

Office of Great Waters • Lake Superior Team

2024 Lake Superior Basin Projects



Wisconsin DNR's (WDNR) Office of Great Waters Lake Superior Team works closely with partners and other WDNR programs to protect and restore the Lake Superior basin's natural resources. The foundation of our work is centered on the four areas below, followed by a snapshot of funded projects that are underway with partners.

Partnerships Collaboration & Planning



We participate in local and regional partnerships to protect and restore communities and habitats, collaborating with diverse knowledge holders to achieve a shared vision that aligns with lake-wide and regional objectives.

Conservation Restoration & Protection



We develop and implement projects focused on protecting high-quality habitats, restoring degraded ecosystem services, and managing the establishment and spread of invasive species.

Resiliency Climate & Community



We engage local communities and design resilient projects that contribute to a sustainable future for the human and more-than-human beings that call this place home.

Ecosystems Science & Monitoring



We leverage science and other ways of knowing to assess ecological conditions, monitor long-term trends, and respond to emerging challenges impacting ecosystem health.

2024 Lake Superior Basin Project Sites





1

St. Louis River Area of Concern (AOC)

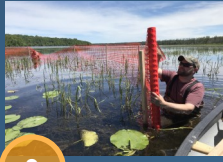
Ongoing program coordination with MN Pollution Control Agency, MN DNR, Fond du Lac Band of Lake Superior Chippewa and the St. Louis River Alliance to remove impairments from the St. Louis River Estuary. Currently 68% of management actions have been completed, and four impairments removed, with a goal of delisting the AOC by 2030.



2

St. Louis River Islands Ash Understory Planting (AOC)

The Lake Superior National Estuarine Research Reserve (NERR) is leading efforts to mitigate impacts related to Emerald Ash Borer injury in ash stands throughout five islands and wetland areas in the estuary. Goals include planting more than 80,000 trees over the project duration.



3

Manoomin (Wild Rice) Restoration (AOC)

Collaborative manoomin restoration in the estuary has been underway since 2015. WDNR coordinates annual planning, seeding, herbivory management, and monitoring for the Manoomin Restoration Partnership, working with Fond du Lac Band, 1854 Treaty Authority and MN DNR. Monitoring data indicates that distribution, density, and biomass are increasing. Approximately 80,000 pounds of seed has been spread so far. [Video](#)



4

Little Balsam Creek Fish Passage (AOC)

After 2024 construction is complete, 5.07 Miles of Class 1 trout stream will be free of man-made barriers. Working with Dept. of Administration, WDNR Facilities, Lands, Parks and Fisheries, Town of Summit and Douglas County, replacement of undersized infrastructure will provide local residents with crossings resilient to increased storm intensity and allow trout and other aquatic organisms to move freely upstream.



5

Clough Island Invasive Control & Conifer Restoration

Control of invasive common buckthorn, honeysuckle and barberry is underway across more than 140 acres of a 351-acre island in partnership with the Natural Heritage Inventory (NHI) and the Friends of the Lake Superior Reserve (FOLSR). In addition, conifer plantings across 11 acres of aspen stands have occurred, and buckthorn hand-pulling events bring the public to the island.



6

Superior Slips Sediment Clean-up (AOC)

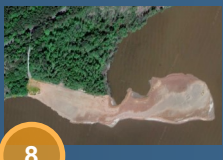
Three industrial shipping slips have been identified for clean-up (remediation) of contaminated sediments from historical industrial uses. Partner recruitment is ongoing with WDNR's Remediation and Redevelopment program. Feasibility and design will soon be underway with a goal of completing construction by 2026.



7

Pickle Pond Clean-up & Habitat Restoration (AOC)

Partnering with the City of Superior, Pickle Pond is an active sediment clean-up (remediation) and restoration project scheduled for completion in 2024. Contaminated sediment was removed and fish and wildlife habitat enhanced. Dredging and in-water work was completed in 2023, with native plantings planned for 2024.



8

Piping Plover Habitat Project (AOC)

Completed in 2019 with the US Army Corps and DNR NHI, this project created 14 acres of cobble nesting habitat and foraging shoreline for endangered Great Lakes Piping Plover using ~88K cubic yards of clean sand dredged from the estuary harbor. WDNR is currently managing the area for ideal nesting conditions with the St. Louis River Alliance. More details about this project can be found in this [video](#).



9

Allouez Bay Marsh Bird Habitat Restoration

This collaborative project furthers the Headwaters Sustainability Partnership's restoration vision for Allouez Bay by enhancing and protecting hemi-marsh habitat. WDNR co-leads the project with Audubon Great Lakes, partnering with City of Superior and Douglas County to engage resource managers, species experts, and local communities in resilient restoration design and implementation.



10

Wisconsin Point Resiliency Study

This project, in partnership with the City of Superior and US Army Corps of Engineers, is gathering hydrodynamic, sediment transport, topobathymetry, and biological data to better understand climate change impacts to coastal habitat and infrastructure on Wisconsin Point. Data will be used to engage communities and evaluate resiliency design alternatives.



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Lake Superior Nearshore Monitoring

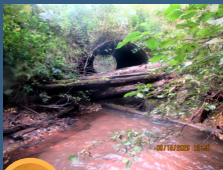
This project gathers water quality and algal community data to better understand nearshore nutrient dynamics and what conditions lead to harmful algal blooms. As the dataset grows it will be used to assess long term trends in nearshore health with partners including the US Geological Survey (USGS), Environmental Protection Agency (EPA), Northland College Burke Center and National Park Service (NPS).



12

Michele Wheeler Wetland Restoration

In partnership with the Town of Port Wing, old wastewater settling ponds were restored in 2019, connecting 10 acres of wetland and prairie habitat back to the Flag River Estuary and enhancing public access. 2024 is year 5 of native and invasive plant management involving cattail control, native plant seeding and plug plantings, along with annual monitoring and assessment establish a sedge meadow community.



13

Campbells Creek Fish Passage

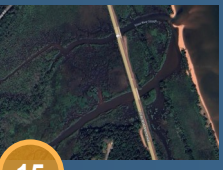
This project, in partnership with WDNR Fisheries and Bayfield County, addresses hydrological modifications related to culvert crossing that impact Brook Trout movement into Lake Superior's south shore streams. Project provides 3 miles of upstream passage to Brook Trout and other native fish, and assists Campbells Creek in restoring natural flow regimes (e.g. flooding).



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Improving Understanding of Cisco Habitat and Use

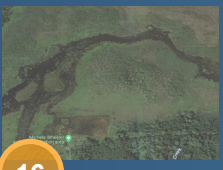
This study, lead by WDNR Fisheries, includes data mining of historic Lake Superior fisheries surveys with an emphasis on Cisco distribution. Simulation modeling is being leveraged to identify preferred habitat during spawning events and improve accuracy of native Cisco population monitoring efforts.



15

Lake Superior Coastal Wetlands Resiliency Study

This study, in partnership with WI Sea Grant, is focused on establishing a framework to assess the sensitivity and resiliency of 38 coastal wetland habitats to the anticipated effects of climate change. General and site-specific management and adaptation strategies will be developed from the resulting resiliency assessments.



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Lake Superior Coastal Wetlands AIS Implementation

In partnership with UW-Superior's Lake Superior Research Institute (LSRI), monitoring for a variety of priority wetland invasive species has occurred in 15 South Shore coastal wetlands. Implementation of management actions, including control of invasive species found during monitoring, is underway.



17

Wisconsin Great Lakes Phragmites Mapping & Control

In partnership with the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) and WDNR Wetlands staff, systematic mapping and control of non-native phragmites throughout WI's Great Lakes basins and St. Croix River watershed is occurring. Genetic testing is planned, as well as piloting restoration plantings after control work is complete.



18

Fish Creek 9-Key Element Plan

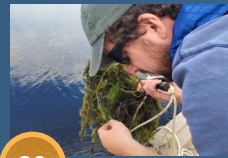
This plan has a goal of restoring riparian corridors and reducing nutrient discharges into Lake Superior. The Bayfield County Land & Water Conservation District selected five priority projects and the City of Ashland is looking at their stormwater system, green infrastructure, Bay City Creek stream bank stabilization and habitat restoration. WDNR's Non-Point program is leading grant funding, providing support and technical input.



19

Marengo Natural Flood Management Coordination

This project demonstrates nature-based solutions to [flood hazards](#) and local water infrastructure challenges. Ashland County partners with the WI Wetlands Association in addressing coordination, design, and measures of success for the catchment-scale Natural Flood Management (NFM) strategy. WDNR is providing funds for a coordinator.



20

Aquatic Invasive Species (AIS) Monitoring, Response & Pathways

Efforts are focused on early detection and response monitoring across the basin along with implementation of a pathways approach. Priorities include NR40 listed prohibited species as well as species identified within the [Lake Superior Lakewide Action and Management Plan \(LAMP\)](#), as well as pathways identified within Wisconsin's AIS Statewide Management Plan.



21

Invasive Knotweed Mapping & Control

In partnership with the NCWMA, mapping and control of invasive knotweed stands, including Giant, Japanese and Bohemian Knotweed, is occurring across the basin on public and private land. Some sites will receive native plant seeding restoration after control work is completed.



Lake Superior Team from left: Alex Selle, Dara Fillmore, Cherie Hagen, Ellen Coffman, Dave Grandmaison, Matt Steiger, Matt Boehlke. Not pictured: Val Damstra

This great work is made possible through partnership with countless local, state, tribal and federal partners, USEPA Great Lakes Restoration Initiative Funding (GLRI) and our WDNR Office of Great Waters and Lake Superior Teams. Thank you all for your dedication and passion to protect and restore Lake Superior!

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