

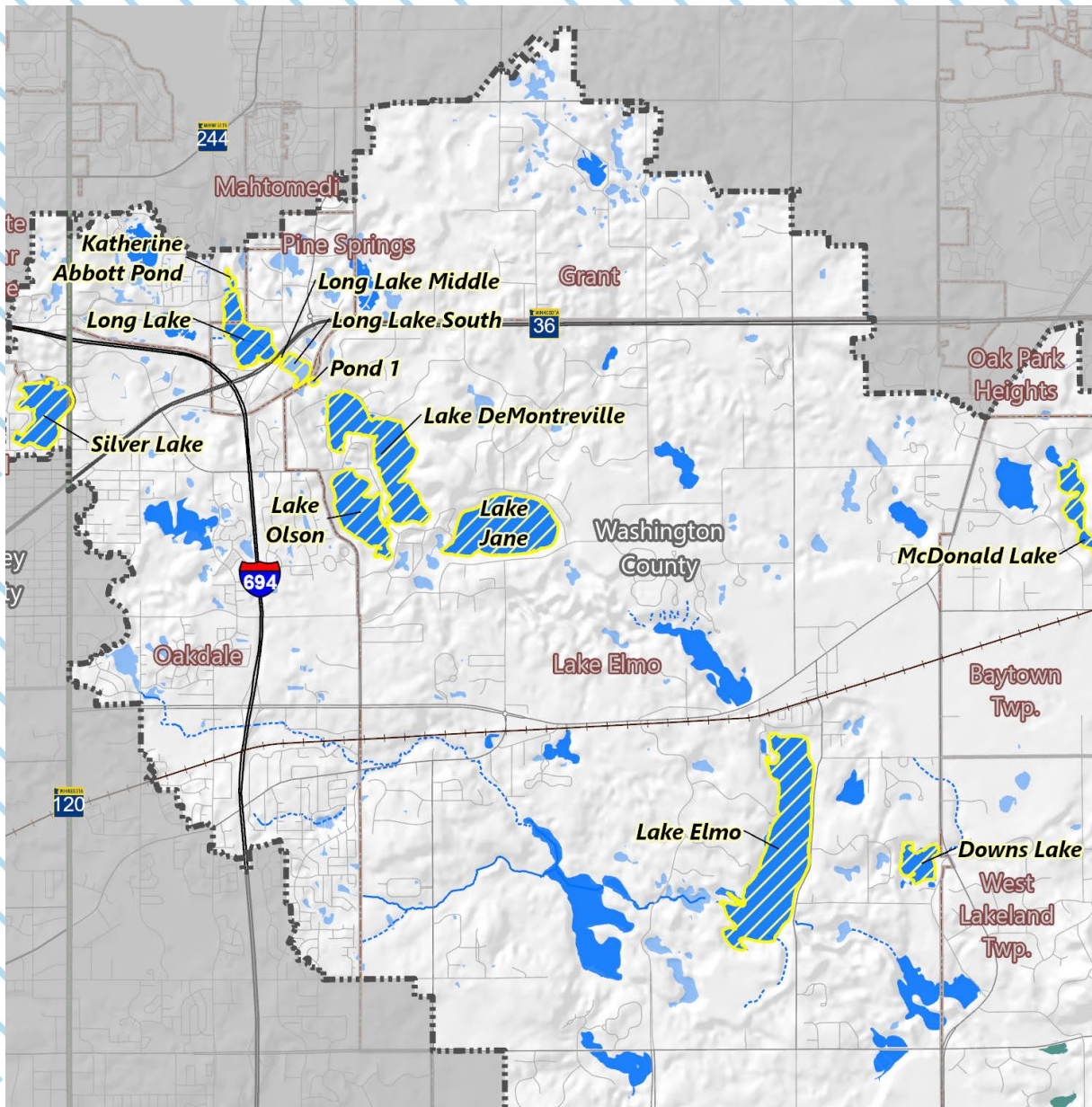
Results of 2024 Point-Intercept Aquatic Plant Surveys



Meg Rattei, Senior Biologist

January 23, 2025





Presentation Overview

- Native Plants
- Eurasian Watermilfoil (EWM) or Hybrid Watermilfoil (HWM)
- Curly-Leaf Pondweed
- Other Aquatic Invasive Species
- Recommendations

Report includes details for

- Silver Lake
- Long Lake
- Katherine Abbot Pond
- Long Lake Middle
- Long Lake South
- Pond 1
- Lake DeMontreville
- Lake Olson
- Lake Jane
- Lake Elmo
- Downs Lake
- McDonald Lake

Native Plants

Silver Lake, Long Lake, Tri-Lakes, and Lake Elmo



- All met MNDNR Plant Eutrophication IBI criteria
- Good plant diversity
- Significant changes between 2023-2024 in Silver Lake, Long Lake, and Tri-Lakes included:
 - Favorable increases in native species and/or declines in invasive species and/or filamentous algae
 - Unfavorable declines in native species and/or increases in invasive species
 - Overall result of changes were healthy and diverse plant communities in all lakes.
- No significant changes between 2023-2024 in Lake Elmo



Source of photo:
Endangered Resource Services, LLC

Eurasian Watermilfoil (EWM)/Hybrid Watermilfoil (HWM)

Fluridone Treatments and Results: Silver Lake, Long Lake, and Tri-Lakes

Fall 2023-Spring 2024:

Silver Lake, Long Lake, and Lake Jane

- Silver Lake: HWM declined from 71 acres in June 2023 to 3 acres in June 2024; anecdotal: none seen in October 2024
- Long Lake: EWM declined from 29 acres in June 2023 to 20 acres in June 2024 to 2 acres in Sept. 2024; treated 2 acres with diquat and ProcellaCOR Sept. 2024
- Lake Jane: EWM declined from 51 acres in June 2023 to 11 acres in June 2024; anecdotal: none seen after treatment completed

Fall 2022-Spring 2023:

Lake DeMontreville and Lake Olson

- Lake DeMontreville – No HWM seen in June 2023 and June 2024
- Lake Olson – HWM increased from 0.44 acres in June 2023 to 2 acres in June 2024; treated 1 acre with ProcellaCOR in June 2024 and 2 acres with ProcellaCOR in Sept. 2024



Source of photos:
Endangered Resource Services, LLC

Eurasian Watermilfoil (EWM)/Hybrid Watermilfoil (HWM) ProcellaCOR Treatment and Results: Lake Elmo

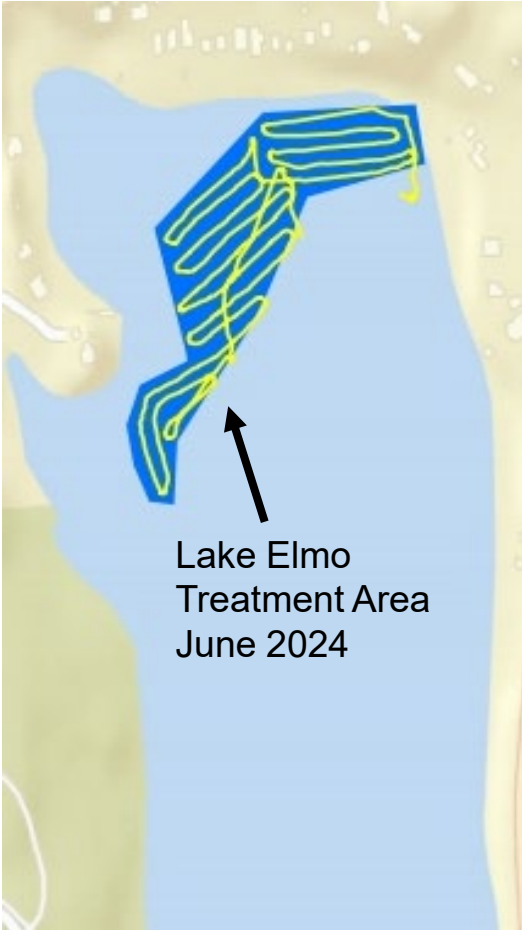


June 2024:

Increased from 17 acres in June 2023 to 23 acres in June 20, 2024; treated 10 acres at north end of lake with ProcellaCOR on June 27, 2024



Source of photo:
Endangered Resource Services, LLC



Eurasian Watermilfoil (EWM)

Long Lake Middle, Long Lake South, and Pond 1



July 2024:

- Long Lake Middle: Observed throughout
- Long Lake South: Observed throughout
- Pond 1: Observed in inlet to pond



Curly-Leaf Pondweed Results

Silver Lake, Long Lake, and Tri-Lakes



Fall 2023-Spring 2024 Fluridone Treatment: Silver Lake, Long Lake, and Lake Jane

Silver Lake: Not observed in June 2023 and June 2024

Long Lake: Declined from 22 acres in June 2023 to 0.6 acres in June 2024

Lake Jane: Declined from 25 acres in June 2023 to not observed in June 2024

Fall 2022-Spring 2023 Fluridone Treatment: Lakes DeMontreville and Olson

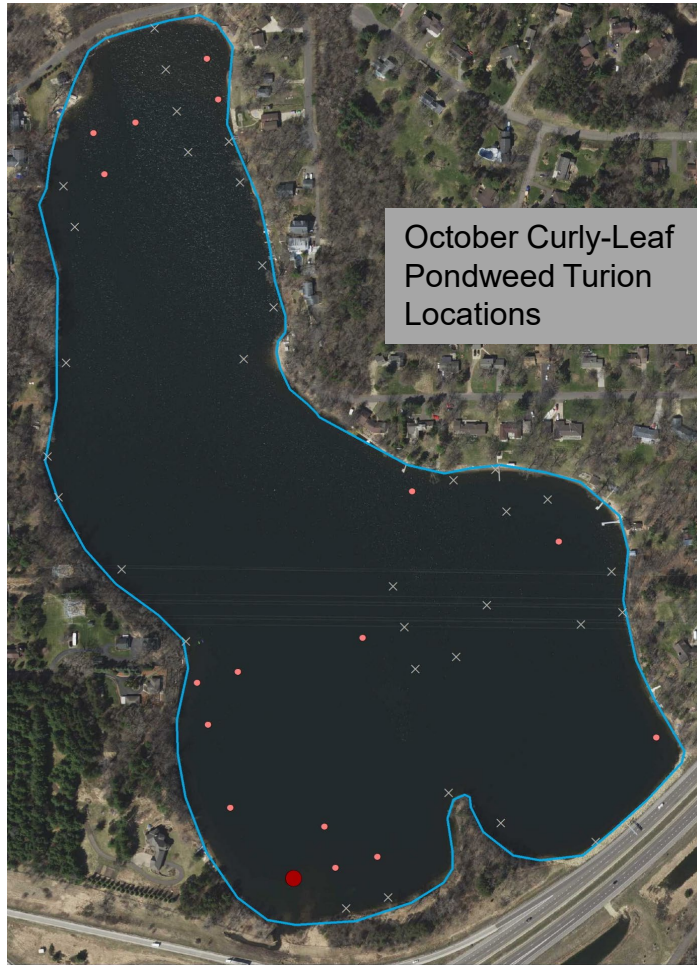
Lake DeMontreville: Decreased from 22 acres in June 2023 to 2 acres in June 2024

Lake Olson: Increased from not observed June 2023 to 3 acres in June 2024



Source of photo:
Endangered Resource Services, LLC

Curly-Leaf Pondweed Turion Results Long Lake



October 2024:

- Collected from 17 of 50 locations (34%)
- 33 turions in 100 samples
- 11 at point near outlet
- 0-2 at other points
- Average density of 14 turions per square meter

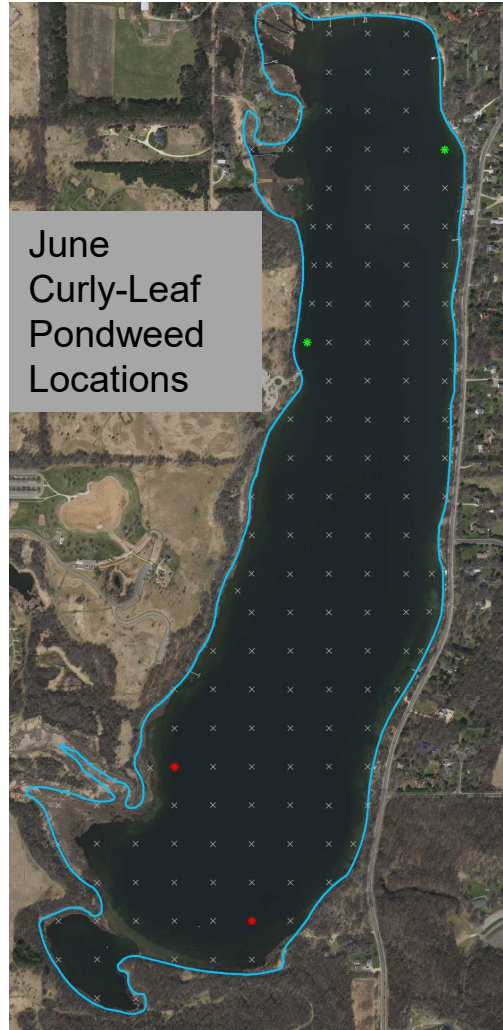
Source of map and photos:
Endangered Resource Services, LLC

Curly-Leaf Pondweed Results

Lake Elmo



June 2024:
Observed at 4 locations



Source of photo:
Endangered Resource Services, LLC

Other Invasive Plants



Reed canary grass

- Not observed in Lake Elmo
- 1 location in Lake Jane and Silver Lake
- 2 locations in Long Lake and Lake DeMontreville
- 3 locations in Lake Olson



Source of reed canary grass and narrow-leaved cattail photos: minnesotaseasons.com

Narrow-leaved cattail

- 1 location in Lakes DeMontreville, Olson, and Jane, and Silver Lake
- 3 locations in Long Lake
- Along the western and southern shores of Lake Elmo



Yellow iris

- 1 location in Lake DeMontreville and Lake Elmo
- 2 locations in Silver Lake



Source of yellow iris photo: Endangered Resource Services, LLC

Other Invasive Plants



Common reed

Along the southern and southeastern shores of Lake Elmo



Source of common reed photo: Endangered Resource Services, LLC;
Source of purple loosestrife photo: minnesotaseasons.com

Purple loosestrife

1 location in Lake Jane and not observed in Silver Lake, Long Lake, Lakes DeMontreville, Olson, and Elmo



Downs Lake



June 2024 plant survey

- Assess plant community as part of water quality improvement study
- Good plant diversity
- Did not meet MNDNR IBI—stressed from eutrophication
- One AIS—reed canary grass—observed at 3 locations



McDonald Lake



June 2024 plant survey

- Assess plant community as part of water quality improvement study
- Good plant diversity
- Met MNDNR IBI—not stressed from eutrophication

Recommendations



- Post report to District website and inform interested residents, MNDNR staff, Ramsey County staff, and U of M staff
- Authorize Barr to provide technical support for management of AIS when requested by VBWD lake organizations
 - Answering questions and providing requested information
 - Assisting with meetings between lake association representatives and MNDNR staff to discuss 2025 treatments for EWM, CLP, and/or zebra mussels
 - Assisting lake organizations with permitting and treatment designs for 2025 treatments
 - Assisting with MNDNR required monitoring, including CLP turion surveys
 - Assisting with MNDNR required post-treatment reporting
- Authorize Barr to work with MNDNR staff , U of M staff, and the Lake Elmo Association to identify and implement feasible options for managing common reed
- Assist with meetings with MNDNR, permitting, treatment designs, and assisting with any MNDNR required post-treatment reporting





Questions



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