

LONG LAKE OF PHELPS SURFACE WATER PROTECTION PROGRAM

The Long Lake of Phelps Surface Water Protection Program was created in 2020 in response to a majority vote of the voting members of the Long Lake of Phelps Lake District (LLPLD) at the annual meeting in July 2020 supporting control of aquatic invasive species (AIS) and specifically Eurasian water milfoil (EWM) in Long Lake using herbicide and/or diver assisted suction harvesting (DASH) techniques.

Background

AIS was first verified in Long Lake in 2001 and has been actively managed for about thirteen years. Onterra LLC has been an important resource for the LLPLD in both monitoring AIS and in creating a Long Lake Aquatic Management Plan. Obtaining the necessary permits from the DNR to manage AIS and qualifying for grants from the DNR for control of EWM require complicated and lengthy application procedures, demonstration of monitoring of EWM, and a Lake Management Plan. At the annual meeting of the LLPLD in July 2019, a budget was approved for herbicide treatment of EWM in the summer of 2020. After mapping surveys verifying locations of EWM had been done by Onterra, after the required application and permit procedures had been completed, and after approval by the DNR had been confirmed, application of ProcettaCOR to approximately 15.9 acres of the lake in the Winding Trail area was done by Clarke Inc. on June 17, 2020. Following the application, thirty-six hours of intensive water sampling was done to monitor the herbicide in the lake; samples were sent to a laboratory recommended by the DNR.

Late Season EWM Mapping Survey

The 2020 late season mapping survey and a point-intercept sub-sampling done by Onterra demonstrated that there was minimal evidence of EWM in Long Lake. Highly scattered EWM was observed in a small area near the channel and at the far southwest end of the lake near the dam, where dominant areas had been observed in the late summer survey of 2019. A large abundance of native plants was observed by Onterra. Attached are maps showing the area treated and the results of the late summer surveys by Onterra in 2019 and 2020.

Funding for Management of EWM

Management of EWM in Long Lake has been funded by a combination of monies obtained by the annual tax levy voted on at the annual meetings of the LLPLD and DNR grants applied for by the LLPLD. At the annual meeting in 2020, a budget of up to \$40,000.00 from the tax levy was approved to be used for herbicide management of EWM or to be used for DASH management of EWM if the DNR did not approve herbicide management.

- The process for obtaining a DNR Surface Water Grant now involves submitting a pre-proposal before September 1 preceding the year in which the grant will be used and submitting a final application before November 1 of the year preceding the year in which the grant will be used.

- In August 2020, Commissioner Mark Swislow submitted a pre-proposal letter and preliminary 2021 budget to the DNR emphasizing continued herbicide treatment of EWM with ProcellaCOR.
- On September 23, 2020, a senior Onterra crew conducted the late-season mapping survey of EWM in Long Lake.
- At a teleconference meeting on October 16, 2020, aquatic ecologist Eddie Heath of Onterra, Commissioner Mark Swislow, and Commissioner Joan Carter agreed not to proceed with a final application for a grant for herbicide treatment because there was little evidence of EWM suitable for herbicide treatment based on the mapping survey.
- Before the November deadline, Commissioner Joan Carter submitted a final application for a small scale AIS control grant to be used for diver assisted hand harvesting (DASH) of EWM.

After reviewing 352 applications requesting over \$7.4 million, the DNR (on February 26, 2021) notified LLPLD that our grant application received an award of \$20,000.00 for support of the Long Lake of Phelps Surface Water Protection Program and the use of DASH to manage EWM during 2021.

Long Lake of Phelps Surface Water Protection Program 2021 Project

The 2021 project will begin with a combination of surveying the lake and instituting prevention of introduction of EWM into the lake.

- The Long Lake of Phelps Lake District 2021 Clean Boats Clean Waters Project, conducted by the University of Wisconsin-Oshkosh, will monitor boats for the presence of EWM at the boat landing.
- Onterra will conduct an early season EWM mapping survey not only to document effects of previous treatment of EWM but also to aid in the management plan for 2021. Locations and concentrations of EWM and presence of native plants will be described.

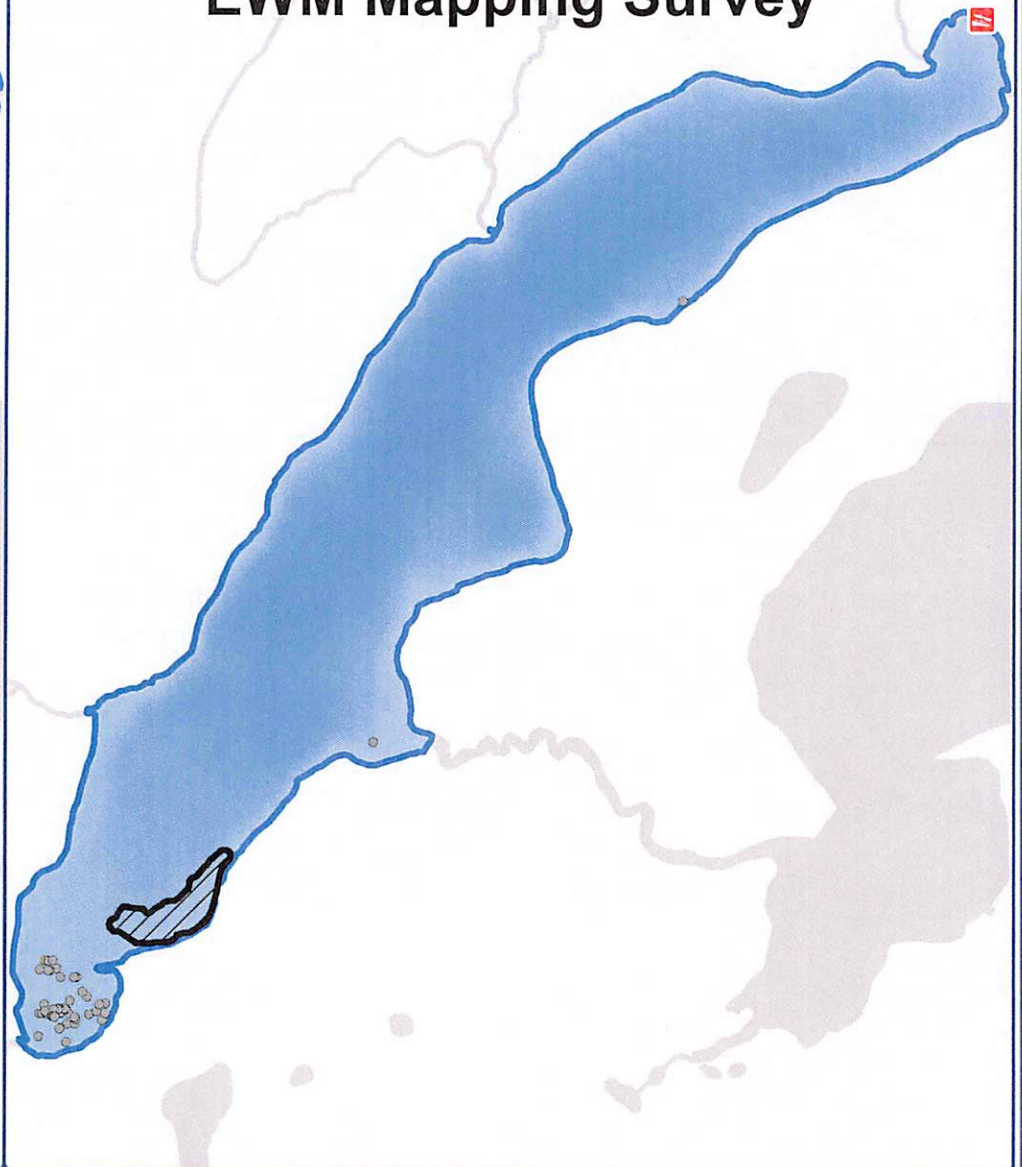
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Late-Summer 2019 EWM Mapping Survey



Late-Summer 2020 EWM Mapping Survey



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Sources:
Roads and Hydro: WDNR
Bathymetry: Onterra, 2014
Aquatic Plant Survey: Onterra, 2019-2020
Map Date: October 16, 2020 - EJH



Project Location in Wisconsin

Legend

Eurasian Watermilfoil Survey Results

- | | | | |
|--|------------------|--|----------------------|
| | Highly Scattered | | Single or Few Plants |
| | Scattered | | Clumps of Plants |
| | Dominant | | Small Plant Colony |
| | Highly Dominant | | |
| | Surface Matting | | |

Long Lake
Vilas County, Wisconsin

**Late-Season EWM
Survey Results:
2019 vs 2020**