

## 2023 Curlyleaf Pondweed Delineation

**Lake Sarah** (# 27-0191)  
Hennepin County, MN

Surveyed May 10, 2023



### Survey, Analysis, and Reporting by:

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## Purpose of Survey

This survey was conducted to locate and delineate areas of curlyleaf pondweed (CLP) throughout the vegetated portion of Lake Sarah (#27-0191). This information will help to guide CLP management and is required as a part of the DNR permitting process.

## Survey Method

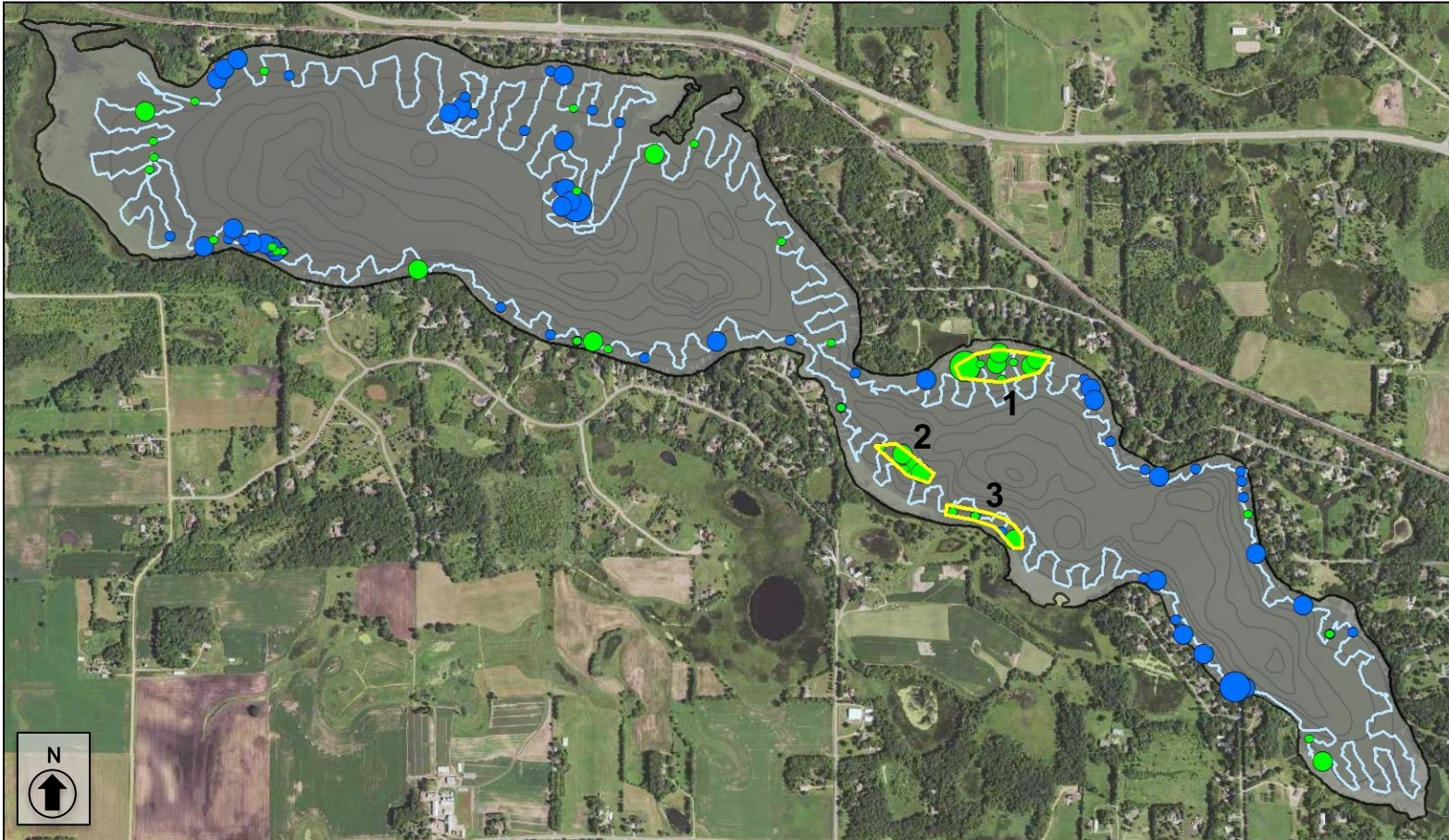
### CLP Delineation Survey

We surveyed Lake Sarah on May 10, 2023. During this survey, we navigated a meandering path over the vegetated portion of the lake. While navigating this search path, we used a combination of rake tosses, visual surface observations, and sonar readings to locate and delineate areas of CLP growth. When we encountered CLP, we marked the location, recorded the water depth, and rated the density of the growth using visual and rake density scores as described in the table below. We also recorded the density of Eurasian watermilfoil and native plant species encountered during the survey.

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

For rake samples, we dragged a sampling rake over approximately 10 square feet of lake bottom and recorded the CLP density based upon the number of plants (stem count) retrieved on the rake. The recorded water depths and density scores were linked to the appropriate GPS locations and then mapped using desktop GIS software.

## 2023 Delineation of Curlyleaf Pondweed Lake Sarah (#27-0191)



— Surveyed Path  
 □ Proposed Plots

**CLP Density**

- 1
- 2
- 3

**EWM Density**

- 1
- 2
- 3

Plot	Area (acres)	Avg Depth (ft)	Avg CLP Density (1-3)
1	4.4	3.2	1.8
2	1.8	6.5	1.6
3	2.0	4.6	1.3

**Total 8.2 acres**

Surveyed: May 10, 2023  
 Methods: Rake, Visual, Sonar  
 Surveyor: JA Johnson



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## ***Online Resources & Contacts***

Minnesota Administrative Rules for Aquatic Plant Management

<https://www.revisor.mn.gov/rules/?id=6280>

Minnesota DNR – Aquatic Plant Management Regulations & Permit Application Forms

<http://www.dnr.state.mn.us/apm/index.html>

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