
Chapter 1: Introduction and Background

Introduction

Patoka River National Wildlife Refuge and Management Area (NWR & MA) is a work in progress. Established in 1994, approximately one-fourth of the total area approved for acquisition is presently part of the Refuge. Acquiring additional lands within the approved boundary is an ongoing effort. The Refuge is the 502nd refuge within the National Wildlife Refuge System and second refuge established in the State of Indiana.

The Patoka River had long been recognized for its wetland and wildlife values on a local, statewide and regional basis. In the late 1980s and early 1990s, the Service proposed establishing a national wildlife refuge/wildlife management area along the Patoka River in Pike and Gibson Counties of southwestern Indiana (see Figure 1). The portion of the river included in the proposal contains one of the few remaining expanses of bottomland hardwood forest wetlands in Indiana and the midwestern United States.

The area provides some of the best Wood Duck production habitat in all of Indiana. In all there are more than 380 species of wildlife on the Refuge, including the federally-listed endangered Indiana bat.

The area's natural resources face considerable challenges. Along the Patoka River, ditching, diking and channelization dating back to the early 1900s contributed to wetland losses. Water quality in the Patoka River drainage was diminished by over 20,000 acres of abandoned coal mine lands, oil well development activities, intensive agricultural operations, and community effluent.



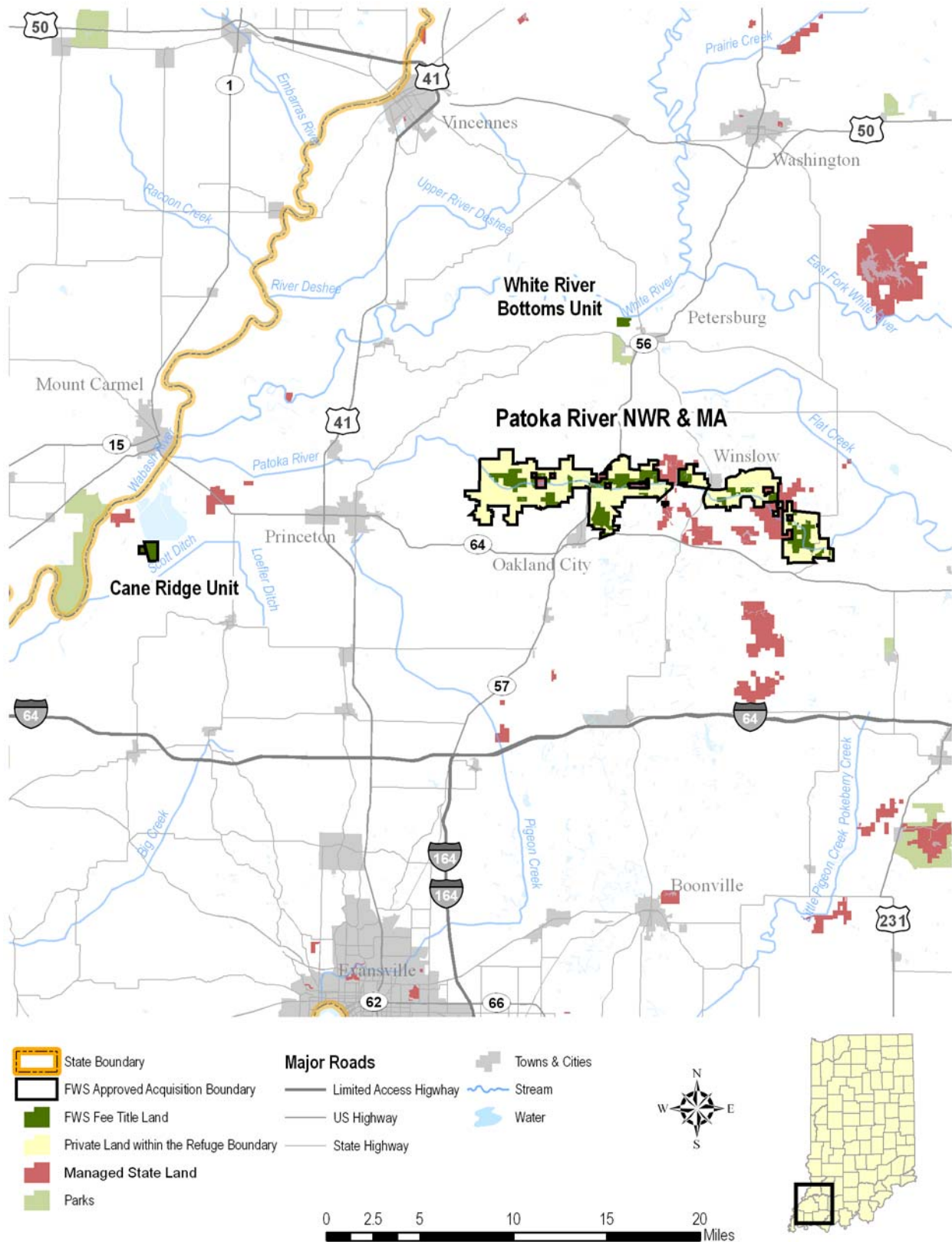
Migrating Trumpeter Swans. Patoka River NWR & MA. Photo credit: USFWS

Purpose and Need for Plan

This Comprehensive Conservation Plan (CCP) articulates the management direction for Patoka River NWR & MA for the next 15 years. Through the development of goals, objectives, and strategies, the CCP describes how the Refuge 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 refuges' purpose or the mission of the Refuge System.

Figure 1: Location of Patoka River NWR & MA



- 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 Patoka River NWR & MA 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.
- 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 National Wildlife Refuge System.
- Ensuring that Refuge management considers federal, state, and county plans.
- Ensuring that Refuge management considers the preservation of historic properties.
- 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.

Establishment of the Refuge

In 1986, the Emergency Wetlands Resources Act (Act) was enacted by Congress to promote the conservation of America's wetlands by intensifying



Mallard nest, Patoka River NWR & MA. Photo credit: USFWS

cooperative efforts among federal agencies, states, local governments, and private interests for conservation, management, and acquisition of wetlands.

The Department of the Interior developed a National Wetlands Priority Conservation Plan as directed by Section 301 of the Act, and in the Midwest Region a Regional Wetlands Concept Plan (USFWS, 1990) was prepared to provide a framework for protecting priority wetlands in the eight states that make up the Region: Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio and Wisconsin. The Regional Wetlands Concept Plan provided the focus for acquisition, restoration and renewal of valuable wetlands, emphasizing those areas where losses are highest.

The stretch of the Patoka River running through Pike and Gibson Counties in southern Indiana was identified as a focus area within the 1990 Regional Wetlands Concept Plan. The area is part of the middle Mississippi River and lower Ohio River drainage and is characterized by rich bottomland hardwood wetlands that historically provided prime breeding and wintering habitat for species such as Wood Ducks, Mallards and Bald Eagles.

Patoka River NWR & MA was established in 1994. The authorized boundary (also known as the "acquisition boundary") – which delineates where the Service can acquire property from willing sellers – encompasses 23,743 acres of wetlands, floodplain forest, and upland buffer along 30 miles of the Patoka River corridor. Management objectives are identical for the National Wildlife Refuge, authorized at 6,970 acres, and the Management Area (MA), authorized for the remaining 15,847 acres. The separate designations avoid legal conflicts with the Surface Mining Control and Reclamation Act (SMCRA) of 1977.

SMCRA prohibits surface mining within national wildlife refuges. Legally, this was interpreted to apply to all lands within the authorized boundary of a national wildlife refuge regardless of ownership. Much of the land along the Patoka River corridor is privately owned and underlain by surface and/or underground minable coal reserves. Designating the entire area within the boundary as a National Wildlife Refuge would have prohibited surface mining and required compensating land owners for the value of this property right.

To find a solution to this dilemma, the U.S. Office of Surface Mining was contracted to complete a coal study to determine which lands within the acquisition boundary were underlain by potentially min-

able coal reserves. The areas with coal deposits were delineated and identified as a “selection area” for the acquisition of Wildlife Management Areas instead of being identified as an acquisition area for the National Wildlife Refuge. Figure 2 shows the distribution of these areas within the Refuge boundary. This naming convention was done to avert a conflict with the SMCRA and to avoid the unintentional taking of surface minable coal rights of private land owners. It has no implications for the management of these areas.

Refuge Purposes

Refuge purposes are specified or derived from the law, proclamation, Executive Order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, refuge unit, or refuge subunit. Patoka River NWR & MA has the following refuge purposes:

“... the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions ...” 16 U.S.C. 3901(b) (Emergency Wetlands Resources Act of 1986)

“... particular value in carrying out the national migratory bird management program. 16 U.S.C. 667b (An Act Authorizing the Transfer of Certain Real Property for Wildlife)

“... (1) to protect, enhance, restore, and manage an appropriate distribution and diversity of wetland ecosystems and other habitats for migratory birds and other fish and wildlife in North America; (2) to maintain current or improved distributions of migratory bird populations; and (3) to sustain an abundance of waterfowl and other migratory birds consistent with the goals of the North American Waterfowl Management Plan and the international obligations contained in the migratory bird treaties and conventions and other agreements with Canada, Mexico, and other countries.” 16 U.S.C. 4401-4413 (North American Wetlands Conservation Act)

Refuge Vision

The Patoka River National Wildlife Refuge and Management Area restores, protects and manages a diverse bottomland hardwood forest ecosystem and associated habitats for migratory

birds, threatened and endangered species, and indigenous fish and wildlife, while striving to develop citizen understanding and support for the protection of natural resources by providing wildlife-related education and recreation opportunities.

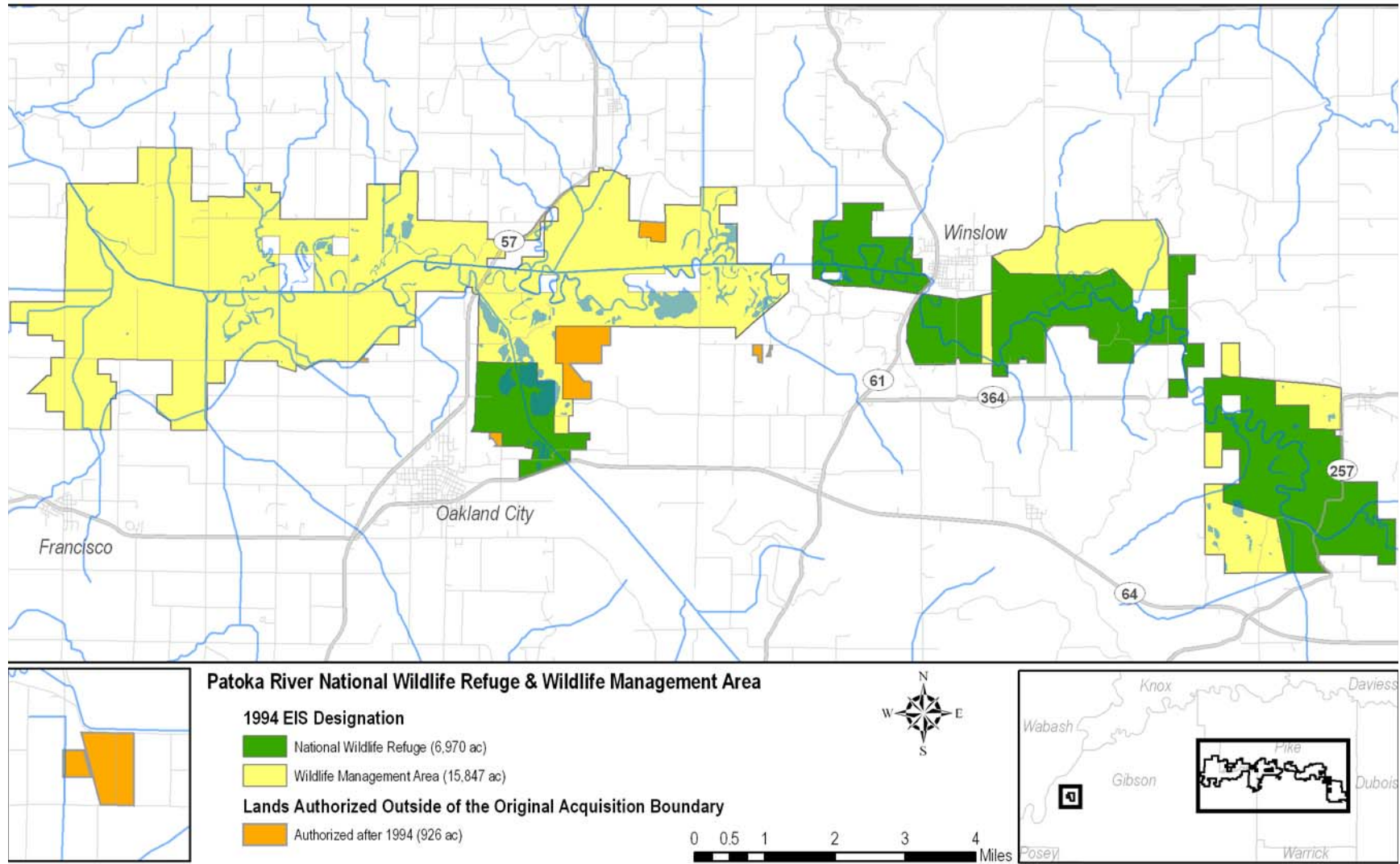
The U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (Service) is the primary federal agency responsible for conserving, protecting, and enhancing the nation's fish and wildlife populations and their habitats. The Service administers the lands of the National Wildlife Refuge System, 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 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 more than 540 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 is Aransas National Wildlife Refuge in Texas, which provides winter habitat for the Whooping Crane. Likewise, the Florida Panther NWR protects one of the nation's most

Figure 2: Patoka River NWR & MA Delineations





*Snakey Point fishing pier, Patoka River NWR & MA.
Photo credit: USFWS*

endangered predators, and the Mississippi Sandhill Crane NWR an endangered, non-migratory species of the Sandhill Crane.

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 39.5 million people visited national wildlife refuges in 2003.

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.

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 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.

Legal and Policy Guidance

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 Act 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. The 1997 Refuge Improvement Act requires the Secretary to maintain the biological integrity, diversity, and environmental health and to identify the archeological and cultural values of the National Wildlife Refuge System. The Act deals with compatibility of uses on refuges and directs the Secretary of Interior to issue regulations for compatibility determinations. The Act also directs that compatible wildlife-dependent uses should be facilitated. Since passage of the Act, the Service has adopted policies that implement direction of the Act.

Compatibility Policy

Service policy says that no uses for which the Service has authority to regulate may be allowed on a unit of the Refuge System unless it is determined to be compatible. A compatible use is a use that, in the sound professional judgment of the refuge manager, will not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purposes of the national wildlife refuge. Managers must complete a written compatibility determination for each use, or collection of



Foxglove beard-tongue, Patoka River NWR & MA. Photo credit: USFWS

like uses, that is signed by the manager and the Regional Chief of Refuges in the respective Service region.

Biological Integrity, Diversity, and Environmental Health Policy

The Service is directed in the Refuge Improvement Act to “ensure that the biological integrity, diversity, and environmental health of the Refuge System are maintained for the benefit of present and future generations of Americans...” The biological integrity policy helps define and clarify this directive by providing guidance on what conditions constitute biological integrity, diversity, and environmental health; guidelines for maintaining existing levels; guidelines for determining how and when it is appropriate to restore lost elements; and guidelines in dealing with external threats to biological integrity, diversity and health.

Other Guidance

In addition to the Refuge’s establishing executive orders, authorizing legislation, and the National Wildlife Refuge System Improvement Act of 1997,

several Federal laws, executive orders, and regulations govern administration of the Refuge. Appendix E contains a partial list of the legal mandates that guided the preparation of this plan and those that pertain to Refuge management activities.

Existing Partnerships

Working with others through intra- and inter-agency partnerships is essential to accomplishing the mission of the Fish and Wildlife Service as well as assisting Patoka River NWR & MA in achieving its purposes and vision. Partnerships with other federal and state agencies and with a diversity of public and private organizations are increasingly important. Other agencies can provide invaluable assistance in research and maintenance. Private groups and non-profit organizations greatly enhance public involvement in the Refuge, building enthusiasm and support for its mission.

Within the Ohio River Valley ecosystem in which Patoka River NWR is located, the Service partners with a number of other agencies and institutions, both governmental and non-governmental. These include:

- State conservation and natural resources agencies, including the Indiana Department of Natural Resources (Indiana Wildlife and Fisheries);
- Federal agencies, including the U.S. Forest Service, U.S. Environmental Protection Agency, National Park Service, U.S. Geological Survey Biological Resources Division, and Natural Resources Conservation Service;
- Local governments;
- Institutions of higher learning;
- Local landowners and businesses
- Non-governmental conservation organizations

Besides the partnerships that the Fish and Wildlife Service holds on the national and regional (ecosystem) level, Patoka River NWR maintains formal and informal working partnerships with the following agencies, non-governmental conservation organizations, and businesses:

- Indiana Department of Natural Resources
- Division of Fish and Wildlife
- Division of Mining and Reclamation
- Division of Oil and Gas
- Division of Nature Preserves

- Indiana Heritage Trust
- Indiana Department of Transportation
- USDA Natural Resources Conservation Service (NRCS)
- Gibson County Coal
- Duke Energy (an electric utility operating the Gibson Generating Station)
- Ducks Unlimited
- Evansville Chapter of the National Audubon Society
- Waterfowl U.S.A.
- Quail Unlimited
- National Wild Turkey Federation
- National Fish and Wildlife Foundation
- PRIDE – Refuge Friends
- Izaak Walton League
- U.S. Army Corps of Engineers- Louisville
- U.S. Office of Surface Mining and Reclamation

Volunteers and Friends Group

The Refuge also relies on the selfless dedication of volunteers to extend the efforts of staff. Volunteers play an important role in the management and maintenance of the fish and wildlife resources on Patoka River Wildlife Refuge. In an era of flat or declining budgets, it is more important now than ever that volunteers step forward to help protect and preserve our natural resource heritage for present and future generations to enjoy.

Patoka River NWR also has an informal Friends group that has helped implement projects like construction of the fishing pier and trail at Snakey Point and the South Fork Fishermans Trail.

Museums and Repositories

The Refuge has no reported museum property on- or off-site; no natural history specimens, no artwork, nor historic documents or photographs nor any other kind of historical material. The several cultural resources surveys conducted on the Refuge have produced no archeological collections.