

Collaborative Phragmites Control Program



Roadside Phragmites control, Fond du Lac County, Wisconsin



Roadside ditch Phragmites control



Coastal bluff Phragmites control

Lakeshore Natural Resource Partnership (LNRP), Stantec Consulting Services Inc (Stantec), Glacierland RC&D Council, and Fox Wolf Watershed Alliance, are collaborating to organize a diverse team of non-profits, municipalities, funding agencies, and local citizens in developing and implementing the most comprehensive invasive species control program in Wisconsin, targeting non-native Phragmites and Japanese knotweed.

Together, we have identified, mapped, and treated thousands of invasive species populations across northeast Wisconsin, in Kewaunee, Manitowoc, Sheboygan, Ozaukee, Fond du Lac, and Calumet counties. In 2021, this project expanded the planning and mapping efforts to Winnebago, Waupaca, Outagamie, and Brown counties.

Highly invasive species, such as Phragmites and Japanese knotweed, are problematic to native ecosystems because they reproduce quickly, outcompete native species, reduce biodiversity and community resiliency, and disrupt natural ecological processes and systems.

The Great Lakes are the largest network of freshwater resources in the world, and as a result, they are especially vulnerable to non-native species invasion. Phragmites and Japanese knotweed are primarily found in wetlands, riparian areas, shorelines, and roadside ditches. Control is necessary to curb the negative effects on biodiversity and ecological functions of invaded habitats, to minimize loss of recreational use of wetlands, shorelines, and waterways, as well as protect economic assets including tourism, property values, and navigation.

This project is unique in its size, scope, collaborative approach between partner organizations and communities, use of Geographic Information Systems (GIS), web-mapping, logistical complexity, and long-term commitments by stakeholders. Our team takes a landscape-level approach to managing the target invasive species, by prioritizing ecologically sensitive communities along shorelines, coastal wetlands, inland waterways, connected wetlands, and roadside ditches.

By mapping, treating, monitoring, and providing long-term control of these invasive populations, this project will have significant long-term benefits for migratory shorebirds, waterfowl, marsh-spawning fish, pollinators, and other native fauna.

Strong partnerships are integral to building and sustaining the project's momentum. Grant funding, totaling over \$4 million since 2012, represents significant investment by project partners, funding agencies, and local residents.

Thousands of landowner parcels have been enrolled in this program and the public is very supportive of continuing treatments. The funding secured to date has enabled the partners to build momentum and achieve many beneficial outcomes.



Wet meadow Phragmites control

PROJECT OUTCOMES:

- Developed a comprehensive data set of the distribution and abundance of the target species across ten counties in Wisconsin.
- Protected 111 miles of Lake Michigan shoreline, hundreds of miles of inland waterways, coastal wetlands critical to migratory birds, while enhancing coastal wetlands and wildlife habitat corridors.
- Revegetated treatment areas with native plant species where target invasive species have been controlled, providing increased species diversity and ecological function.
- Reduced invasive species stressors that make ecosystems vulnerable to the effects of climate change.
- Engaged the public through significant education and outreach to landowners, project partners, municipal governments, and the broader community.
- Controlled Phragmites and Japanese Knotweed on over 600 acres annually for multiple years.
- Created an interactive, web-based map (<http://bit.ly/InvasiveWebMap>) where populations can be entered by landowners, agencies, and the general public.

Municipality	Acres of Phragmites Treated				
	2018	2019	2020	2021	2022
Manitowoc County	327.79	489.50	635.18	378.34	244.64
Sheboygan County	26.36	86.17	103.09	150.28	31.98
Ozaukee County	—	0.36	48.51	33.61	32.11
Fond du Lac County	—	52.65	—	55.87	105.19
Calumet County	—	19.23	—	57.54	126.03
TOTAL	354.15	647.91	786.78	675.64	539.95



Wet meadow treatment before



Wet meadow treatment after