

# Chapter 1: Introduction and Background



## 1.1 Introduction

The Illinois River National Wildlife and Fish Refuge Complex stretches along 124 miles of the Illinois River in west central Illinois (Figure 1). The Complex includes three refuges: Meredosia National Wildlife Refuge (NWR), Chautauqua NWR and Emiquon NWR. The three refuges, which together total 12,163 acres, are a mix of backwater lakes, bottomland forests, floodplain wetlands and a small amount of upland forest and prairie.

The Refuge Complex provides habitat for between 60 percent and 70 percent of the waterfowl that migrate along the Illinois River and has been designated as an “Important Bird Area” and accepted into the “Western Hemisphere Shorebird Reserve Network.” In addition to being important to migratory birds, the refuges’ backwater lakes serve as spawning and nursery habitat for a highly productive river fishery.

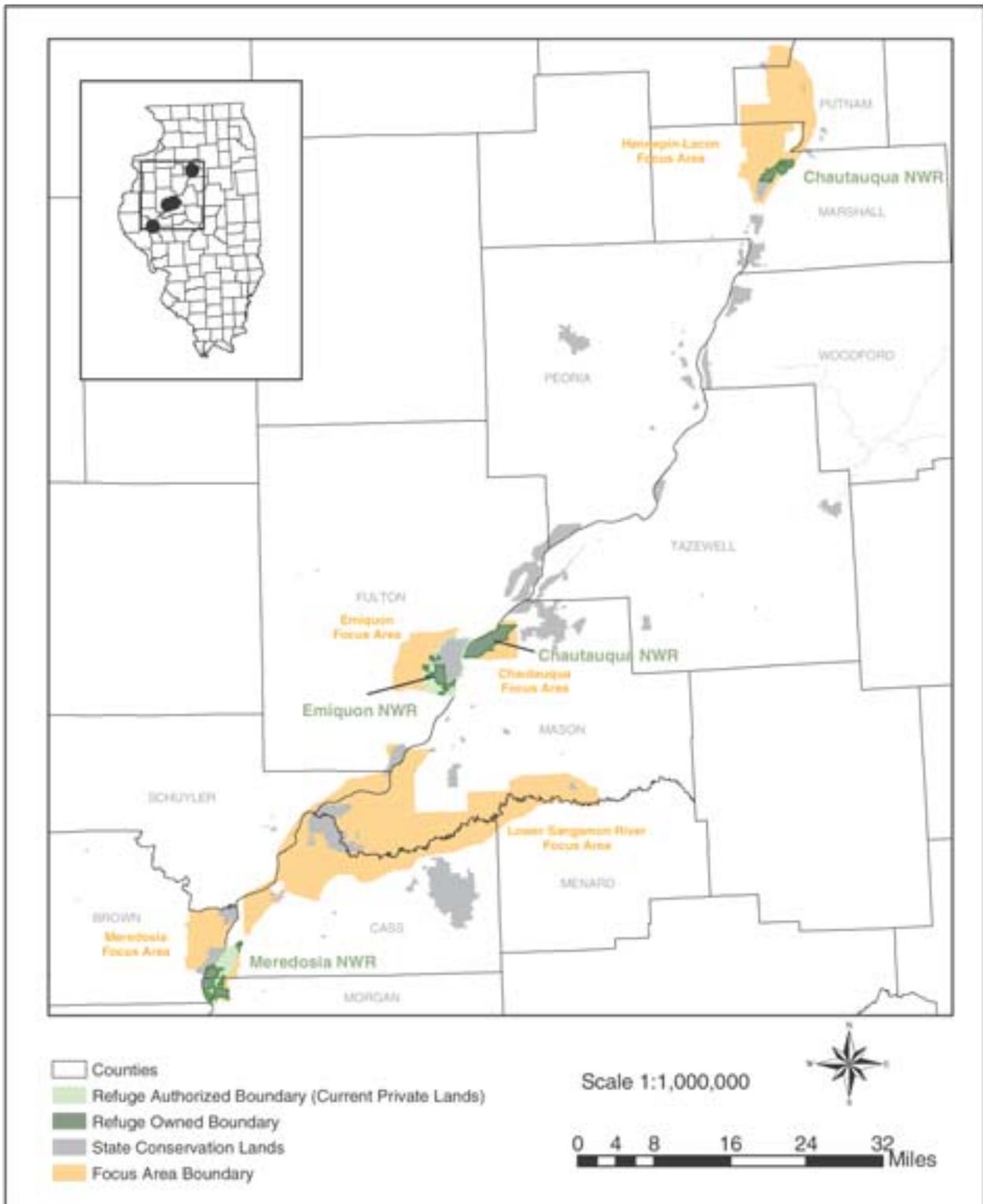
## 1.2 History and Establishment

### 1.2.1 Chautauqua National Wildlife Refuge

Located along the Illinois River from river mile 124 to 129 in Mason County, Chautauqua NWR is 4,488 acres in size. The Refuge serves as the headquarters for the Complex and also manages the Cameron-Billsbach Division, which is located in Marshal County between Sparland and Henry, Illinois. The 4,488-acre refuge includes roughly 3,250 acres of backwater lake, 930 acres of bottomland hardwoods, and 320 acres of woodlands and prairie.

The area was one of many floodplain wetlands along the Illinois River that was diked and drained for crop production in the 1920s. Shortly after the area was acquired by the federal government, dikes were repaired and water control structures constructed to allow for flood control and management. By the late 1930s, water levels in the area could be managed during moderate to low river stages. As a result, waterfowl food plants such as long-leaf pondweed and coontail were abundant in the lake during 1939 and 1940, as was waterfowl use. In 1939, 500,000 Mallards were recorded on the area during fall migration. Those num-

**Figure 1: Illinois River National Wildlife and Fish Refuges**



bers increased to 1,050,540 in 1943, and in 1945 the number of Mallards using the area reached an all-time high of 1,500,000. Diving duck use of the area was also common.

During the 1990s, Chautauqua NWR was rehabilitated to a functioning backwater lake, bottomland forest, and floodplain wetland complex through force account and contract efforts of the Fish and Wildlife Service and through the Environmental Management Program of the Corps of Engineers. The water management system allows Refuge Complex staff to mitigate some of the human induced impacts associated with navigation, the diversion of Lake Michigan water down the Illinois River, and conversion of the tallgrass prairie and wetlands to cropland production and other uses. These factors have artificially eliminated the historic dry season associated with the river and its floodplain due to a 4-foot increase in average low water levels and irregular and abrupt spikes in river levels. Refuge Complex personnel approximate the historic hydrograph using a series of low level levees, spillways, and water control structures to mimic the historical flood cycle, especially during spring fish migration and the summer dry period.

The Cameron-Billsbach Division (a unit of Chautauqua NWR) is located in Marshall County, between Sparland, Illinois, and Henry, Illinois. The Cameron-Billsbach Division is bisected by the Illinois River creating two separate areas – the Cameron Unit and Billsbach Unit. They extend from river mile 192 to 195 and are 64 miles up river from the Refuge Headquarters. The purpose of each unit is to serve as an inviolate sanctuary for migratory birds. The Illinois Department of Natural Resources Sparland Conservation Area is contiguous to the south boundary.

The Cameron unit includes 1,064 acres of backwater lake habitat, 634 acres of bottomland hardwood forest, and 10 acres of upland forest. The unit includes the 177-acre Cameron Research Natural Area, which was established in 1972. The late Judge Glen J. Cameron of Pekin, Illinois, donated the land to create the Cameron Unit on May 17, 1958. The unit supports a population of decurrent false aster plants and has a Bald Eagle nest. Waterfowl peak numbers commonly exceeded 50,000 birds in the fall but declined precipitously after 1973 because of habitat degradation.

The 1,072-acre Billsbach Unit is located along the east side of the Illinois River and joins the center portion of Billsbach Lake. The Illinois Chapter of the Nature Conservancy purchased the land from the Armour Hunt Club and then sold the land to the Fish and Wildlife Service on December 22, 1981, for \$30,000. The Billsbach unit supports an active Bald Eagle nest (probably the same pair that build a nest on the Cameron Unit). Billsbach Lake is badly degraded because of excessive sedimentation and continuous resuspension of silt by wind, tows, and exotic fish.

## **1.2.2 Meredosia National Wildlife Refuge**

Meredosia NWR is located in Cass and Morgan counties within the Illinois River floodplain in the upper end of Alton Pool and extending from river mile 71.5 on the south to river mile 76.7 to the north. The Refuge presently owns and manages 3,852 acres of land within the approved 5,255-acre boundary. Meredosia Lake is a meandered lake and, therefore, is under the control of the Illinois Division of Water Resources. The Illinois Department of Natural Resources manages waterfowl hunting and fishing on Meredosia Lake.

Much of what is now the Meredosia National Wildlife Refuge was previously owned and managed by the Chicago Meredosia Gun Club (Club), which was responsible for developing the area for waterfowl management through the construction of levees, water control structures, and a network of ditches needed to transport water to backwater sloughs and small impoundments. The area was later purchased by a club member, Mr. James Anderson, who stipulated in his will that upon his death, the Club and its belongings would be donated to a conservation agency for management. In May 1972, the Anderson estate donated 1,780 acres to The Nature Conservancy for ultimate management by the Service. On May 9, 1973, The Nature Conservancy deeded the property to the Service. However, at the request of Mr. Anderson, deed restrictions would encumber the land to ensure perpetual protection. These include:

- 1) The area shall not be used for hunting except that deemed necessary for proper management of the waterfowl resource;
- 2) Cutting of timber from the area shall not be undertaken except that deemed necessary for wildlife and habitat improvement; and
- 3) Public use of the area shall not include motorized vehicles, except upon roads authorized for public use.

Meredosia NWR is a backwater lake component of the Illinois River floodplain. There are currently eight small impoundments with associated levees, ditches, and water control structures on the Refuge. The impoundments range in size from 4 to 20 acres in size and are primarily managed for moist soil vegetation. Controlled flooding of impoundments is conducted by pumping from the river or Meredosia Lake. There are roughly 5.2 miles of river bank habitat.

### **1.2.3 Emiquon National Wildlife Refuge**

Emiquon NWR is located along the Illinois River at river mile 121 in Fulton County. As of April 2002, the Service owned and managed 2,114 acres of land within the 11,122-acre authorized boundary. Approximately 90 percent of the land within the area where the Service is authorized to purchase land, or authorized boundary, is cropland. However, the partnership restoration of wetlands and associated upland habitats should result in a highly productive, functioning system to support historical biological diversity for the enjoyment and use by American people.

Historically two backwater lakes (Thompson Lake with 1,800 acres and Flag Lake with 1,000 acres) provided excellent habitat for migratory birds, fish, and resident wildlife. Nearly the entire Thompson Lake Drainage District was owned by Wilder Farms. The Nature Conservancy purchased Wilder Farms in 2000 and now owns 7,063 acres within the acquisition boundary for Emiquon NWR. Most of the land within the acquisition boundary was ditched, cleared, leveed, tiled, and pumped in the early 1900s to facilitate row crop agriculture. Because of the levees, Thompson Lake and Flag Lake basins have not been subjected to heavy annual sedimentation and contaminants as most other backwater lakes along the Illinois River. Restoration of clearwater aquatic habitat approximating original depths and contours is possible without substantial dredging or earth moving. Public involvement, detailed hydrologic, engineering, and environmental data will be required for specific site planning and development. The Nature Conservancy

is developing plans for restoration of the Wilder Farms property. Wilder Farms retained farming rights through 2002. The Conservancy cash-rented the farm ground in 2003 and 2004. Restoration of Thompson and Flag lakes will begin in 2005.

Following restoration of the wetlands on Service-owned lands, water levels will be managed to provide conditions essential for sustaining the diverse plant and animal communities that existed prior to the devastating human induced impacts on the watershed and river ecosystem. This will require maintaining levees, water control facilities, and management of water levels to simulate hydrologic conditions prior to the 1900s and to protect the wetland areas from the effects of unnatural hydrology, sedimentation, contamination, and non-native species. The Globe Drainage District lands could be opened for spring flooding to provide river fish spawning and nursery habitat while managed as an open marsh.

## 1.3 The U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (Service) is the principal federal agency responsible for conserving, protecting and enhancing fish, wildlife, and plants and their habitats for the continuing benefit of the American people. The Service manages the 93-million acre National Wildlife Refuge System of more than 530 national wildlife refuges and thousands of small wetlands and other special management areas. It also operates 66 national fish hatcheries, 64 fishery resource offices and 78 ecological services field stations.



Among its key functions, the Service enforces federal wildlife laws, protects endangered species, manages migratory birds, restores nationally significant fisheries, conserves and restores wildlife habitat such as wetlands, and helps foreign governments with their international conservation efforts. It also oversees the Federal Aid program that distributes hundreds of millions of dollars in excise taxes on fishing and hunting equipment to state fish and wildlife agencies. The Service employs approximately 7,500 people at facilities across the country, with a headquarters in Washington D.C., seven geographic regions, and nearly 700 field units.

The Illinois River National Wildlife and Fish Refuge Complex is located in the Great Lakes-Big Rivers Region of the Service, which includes the states of Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin. The Great Lakes-Big Rivers Region manages over 1.2 million acres of land and water on 46 national wildlife refuges and nine wetland management districts, including more than 240,000 acres in waterfowl production areas. The Region also manages six national fish hatcheries, nine fisheries stations, 10 ecological services field offices, and 18 law enforcement field offices.

### 1.3.1 Mission of the U.S. Fish and Wildlife Service

The mission of the Service is working with others, to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

## 1.3.2 Goals of the U.S. Fish and Wildlife Service

*Sustainability of Fish and Wildlife Populations:* Migratory birds, endangered fish and wildlife species, interjurisdictional fish, and marine mammals are conserved, protected, enhanced, or restored. The Service is participating in conservation of other species when its expertise, facilities, or land can enhance state, tribal, or local efforts.

*Habitat Conservation:* Network of Lands and Waters: An ecologically diverse network of lands and waters, of various ownerships, is conserved to provide habitats for marine mammals and migratory, interjurisdictional, endangered, and other species associated with ecosystems conserved in cooperation with others.

*Connecting Americans to Wildlife:* The American public understands and participates in the conservation and use of fish and wildlife resources.

*Workforce Excellence:* The Service's workforce, scientific capability, and business practices – in cooperation with the Department of Interior's scientific expertise – fully support achievement of the Service mission.

## 1.3.3 The National Wildlife Refuge System



America's National Wildlife Refuge System is the world's largest and most diverse collection of lands and waters set aside specifically for wildlife. The Refuge System began in 1903 when President Theodore Roosevelt designated 3-acre Pelican Island, a pelican and heron rookery in Florida, as a national bird sanctuary. Today, over 540 national wildlife refuges have been established from the Arctic Ocean to the South Pacific, from Maine to the Caribbean. Varying in size from half-acre parcels to thousands of square miles, they encompass more than 92 million acres of the nation's best wildlife habitats. The vast majority of these lands are in Alaska, with the rest spread across the United States and several U.S. territories. Like Pelican Island, many early wildlife refuges were created for herons, egrets, and other water birds. Other refuges were set aside for large mammals like elk and bison. However, most national wildlife refuges were created to protect waterfowl. This is a result of the United States' responsibilities under international treaties for migratory bird conservation and legislation such as the Migratory Bird Conservation Act of 1929. Refuges dot the map along the four major "flyways" that waterfowl follow from their northern nesting grounds to southern wintering areas.

National wildlife refuges play a vital role in preserving endangered and threatened species and their habitat. Among these are Aransas National Wildlife Refuge in Texas, the winter home of the Whooping Crane; the Florida Panther National Wildlife Refuge, which protects one of the Nation's most endangered mammals; and the Necedah National Wildlife Refuge, which provides critical habitat for the federally-listed endangered Karner blue butterfly.

### 1.3.3.1 Mission of the National Wildlife Refuge System

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where

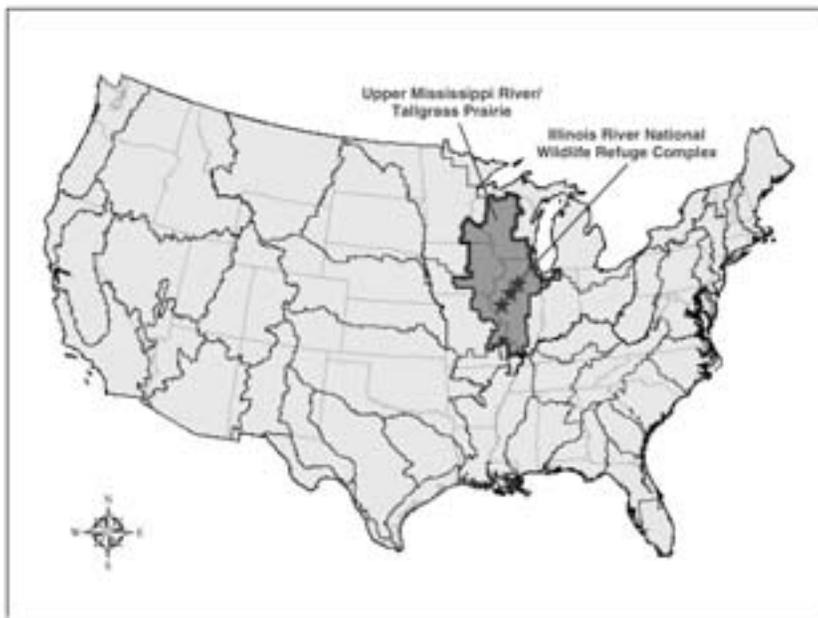
appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

### 1.3.3.2 Goals of the National Wildlife Refuge System

The administration, management, and growth of the System are guided by the following goals:

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

**Figure 2: Illinois River Basin Within Upper Mississippi River/Tallgrass Prairie Ecosystem**



## **1.4 Upper Mississippi River/Tallgrass Prairie Ecosystem**

The Refuge Complex lies within the Upper Mississippi River/Tallgrass Prairie Ecosystem, one of eight ecosystems managed by Region 3 of the U.S. Fish and Wildlife Service (Figure 2). The Ecosystem is a large and ecologically diverse area that encompasses land in the states of Illinois, Iowa, Minnesota, Missouri, and Wisconsin. Six ecotypes are focus areas for this ecosystem. The Refuge Complex lies within the Mississippi River Corridor ecotype. The Upper Mississippi River and tributary corridors provide the largest area of contiguous fish and wildlife habitat remaining in the Central United

States. The Mississippi River and the tributaries have always provided an important haven and migration route for fish and wildlife, but because of the continuing loss of wetlands, loss of forests, expansion of urban and agricultural areas, navigation, and channelization of many rivers, its importance has greatly increased in recent history.

The goals for the Upper Mississippi River/Tallgrass Prairie Ecosystem are:

- Goal 1: Protect, restore, and enhance populations of native and trust species and their habitats.
- Goal 2: Restore natural ecosystem processes, including hydrology and sediment transport to maintain species and habitat diversity.
- Goal 3: Promote environmental awareness of the ecosystem and its needs with emphasis on sustainable land use management.
- Goal 4: Identify water quality problems affecting native biodiversity and habitat of trust species.
- Goal 5: Reduce conflicts between fish and wildlife needs and other uses.

## **1.5 Goals and Objectives for Other Landscape Level Plans**

### **1.5.1 Migratory Bird Conservation Initiatives**

Over the last decade, bird conservation planning has become increasingly exciting as it has evolved from a largely local, site-based focus to a more regional, landscape-oriented perspective. Significant challenges include locating areas of high quality habitat for the conservation of particular guilds and priority bird species, making sure no species are inadvertently left out of the regional planning process, avoiding unnecessary duplication of effort, and identifying unique landscape and habitat elements of particular tracts targeted for protection, management and restoration. Several migratory bird conservation initiatives have emerged to help guide the planning and implementation process. Collectively, they comprise a tremendous resource as refuges engage in comprehensive conservation planning and its translation into effective on the ground management.

#### *The North American Waterfowl Management Plan*

Signed in 1986, the North American Waterfowl Management Plan (NAWMP) outlines a broad framework for waterfowl management strategies and conservation efforts in the United States, Canada, and Mexico. The goal of the NAWMP is to restore waterfowl populations to historic levels. The NAWMP is designed to reach its objectives through key joint venture areas, species joint ventures, and state implementation plans within these joint ventures.

The Refuge Complex is found within the Upper Mississippi River and Great Lakes Joint Venture area of the NAWMP – Illinois River Focus Area and contributes to the achievement of waterfowl objectives outlined in the Imple-

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mentation Plan for this area. One of 12 habitat based joint ventures, this Joint Venture encompasses the states of Michigan and Wisconsin in their entirety, plus portions of Minnesota, Iowa, Nebraska, Kansas, Missouri, Illinois, Indiana and Ohio. The goal of this Joint Venture is to increase populations of waterfowl and other wetland wildlife by protecting, restoring and enhancing wetland and associated upland habitats within the Joint Venture region.

The objectives of this Joint Venture are:

- Objective 1: Conserve 9,118,884 acres of habitat capable of supporting an annual breeding duck population of 1,542,000, under average environmental conditions, by the year 2013.
- Objective 2: Conserve 532,711 acres of habitat on migration focus areas capable of supporting 266 million duck use days during annual fall migration, under average environmental conditions, by the year 2013.
- Objective 3: When consistent with Objectives 1 and 2, contribute to the protection and/or increase of habitats for wetland and associated upland wildlife species in the Joint Venture, with emphasis on declining non waterfowl migratory birds.

#### *Partners In Flight*

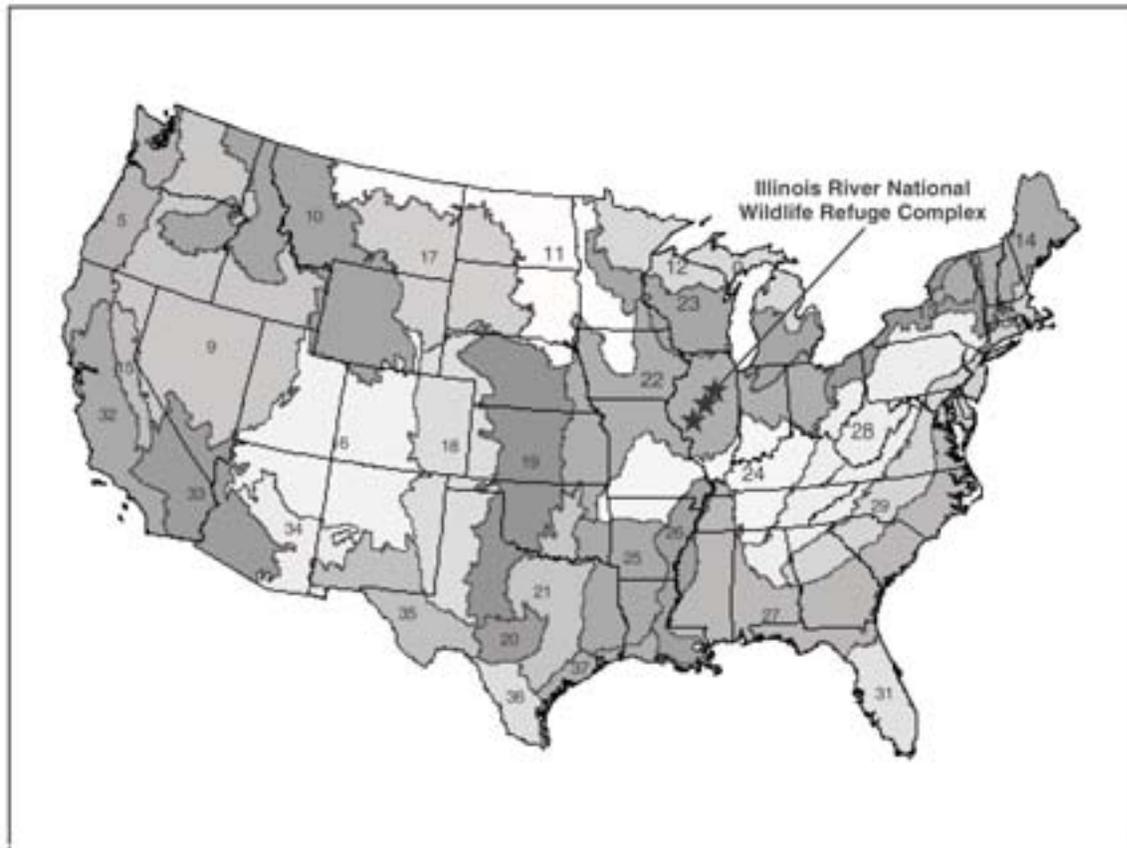
Formed in 1990, Partners in Flight (PIF) is concerned with most landbirds and other species requiring terrestrial habitats. Partners in Flight has developed Bird Conservation Plans for numerous Physiographic Areas across the U. S. (see <http://www.partnersinflight.org>). These plans include priority species lists, associated habitats, and management strategies.

The U. S. Shorebird Conservation Plan and the North American Waterbird Conservation Plan address the concerns for shorebird and waterbirds. These larger scale plans identify priority species and conservation strategies.

In a continental effort, the Partners in Flight, North American Waterfowl Management, U. S. Shorebird Conservation, and the North American Waterbird Conservation plans are being integrated under the umbrella of the North American Bird Conservation Initiative (NABCI). The goal of NABCI is to facilitate the delivery of the full spectrum of bird conservation through regionally based, biologically driven, landscape oriented partnerships (see <http://www.dodpif.org/nabci/index.htm>). The NABCI strives to integrate the conservation objectives for all birds in order to optimize the effectiveness of management strategies. NABCI uses Bird Conservation Regions (BCRs) as its planning units. Bird Conservation Areas are becoming increasingly common as the unit of choice for regional bird conservation efforts. The Refuge Complex lies within Eastern Tallgrass Prairie (BCR 22).

Each of the four bird conservation initiatives has a process for designating conservation priority species, modeled to a large extent on the PIF method of calculating scores based on independent assessments of global relative abundance, breeding and wintering distribution, vulnerability to threats, area importance (at a particular scale, e.g. physiographic area or BCR), and population trend. These scores are often used by agencies in developing lists of bird species of concern; e.g., the U. S. Fish and Wildlife Service based its assessments for its 2002 list of nongame Birds of Conservation Concern primarily on the Partners in Flight, shorebird, and waterbird status assessment scores.

**Figure 3: North American Bird Conservation Initiative-designated Bird Conservation Regions**



### **1.5.2 Region 3 Fish and Wildlife Resource Conservation Priorities**

The Resource Conservation Priorities list is a subset of all species that occur in the Region and was derived from an objective synthesis of information on their status. The list includes all federally listed threatened and endangered species and proposed and candidate species that occur in the Region, migratory bird species derived from Service wide and international conservation planning efforts, and rare and declining terrestrial and aquatic plants and animals that represent an abbreviation of the Endangered Species program’s preliminary draft “Species of Concern” list for the Region.

Although many species are not included in the priority list, this does not mean that we consider them unimportant.

The list includes 129 species or populations for the Service’s Upper Mississippi River/Tallgrass Prairie Ecosystem (Appendix I).

## 1.6 Purposes of the Refuges

The purpose for which a national wildlife refuge is established provides the basic framework for developing management direction for the refuge. It is within the guidelines of the refuge purpose that management functions are developed from and from which appropriate uses and facilities can be determined.

Chautauqua NWR was established by Executive Order 7524 on December 23, 1936, which authorized the Federal government (U.S. Biological Survey) to purchase land owned by the former Chautauqua Drainage and Levee District (District). Under that order, the purpose of Chautauqua NWR is defined as: "... as a refuge and breeding ground for migratory birds and other wildlife." (Executive Order 7524) Under the Migratory Bird Conservation Act, the Refuge's purpose is: "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." (Migratory Bird Conservation Act)

Meredosia NWR was established in 1973 under the authority of the Migratory Bird Conservation Act of 1929. Under that Act, the purpose is defined as "...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." (Migratory Bird Conservation Act) Under the Refuge Recreation Act, the Refuge's purpose further states: "...suitable for 1) incidental fish and wildlife-oriented recreational development, 2) the protection of natural resources, 3) the conservation of endangered species or threatened species...the Secretary...may accept and use...real..property. Such acceptance may be accomplished under the terms and conditions of restrictive covenants imposed by donors..." (Refuge Recreation Act)

Emiquon NWR was established under the Emergency Wetlands Resources Act of 1986 and the purchase of the first tract of 283.71 acres occurred on December 29, 1993. The purpose the Emiquon NWR is for "...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."

## 1.7 Refuge Complex Vision Statement

The vision for the future of the Illinois River Complex of Refuges is:

Illinois River National Wildlife and Fish Refuge Complex is a wild and thriving place where abundant grasslands and savannas, bottomland forests, and backwater lakes support diverse and productive populations of plants and animals. With numerous opportunities to learn about and utilize its resources, the Refuge Complex serves as a regional and national destination for visitors seeking high quality educational and recreational experiences. Through outreach with others, the Refuge Complex has expanded the public's understanding and appreciation of Illinois River fish and wildlife resources, and in doing so, has perpetuated these resources within the communities surrounding the Refuge Complex.

## 1.8 Purpose of and Need for the Plan

This Comprehensive Conservation Plan, CCP or “Plan,” identifies the role the Refuge Complex will play in supporting the mission of the National Wildlife Refuge System and provides guidance for Refuge management. The Plan articulates management goals for the next 15 years and specifies objectives and strategies that will achieve these goals. Congress mandated that the Service would prepare CCPs for every national wildlife refuge within the NWRS in the National Wildlife Refuge System Improvement Act of 1997. Legislative mandates and other policies, including the National Wildlife Refuge 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 Illinois River National Wildlife and Fish Refuges Complex by:

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

## 1.9 Existing Partnerships

The Refuge Complex continues to serve as a leader, facilitator and source of information for a variety of natural resource initiatives or issues to enhance the quality and quantity of fish and wildlife habitats along the Illinois River. These include efforts such as serving on the Illinois River Coordinating Council, serving as the leader of the Illinois River Focus Team of the Midwest Natural Resources Work Group, serving on the executive board of the Upper Mississippi River/Tall Grass Prairie Ecosystem Team, serving as a member of the planning team for the 2005 Governors Conference on the Illinois River and working closely with partners and support groups such as Ducks Unlimited, The Nature Conservancy, Friends of the Illinois River and others.

The Illinois River NWR Complex is also working with ecosystem partners and other local, state, and federal organizations to restore the Illinois River watershed by various enhancement projects to slow siltation and promote a system of highly diverse and healthy habitats. Two excellent examples are the Department of Agriculture's Conservation Reserve Enhancement Program and the Illinois Department of Natural Resource's Illinois River 2020 Initiative.

The North American Waterfowl Management Plan is a partnership effort to restore waterfowl populations to historic levels, with objectives and strategies evolving through North American Waterfowl Management Plan Updates. The Illinois River NWR Complex is found within the Upper Mississippi River and Great Lakes Joint Venture area of the Plan and contributes to the achievement of waterfowl objectives outlined in the implementation plan for this area.

The Refuges' Partners for Fish and Wildlife Program provides technical assistance and cost sharing to complete habitat restoration or enhancement projects provided that the land owner agrees to maintain the project for a period of 10 years or more. The program focuses on restoring and enhancing habitats that provide wildlife, fisheries, water quality, aesthetic, and recreation benefits. The Illinois River Private Lands District covers 11 counties and includes working with 365 hunt clubs encompassing 34,000 acres along the Illinois River. Over the past 10 years, roughly 6,000 acres of habitat have been restored by the Service in Illinois River Focus Areas through partnership efforts. Other agencies provide invaluable contributions in research, restoration, protection and maintenance of wildlife habitat. Partnerships with private groups greatly enhance public investment in the Refuge Complex, building enthusiasm for its mission and support in funding issues. The Refuge Complex has established partnerships with the U.S. Army Corps of Engineers, the Illinois Department of Natural Resources, the Illinois Natural History Survey, the Forbes Biological Station, and several other notable conservation interests, including:

- Private landowners
- The Wetland Initiative
- Ducks Unlimited
- Refuge volunteers
- Pheasants Forever
- The Nature Conservancy
- The Izaak Walton League of America
- The Natural Resources Conservation Service

- Soil and Water Conservation Districts
- Rural Fire Districts

## **1.10 Legal and Policy Guidance**

Management and administration of the Refuge Complex is accomplished in accordance with authority delegated by Congress and interpreted by regulations and guidelines established in accordance with such delegations. In addition to the legislation establishing each individual refuge and the National Wildlife Refuge System Improvement Act of 1997, numerous other federal laws, executive orders, and regulations govern the management and administration of the Refuge Complex. See Appendix E for a complete list.