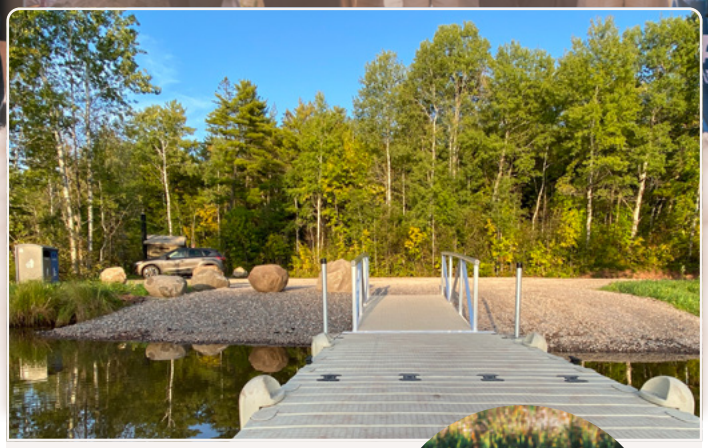
RESERVE UPDATE 2021

Growing into our potential

The next five years will be busy. Thanks to Congress, the Infrastructure Investment and Jobs Act included $77 million dollars over five years for restoring and protecting the watersheds of the 30 estuaries in the National Estuarine Research Reserve system. This supports an emerging conservation goal of protecting 30 percent of U.S. lands and waters by 2030, promoting resilient futures on the coast.

An advantage of the Lake Superior Reserve as a vehicle for stewardship in the Great Lakes is that we are part of the community, with deep partnerships that inform our work. As we move toward meaningful restoration in the Lake Superior watershed with this new funding, our human and ecological communities will be our focus. We can't wait to share our future success.

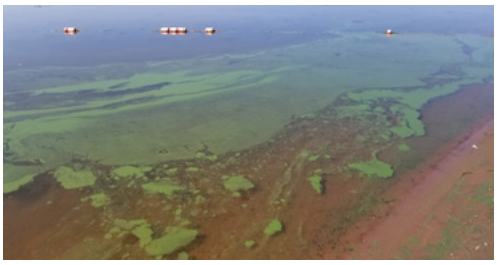


Launching a Community Asset

Improving access to Superior's remarkable waterways was the goal of the **Pokegama Bay boat launch** project, completed in 2021. Funded by a NERRS PAC award and the City of Superior, the facility includes restrooms, parking, native plantings, a dock and an accessible paddle craft launch. It connects to hunting and fishing opportunities and the St. Louis River Estuary National Water Trail. In September, the community celebrated with a ribbon cutting and canoe rides.

$128,500 leveraged directly for the City of Superior

Research, education, monitoring and stewardship along the Lake Superior coast in 2021



An algae bloom was detected by the Reserve in September 2021.

Detecting future algae blooms

Each year the Reserve follows nationally vetted protocols to monitor estuary weather, water quality, and habitat. But sometimes an unexpected event, like an Harmful Algal Bloom at a popular swimming beach, spurs new tools and technologies. Enter the "Total Algal Sensor," which can provide real-time algae estimates in the estuary. Reserve scientists are rigorously testing this new technology with hopes of soon providing new protocols for **algal bloom early detection**.

150 WATER SAMPLES collected to test algae sensor accuracy

Community partners learned from innovative green infrastructure projects this past summer.

Building coastal skills

Local decision makers witnessed the collective **impact of nature-based stormwater projects** firsthand when the Reserve partnered with the City of Superior to host a green infrastructure walking tour. An enthusiastic group of local staff and officials circled Barkers Island on foot, viewing four project sites where experts demonstrated how strategic native plantings and surface treatments help capture runoff, protect water quality and create welcoming community spaces.

14 LEARNING OPPORTUNITIES for coastal decision makers

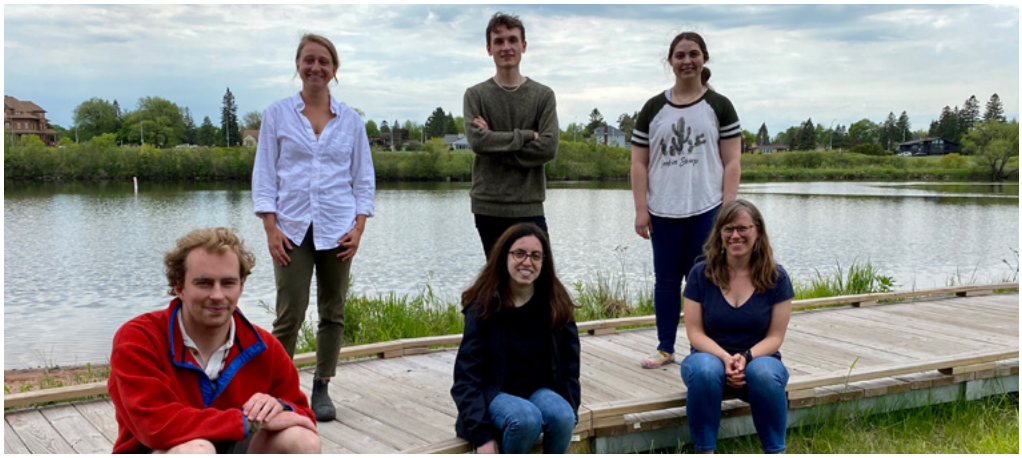
Stewardship Coordinator Kirsten Rhude joined the Reserve team in October 2021.

Stewardship gets started

The Reserve **launched a new Stewardship Program** in 2021 when Kirsten Rhude joined the staff as its first coordinator. The program will focus on land and water management within the Reserve, working closely with our many partners. We are looking forward to expanding the Reserve's role in restoration and conservation planning to ensure a more resilient St. Louis River Estuary. Current projects include invasive species management and restoration of forested wetlands impacted by the invasive Emerald Ash Borer.

10 FULL TIME STAFF lead research, monitoring, stewardship, education and outreach at the Reserve

STUDENT SPOTLIGHTS



From left to right, Cole Wilson, Clare Buchner (both from UW–Madison), Noah Pinsonnault, Staci Reynolds (both from UW-Superior), Molly Wick (University of Minnesota Duluth) and Rebecca Joseph, NOAA Hollings Scholar (American University) contributed their talents and gained career experience at the Reserve in 2021. Noah has since joined the Reserve staff as our first research technician.

Margaret A. Davidson Fellow Molly Wick

Doctoral candidate Molly Wick, the Reserve's Margaret A. Davidson Fellow has designed a study of cultural ecosystem services, the intangible benefits co-produced by communities and ecosystems, in the St. Louis River. A community advisory and an Indigenous advisory group were convened to provide input on the study design. Data collection will start in 2022. We are deeply grateful to Congress and the State of Wisconsin for their support of this fellowship.

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