

November 18, 2004

## **Presented to Midwest Natural Resources Group**

By Ross Adams, US Fish and Wildlife Service

### **Illinois River Focus Area Achievements**

#### **“Lessons Learned/Best Practices”**

I have worked on the Illinois River for the past seven years and in that time, I have witnessed habitat restoration on a landscape scale. It is a remarkable transformation that came about as the result of partnership efforts of federal and state agencies, non government organizations, and, most importantly, private landowners. The following is a summary of the natural resource achievements along the Illinois River.

The Department of the Interior’s Fish and Wildlife Service just approved Comprehensive Conservation Plans for Mark Twain and the Illinois River National Wildlife and Fish Refuge Complexes. Two Rivers Refuge is situated at the confluence of the Illinois and Mississippi Rivers and is included in the Mark Twain Refuges Plan. The Meredosia, Emiquon, and Chautauqua Refuges are all covered in the Illinois River Refuges plan. These plans provide direction and guidance for the refuges over the next 15 years.

The Service and the Corps recently completed a Habitat Restoration and Enhancement Project (HREP) to rehabilitate a degraded infrastructure essential for management of Chautauqua National Wildlife Refuge. The 3,200 acres of restored wetlands on Chautauqua Refuge provide important habitat for birds migrating along the Mississippi Flyway. Chautauqua Refuge has been designated a Western Hemisphere Shorebird Network site and a Globally Important Bird Area. As many as 150,000 waterfowl and 10,000 shorebirds may be found on Chautauqua during migration. Bald eagles nest on the refuge and fledged two young in 2004.

The Service and Ducks Unlimited completed a partnership project in 2004 to provide passive water management on Weis Lake of the Cameron Unit of Chautauqua Refuge.

Emiquon National Wildlife Refuge is just coming on line with 2,200 acres in Service ownership and about 7,000 acres in The Nature Conservancy (TNC) ownership. The Department of Agriculture recently accepted TNC’s application to enroll 6,332 acres in the Wetland Reserve Program easement. In the last couple of weeks one can see Thompson Lake reforming with 30,000 geese and ducks once again using this historical lake. The Service in partnership with Ducks Unlimited is planning a water distribution system to facilitate management of 1,000 acres of wetlands on Emiquon Refuge. Over 100 volunteers have participated in retoring 120 acres of floodplain habitat by planting 2,500 hardwood trees on Emiquon Refuge in the past year. The Illinois River Refuges’

Partners for Fish and Wildlife Program assisted private landowners in restoring 6,000 acres of wetlands and associated habitat on their lands.

The Service and the Corps completed a Habitat Restoration and Enhancement Project in 2002 on Two Rivers Refuge. Waterfowl, eagles, and other birds responded well to this project. An aerial census revealed 67,000 ducks in early November.

The US Geological Survey's Biological Resources Division oversees the Long Term Resource Monitoring Program at Havana and Alton. Staff from these offices conduct the research and monitoring necessary to evaluate the success of the restoration projects and to adapt management as appropriate. The Water Science Center provided hydrologic monitoring to aid in restoration of the Forest Service's Midewin Tallgrass Prairie Area. They also maintain several state-of-the-art streamflow gaging stations on the Illinois. They recently completed the Water-Quality Assessment of the Illinois River Basin and continue monitoring this resource. This research has linked nutrients in Illinois River to Gulf hypoxia.

The Department of Agriculture's Forest Service is restoring 19,000 acres of prairie at confluence of Des Plaines and Kankakee Rivers. This habitat is important to rare grassland dependent birds. The Midewin Tallgrass Prairie is within 1 hour of Chicago and provides an opportunity for outreach to 9 million people.

The Natural Resource Conservation Service works with private land owners (95% of Illinois is in private ownership) to keep the soil and nutrients on the land. The highly successful Conservation Reserve Enhancement Program (CREP) has restored 120,000 acres of habitat in the Illinois River watershed and of that over 70,000 acres are enrolled in the State side permanent easement. The Wetland Initiative's Hennepin-Hooper CREP project restored 2,500 acres of floodplain habitat. A recent aerial survey showed 46,000 ducks and 5,000 coots using this habitat. The wetland community has been revived on The Nature Conservancy's 1,100 acre Spunky Bottoms near Meredosia Refuge. It was exciting capturing and banding wood ducks in lotus beds that was corn fields just a few short years ago. Nearly 100% of the floodplain of the Lamoine River is enrolled in CREP and provides good wildlife habitat as well as holding the soil in place during frequent flooding. Examples of other Department of Agriculture successful projects in the watershed include TNC's Emiquon Project with 6,332 acres approved for enrollment in a 30 year easement in the Wetland Reserve Program. Restoration is underway and shallow water is appearing in the old Thompson Lake bed. Six thousand geese and hundreds of ducks are using the area. The Natural Resource Conservation Service guided a local team which completed a watershed plan for Crow Creek. Completion of the plan qualifies land owners in the watershed for the Environmental Quality Incentives Program to plant borders along fields and streams. The Department of Agriculture also has thousands of acres of highly erodeable private land enrolled in the Conservation Reserve Program throughout the watershed.

The Corps of Engineers' Environmental Management Program (EMP) has contributed substantially towards habitat restoration and resource monitoring on the Illinois River.

The Corps and Fish and Wildlife Service partnered in \$14 million Habitat Restoration & Enhancement Program (HREP) project on Lake Chautauqua which restored 3,200 acres of floodplain wetlands.

Biologists from the Long Term Resource Monitoring Program estimated that Lake Chautauqua contributed 39 million fish to Illinois River, most of which were shad and carp minnows but still an important food base for predators. A similar project was also completed on Two Rivers Refuge. Other projects that the Corps completed in partnership with IDNR include Banner Marsh, Stump Lake, and Peoria Lake islands project.

The Corps of Engineers recently completed the Navigation Feasibility Study for Upper Mississippi River and Illinois River. The study recommends dual purpose authorization for improved navigation efficiency and for ecosystem restoration. Ecosystem Restoration needs identified in the study include:

- Fish passage at dams
- Water level management in pools
- Island building projects
- Backwater restoration
- Side channel restoration
- Reduction of water level fluctuations (especially during growing season for plants)
- Land acquisition for floodplain connectivity, wetland and riparian habitat protection and restoration

The Corps' Illinois River Basin Restoration and Illinois River Ecosystem Restoration Study is near completion. This study and the ecosystem restoration side of the Navigation Study should result in an elevated awareness of the ecosystem restoration needs and issues on the Illinois River and will likely result in funding to address these issues.

The Corps constructed an electric weir on the Illinois River to stop the exchange of exotic species between Great Lakes and Mississippi River system. The Asian carp that appear to be overwhelming the Illinois River system have yet to reach the Great Lakes.

The Environmental Protection Agency is the lead agency in administering the National Environmental Policy Act of 1969 and Clean Water Act of 1972. By the mid-1950s the Illinois River was dead down to Peoria and sick the rest of the way because of the Chicago "flush". As a result of this pollution, fingernail clams died out which was followed by a precipitous decline in diving duck populations. Goldfish and carp were about the only fish to be caught in the river in the 1950s and 1960s and they were all sick with eroded fins, tumors, and lesions. Now because of actions brought about as a result of the above referenced acts, the water is far less polluted and fish populations are coming back as witnessed by fishing tournaments for walleye and catfish on the river; however, the fingernail clams and diving duck populations have yet to recover. Sediment and nutrient loads remain a huge challenge in the efforts to improve water quality in the Illinois River.

The Department of Transportation has the responsibility of ensuring that impacts of highway construction on wetlands are mitigated. The Illinois DOT established the Lagrange mitigation bank which will result in 1,630 acres of restored habitat across from Meredosia Refuge. IDOT also established the Morris mitigation bank of 830 acres upriver. Lost wetlands are often replaced at a 2:1 ratio or more so this action should result in a net increase in wetlands along the river.

There are many non-federal partners with great accomplishments along the river. The Illinois River Coordinating Council chaired by Lt. Gov. Pat Quinn leads the charge in implementing the Integrated Management Plan for the Illinois River Watershed. The Council was instrumental in developing legislation to fund the Illinois 2020 program and the Illinois River Basin Ecosystem Restoration Study. The Council also established the Friends of Illinois River which conducts the annual "River Sweep". The council in Partnership with Friends of Plum Island and the Illinois Audubon Society saved Plum Island from developers. This island is important roosting habitat for bald eagles and is in the vista viewed from Starved Rock State Park.

Soil and Water Conservation Districts within the Illinois River Watershed worked with landowners and the Service's Partners for Wildlife and Fish program to restore habitat on private lands. The Fulton County Soil and Water Conservation District surveyed and planned a 400 acre habitat restoration project on Emiquon Refuge.

The Wetland Initiative purchased the 2,500 acre Hennepin Drainage District and restored the wetland habitat. Nearly 50,000 waterfowl and other wildlife rested and replenished their energy supply on the newly restored Hennepin and Hooper Lakes this fall.

The Illinois Audubon Society purchased Plum Island saving this important eagle roost habitat from developers. The Emiquon Audubon Society is an official Friend of Chautauqua and Emiquon Refuges. The Emiquon Audubon donated spotting scopes and binoculars to the refuge and have donated thousands of hours of time to help with refuge open house events, to provide bird walks for the public, to restore habitat by planting trees and prairie plants, and conducting bird counts for the refuges.

Ducks Unlimited purchased the 365 acre Duck Ranch, restored the habitat, and donated the property to the Illinois Department of Natural Resources. They purchased 400 acres adjacent to the Spring Lake State Fish and Wildlife Area, are restoring the habitat, and will donate it to the Illinois DNR for management. DU has been a partner in the Service's Partners for Wildlife and Fish program resulting in over 6,000 acres of habitat restored on private lands. DU is currently engineering a water distribution system for managing 1,000 acres of wetlands on Emiquon Refuge.

The Nature Conservancy owns 7,000 acres within the acquisition boundary of Emiquon Refuge. Most of this land was approved for a 30 year easement in the Wetland Reserve Program. This fall Thompson Lake began to reappear with about 500 acres flooded from precipitation and ground water. Waterfowl are already responding to this new habitat in large numbers and restoration has barely begun. The Nature Conservancy also purchased

1,100 acres across the river from Meredosia Refuge. Habitat restoration on this property has been highly successful with the development of a diverse wetland plant community and associated fauna.

The federal agencies, non government organizations, and private land owners work in close partnership with state agencies in conserving natural resources along the Illinois River. State of Illinois agencies working for the conservation of Illinois River resources include the Department of Natural Resources, Environmental Protection Agency, Department of Agriculture, State Water Survey, Natural History Survey, Department of Transportation, and others.

Has the Midwest Natural Resources Group made a difference in the protection, restoration, and enhancement of natural resources within the Illinois River watershed? The impact of the collective federal effort in partnership with state and local groups has been tremendous on the Illinois River. One can see a difference in the watershed landscape as a result of these efforts over the past 10 years. I know that when a natural resource project is being planned on the river, there is a good representation of managers and biologists from the federal agencies as well as representatives from the state and local groups and private landowners. The cooperation among federal agencies has made a difference and Midwest Natural Resources Group is an important player in this process. Midwest Natural Resources Group meetings provide an opportunity for both the senior leaders and field staff to come together to discuss progress, achievements, and strategies to undertake remaining challenges in doing the work required to ensure that our natural resources are sustained for future generations.