

2014 State of the Lake Report

The Invasive Species and Water Monitoring Committee of the Watershed and Township met with the Lake Manager Bre Grabill on December 9th to review the 2014 Lake Management Annual Report. The committee requested some additional charts and explanations of the data and the final report should be finished before Christmas. It will be made available in the Township Office, library and will be posted on the Portage Lake Watershed and Township websites under State of the Lake.

Portage Lake has been managed over the past 7 years with goals of identifying and reducing the presence of exotic species throughout the Portage Lake watershed, tracking plant trends, improving water quality and protecting Portage Lake into the future. In 2014 just over 180 acres of Eurasian water milfoil, Phragmites, Purple Loosestrife and Japanese Knotweed were treated. Extensive lake mapping, vegetation mapping and water quality testing was performed. In addition to the AVAS surveying done by the Lake Manager, a volunteer also surveyed aquatic plants using BioBase mapping equipment purchased by the watershed. Surveying found that we have maintained our abundance of healthy native plants which are so important and directly impact the health of the lake.

Eurasian water milfoil (ewm) continues to be our greatest challenge. Since it has formed a hybrid it is more difficult to treat. Different agents and concentration were used to try and determine a more effective treatment. We had an unexpected treatment failure this year to 2 hybrid areas. This was studied and the areas were retreated at the manufacturer's expense. The total acres treated this year of ewm was up due to these retreatment areas. However, the %cumulative cover was significantly reduced from the 2008 number of 10.4. to 2.57. for 2014.

Because of the heavy ice cover from last winter, early surveys found very little ewm and a small area was treated at the Village boat launch in June. Repetitive vegetative surveys were done on June 16, July 23, August 6, August 22 and October 1, 2014. Additional survey were made frequently throughout the summer for pre and post treatment evaluation and to collect water quality parameters. We are also closely monitoring for Starry Stonewort, a particularly devastating aquatic invasive, which is moving North up the central and eastern areas of Michigan and has now been identified in Clare County.

In addition to surveying and monitoring our native and invasive plants, we continue to establish the data base for change in the lake's water quality. We monitor the two deep basins, four shoreline sites, six tributaries and five storm drains. Concerns in Portage Lake result from nutrient loading from the watershed and the nutrient rich bottom sediments in the lake. It is important that external nutrient loads are monitored and reduced if possible.

Our lake management company and Michigan Tech have submitted a grant application for funding to the MDNR. 3.3 million has been designated by the State of Michigan to fight invasive species. This money is not for individual areas to treat invasives, but for research and development of collaborative programs throughout the state. If this application is successful, it will expand the hybrid and genetic testing of ewm and determine which hybrid biotypes are showing resistance. Portage Lake will be one of the 12 lakes in Michigan that will be included in this study if the grant is successful. Results of this study may have benefits throughout the state. The grant recipients will be announced early next year.

so sampling could begin in April/May. Since other organizations that are applying for this grant money have programs that could benefit us, the watershed council wrote letters to support applications from the Northwest Invasive Species Network, Manistee County Planning Dept and Oakland County.

If you have questions, please contact one of the members of the Invasive Species and Lake Monitoring Committee: Dan Behring, Herb Lenon, Jim Simons, Chuck Reed, Mary Reed.