

## INDICATOR: LAND CONSERVATION FOR WILDLIFE IN THE DETROIT RIVER INTERNATIONAL WILDLIFE REFUGE

### Background

The Detroit River International Wildlife Refuge (DRIWR) was established by an Act of Congress (Public Law 107-91) on December 21, 2001 (USFWS 2005). It is the only International Wildlife Refuge in North America and includes islands, coastal wetlands, marshes, shoals, and waterfront lands along 48 miles of Detroit River and western Lake Erie shoreline. Its location, situated in a major metropolitan area, is highly unique. The authorized acquisition boundary of the DRIWR extends from the confluence of the Rouge and Detroit rivers to the Michigan-Ohio border in the western basin of Lake Erie.

This area has made great progress since the major pollution problems in the 1970s. Over 35 years of pollution prevention and cleanup programs, and conservation initiatives, have resulted in dramatic improvements in environmental quality of the Detroit River and western Lake Erie. These environmental improvements have resulted in one of the most remarkable ecological recoveries in North America. The U.S. Fish and Wildlife Service recognizes the ecological importance of the area and is conserving valuable wildlife habitats within the DRIWR.

### Status and Trends

Conserving the remaining sensitive wildlife habitats in the Refuge is a high priority of the U.S. Fish and Wildlife Service and its many partners. To guide this conservation work, the Service developed a Comprehensive Conservation Plan (CCP) for the DRIWR in 2001. This CCP articulates management goals, objectives, and strategies to guide management for the next 15 years. The preferred management approach is to focus on cooperative management—where the Refuge would grow primarily through management agreements with industries, government agencies, and other organizations. Partnerships at all levels will be essential to achieve the mission of the U.S. Fish and Wildlife Service and the goals of the CCP for the DRIWR. Indeed, the Refuge is rapidly gaining a national reputation for its public-private partnerships for conservation.

The DRIWR began in 2001 with 123 hectares (304 acres) that included Grassy Island and Mamajuda Shoal. That same year Mud Island was donated to the Refuge by National Steel Corporation (now U. S. Steel Corporation). In 2002 the Refuge expanded to include Calf Island. In 2003 the Refuge signed its first cooperative management agreement with DTE Energy to add the Lagoon Beach Unit at Fermi Power Plant. Also added in 2003 was the Brancheau Unit in Monroe, Michigan. In 2004, a milestone year for the Refuge, Humbug Marsh (the last remaining mile of natural shoreline along the U.S. mainland of the Detroit River) was acquired by the U.S. Fish and Wildlife Service and protected in perpetuity as part of the Refuge. Also in 2004 the U.S. Army Corps of Engineers donated the Strong Unit in Monroe, Michigan. In 2005, cooperative

management agreements were signed with Automotive Components Holdings for Eagle Island Marsh Unit and with the University of Toledo for Gard Island. In 2006, the Refuge nearly doubled in size with the signing of a cooperative management agreement with The Nature Conservancy for Erie Marsh along the lower portion of western Lake Erie. Late in 2006, 316 hectares (780 acres) at Lake Erie Metropark were put into the Refuge by cooperative agreement. In total, the Detroit River International Wildlife Refuge has grown from an initial 123 hectares (304 acres) in 2001 to 2,042 hectares (5,047 acres) in 2007 (Figure 1). The CCP for the DRIWR has set a land conservation target of 4,856 hectares (12,000 acres) (i.e., the Service has identified 4,856 hectares [12,000 acres] of marshes, wetlands, islands, shoals, and uplands that could potentially be conserved through acquisitions, easements, and cooperative agreements).

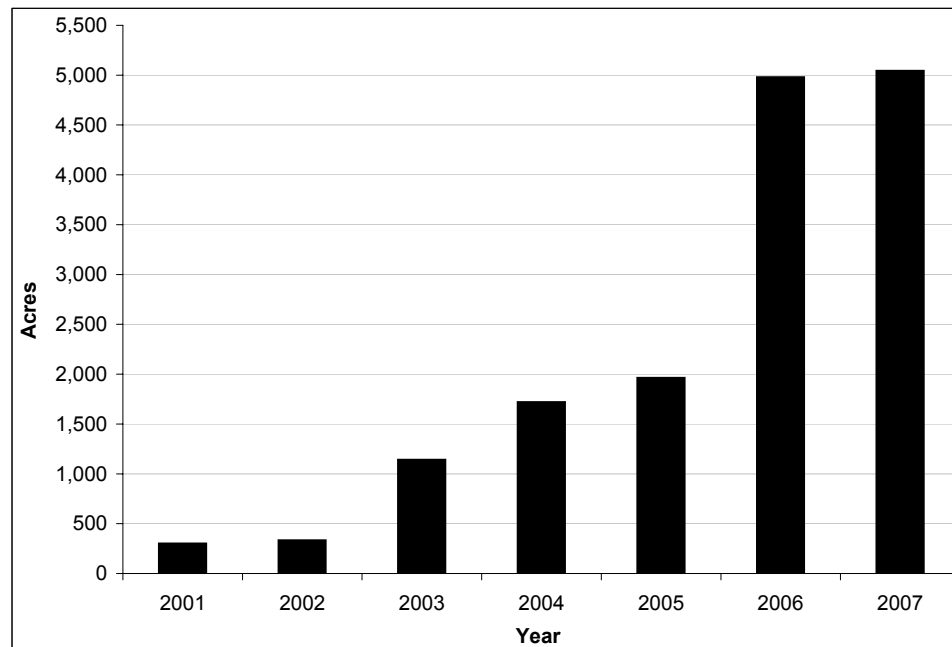


Figure 1. The cumulative growth of acreage in the Detroit River International Wildlife Refuge, 2001-2007. Note: One acre = 0.40 hectares.

## Management Next Steps

Conserving as many remaining high quality habitats as possible is the top priority of the Refuge. This is particularly important to recognize in a relatively new Refuge with limited staff. Managers are placing substantial emphasis on conservation of unique wildlife habitats while these opportunities still exist.

Managers will also be placing a high priority on further developing public-private partnerships and building a network of volunteers with the help of the International Wildlife Refuge Alliance, an independent 501(c)(3) nonprofit organization, whose mission is to: “support the first International Wildlife Refuge in North America by working through partnerships to protect, conserve and manage the Refuge’s wildlife and habitats, and to create exceptional conservation, recreational and educational experiences to develop the next generation of conservation stewards.” Priority emphasis is also being placed on establishing a similar cooperative management agreement process in Canada to simultaneously grow the Refuge on the Canadian side.

## Research/Monitoring Needs

The DRIWR recognizes the need to have strong linkages between science and management. The Refuge is currently being managed in an adaptive management context, where assessment, priority setting, and management action are followed in an iterative fashion for continuous improvement. The Detroit River-Western Lake Erie Indicator Project is a good example of ecosystem assessment. However, much more needs to be done, particularly in establishing a systematic and comprehensive biological program. This biological program should include standardized vegetation surveys, waterfowl surveys, colonial waterbird nesting counts, and others, and be complementary to the current research being conducted in the Detroit River-Western Lake Erie watershed. In addition, Refuge monitoring and management must be integrated with the Lake Erie Millennium Network, the Lake Erie Lakewide Management Plan, the Detroit River Remedial Action Plan, the Lake Erie Committee of the Great Lakes Fishery Commission, and others.

## References

[USFWS] U.S. Fish and Wildlife Service. 2005. *Detroit River International Wildlife Refuge Comprehensive Conservation Plan and Environmental Assessment*.

### Links for More Information

Detroit River International Wildlife Refuge: <http://www.fws.gov/midwest/DetroitRiver/>

Michigan Sea Grant, Detroit River International Wildlife Refuge, Birdwatching Eco-tourism & Education Project, and the International Wildlife Refuge Alliance: <http://www.miseagrant.umich.edu/coastal/ecotourism.html>

Midwest Natural Resources Group: <http://www.mnrg.gov/accomplishments/detroit-river.htm>

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