

## Restoring Fish and Wildlife Resources in the Great Lakes

# Opportunities under the Great Lakes Fish & Wildlife Restoration Act



### Manageable Solutions for Restoring Fish and Wildlife in the Great Lakes

The Great Lakes Fish and Wildlife Restoration Act addresses the region's most pressing conservation challenges. The Act has enabled the eight Great Lakes states, Native American Tribes and private interests to collaborate in implementing practical solutions to restore and conserve the region's fish and wildlife resources. The Act is a key tool for implementing the Great Lakes Regional Collaboration restoration strategy and for supporting a healthy Great Lakes environment, economy and way of life.

The demand for conservation resources continues to grow, however, and the Act requires increased funding to achieve its full potential for supporting Great Lakes restoration efforts.

### How We Benefit from Fish and Wildlife in the Great Lakes

The Great Lakes are a national treasure and a vital cultural and economic asset for the eight-state region. They are home to a wide variety of fish and wildlife that provide important benefits for the 32 million people who live in the region:

- More than 37 million people participate in fishing, hunting and wildlife watching in the Great Lakes states;
- People spend \$25 billion annually on recreation involving Great Lakes fish and wildlife;
- One third of the boats in the United States are registered in the Great Lakes;
- Boating on the Great Lakes generates nearly \$20 billion annually and 120,000 jobs; and
- The Great Lakes supply waterfowl and other birds for hunting and wildlife watching opportunities for more than half of the United States.

Beyond their economic value, the Great Lakes provide a unique natural heritage for our region. As today's stewards of this heritage, we have a responsibility to pass this resource on to future generations in better condition than we inherited it.

### Partnering with the Great Lakes States to Produce On-the-Ground Results

The Great Lakes Fish and Wildlife Restoration Act is the primary federal program dedicated to restoring important fish and wildlife and the habitat they depend on in the Great Lakes region. It supports monitoring, research and on-the-ground solutions to restore degraded habitat, preserve healthy habitat, and re-establish healthy populations of fish and wildlife. Originally passed in 1990, Congress reauthorized the Act in 2006 and increased its annual funding authorization from \$8 million to \$16 million. Administered by the U.S. Fish and Wildlife Service (USF&WS), the Act funds restoration projects submitted by fisheries and wildlife experts from the eight Great Lakes states, Tribes, and conservation organizations.

The Act provides grants on a competitive basis to states, Tribes and other groups. Since 1998 the Act has supported 87 projects with \$5 million in federal funds. More than 60 agencies, Tribes and organizations have provided nearly \$3.3 million in matching support. These projects have addressed a range of priorities from lake sturgeon rehabilitation to wetlands restoration.

### Addressing the Unmet Restoration Need in the Great Lakes

With a comprehensive Great Lakes restoration strategy in place, the demand for conservation resources has grown dramatically in recent years. In 2008 applicants requested \$4.5 million under the Act for 59 projects. With approximately \$500,000 available, USF&WS was able to fund only 10 projects. See page two for a map showing the location of the projects proposed in 2008, including the 10 that are being funded.

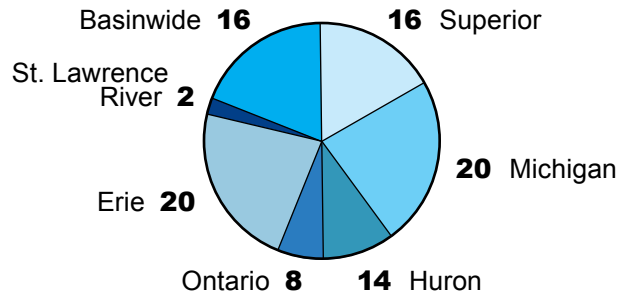
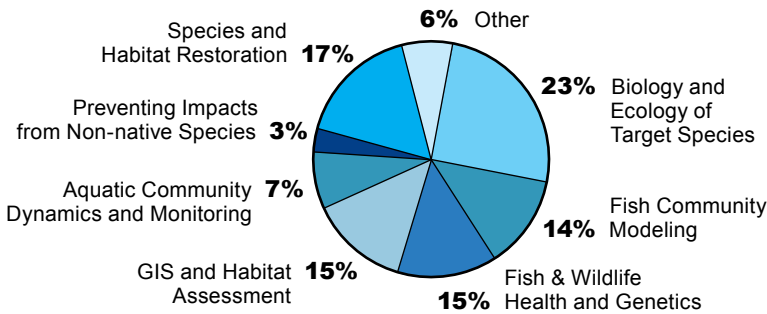
Turn the page for a closer look at the unmet restoration needs throughout the Great Lakes region.



# Benefits for the Great Lakes Region

The Great Lakes Fish and Wildlife Restoration Act has supported a wide array of projects, including site-specific restoration initiatives, monitoring of fish communities, and development of valuable ecosystem management tools.

Projects funded by the Act have been geographically distributed among the five Great Lakes, together with projects that support regionwide management needs. Projects are selected by a committee with fish and wildlife experts from the Great Lakes states and Native American Tribes, ensuring they directly respond to local needs and are coordinated with state and tribal conservation programs.



**Great Lakes Fish & Wildlife Restoration Act  
Percentage of Projects by Restoration Priority 1998-2008**

**Great Lakes Fish & Wildlife Restoration Act  
Number of Projects by Lake 1998-2008**

# Achieving Great Lakes Restoration Goals

As part of the *Great Lakes Regional Collaboration Strategy to Restore and Protect the Great Lakes (GLRC)*, federal, state, local and tribal governments have committed to restoring 550,000 acres of wetlands habitat, re-establishing native sturgeon, lake trout and cisco species, restoring 10 tributaries, and protecting or restoring 100,000 acres of coastal and upland habitats. In addition, there are numerous intergovernmental species rehabilitation and management plans, and negotiated agreements, which are founded upon the existence of healthy fish and wildlife communities.



Because of insufficient funding, the Act has not been able to adequately advance these goals. In FY2008 Congress appropriated \$1.7 million for the Act, approximately \$500,000 of which was available for restoration grants (the remaining \$1.2 million is provided for USF&WS field offices). This is far below the Act's authorized funding level of \$16 million. Since the Act's inception, USF&WS has been able to fund only one-third of the 258 projects submitted under the Act, which would have required nearly \$24 million to fully implement.

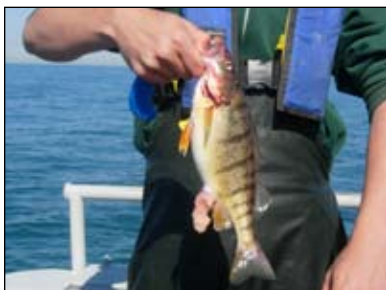
Demand continues to increase. With the completion of the GLRC restoration strategy, as well as state-specific Great Lakes restoration plans, State Wildlife Action Plans, and other key Great Lakes strategies, the potential for the Act to assist in meeting state and Tribal needs is growing exponentially. Congress and the Administration must collaborate with partners in the Great Lakes region to meet this need.



**The Unmet Restoration Need in the Great Lakes**  
The map shows the location of the 59 projects proposed under the Act in 2008. Because of insufficient funding, only 10 will be funded.

## Past Accomplishments and Future Priorities: Perspectives from the Great Lakes States and Tribes

The eight Great Lakes states, Tribes, and their conservation partners – such as Ducks Unlimited – have used the Great Lakes Fish and Wildlife Restoration Act to restore habitat vital to the survival and natural reproduction of fish and wildlife; conduct research; and monitor fish and wildlife populations and develop tools to effectively manage those populations. Below is a brief overview of the important work the Act has supported, as well as some priorities the states and Tribes hope to address in coming years. A complete list of projects funded under the Act is available online at [www.fws.gov/midwest/Fisheries/glfwra-grants.html](http://www.fws.gov/midwest/Fisheries/glfwra-grants.html).



Yellow perch. Photo: Stu Shipman, Indiana Dept. of Environmental Management.



Canoe on the Manistiquet River during a bayulside treatment to control sea lamprey. Photo: T. Lawrence, Great Lakes Fishery Commission.



Sandhill cranes on Lake Superior. Photo: Roger Eberhardt, Michigan Office of the Great Lakes.



Preparing a Remotely Operated Vehicle to study lake trout reproduction on deep reefs. Photo: Bill Horns, Wisconsin Dept. of Natural Resources.



Pintail ducks in flight. Photo: Ducks Unlimited.

**Illinois – Past Accomplishments:** Incorporated information covering 72 years and 1682 sites on Illinois waters into a GIS framework to assess habitat and fish distribution; investigated the risk of Asian carp passing through the electric barrier on the Cal-Sag channel and entering Lake Michigan; developed management tools to strengthen yellow perch populations and facilitate cooperative management with the other Lake Michigan states; and conducted research on lake trout spawning and survival to help restore the species in Lake Michigan. **Future Priorities:** Restore nearshore habitat to benefit fish and wildlife resources; research factors that limit restoration of native species; and analyze how invasive species impact the Great Lakes system.

**Indiana – Past Accomplishments:** Conducted research and developed management tools to strengthen yellow perch populations and facilitate cooperative management with the other Lake Michigan states; and evaluated the success of lake trout spawning at the Indiana Breakwater. **Future Priorities:** Identify and address factors that limit the recovery of yellow perch populations in southern Lake Michigan; and continue to secure dune and wetland habitat in the Great Lakes watershed.

**Michigan – Past Accomplishments:** Mapped nearshore habitat in eastern Lake Michigan and evaluated the affects of shoreline development on fish species; answered important management questions, such as the impact of prey fish changes on lake trout and Chinook salmon, factors influencing the survival of walleye in Lake Erie, impacts of cormorant predation on fish populations, and the affects of changing water levels on habitat in the Lake Huron-Lake Erie corridor; eradicated 300 acres of the invasive reed *phragmites* in the St. Clair Flats Wildlife Area on Lake St. Clair; and restored rare lake plain prairie on Saginaw Bay to benefit migratory birds and spawning habitat for lake trout on Thunder Bay. **Future Priorities:** Restore fish and wildlife habitat in conjunction with Michigan's Great Lakes restoration plan; conduct research on how aquatic invasive species impact native fish species; and implement large-scale fish tagging to monitor and enhance fish populations.

**Minnesota – Past Accomplishments:** Advanced restoration of lake trout and the prey fish (such as lake herring) they depend on in Minnesota waters of Lake Superior; developed fish population models to guide regulations to prevent over-harvesting; implemented a lakewide monitoring plan to assess prey fish abundance; and studied the survival and interactions of different strains of lake trout in Lake Superior. **Future Priorities:** Research and monitoring to restore native fish communities, especially lake herring and various species of deep water ciscos; and habitat restoration to benefit lake sturgeon and other fish and wildlife.

**New York – Past Accomplishments:** Restored more than 100 acres of grassland habitat at the Ashland Wildlife Management Area in the St. Lawrence Valley to provide nesting and foraging habitat for migratory waterfowl; improved walleye management in Lake Erie; protected steelhead spawning in Cattaraugus Creek; and laid the groundwork for the reintroduction of deepwater ciscos, an important food source for Lake Ontario trout and salmon. **Future Priorities:** Improve lake trout spawning habitat in Lake Erie and Lake Ontario; restore wetlands in the Niagara and St. Lawrence river watersheds; and remove dams and promote fish passage on tributaries to Lakes Ontario and Erie.

*Turn the page for more perspectives from the states >*



Menominee River lake sturgeon: an example of a healthy sturgeon population in Lake Michigan. Photo: U.S. Fish & Wildlife Service Green Bay.



Fisherman and nets on the Great Lakes. Photo: Jeff Gunderson, Minnesota Sea Grant.



Bald eagle roosting near Torch Lake, Mich. Photo courtesy of the Great Lakes Commission.



Fly fishing on the Pere Marquette River, Michigan. Photo courtesy of the Great Lakes Commission.



Ducklings. Photo: Ducks Unlimited.

**Ohio – Past Accomplishments:** Restored a 50 acre wetland at Pickerel Creek Wildlife Area in Sandusky County to improve water quality, provide waterfowl habitat and reduce flooding; and strengthened walleye populations in Lake Erie and habitat and diet for lake trout and steelhead. **Future Priorities:** Restore wetlands identified in Ohio’s State Wildlife Action Plan; improve fish habitat in tributaries to Lake Erie; and develop strategies to enhance fishery populations and control nonindigenous invasive species.

**Pennsylvania – Past Accomplishments:** Evaluated whitefish populations in Lake Erie and Lake Ontario to advance the species’ recovery on both lakes; analyzed the spread of fish diseases, such as Botulism type E, in Lake Erie; and planned the restoration of fish populations and the tributary and nearshore habitats they depend on. **Future Priorities:** Protect, preserve and restore wetlands within our Great Lakes watersheds; protect threatened and endangered species; control invasive species; protect and improve shallow-water habitats and spawning streams; and improve habitat for migratory birds along Lake Erie.

**Wisconsin – Past Accomplishments:** Implemented large-scale lake sturgeon rehabilitation in the Milwaukee River; studied lake trout spawning and egg survival on deep-water reefs in Lake Michigan; and tracked spotted musky to their preferred spawning sites to give managers information for protecting and enhancing habitat needed for natural reproduction. **Future Priorities:** Improve lake sturgeon spawning habitat in the Milwaukee River; remove dams and promote fish passage on the Milwaukee River and its tributaries; and restore wetlands per Wisconsin’s Great Lakes restoration plan and the Joint Venture All Bird Plan.

**Great Lakes Tribes –** Fish and wildlife are a vital resource for Native Americans living in the Great Lakes region, as a source of income, subsistence and as a cornerstone of their spiritual life and traditional way of living. The Great Lakes region is home to 35 federally-recognized Tribal Nations, which have authority over fish and wildlife within their jurisdictions by virtue of treaties and intergovernmental agreements. The Tribal Nations are equal partners with the Fish and Wildlife Service and the states in administering the Act. **Past Accomplishments:** Individual Tribes and intertribal organizations have sponsored projects addressing restoration and enhancement of key species, such as lake whitefish, brook trout and sturgeon; restoring critical habitat; and developing tools to support multiagency management of important fish species. **Future Priorities:** Protect and restore native species; prevent new nonindigenous species invasions and control existing invasive species; support monitoring and assessment programs that are important for management of fish and wildlife resources.

**Basinwide Projects –** The Great Lakes are a shared resource, and managing them effectively requires coordination among many agencies and jurisdictions. The Great Lakes Fish and Wildlife Restoration Act provides an important mechanism to facilitate regional cooperation to address common needs. The Act has supported basinwide and lake-specific needs such as monitoring and assessment of fish populations to guide multiagency management efforts; developing guidelines for restoring native fish, such as lake sturgeon and cisco; solving reproduction problems affecting key species, such as walleye on Lake Erie; predicting how climate change will impact fish populations; and creating comprehensive tools, such as the Great Lakes Aquatic Habitat GIS system, to support the work of resource managers across the region. The Act also will be critical in helping states and Tribes map and eradicate invasive plants, such as *phragmites*; protect and restore key habitats for wildlife and fish; and resolve multijurisdictional wildlife problems, such as management of double-crested cormorants.

**Cover photo credits, left to right:** showing a mallard, photo: Ducks Unlimited; public assisting in sturgeon rehab efforts in the Milwaukee River, photo: Brad Eggold, Wisconsin Dept. of Natural Resources; conducting a bird survey on Caribou Island, Ontario, photo: T. Lawrence; satellite image of the Great Lakes, photo: NASA Visible Earth and Michigan Sea Grant; man fishing, photo: Michigan Travel; fly fisherman and his dog on the Manistique River, photo: T. Lawrence; white-tailed deer in the Lake Erie Metropark, photo: James Marvin Phelps.

