

Eurasian Watermilfoil Search & Delineation Survey

Washburn Lake (#11-0059)
Cass County, MN

Surveyed: September 8, 2017



Survey, Analysis, and Reporting by:

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Prepared for Washburn Lake Association – September 2017

Survey & Analysis Methods

EWM Search & Delineation Survey

Freshwater Scientific Services, LLC completed a search and delineation survey for Eurasian watermilfoil (EWM) in Washburn Lake (#11-0059) on September 8, 2017. For this survey, we slowly navigated a meandering search path over the designated search area while using a combination of surface observations (with polarized sunglasses), rake tosses, and sonar readings to locate and delineate areas of EWM growth. Visual and sonar assessments were conducted continuously, with subsequent rake tosses to assess EWM presence/abundance at sites where plants were not identifiable from the surface. We recorded any locations with EWM using a hand-held Garmin GPS unit (GPS-MAP78), and then documented water depth, and EWM abundance (density rating; 1 to 3 scale as described below).

Score	Visual	Rake
1	Light / Solitary plants	1-2 stems
2	Moderate / Dense patches	3 to 9 stems
3	Dense / Uniform matted EWM	10+ stems

We searched a total path length of 15.6 miles covering the designated 175-acre search area. Water clarity and overall visibility were excellent, allowing us to conduct an intensive visual survey that was much more likely to locate smaller patches of EWM growth than a rake survey alone.

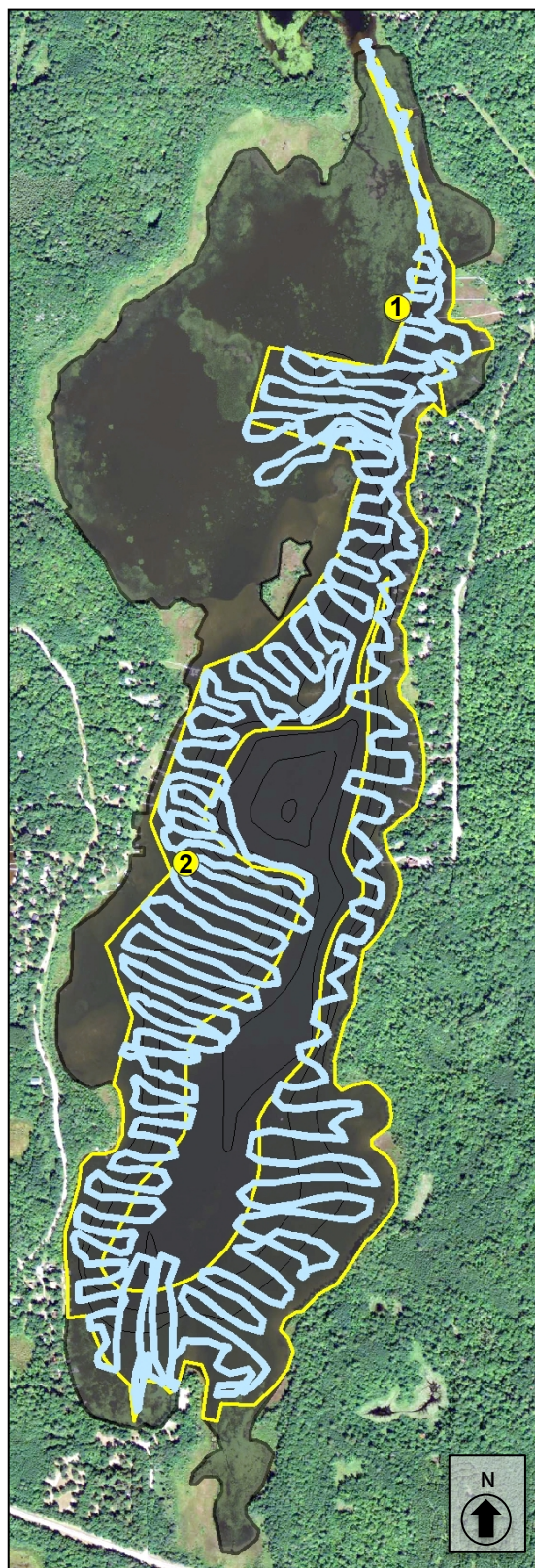
Findings




We found 2 small patches of EWM during the 2017 survey. The attached map shows the location of these 2 patches along with a table of water depths and GPS coordinates for each site. Based upon the size of these patches and the shallow water depths (~3 ft), we recommend hand-pulling EWM at these sites before the end of September 2017. We also highly recommend that you consider treating the area immediately surrounding each patch after hand-pulling (roughly the area within 150 ft of each patch) to prevent regrowth from EWM fragments released from the plants prior to or during hand-pulling. You should discuss these options with your applicator and DNR AIS Specialist before proceeding.

Past studies have shown that eradication of EWM in lakes is rarely achieved and that continued diligence is required to prevent reestablishment and spread of EWM. Consequently, the Washburn Lake Association should continue to monitor the lake to ensure that any regrowth of EWM from seeds or remaining roots is controlled to prevent the spread to other areas of the lake.

Washburn Lake (#11-0059)

Eurasian Watermilfoil Search & Delineation: September 8, 2017



-  Designated Search Area (~175 acres)
-  Surveyed Path (15.6 miles)
-  Location of EWM Patches

Site	Depth (ft)	EWM Density	Lat	Long
1	2.5 ft	1.0	46.871862	-93.971297
2	3.0 ft	2.0	48.861477	-93.976865

Surveyed: Sept 8, 2017

Methods: Visual, Sonar, Rake

Surveyor: JA Johnson



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Map produced for
Washburn Lake Association by:



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