Hello Everyone,

On Wednesday, June 19th, Todd Hanke and Eric Gale visited Horsehead Lake to complete the Early-Season AIS Survey funded through an AIS Early Detection & Response Grant received this past winter. This email stands as the brief letter report included in the grant as the project deliverable along with the attached maps.

Curly-Leaf Pondweed

Curly-leaf pondweed (CLP) was first found in Horsehead Lake during 1992 and WDNR staff verified its presence during the summer of 2003. In 2007, Onterra ecologists mapped CLP accurately for the first time. That map is attached for reference. The 2007 and 2013 surveys were completed by meandering across the surface of the lake and mapping CLP using a sub-meter accuracy GPS. Data are collected using points or polygons. In general, points are used for areas smaller than 40-feet in diameter while larger areas are mapped using polygons. In both cases, a density rating is applied to each feature.

Overall, there appears to be less CLP in Horsehead lake than in 2007. Some areas seem to be similar, for example, along the east and west shores of the lake, in the far southern end, and in the large northern bay. This observation must be qualified that it is not made using quantified data, as collected by a point-intercept survey where frequency of occurrence can be calculated. While that type of comparison would be great, the point-intercept survey completed in 2007, as a part of management planning project, was not completed until July, when the CLP community had already started to die-back. Therefore, those data would not be a good comparison for data that could have been collected during June 2013. Still, based upon the results of the density-based mapping, it is apparent, at least, that the CLP has not gotten worse in Horsehead Lake, but likely better. The healthy and abundant native plant population can likely be credited with keeping CLP at bay. These results also support the thought that the limited harvesting completed on Horsehead Lake is <u>not</u> working to spread the plant and make it more abundant – likely because the harvesting is being completed in late July after the CLP has died back.

Eurasian Water Milfoil

Eurasian water milfoil was first located in 2007 during the surveys associated with the planning project. A few plants had been found in a single location near the lake's south. At the time of the finding, all observed plants were carefully removed, including the roots, using a rake. Subsequent site visits in 2008 and 2012 also observed Eurasian water milfoil plants located near the same location and extending to the dam. During each of the visits by Onterra staff, Eurasian water milfoil was removed by hand to the greatest extent possible.

Last week's survey found similar levels of Eurasian water milfoil (EWM)near the boat landing to what has been found over the past few years. However, this was the first whole-lake survey completed since 2007 and during the survey, 4 additional locations were located. Still, the EWM population would still be considered to be very light. Samples of these plants were collected and sent to the Annis Water Resources Institute at Grand Valley State University in Michigan for DNA analysis. This analysis will indicate whether these plants are EWM, northern water milfoil, or a hybrid between the two. EWM x northern water milfoil hybrids are increasingly being located on lakes in Wisconsin. Those results will be shared once they are received.

As mentioned above, there is very little EWM in Horsehead Lake, but it does appear that it is spreading. Unlike CLP, it may be that the EWM is being spread by the harvesting operations. Obviously,

there is no way to know this for sure, but it is also obvious that the district should work to make sure that the harvester avoids EWM during its use.

Recommended Management Actions
Based upon the 2007 and the 2013 surveys, it appears that CLP is still not causing a problem on the lake; therefore, continued professional monitoring, approximately every 3-5 years, is recommended. Eurasian water milfoil was found in new areas, but still at very low occurrence. These levels are too small for herbicide treatments, but perfect for hand-removal. Therefore, we recommend that the district contact Oneida County AIS Coordinator, Michelle Saduaskas, copied in here, to receive training on identification, monitoring, and hand-removal of EWM. We can supply GPS coordinates of our EWM findings upon request. Further, the district should supply the attached map to their contracted harvester so he may avoid the EWM areas. It would be best if the EWM occurrences were hand-removed prior to the beginning of harvesting. Finally, we recommend that the EWM be remapped by professionals in approximately 3 years.

If you have questions, please do not hesitate to contact me.

Thank you,

Tim

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