

Protecting Wetlands for the Future in Wisconsin

Project Location

Lake Superior National Estuarine Research Reserve, Wisconsin

Project Lead

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Targeted End Users and Products

- [Project final report](#)
- [Geospatial wetland assessment geo-database and metadata for Douglas County](#)

Project Partners

- [Lake Superior Reserve](#)
- [City of Superior](#)
- [Douglas County](#)
- [Nelson Institute for Environmental Studies](#)
- [Northflow Consulting](#)
- [Saint Mary's University of Minnesota](#)
- [The Nature Conservancy](#)
- [University of Wisconsin Extension](#)
- [Wisconsin Department of Natural Resources](#)
- [Wisconsin Wetlands Association](#)

About the Science Collaborative

The National Estuarine Research Reserve System's Science Collaborative supports collaborative research that addresses coastal management problems important to the reserves. Learn more at www.nerrs.noaa.gov.

Overview

Land use change and wetland loss have decreased the ability of estuaries to mitigate storm damage and reduce flooding in Wisconsin's Douglas County. The loss of these valuable services was apparent in the aftermath of severe storm events that caused significant flooding and damage in 2012. And as the climate shifts, the region is likely to experience more frequent powerful storms. Strategic wetland protection and restoration planning could help communities work together in protecting wetlands and the services they provide. The Lake Superior reserve partnered with natural resource managers, businesses, and communities in Douglas County to create a watershed-scale wetland conservation plan that enables decision-makers to identify and prioritize areas for wetland restoration and collaborate to reduce flooding throughout the watershed.

Project Benefits

- A watershed-based planning process that Douglas County is using to advance wetland restoration and preservation. The project's watershed planning committee recommended this for submission to the Douglas County Land Conservation Committee, which has integrated it into local land management policies and used it to identify pre-approved locations for wetland restoration.
- A geospatial assessment of wetland ecosystem services that includes customized GIS dataset layers that illustrate the distribution of existing wetlands and identify locations where restoration is likely to be successful and have the greatest positive environmental impact.

Project Approach

This project combined science, stakeholder participation, and public outreach to convene a watershed planning committee to lead development of this watershed-based planning process.

- **Assessment:** Team members conducted a wetland assessment to identify and prioritize potential future wetland restoration sites.
- **Advisory group:** A technical advisory group to address issues specific to the geography of the Lake Superior Basin and completed a landscape-level functional analysis that integrates geospatial data on wetlands with municipal land use and conservation plans.
- **Stakeholder engagement:** The team engaged graduate students to evaluate stakeholder perceptions about wetlands, and used this information to design a series of workshops to increase stakeholder knowledge of wetland functions, land use and watershed planning, and wetland mitigation policies.