



Portage Lake Newsletter

Michigan Invasive Species Grant Update

Recently the State of Michigan developed a "Michigan Invasive Species Grant Program" to be implemented in 2015 and is intended to be ongoing. Over 4 million dollars has been awarded to 20 different initiatives related to invasive plant management. Although all of these projects have relevant goals, PLM Lake & Land Management Corp (PLM) understands the urgencies to utilize science to ensure balance of our aquatic ecosystems. Under the direction of Dr. Casey Huckins, Michigan Technological University (MTU), in partnership with Many Waters LLC., SePRO Corporation and PLM Lake & Land Management Corp; a grant application was submitted and approved for \$332,000. To oversimplify; milfoil plant samples will be collected from over 15 different water bodies during the 2015 and 2016 seasons. The pictures below are sampling pictures taken on PORTAGE LAKE! Samples will be sent to MTU for genetic analysis (providing specific hybrid genotypes of milfoil). Samples will also be sent to SePRO Corporation to simultaneously determine herbicide sensitivity of each hybrid type. Ultimately we plan to verify the specific genotype of milfoil and determine how we can effectively control it. If we do not determine an effective prescription for the control of certain genotypes of milfoil, we could potentially end up with a tolerance issue or select for herbicide resistant hybrid strains. For nearly a decade PLM has proactively implemented management protocols that rotate different types of herbicides at higher rates to reduce tolerance and resistance potential. There are several other "multifaceted" objectives within this proposal. For further review visit our website, www.plmcorp.net.



Michigan Invasive Species Coalition

The Michigan Invasive Species Coalition was designed to bring support to regional and local efforts to control invasive species in Michigan. By providing additional networking capabilities and bringing different groups together, they have been making resources available to individuals, groups, and associations across the state. This has allowed the ability to increase effectiveness of control, address challenges, educate and ultimately control exotics that may have been overlooked previously. Are you looking for a way to get involved with your local fight against invasive species? Or become more aware of what is hiding in your backyard? The coalition has divided the state into 8 regions with over 17 individual CISMA programs. A Cooperative Invasive Species Management Area or CISMA program is local to your area and allows direct resources to you. The CISMA programs have education and training seminars as well as many community awareness programs and volunteer opportunities to aide in the fight to protect Michigan from invasive species. Please go to; michiganinvasives.org to get involved!

Aquatic Plant Management -- Questions and Answers

Q. Can we swim after a weed treatment?

A. NO. There is a 24 hour swimming restriction within 100 feet of any treatment area of the lake. Actually, almost all of the herbicides that we use do not have a swimming restriction on the product label. However, the DEQ does not want you in the water during treatment for your safety and ours. If you see a boat spraying, please exit the lake, we come in close to shore!

Q. Will my dog get sick if he drinks the treated water?

A. NO. A dog would have to drink several thousand gallons of treated water to observe any noticeable effect. However, we do not want your dog in the water during or right after a treatment. Some of the herbicides we use become inactive if the sediment is stirred up in the water column. Therefore, keep the pets out of the lake for 24 hours!

Q. Are the fish still safe to eat?

A. YES! There are no fishing restrictions with any of our herbicide treatments. The herbicides used do not accumulate in the fish. They are safe to eat... ENJOY!

What Does the Color of the Treatment Sign Mean?

Green signs/notices indicate **NO RESTRICTIONS** on any type of water use.

Yellow notice means one or more restrictions will apply.

-Maximum 1 day swimming restriction within treatment areas. This restriction is in place to maximize treatment effectiveness; wildlife and pets will not be harmed by entering/drinking water.

-Fishing and/or consumption of fish is **not** restricted.

-Established grass/turf irrigation is not restricted with most herbicides. Read posted notice for further clarification.



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Portage Lake 2015 Review

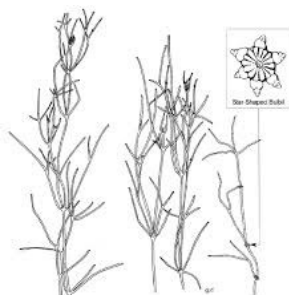
In 2015, just over 83 acres of Eurasian watermilfoil (EWM) Phragmites, Purple Loosestrife and Japanese knotweed were controlled via chemical control methods. Extensive lake mapping, vegetation mapping and water quality testing was also performed. The abundance of healthy native plants in Portage Lake increases the long term stability of the lake. While some water quality parameters have maintained themselves with little change over the years, other parameters have shown fluctuations. One of the most important parameters to test is Total Phosphorus. In 2015, all lake basins and shoreline site samples came back below recent years, showing a decline and a very positive outlook for Portage Lake. Some of the fluctuations in other parameters include showing that the tributaries around Portage Lake are bringing excess nutrients into the lake. This information is vital in determining the areas within Portage Lake that need to be focused on reducing nutrient loading to help reduce the productivity in Portage Lake. The ability of Portage Lake to produce algae and aquatic plants is directly related to the overall health and use of Portage Lake. While the main goal of the management is to protect the long term ecological health of the lake, it is also important to protect the recreational, aesthetical and financial aspects of the lake as well. All of these factors play into the management efforts on Portage Lake which need to be continued into next season.

Portage Lake 2016 Management Plan

Unlike the last few years, this past winter was warmer than average. The ice coverage came late and left early with less snow fall than normal. Exotic species can thrive off of changes in weather patterns and Eurasian watermilfoil (EWM) specifically can grow and live under the ice. When less ice is present, EWM can potentially grow more. What does that mean for Portage Lake? We need to ensure that surveys and monitoring the lake continues in order to stay on top of any changes in the plant growth in the lake. Plant and algae production can vary seasonally and the response to that growth will depend on the growth found in Portage Lake this summer. Management of the lake including surveys and water quality testing as well as treatments will occur similarly to years past for both exotic submersed aquatic plants and terrestrial plants around the lake. The treatments in 2015 were very effective in reducing the exotic plant biomass in and around the lake. Lets work together to ensure that 2016 is as effective. If you have questions regarding the management and treatment program, please contact your committee members or PLM directly. Enjoy beautiful Portage Lake this summer!

Starry Stonewort— Exotic Plant WATCHLIST

Starry stonewort has been quickly spreading throughout Northern Michigan. Starry stonewort (*Nitellopsis obtusa*) looks like a rooted plant but it is actually an algae. The plant is native to Europe and Asia and was first discovered in the St. Lawrence River in 1978. In 1983, it was found in the Detroit River and has since infested many Michigan lakes. Starry stonewort resembles the native aquatic plant Chara. Unlike Chara, which is generally considered to be a beneficial plant, starry stonewort has a tendency to inhabit deeper portions of the lake and can form dense blankets several feet thick. These mats can severely impede navigation and limit growth of more beneficial plants. Starry stonewort anchors to the sediments through rhizoids (primitive root structures) which can also absorb nutrients. Like Chara, starry stonewort also absorbs nutrients from the water through its cell walls. Starry stonewort has tiny, star-shaped, tan colored reproductive structures called bulbils that are firm to the touch when compared to its soft branches. These reproductive bulbils have been shown to stay viable for several years in lake sediments. It is unclear what effects starry stonewort may have on a lake's fishery. However, the encroachment of starry stonewort into fish spawning beds may be a cause for concern. Both algicides and mechanical harvesting appear to be somewhat effective in controlling starry stonewort. However, given its propensity to produce massive amounts of growth, efforts to keep this invasive algae at bay will be difficult and potentially expensive. We are constantly on the lookout for new infestations of SSW for quick action.



Portage Lake
Watershed
Forever

ARE YOU HAVING TROUBLE WITH YOUR SHORELINE?

Natural shoreline preservation is key to the long term health of our lake. Please consider managing your property for your use and what is best for the lake at the same time! Please contact the invasive species committee for help or with questions on protecting your shoreline. Several people have contracted with one of our applicators for help with unwanted plant growth on their shoreline. Our SAD funds are for the treatment of non-native invasive plants in and around our shoreline so we cannot treat native plants with these funds. However, we do realize that some of you may have excessive growth of some native plants such as bulrushes and cattails. If you are going to treat your private property we may be able to help. We can help you with obtaining the proper permits, using the best management practices to treat and in some cases connecting you to one of our applicators when professional help is needed. Using the wrong method or treating at the wrong time with the wrong product may in fact stimulate growth or be a waste of money. You can have enjoyment of the lake and your beach and still have native trees and plants. The largest stressor to our lakes is what we do on the shoreline. Please help us to protect and preserve our lake. Call 231-889-3781 for more information. ~ Respectfully, Mary Reed

Lake Manger

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Tentative Treatment Schedule

The proposed scheduling dates are for the **week** of the dates listed and may be changed due to weather, holidays, permit requirements or other unforeseen circumstances.

May: Water Quality (WQ) **June 6:** Lake Survey, WQ **June 20:** Survey
June 27: Weed Treatment **July 18:** Lake Survey, WQ **July 25:** Weed Treatment
August 15: Survey, WQ **August 29:** Weed Treatment **September 26:** Survey, WQ

Invasive Species Committee

Ted Lawrence
Herb Lennon
Mary Reed
Chuck Reed
Jim Simons

Onkama Township Board Members

David Meister, Supervisor
Helen Mathieu, Clerk
LaVonne Beebe, Treasurer
Bob Blackmore, Trustee
James Wisniski, Trustee