

Inspection by the Invasive Species Program

Division of Ecological Resources
Minnesota Department of Natural Resources

Lake: Sturgeon Lake

DOW Number: 58006700

Date of inspection: 22 June 2017

County: Pine

Observer[s]: Rich Rezanka

Time - On Water: 0900

Off water: 1500

Type of inspection: EWM inspection

Author[s] of report: Klaysmat, Rezanka

Date of report: 26 June 2017

Overall:

A survey of Eurasian watermilfoil (EWM) plants was conducted throughout the littoral zone of Sturgeon Lake in Pine County on 22 June 2017. Milfoil was found in a few new areas but fewer acres (33.99) of the plant were found in 2017 compared to the previous year.



Photo 1: A photo of Eurasian watermilfoil efflorescence (emergent flowers) in Sturgeon Lake in Pine County on 22 June 2017.

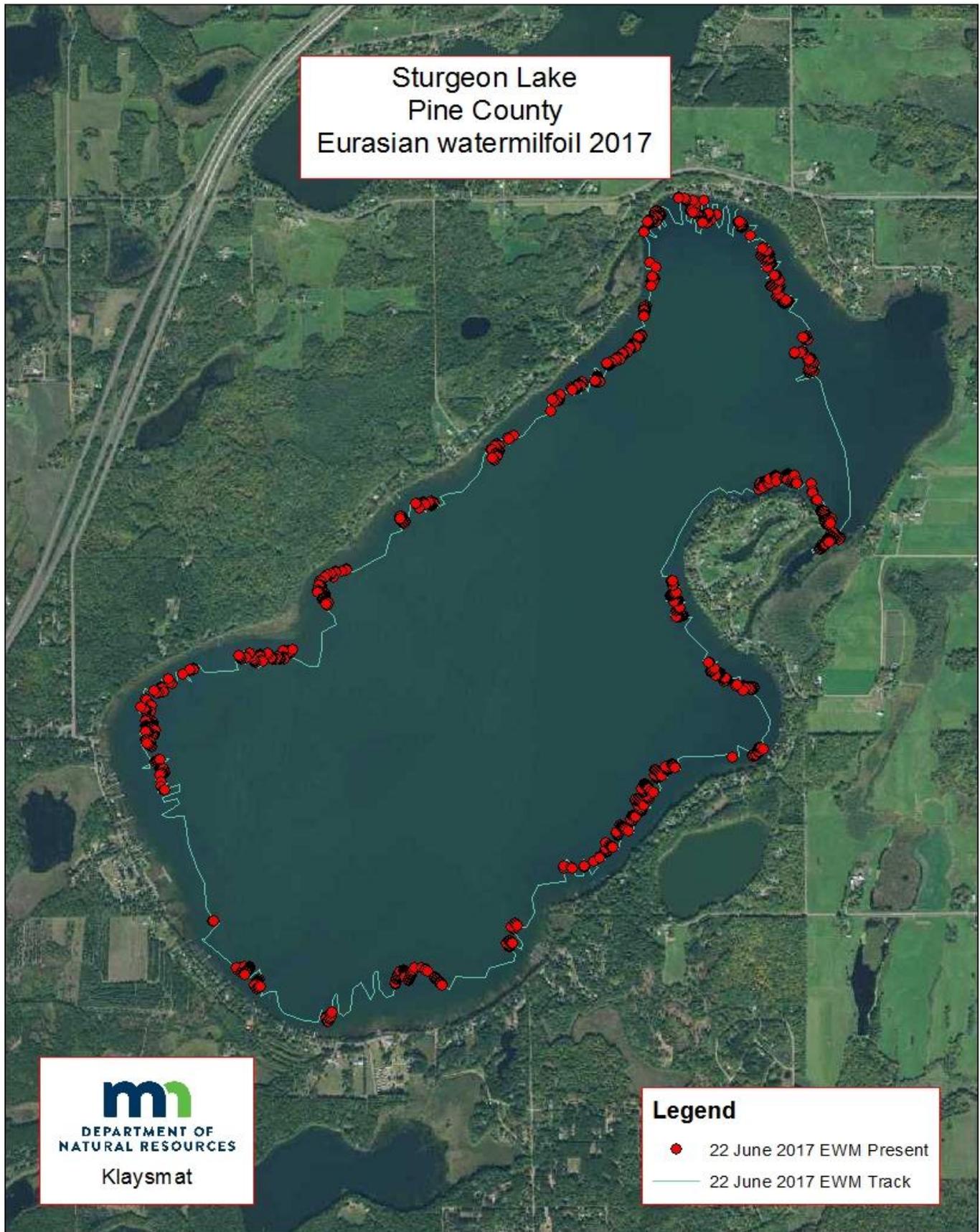


Figure 1. Sturgeon Lake (DOW #58006700) with red marks indicating the presence of Eurasian watermilfoil and a blue line showing the track of the boat during the survey on 22 June 2017.

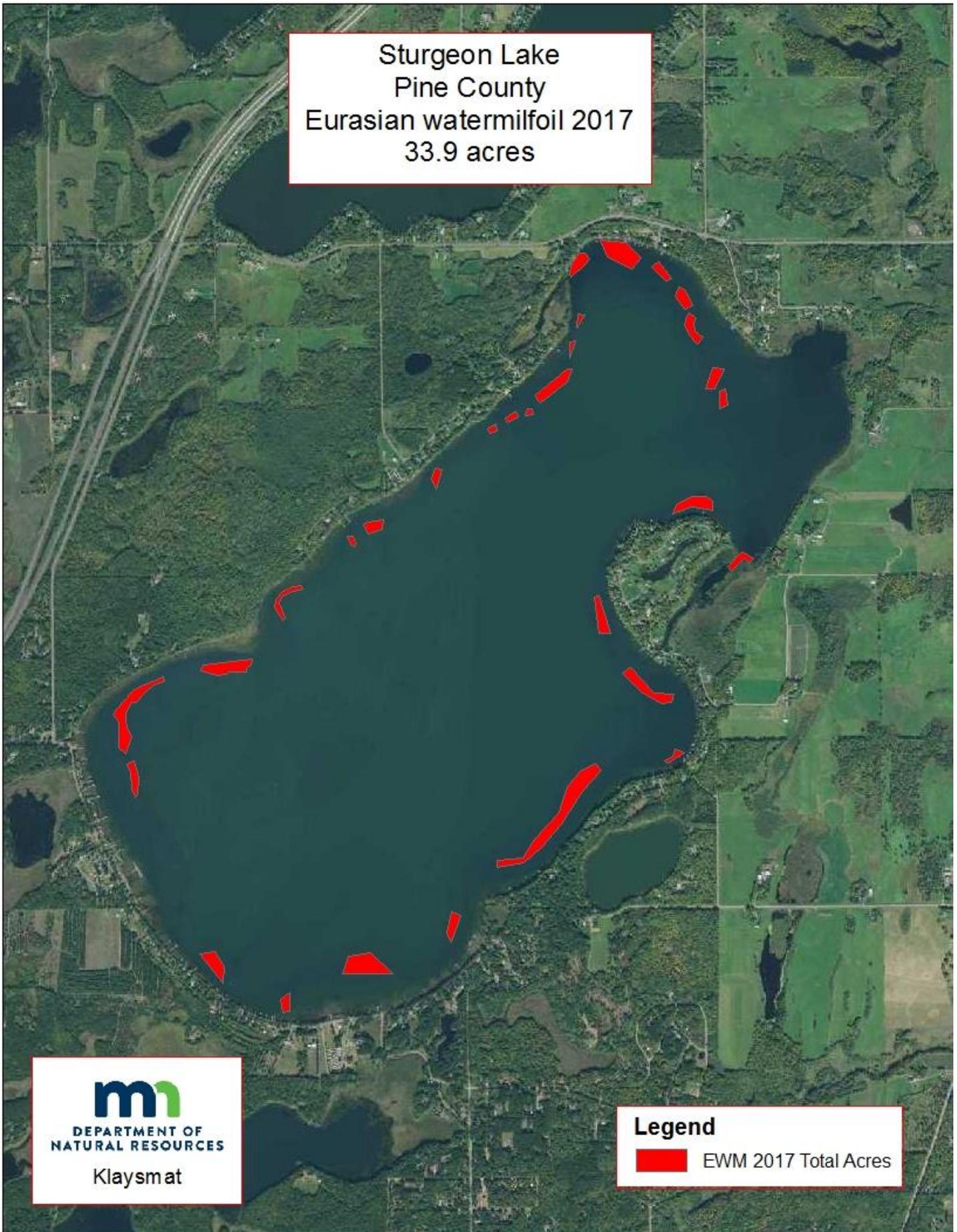


Figure 2. Acreage (red) of Eurasian watermilfoil found in Sturgeon Lake on 22 June 2017.

Sturgeon Lake
Pine County
Eurasian watermilfoil 2017
Proposed treatment 23.93 acres

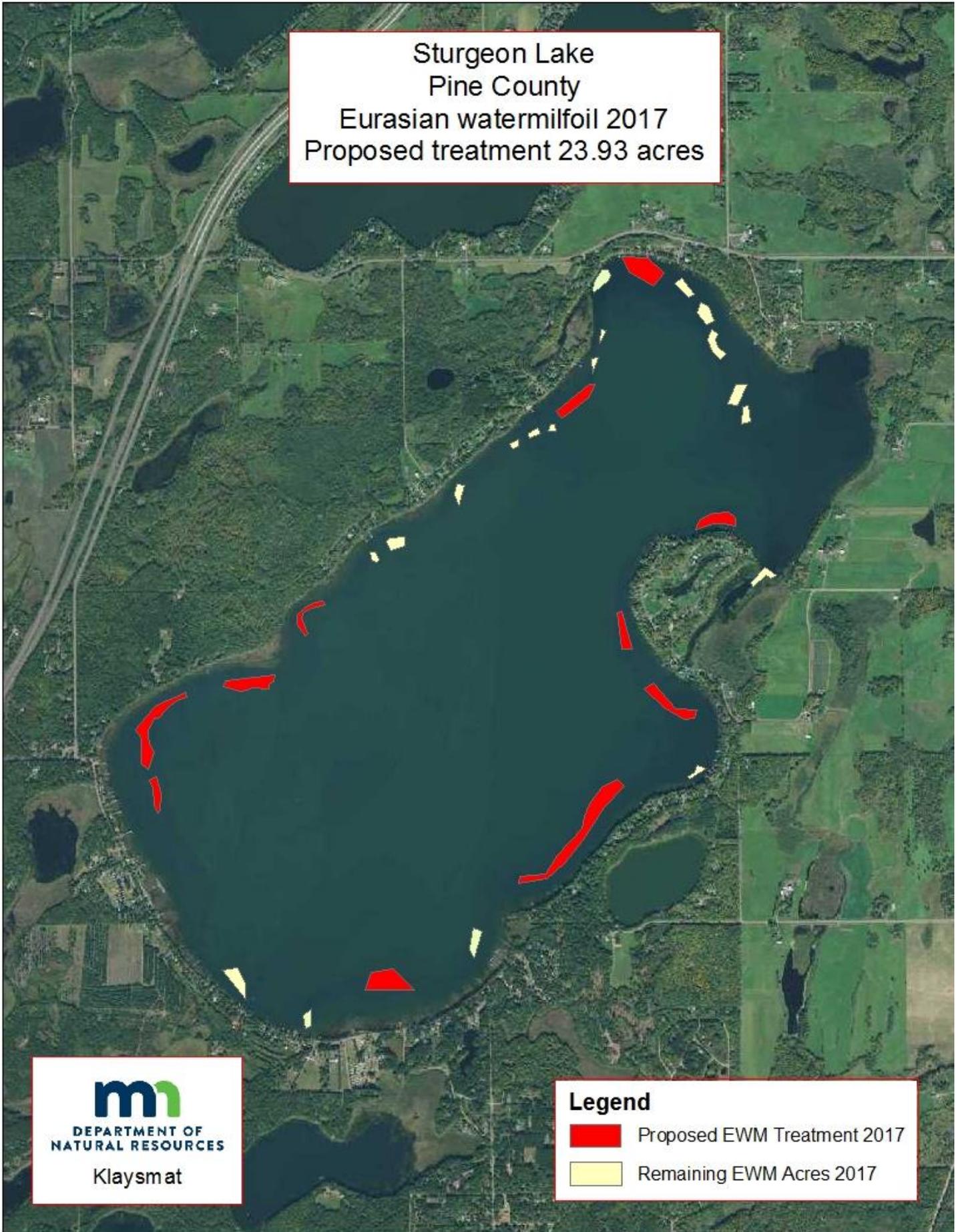


Figure 3. Proposed treatment (red) of Eurasian watermilfoil in Sturgeon Lake on 22 June 2017

The survey was conducted from a boat with a sampling rake, water depth was measured with the depth finder, and GPS coordinates were recorded on a Garmin Map76csx unit.

Weather was cloudy and little wind. Air temperature was 68 degrees; surface water temperature was 69 degrees. Water clarity in the lake was moderate (1 to 4 feet). Visual sampling was possible in shallow sites with depths less than five feet.

Delineation methods involved both visual methods and the use of a two-sided plant rake. Eurasian watermilfoil growing in the littoral zone was examined and mapped. Sampling was done around the lake in a counter-clockwise direction. The boat was driven from shallow water into deep water in a slow meandering pattern.

Eurasian water milfoil was observed throughout lake in water ranging from two to nine feet. EWM was growing among both emergent and floating-leaf plants at some sites. Eurasian watermilfoil plants were at the surface and forming dense mats at some sites. Plant density in most areas was enough to hamper or prevent boat operation. Numerous new small sites were discovered and mapped. Over time similar smaller sites have expanded into each other and formed larger stands of EWM (figures 1 and 2). The northwest corner of Sturgeon Lake supports the greatest expansion of new EWM sites while the southwest corner, which historically has had large EWM presence, had fewer plants on 20 June 2017 than in previous years. The area around the public access had some small dense EWM stands but in general it appears that management activity over the years has reduced the plant in that area.



Photo 2. Eurasian watermilfoil section sampled on Sturgeon Lake on 22 June 2017.



Photo 3. Rake containing Eurasian watermilfoil on Sturgeon Lake on 22 June 2017.