



Portage Lake Newsletter

A Natural Shoreline: A Better decision for you, your lake and your wallet

Lake Stewards can help keep your lake healthy by using ecological principals to maintain a natural shoreline. Having a buffer at the shoreline helps prevent erosion, which saves you from a loss of shoreline property and increased sedimentation in the water. Erosion and sedimentation causes poor water quality. Seawalls and natural shorelines (also known as bioengineering or “lakescaping”) are two types of buffering systems.

Seawalls are often perceived as a more stable system and therefore used more often, but in fact they are less stable, more damaging to the lake ecosystem, and typically cost much more money to install and maintain over the years. Seawalls do not allow for absorption of energy from waves hitting the wall, causing wave energy to force back into the lake, causing more erosion and loss of sediment at the base of the wall. Seawalls also lead to negative impacts on fish, turtles, amphibians, etc while a natural shoreline or “lakescape” absorbs some if not all the energy from waves and wind.

Lakescapes use native plants, biodegradable products and natural materials to provide a stable shoreline to protect from erosion with providing ecological features, a living buffer, that adapts over the seasons and years. A few of the benefits to using native plants, grasses and shrubs are: providing food and habitat; minimal maintenance; provides shade which lowers air and water temperatures; attracts birds leading to decreases in insects; root systems anchor soil in place; sustains biodiversity and helps keep out exotic species such as Phragmites and Purple Loosestrife; filters more water than turf grass; reducing geese on your property as geese like to see their predators and prefer manicured lawns and seawalls.



The Michigan Natural Shoreline Partnership was created with the intent of promoting the use of green landscaping technologies and bioengineered erosion control for the protection of Michigan inland lakes. This program is designed to equip professionals with the tools to better design, implement and maintain natural shoreline landscapes and bioengineered erosion control on inland lakes.



PLM’s Terrestrial Manager, Dusty Grabill is a Certified Natural Shoreline Professional (CNSP) by the MNSP. If you are interested in learning more about Natural Shorelines, please contact Dusty Grabill at PLM or the MNSP through the Michigan Inland Lakes Partnership.

PLM, Portage Lake Watershed Forever & Portage Lake Invasive Species Committee Introducing Advanced Mapping Software

PLM has recently upgraded our GPS technology to bring our customers a revolutionary new mapping software for Portage Lake. This new software, combined with state of the art GPS/Depth Finder Units, has the ability to quickly collect precise bathymetry (depths) and aquatic vegetation of any given water body. The data can then be used to create accurate bathymetric, vegetation biovolume or treatment maps in record time. PLM will also be using this software when working with the DEQ to bring our customers the best possible lake management options available. The Portage Lake Watershed Forever purchased a unit to be able to work with the BioBase technology as well. The technology will be used by the PLWF and the ISC to survey the lake. Both groups will be using this system to collect data while on the lake and compiling it with PLM’s data collection for the most accurate and up to date survey information available. Collecting as much data as possible will allow for the most aggressive exotic species control and put Portage Lake ahead of most lakes in the State of Michigan.

Other Helpful Hints for Protecting your lake

- Do not feed the ducks and geese. Remove all droppings from lawns, docks, etc
- If you do fertilize make sure you are using Phosphorus free fertilizer. One pound of phosphorous may produce over 775 pounds of algae-“The slimy green stuff”. Avoid application of fertilizer prior to rainy days.
- Remove aquatic plants, leaves/branches and other debris that washes up along the lake-shore so less decomposition occurs in or near the lake.
- Always use silt fences when building a new home or doing any yard-work that would cause erosion.
- Keep all burn piles and debris piles away from lake. Do not burn near the water. The ash is concentrated nutrients!

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Produced by PLM Lake & Land Management Corp.

Portage Lake 2012 Review

Over the last four years, Portage Lake has been controlling the exotic species, Eurasian watermilfoil (EWM). In 2012, approximately 145 acres of EWM was treated using a combination of multiple active ingredients at different application rates. Using more than one active ingredient is allowing the control program to prevent herbicide resistance and also targeting the EWM as aggressively as possible. Further, it is allowing the use of herbicides to remain at the lowest possible concentration for effective control. In the future, these treatment beds will be evaluated to determine if specific products are providing a better longer term control option in Portage Lake. 2012 was a unique growing year; with a short, warm winter; a early, hot spring; followed by a dry, hot summer. The environment plays directly into the plant growth each summer. Exotic species thrive on those kinds of growing conditions. Mother nature, combined with excess nutrients from the entire watershed, impacts native and exotic plant growth.

Portage Lake 2013 Treatment Plan

What a difference a year makes! 2013 has had one of the longest winters on record, with increased snow fall. Extended ice coverage, like we saw this winter, can aid in slowing down EWM growth. EWM can overwinter under the ice and continue to thrive. A thicker ice coverage, will directly reduce the EWM's ability to grow. This spring has been one of the wettest on record. As many lakes water levels have been down over the past few years, this springs rain is helping raise those levels. With rain, comes increased runoff from the watershed, flushing nutrients directly into Portage Lake. We will be tracking the water quality of Portage Lake this season, as in years past, and will be closely watching the tributaries and storm drains coming into the lake. Each year Mother Nature throws us a curve ball or two and we have to adapt as the weather changes in Lake Management. Portage Lake needs to be managed each year to protect the beautiful lake you can enjoy and call home. Protecting the ecology of Portage Lake is the number one goal in Lake Management. Exotic species threaten the lake daily in the loss of native plant diversity, impacts of fishery and spawning, let along the recreational impacts. In 2013, extensive surveying will be done, with the latest technology and equipment available, to map and treat exotic plant beds. Treatments will take place throughout the summer as required, using different herbicides to help reduce the plant's ability to form any herbicide resistance.

Phragmites & Purple Loosestrife Control Program

In 2009, 83 acres of Phragmites was treated for control using systemic herbicides. Control measures have been reduced since the initial treatments due to the overall success of the exotic species control program, to include spot treatment of small infestations. Phragmites control will continue as required to prevent a re-emergence of the species. Purple Loosestrife has been documented on Portage Lake and this exotic species is now growing in many of the areas formally infested with Phragmites. Purple Loosestrife control measures will be added to the program this season. Both biological and chemical control of Purple Loosestrife will be used. The loosestrife beetle has been shown to be very effective in dense patches and will be planted this summer. The beetles are native to the area and have no negative impacts. In smaller sites, hand swiping of the Purple Loosestrife may occur.

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. Please watch your shoreline for posting signs that state actual treatment dates.

April /May: Water Quality Testing

June 3: Lake Survey, Water Quality testing

June 10: Weed Treatment

July 1: Lake Survey

July 8: Weed Treatment, Water Quality testing

August 5: Survey, Water Quality testing

August 12: Weed Treatment

August 26: Lake Survey, Water Quality

Onekama Township Board Members

David Meister, Supervisor

Helen Mathieu, Clerk

LaVonne Beebe, Treasurer

Bob Blackmore, Trustee

James Wisniski, Trustee

Invasive Species Committee

Dan Behring

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Mary Reed

Chuck Reed

Jim Simons

Lake Manger

Bre Grabill, Northern Lakes Manager

PLM Lake & Land Management

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Did you know? In Michigan you are never more than 6 miles from an inland lake or stream and never more than 85 miles from a Great Lake!!