For Immediate Release: July 24, 2014

Invasive *Phragmites* Control Successful at Refuge: Transformation of an Embayment for People and Wildlife

GROSSE ILE, MI – The Detroit River International Wildlife Refuge (DRIWR) has worked for five years to revitalize one of the last remaining coastal wetlands along western Lake Erie. The Refuge's Strong Unit contains a 168-acre coastal embayment (one of few remaining) located adjacent to Estral Beach Village and Pointe Mouillee State Game Area. It was acquired in 2004 from the U.S. Army Corps of Engineers. At the time of acquisition, the flooded portion of the embayment could best be described as a monotypic, 16-20-foot tall "wall" of *Phragmites* (an invasive non-native aquatic plant commonly called common reed). The dense *Phragmites* canopy had little value to wildlife and was a wildfire hazard. Further inland in the unit is a very special rare wet prairie and shrub zone along Port Sunlight Road which needed a controlled burn to revitalize its plant and animal life. After seeing success in other areas nearby, especially Sterling State Park and Pointe Mouillee State Game Area managed by the Michigan Department of Natural Resources, Refuge Biologist Greg Norwood, tasked with prioritizing the Refuge's herbicide, fire, and mowing operations, initiated the following:

- Aerial herbicide (helicopter) treatment of *Phragmites* in the fall of 2010;
- A 180-acre prescribed fire in the spring of 2012;
- A second aerial herbicide treatment of *Phragmites* in the fall of 2012 (including adjacent wetlands owned by Great Lakes Aggregates);
- 35-acres of mowing herbicide-treated *Phragmites* using an amphibious vehicle called a Marsh Master in February 2013; and
- A final aerial herbicide (helicopter) treatment of *Phragmites* in the fall of 2013.

Supporting this conservation work has been researchers, including Dr. Gene Jaworski, professor emeritus from Eastern Michigan University, who have helped map the habitats and *Phragmites* on the entire coastal landscape in and surrounding the embayment, and have worked with the Refuge Biologist Norwood to produce updates on-line called "field notes" (http://driwr.emich.edu/). In addition, a group comprised of numerous organizations interested in invasive species control, called the Detroit River-Western Lake Erie Cooperative Weed Management Area, has formed to help members, like the Refuge, conduct this work more collaboratively and efficiently.

The results have truly been amazing and mirror what other Cooperative Weed Management Area members are finding. What was once a monotypic stand of *Phragmites* is now a transformed coastal embayment with patches of native plants, including at least three

species of bulrush, bur-reed, soft rush, arrowhead, cattails, and many others. The controlled burn travelled through the shrub zone and opened up new gaps in the canopy allowing species with very different light requirements to exist right next to each other so that there is high diversity seen in few other places. Finally, the fire also rejuvenated luxuriant growth of native wet prairie grass and wildflowers so important to game species and native pollinators. Refuge Biologist Norwood and Dr. Jaworski are also seeing invertebrate diversity increasing and the return of birds like great egrets, great blue herons, yellowlegs, dowitchers, common snipe, rails, and waterfowl like blue and green-winged teal, mallards, northern shovelers, and many more. This ecological recovery is also benefitting humans by allowing hunters to walk out and set decoys, thereby re-establishing a hunting opportunity that did not exist before.

"When there is a long-term commitment, *Phragmites* can be managed in almost all cases on the Refuge and is always transformative for wildlife and public use," noted Greg Norwood, Refuge Biologist of the DRIWR. "Use of the appropriate tools at the right time is essential to removing this invasive plant more permanently from these iconic marshes." The Refuge's experience is that controlling invasive species does not take substantial amounts of money, but more reasonable resources consistently dedicated over many years. "Public support for this important conservation work comes when there are multiple benefits, such as public use, wet prairie revitalization, and science transfer of restoration results through timely, web-accessible reports," says Norwood.

The DRIWR represents a new model for conservation -- restoring habitats for wildlife in an urban area through public-private partnerships and becoming a blueprint for bringing conservation to cities across the nation. DRIWR extends along 48 miles of lower Detroit River and western Lake Erie, and focuses on conserving, protecting, and restoring habitats for 30 species of waterfowl, 117 kinds of fish, and over 300 species of birds. DRIWR currently owns or cooperatively manages 5,816 acres of unique habitats that include islands, coastal wetlands, marshes, wet prairies, shoals and riverfront lands. To date, 3,797 acres of Essex Region Conservation Authority lands and 981 acres of City of Windsor lands have been added to a Canadian registry of lands, and 7,897 acres of Michigan Department of Natural Resources lands have been added to the U.S. registry of lands for conservation purposes. When totaled between Canada and U.S., 18,462 acres of land in southwest Ontario and southeast Michigan are now being collaboratively managed and protected for the benefit of wildlife and outdoor recreation in the spirit and intent of the 2001 Conservation Vision and the DRIWR.

More than 80 percent of Americans live in urban or suburban communities and the U.S. Fish and Wildlife Service values the role that urban refuges play in bringing conservation to urban areas and in providing innovative educational programming and volunteer opportunities.

The mission of the U.S. Fish and Wildlife 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."

For more information, contact: Greg Norwood, Refuge Biologist (734-692-7611; greg_norwood@fws.gov) or Steve Dushane, Assistant Refuge Manager (734-692-7604; steve_dushane@fws.gov).

##

Dense, monotypic stand of *Phragmites* exceeding 15 feet in height prior to removal, 2011 (photo credit: U.S. Fish and Wildlife Service)

Transformed marsh (same location as above photo) with open water, mud, and patches of different plant species essential to native wildlife, 2014 (photo credit: U.S. Fish and Wildlife Service).