

UP Phragmites Project Update - March 2015

Working to De-Phrag the UP!

The Upper Peninsula Resource Conservation and Development (UP RC&D) Council and project partners have now completed two years of our project entitled “Invasive Phragmites Control in Michigan’s Upper Peninsula”. During this time we worked with partners to map all the native and non-native phragmites (*Phragmites australis subsp. australis*) in the UP, prioritize those infestations for treatment with grant funds, and contracted with certified pesticide applicators to conduct herbicide treatments on over 550 acres of public and private land. This is a brief summary of project accomplishments to date.

Phragmites Mapping and Treatments in 2013 and 2014

One of the priorities of this project was to collect accurate information about the location, size and density of non-native phragmites infestations in the Upper Peninsula. The majority of these infestations are located along the Lake Michigan shoreline in Menominee and Delta Counties and during 2013, native and non-native phragmites infestations were mapped along this entire 200 mile shoreline. Over the past year, project partners also re-visited and updated the infestation database for the Lake Michigan shoreline in Schoolcraft County, and have continued to map new infestations throughout the entire UP when they are discovered. These survey and mapping efforts have shown that there are approximately 1,950 acres infested with phragmites in the UP! Phragmites infestations in Delta and Menominee counties alone total 1,852 acres (1,256 acres in Delta and 596 acres in Menominee).

Unfortunately, grant funds are not sufficient to treat all the phragmites infestations in the UP, therefore, infestations had to be prioritized for treatment. The first priority was to treat the infestations in close proximity to high quality natural communities, rare species, and other highly valued sites. The second priority was to treat isolated, outlying patches which would be considered the leading edge of the infestation. Treating these outliers will prevent further spread to interior wetlands, and adjacent coastal sites. All remaining grant funds were used to conduct treatment in chosen treatment zones along the Lake Michigan shoreline in Menominee and Delta counties which are the large, dense source infestations. These treatment zones were chosen to maximize the effectiveness of treatment by finding long, contiguous stretches of Great Lakes shoreline where the infestations were not too massive and where permission to treat could be secured from almost 100% of the landowners. This strategy helped to minimize the threat of re-infestation of treated areas from neighboring, untreated infestations. A summary of acres treated during our project is below.

Acres of Treatment by County	
2014	2013
258	224 acres - Menominee County
151	174 acres - Delta County
33	38 acres - Mackinac County
74	26 acres - Luce County
37	18 acres - Schoolcraft County
1	1.5 acres - Marquette County
1	1.5 acres - Alger County
0.5	1.5 acres - Iron County
2.1	1.5 acres - Dickinson County
1.4	1.0 acres - Chippewa County
559	487

- Private landowners paid for treatment on 93 acres over 2 years in Menominee County
- MDNR paid for treatment on 152 acres over two years

Over the past two years, the herbicide treatment of just over 800 acres of non-native phragmites in the UP was paid for with grant funds. Additionally, private landowners paid for treatments on 93 acres in Menominee County utilizing the same project contractor and the DEQ permits obtained by the UP RC&D Council. The Michigan DNR also funded treatment of 152 acres on state land in Luce and Mackinac Counties over the past two years, and those treatments were done in collaboration with the Chippewa/Luce/Mackinac Conservation District. All treatments were done using a 2% solution of the aquatic formulation of glyphosate.

Project partners obtained all necessary DEQ, MDOT, and MDNR permits required to conduct these treatments as well as obtaining signed permission forms from all private landowners. Phragmites location data are available at <http://www.misin.msu.edu/browse/>

This project is funded by a grant to the Upper Peninsula Resource Conservation and Development (UP RC&D) Council from the National Fish and Wildlife Foundation and includes funding from the U.S. Fish and Wildlife Service.

Removal of Dead Phragmites Biomass

Mowing of previously treated, dead-standing phragmites biomass is recommended to enhance the effectiveness of herbicide re-treatments and also native plant regeneration on treated sites. These treatments must be conducted when the ground is frozen and snow is not too deep. During the past two winters, 74 acres of dead-standing phragmites biomass has been mowed by contractors. To date, all grant-funded mowing has been done on public lands located in state, county, and township parks and marinas.



Equipment used to mow large, dense infestations of non-native phragmites on public lands in Menominee and Delta counties during winter when the ground was frozen.

Landowner Engagement with Project Partners is the Key to Success

The commitment of private landowners and public land-managers to this project has been an essential component of our success. A significant amount of time has been devoted to educating landowners about the negative impacts of phragmites, the biology of the plant, and the best management practices for treating this species through public workshops and mailings. We have obtained written permission from more than 700 different landowners to conduct herbicide and mowing treatments on the lands they own or manage over the past two years. In Delta and Menominee Counties alone, our four chosen treatment zones covered more than 75 miles of contiguous Lake Michigan shoreline and 96% of the infestations in these zones were treated in Menominee County and 81% were treated in Delta County. Our post-treatment monitoring shows that between 90-100% of

the phragmites was killed after one year of herbicide treatment. The photos at right illustrate treatment effectiveness in one of our Mackinac County monitoring plots. All infestations that were treated with grant funds in 2013 were re-treated in 2014 when re-sprouts were found to be present.



The monitoring plot photo on left shows a Mackinac County infestation prior to treatment in summer 2013, and the photo on right was taken at the same site in summer 2014.

What You Can Do to Help Us De-Phrag the UP

Learn As Much As You Can About the Biology of Phragmites and the Most Effective Control Strategies: Some of the most comprehensive and up-to-date information about the biology of this plant can be found at the website maintained by the Great Lakes Phragmites Collaborative. Visit that website at <http://greatlakesphragmites.net/>. Encourage your constituents, friends and neighbors to educate themselves about non-native Phragmites as well. Thanks for your support of this project!

Contact Us: Darcy Rutkowski, Project Coordinator
Email—phragmites@uprcd.org Website—www.phragmitesintheup.org