

# DETROIT RIVER INTERNATIONAL WILDLIFE REFUGE

2012 ANNUAL REPORT

Building an International  
Wildlife Refuge in the  
Industrial Heartland





# WELCOME!

## Annual Report 2012

### Dear Friends

This year has been another incredible year of achieving conservation results and fostering public-private partnerships for our international wildlife refuge. In September 2012, we celebrated Canada's renewed commitment at the signing of the "Western Lake Erie Watersheds Priority Natural Area Initiative" agreement. This Priority Natural Area initiative provides Canadian federal, provincial, and local partners with a mechanism to work closely with us on the Detroit River International Wildlife Refuge. It is the first such agreement of its kind in Canada and a historic collaboration. We now can look forward to seeing wetlands being added to a Canadian registry of lands for the Detroit River International Wildlife Refuge. Indeed, this allows us to see the refuge grow on both sides of the border, furthering conservation of continentally-significant natural resources, enhancing quality of life, and increasing community competitive advantage.

This year's annual report also further demonstrates our leadership in public-private partnerships for conservation. I am so proud that over 300 public and private partners have been involved in building our refuge. In 2012, we saw, under the leadership of Refuge staff and our Friends Group called the International Wildlife Refuge Alliance, 83 stewardship and outreach events held for invasive species removal and habitat management. We also saw the power of partnerships in the convening of 42 open houses, and the logging of over 18,000 volunteer hours in support of the refuge. What an amazing accomplishment and a conservation model for others to follow.

I encourage each of you to inspire, recruit, and equip others to get involved in the Refuge and help us pass on an incredible conservation legacy to the next generation. We have an amazing story that needs to be told of how, in this major urban area and industrial heartland, we are using innovative public-private partnerships to achieve remarkable conservation results and improve quality of life. One of the added benefits of this work is that it is helping develop the next generation of conservationists.

From the bottom of my heart, thank you for your hard work and dedication. I look forward to seeing in 2013 the design of a Visitor Center for the Refuge Gateway, further growth of the refuge in both the United States and Canada, and more people getting involved in growing and enjoying North America's only international wildlife refuge.

With every good wish,

John D. Dingell  
Member of Congress



Refuge Gateway, May 2012 (USFWS)

### Introduction

The lower Detroit River and western Lake Erie, located in the heart of the Great Lakes basin, support a great diversity of wildlife and habitats they depend upon. This ecosystem also links Canada and the U.S. who share a long history of cooperation, including many cooperative conservation initiatives. Out of this international cooperation, the 48 miles of shoreline along the lower Detroit River and western Lake Erie have been designated North America's only international wildlife refuge – the Detroit River International Wildlife Refuge (IWR).

This annual report is intended to document refuge accomplishments in 2012, celebrate progress, and inspire more citizens, students, businesses, and communities to become partners in this work. It represents a collaborative effort between the U.S. Fish and Wildlife Service (USFWS) and the International Wildlife Refuge Alliance (IWRA), the nonprofit Friends Group that builds the capacity of the USFWS to deliver its mission for the Detroit River IWR.

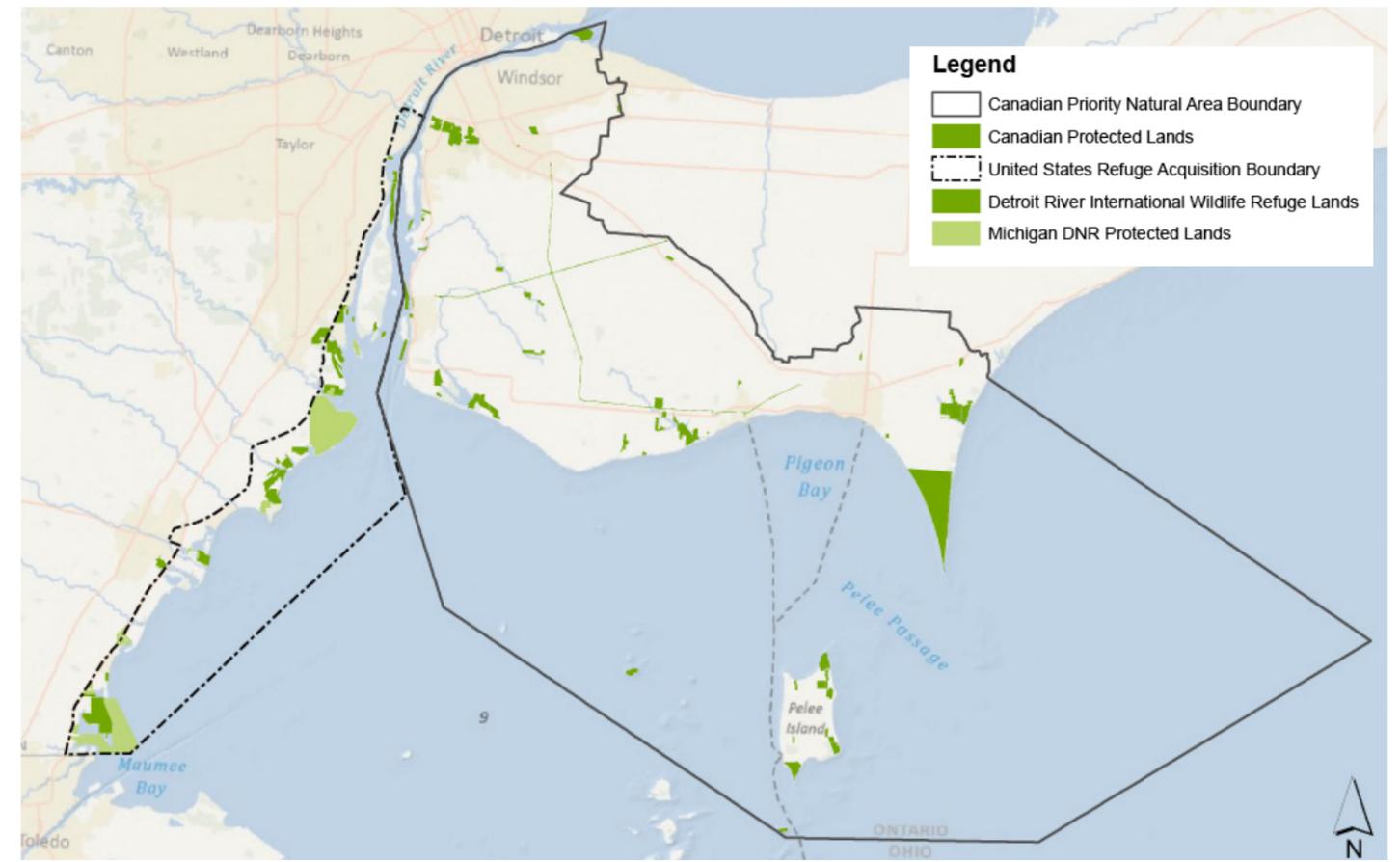
### Focus: Canada's Historic Priority Natural Area Designation

On 27 September 2012, a historic collaboration agreement for the "Western Lake Erie Watersheds Priority Natural Area" was signed by Canadian partners on BASF's Fighting Island in LaSalle, Ontario.

"The Priority Natural Area initiative will provide federal, provincial, and local partners with a mechanism to work more closely with our U.S. neighbors and to complement progress being made in the U.S. on the Detroit River International Wildlife Refuge, and other related initiatives," explained Richard Wyma, General Manager for the Essex Region Conservation Authority (ERCA).

The Priority Natural Area initiative is a Canadian response to the Detroit River IWR and reflects Canada's commitment to the Canada-U.S. "Conservation Vision for the Lower Detroit River Ecosystem" that was established in 2001. That binational conservation vision called for the establishment of the Detroit River IWR. The Priority Natural Area initiative builds on this foundation of Canada-U.S. cooperation on conserving natural resources, protecting the environment, and realizing numerous benefits.

Think of the "Priority Natural Area" as the Canadian equivalent of the U.S. refuge acquisition boundary. Canadian partners, including Environment Canada, Fisheries and Oceans Canada, the Ontario Ministry of Natural Resources, the Nature Conservancy of Canada, Ducks Unlimited Canada and the Essex Region Conservation Authority, now have a mechanism to grow the refuge in Canada. "It's a historic day," noted Jeff Watson, Canadian Member of Parliament. "This agreement is the first of its kind in Canada and can serve as a model for other areas." Watson credited Congressman John Dingell with having the vision and providing the encouragement that ultimately resulted in this first Collaborative Agreement.



Front Cover Photo Credits: International Wildlife Refuge Alliance (IWRA), Jerry Jourdan, US Fish and Wildlife Service (USFWS). Thank you to our other photo contributors including: Eastern Michigan University, Karen Skrocki, and Mary Bohling

# HABITAT CONSERVATION

Protecting wildlife and their requisite habitats is the top priority of the National Wildlife Refuge System and its Detroit River IWR.



DRIWR Strong Unit, May 2012 (IWR)

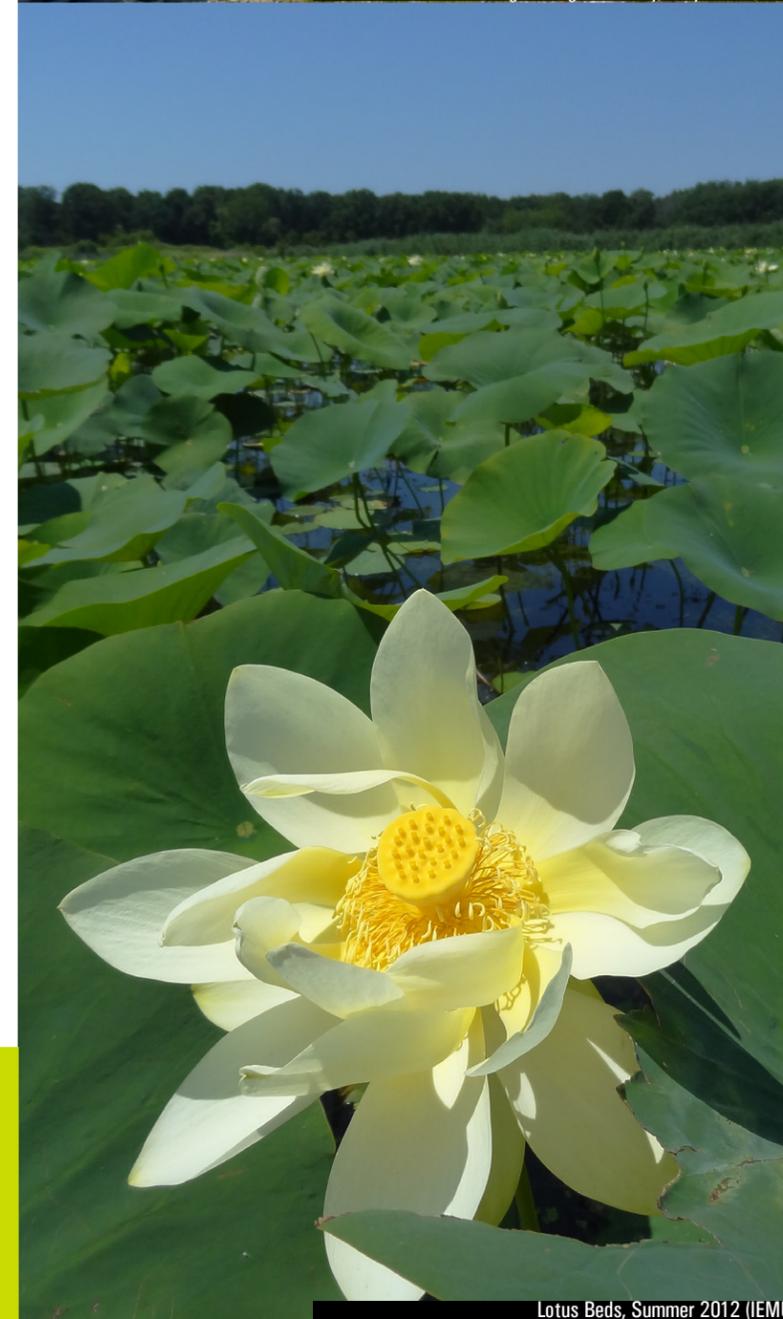
## Highlights

- 220 acres were burned at the Strong Unit and adjacent Great Lakes Aggregates property in spring to eliminate previously sprayed invasive *Phragmites* and cattail, and to revitalize native plants within the wet meadows and forested areas.
- The completion of over \$1.5 million of brownfield cleanup and restoration work at Wayne County's Refuge Gateway in Trenton – the future home of the Refuge's Visitor Center.
- The Refuge herbicide-treated/mowed 110 acres of invasive *Phragmites* in six units in 2012. Members of the Cooperative Weed Management Area herbicide-treated an additional 1,125 acres through Great Lakes Restoration Initiative funding.
- In Humbug Marsh Unit, *Phragmites* was treated with selective herbicide in 15 acres (in preparation for a prescribed fire in 2013), buckthorn and honeysuckle were removed from 10 acres, over 130 European black alders were killed, and native seed was collected and broadcasted.
- In 2012, eight pairs of common terns nested on habitat created in 2010 on Belle Isle in a partnership with the Detroit Zoological Society and Detroit Water and Sewerage Department. Two birds fledged in 2012, representing the first successful fledging of common terns from Belle Isle in over 50 years.
- 13 new soft shoreline engineering projects have been undertaken in the watershed in the last two years, increasing the total number of projects undertaken over the last 12 years to 51 ([www.stateofthestrat.org](http://www.stateofthestrat.org); under "soft shoreline engineering" tab).
- Funding (National Fish and Wildlife Foundation, Sustain our Great Lakes Program; \$800,000; 2012-2014) was secured to construct a one acre fish spawning reef near the Del Ray boat launch in the Detroit River (Fort Wayne Reef).

The Detroit River IWR owns or supports the protection of nearly 5,800 acres of coastal habitat!



Tree Plantings Refuge Gateway, May 2012 (FWS)



Lotus Beds, Summer 2012 (IEMU)

# RESEARCH & MONITORING

One of the strengths of the Refuge, since its establishment, has been the strong coupling of science and policy/management.

## Highlights

- Refuge staff continued to work with Eastern Michigan University and interns to monitor habitat status and changes with photo points and plant community assessments for input into the Refuge's Geographic Information System.
- Detroit River Hawk Watch monitoring continued in 2012, representing the 30th year of consecutive monitoring at the lower Detroit River. A Raptor Population Index analysis was completed and is available on the website ([www.drhawkwatch.org](http://www.drhawkwatch.org)).
- Common Tern (a "threatened" species in Michigan) monitoring continued on habitat restored on Grosse Ile Free Bridge and Belle Isle.
- Refuge staff and volunteers continued marsh bird monitoring at the Refuge's Brancheau Unit.
- During 2012, volunteers inventoried frogs and toads using national protocols at five Refuge units.
- The remedial investigation of contaminants on Grassy Island continued during 2012, including herbicide treatment of *Phragmites* to improve access to groundwater monitoring wells. Groundwater data are being collected to help inform the type of containment needed on the Island, as well as provide information about effectiveness of any future containment actions undertaken on Grassy Island.



EMU Research, Shoreline Restoration at the Refuge Gateway, and Tern Habitat on Belle Isle, Summer 2012 (EMU & USFWS)

## Publications

Francoeur, S., L. Cargnelli, A. Cook, J. Hartig, J. Gannon, and G. Norwood, Eds. 2012. State of the Strait: Use of Remote Sensing and GIS to Better Manage the Huron-Erie Corridor. Great Lakes Institute for Environmental Research, Occasional Publication No. 7, University of Windsor, Ontario, Canada.

Norwood, G. and G. Stevens. 2012. Detroit River-Western Lake Erie Cooperative Weed Management Area Annual Report. Detroit River International Wildlife Refuge, Grosse Ile, Michigan.

Quinlan H., J. C. Boase, R.F. Elliott, and B.A. Trometer. 2012. State of the Lakes Ecosystem Conference Report. Lake Sturgeon Indicator. Environmental Protection Agency, Chicago, Illinois

Roseman, E.F., G. Kennedy, B.A. Manny, J. Boase, and J. McFee. 2012. Life history characteristics of a recovering lake whitefish *Coregonus clupeaformis* stock in the Detroit River, North America. Proceedings of the 10th Coregonid Fishes Symposium. Advances in Limnology 63: 477-501.

Weimer, E., T. MacDougall, A.M. Gorman, J. Boase, J. Francis, C. Geddes, B. Haas, R. Kenyon, C. Knight, P. Kocovsky, E. Roseman, S. Mackey, J. Markham, and E. Rutherford. 2012. Lake Erie Habitat Task Group Report to the Lake Erie Committee, Great Lakes Fishery Commission, Ann Arbor, Michigan.



Sturgeon Tagging Detroit River, 2012 (USFWS)

## Focus: USFWS Alpena Fish & Wildlife Conservation Office - Waterford Substation

The Waterford Substation Fisheries Program annually conducts fisheries assessments within the refuge boundary and is a collaborator on multiple projects totaling over \$6.2 million in funding in the St. Clair-Detroit River ecosystem. Partners include: Detroit River IWR, U.S. Geological Survey-Great Lakes Science Center, Canada Department of Fisheries and Oceans, Environment Canada, Detroit Riverfront Conservancy, Michigan Sea Grant, USFWS Ecological Services, Michigan Department of Natural Resources, Ontario Ministry of Natural Resources, Michigan Department of Environmental Quality, Detroit River Public Advisory Council, U.S. Environmental Protection Agency, National Ocean Atmospheric Administration, Binational Public Advisory Council, USFWS Sea Lamprey Control Program, U.S. Coast Guard, Michigan Technological University, Central Michigan University, and Michigan Wildlife Conservancy.

## Highlights

- Investigating lake sturgeon ecology in the Huron-Erie corridor, with particular emphasis on estimating productivity from reefs being constructed.
- Pre- and post-monitoring of fish communities associated with habitat enhancement projects in the St. Clair-Detroit River System. Adult and juvenile lake sturgeon assessments in the St. Clair Detroit River System.
- Pre-construction assessment of Fort Wayne fish spawning reef.
- Investigating lake sturgeon metapopulation structure using acoustic telemetry in the St. Clair and Detroit rivers with funding from Great Lakes Fishery Commission.
- Performing sea lamprey transformer fyke netting in the St. Clair and Detroit rivers to identify and reduce numbers of adult lamprey in Lake Erie.
- Investigating contaminants of emerging concern in Great Lakes Areas of Concern, in cooperation with Ecological Services.

# PUBLIC USE & COMMUNITY ENGAGEMENT

Protecting wildlife and their requisite habitats is the top priority of the National Wildlife Refuge System and its Detroit River IWR.

## Highlights

- In total, the IWRA and USFWS hosted 83 stewardship (removal of invasive buckthorn and garlic mustard, and planting trees by volunteers) and outreach events, and 42 open houses, during 2012.
- Nearly 1,200 students participated in World Wetlands Day at Gibraltar Carlson High School that included a wetlands expo and educational program.
- 18,000 volunteer hours (value of \$400,000) were logged in 2012 in support of the Refuge.
- Ford Volunteers built a stream crossing in Humbug Marsh and helped plant large trees at the Refuge Gateway
- Over 4,000 people attended Hawkfest at Lake Erie Metropark where USFWS and IWRA were important partners
- Detroit River IWR again hosted a Youth Conservation Corps crew during the summer of 2012.
- Over 8,000 people attended the Pointe Mouillee Waterfowl Festival where USFWS and IWRA helped make this event a major success.
- A Greening of Detroit Restoration Field Crew, made up of a team leader and four trained workers, worked with 373 volunteers to plant over 300 trees at the Refuge Gateway and Humbug Marsh. This crew also was involved in many outreach events.
- With the help of the US Navy Sea Bees Battalion 26, the berm in the Mongaugon wetland at the Refuge Gateway was restored for habitat and a future pedestrian and bike trail.
- Eagle tours were again a major success at DTE Energy's Monroe Power Plant.
- On June 9, the Detroit Riverfront Conservancy, USFWS, and many other partners hosted over 500 kids and families to the second annual River Days Kids Fishing Fest, a free family fishing festival at the Milliken State Park in Detroit.

## Focus: Hunting opens in the Refuge

In 2012, the USFWS opened selected areas of the refuge to hunting. Humbug, Calf, and Sugar Islands, as well as the Strong and Fix Units were opened to small game, big game and migratory bird hunting in accordance with state regulations. Coastal portions of the Plum Creek Bay Unit that are only accessible by water and the Brancheau Unit were both opened for migratory bird hunting only. The refuge was able to provide hunting at the Brancheau Unit due to a partnership with the Michigan Department of Natural Resources at the Pointe Mouillee State Game Area (SGA). Hunting was coordinated with the daily drawing that occurs as part of the SGA's managed waterfowl hunt.

According to reports from citizens and law enforcement officials, the hunts were well received and quite successful. Very few complaints were received from the public in regards to hunting on the refuge. At the Brancheau Unit waterfowl hunt, there were only two days out of the regular waterfowl season that none of the zones were selected in the daily drawing. A total of 103 waterfowl hunters were able to hunt the Brancheau Unit during the 2012 season and the total duck harvest for the 15 days that the unit was hunted was 75 ducks. Michigan Department of Natural Resources was instrumental in making the Brancheau Unit hunt a success.



Hunting, Fall 2012 (USFWS)



Free Fishing Day, Detroit River 2012 (USFWS)



Volunteers, May 2012 (IWRA)



Navy Sea Bees Volunteers, May 2012 (USFWS)



Stewardship Volunteers, April 2012 (USFWS)



Fisheries outreach, May 2012 (IWRA)



Evening ducks on the water (USFWS)

Help make a difference at the Detroit River IWR. Volunteer stewardship and outreach opportunities are available! Visit [www.iwr\\_alliance.com](http://www.iwr_alliance.com) or [www.fws.gov/refuge/detroit\\_river](http://www.fws.gov/refuge/detroit_river)

# CAPACITY BUILDING

One of the Refuge strengths is public-private partnerships that build capacity



Visitors arrive to the IWRA Annual Benefit Dinner, May 2013 (IWRA)

Detroit River IWR 2012

Building an International Wildlife Refuge in the Industrial Heartland

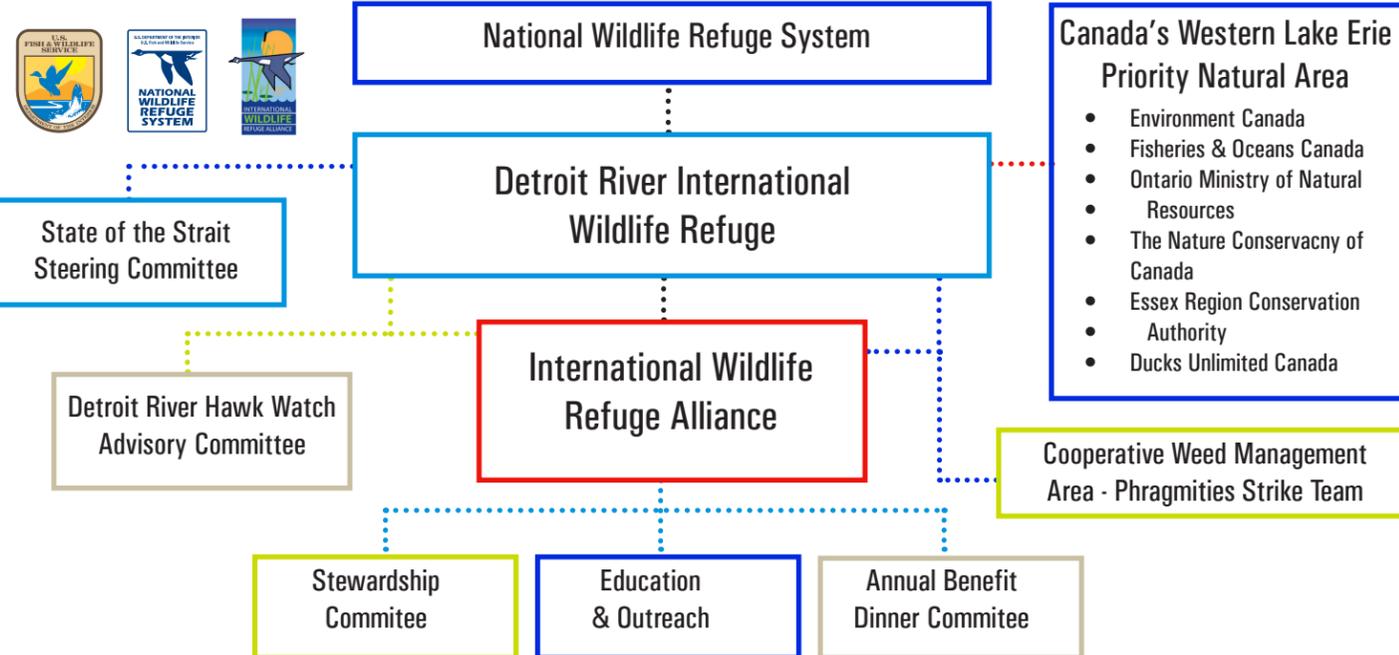
## Focus: International Wildlife Refuge Alliance (IWRA)

The Refuge is indeed fortunate to have IWRA as its Friends Group. IWRA is ably served by Executive Director Joann Van Aken and the 2012 Board of Directors that included: Mr. Dick Micka (chairperson), Ms. Ryan Werder (Vice Chairperson), Mr. Jack Liang (Secretary), Mr. Tim Bowman (Treasurer), Ms. Anita Twardesky, Mr. Dick Whitwam, Mr. Fred DeLisle, Mr. Steve Beachum, Ms. Roberta Urbani, Mr. Gary R. Kirsh, Ms. Mary Bohling, and Mr. David Shefferly. In 2012, IWRA was again fortunate to receive grant support from The Erb Family Foundation for expanding outreach activities.

Full-time Refuge staff during 2012 included: John Hartig (Refuge Manager), Steve Dushane (Assistant Refuge Manager), Jamie Lanier (Visitor Services Manager), and Greg Norwood (Refuge Biologist). Part-time Refuge staff included Jeanette Bowles (Administrative Officer), Logan Cannon (Law Enforcement Officer), and Anna Cook (Student Temporary Employment Intern). The Refuge was also very fortunate to have full-time support of Landscape Designer Allison Krueger (under contract with IWRA). Fisheries staff included: Jim Boase (Supervisory Fish Biologist) and the following four Fish Biologists: Justin Chiotti, Stephen Hensler, Margaret Hutton, and Eric Stadig. Ecological Services was represented by Stephanie Millsap (Contaminants Biologist).



Lake Erie Metropark, 2012 (EMU)



## Detroit River IWR Organization

Presented above is the current institutional framework for Detroit River IWR, demonstrating its strength in partnerships. Clearly, this institutional framework will continue to evolve and improve, consistent with adaptive management.



Refuge Gateway restored shoreline, 2012 (IWRA)

Canadian signing ceremony, 2012 (Skrocki)

USFWS Outreach, 2012 (IWRA)

Environmental education, 2012 (IWRA)

IWRA Volunteers, 2012 (IWRA)

Spring toad, spring beauty (Bohling), Refuge habitat, 2012 (IWRA)

Capacity Building

# WHATS NEXT...

## Detroit River IWR Goals for 2013

- Completing the architecture and engineering work for the design of a Visitor Center at the Refuge Gateway.
- Securing full funding for the school ship dock and world-class fishing pier at the Refuge Gateway.
- Acquiring at least three new refuge tracts with \$1.8 million of funding from U.S. Department of Transportation or through donation.
- Working with Canadian partners to add high quality habitat lands to the Canadian portion of the Detroit River IWR.
- Completing a Refuge Visitor Services Plan.
- Improving the Refuge's hunting program based on feedback from the 2012 hunting season.
- Completing an environmental assessment for public use on Sugar Island and obtaining Service approval for the preferred option.
- Continuing invasive species management at Refuge units, including undertaking prescribed burns.
- Restoring Ford Marsh Unit, in partnership with Ducks Unlimited.
- Expanding the Fighting Island sturgeon reef and constructing a new one near the Del Ray boat launch (Fort Wayne Reef).
- Convening another State of the Strait Conference in 2013 at University of Windsor.
- Identifying other suitable locations for aquatic habitat enhancement projects within Refuge waters.
- Continuing monitoring of the fish community response to habitat enhancement projects, while enhancing monitoring for aquatic invasive species.
- Continuing long-term monitoring of threatened and endangered fish species.
- Increasing the number of volunteers involved in the Refuge's stewardship efforts.
- Completing the investigative study of Grassy Island and identifying the proposed remedial option.
- Supporting another IWRA fund raiser in May 2013 and hosting another Youth Conservation Corps Crew in 2013.
- Continuing to support established events such as International Migratory Bird Day, World Wetlands Day, National Public Lands Day, Kids Free Fishing Day, the annual Hawkfest, Pointe Mouille Waterfowl Festival, Eagle Tours, and a Lotus Tour.
- Sustaining Detroit River Hawk Watch.
- Collaborating on necessary research with Eastern Michigan University, University of Windsor, USFWS Fisheries, U.S. Geological Survey, and others.



Refuge Gateway Master Plan (Hamilton Anderson)



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