atlantic Coast Joint Venture and the Mississippi Joint Venture. Three priority focus areas are already identified for protection (or enhancement) in West Virginia, totaling 40,550 acres. Both wetlands and adjacent uplands are part of the focus areas. Along the Ohio and Kanawha River Valleys, 6,550 acres have been identified. The Ohio Valley has been recognized as important for waterfowl by the West Virginia DNR, identified as one of the state's waterfowl focus areas for the Atlantic Coast Joint Venture.

The goal for the Atlantic Coast Joint Venture is:

"Protect and manage priority wetland habitats for migration, wintering, and production of waterfowl, with special consideration to black ducks, and to benefit other wildlife in the joint venture area."

Partners In Flight

Of the 20 species on the West Virginia Partners in Flight priority Species List, at least 16 are known to nest along the Ohio River Valley. Osprey, which have been reintroduced into the valley by a cooperative effort of state, federal and private partners, are now nesting successfully along the Ohio River. The largest great blue heron rookeries in the state are also located within the Ohio River Valley.

The Partners in Flight Program is developing a plan for the area. The plan utilizes existing data to rank landbird species as to their priority for conservation. Habitat loss, landbird population trends, and vulnerability of species and habitats to threats are all factors used in the priority ranking of species. Further, the plan will identify focal species for each habitat type from which population and habitat objectives and conservation actions will be determined. This list of focal species, objectives and conservation actions will help direct landbird

management on the Refuge.

Regional Wetlands Concept Plan

In 1986, Congress enacted the Emergency Wetlands Resources Act to promote the conservation of our nation's wetlands. The Act directed the Department of Interior to develop a National Wetlands Priority Conservation Plan identifying the location and types of wetlands that should receive priority attention for acquisition by federal and state agencies using Land and Water Conservation Fund appropriations. In 1990, the Northeast Region of the U.S. Fish and Wildlife Service completed a Regional Wetlands Concept Plan to provide more specific information about wetlands resources in the Northeast. The Regional Plan identifies a total of 850 wetland sites that warrant consideration for acquisition, and also identifies wetland values, functions, and potential threats for each site.

Ohio River Valley Ecosystem Strategic Plan, 1999

Throughout the last decade, the Service has been putting more emphasis into understanding how the parts of an ecosystem interrelate and affect the long-term conservation of natural resources. To this end, the Service has initiated new partnerships with private landowners, state and federal agencies, corporations, conservation groups, and volunteers. Implementing an ecosystem team approach to management has been a top national priority for the Service. Fifty-two ecosystem teams were formed across the country, typically using large river watersheds to define ecosystems. Individual ecosystem teams are comprised of both Service professionals and partners, who work together to develop goals and priorities for research and management.

The Ohio River Valley Ecosystem (ORVE) includes portions of ten states and straddles three Service administrative regions (Northeast, Southeast, and Northcentral). The Ohio River Valley Ecosystem Team is charged with the development and implementation of a strategic plan for conserving Service trust resources in the ORVE.

The following eight priorities have been identified, each encompassing numerous action strategies:

"In cooperation with partners...":

- reverse the decline of native aquatic mollusks within the Ohio River Valley Ecosystem with emphasis on endangered, threatened and candidate species and species of concern.
- reverse the decline and achieve stable, viable populations of migratory landbirds and other bird species of concern.
- reverse the decline of native fishes with emphasis on interjurisdictional, listed, and candidate species, and species of concern.
- protect and restore karst/cave habitat supporting listed and candidate species and species of concern.
- protect and restore wetland, riverine and riparian habitat in the Ohio River watershed for the protection and enhancement of migratory waterbirds and other wetland dependant species of concern.
- reduce the decline and promote the recovery of rare resources identified as listed/proposed threatened and endangered species, candidate species and species of concern [not otherwise addressed in the other Resource Priorities].

- achieve the necessary level of protection for those high priority areas within the Ohio River Valley Ecosystem that would help meet the goals of the ORVE Team.
- promote and support sustainable fish and wildlife-dependent recreational uses while maintaining the long-term health of the ecosystem and the Service's trust resources.



[Back to Northeast Region Home Page](#)

[Privacy, Disclaimer and Copyright Information](#)

Technical problems with this Web site?

E-mail the [Web manager](mailto:northeastplanning@fws.gov) at northeastplanning@fws.gov