



Applying knowledge to improve water quality

**Great Lakes**

**Regional Water Program**

A Partnership of USDA CSREES  
& Land Grant Colleges and Universities

Winter 2009

# *Expanding Freshwater Estuary Research and Education in the Great Lakes Region*

**GREAT LAKES  
REGION**



**National Theme:**  
Environmental Restoration

## **Project Description**

Great Lakes freshwater estuaries are unique coastal landforms that occur where river and Great Lakes water mix in shallow wetlands located near the mouth of a river. Great Lakes communities have developed adjacent to freshwater estuaries because of their importance as sources of water, food, and navigation. While the Great Lakes have been well-studied over the past 100 years, freshwater estuaries and other coastal wetland systems have received limited attention. The information that does exist suggests that freshwater estuaries provide important fish and wildlife habitat, water quality protection, flood control, and economic benefits.

The National Estuarine Research Reserve (NERR) System is a nationwide network of protected coastal estuaries that are designated and supported through the National Oceanic and Atmospheric Administration (NOAA). The NERR program integrates research, outreach, and stewardship activities related to estuary resources, including those in the Great Lakes. NERR sites represent partnerships between federal and state governments that often leverage substantial additional resources.



Wisconsin's proposed Lake Superior NERR includes components of the 12,000-acre St. Louis River freshwater estuary. Photo by Patrick Robinson.

Currently, the only Great Lakes freshwater estuary NERR site is Old Woman Creek on Lake Erie in Ohio. The Great Lakes Regional Water Program has participated in an ongoing effort to designate a second NERR site at the headwaters of the Great Lakes on Wisconsin's Lake Superior shoreline. A Lake Superior NERR site in combination with the existing Lake Erie NERR site will create a platform for future regional collaborative research and outreach related to freshwater estuary systems, the Great Lakes, and coastal resources. This research and outreach could have significant benefits for the entire Great Lakes Region.

## PROJECT CONTACTS

### Patrick Robinson

Environmental Restoration Theme Coordinator  
Great Lakes Regional Water Program  
University of Wisconsin-Extension  
Phone: (920) 465-2175  
Email: patrick.robinson@ces.uwex.edu

### Robin Shepard

Executive Director,  
North Central Cooperative Extension Association  
Phone: (608) 890-2688  
Email: ncea@uwex.edu

## PROJECT PARTNERS

**This initiative involves a wide array of local, state and federal agencies, land grant institutions, environmental groups, tribal governments, municipalities, non-land grant institutions and various foundations.**

*For more information about the Great Lakes Regional Water Program, please contact:*

*Rebecca Power  
University of Wisconsin  
Regional Water Liaison  
Phone: (608) 263-3425  
rebecca.power@uwex.edu*

## Outcomes

In 2008, the site selection process for the Lake Superior NERR was completed.

This represents the first time within the NERR Program that the federal evaluation process was adapted to a Great Lakes freshwater estuary site evaluation. In addition, the site selection process incorporated relevant research, such as data from the Great Lakes Environmental Indicators project.

On May 30th, 2008, Wisconsin's Governor Doyle announced the nomination of the St. Louis River freshwater estuary for NERR designation. The nomination was widely covered in the media, including national news sources. The St. Louis River freshwater estuary, which is



Wisconsin's Governor Doyle signing the NERR nomination document.  
Photo by Lynelle Hanson.

situated on the border between Wisconsin and Minnesota, is located at the headwaters of the Great lakes. The St. Louis River is the largest United States tributary to one of the world's largest freshwater resources. Near the end of its 179-mile journey, the river slows and spreads into a diverse 21-mile long, 12,000-acre freshwater estuary. The freshwater estuary serves as the primary nursery for the fish found in western Lake Superior and is home to over 45 native fish species. The freshwater estuary is also home to over 230 bird species and provides a critical migratory stopover and breeding area.

A nomination document was sent to NOAA for review and was approved in November of 2008. The next steps for the NERR project include development of a management plan and Environmental Impact Statement, which is anticipated to take two years to complete.



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