Curly-leaf Pondweed Delineation Survey
Lake Edward (18.3050)
Crow Wing County, Minnesota
Conducted May 9, 2025

Surveyor: Ronald Duy, Jr.
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May 9, 2025

Purpose of this aquatic plant survey

The purpose of this curly-leaf pondweed survey is to identify and delineate curly-leaf pondweed sites where management of the invasive aquatic plant may be considered during 2025 and in the future. Central Minnesota Aquatics, Inc. has performed this delineation survey for Lake Edward Conservation Club.

Introduction

Lake Edward (DOW #18.3050) is located approximately 1 mile north of Merrifield in Crow Wing County. Lake Edward has a maximum depth of about 75' and about 60% of the lake (1,200 acres) has a water depth less than 15' "littoral area". The shoreline length is about 11 miles and the surface area is about 2,575 acres.

Brief Curlyleaf Pondweed Survey History

Lake Edward Conservation Club has invested several thousands of dollars in surveying efforts for Lake Edward throughout recent years and they continue to invest their time and hard earned dollars in protecting Lake Edward from aquatic invasive species. The surveys were utilized for the monitoring of zebra mussels, Eurasian watermilfoil and the density increases and spread of the established curlyleaf pondweed. Central Minnesota Aquatics, Inc. has performed surveys and provided survey reports for limited areas of Lake Edward during 2018, 2019, 2020 and 2021. Curlyleaf pondweed, which is an invasive plant species, has been identified within Lake Edward during the last three years surveys and the abundance has been classified as light and sparse.

Daniel Swanson performed a Curly-leaf Pondweed Delineation Survey on May 23, 2022 and identified 16.0 acres of treatable curlyleaf pondweed. His survey report was utilized to apply for a DNR Invasive Aquatic Plant Management Permit and permit # 2022-0315 was issued by DNR. Treatment was performed within these 16.0 acres on June 1, 2022. A post treatment inspection was performed by Central Minnesota Aquatics and no unaffected curlyleaf was identified and a beautiful growth of native plants was present.

Ronald Duy, Jr. performed a curly-leaf pondweed delineation survey on May 4, 2024 and there was only one (1) curly-leaf pondweed plant identified at the public boat access. Because no curly-leaf pondweed was located anywhere else no treatment is recommended.

2025 UPDATE

Ronald Duy, Jr. performed a curly-leaf pondweed delineation survey on May 9, 2025 and no curly-leaf pondweed, Eurasian watermilfoil or starry stonewort was identified. Because no curly-leaf pondweed was identified no treatment is recommended for 2025.

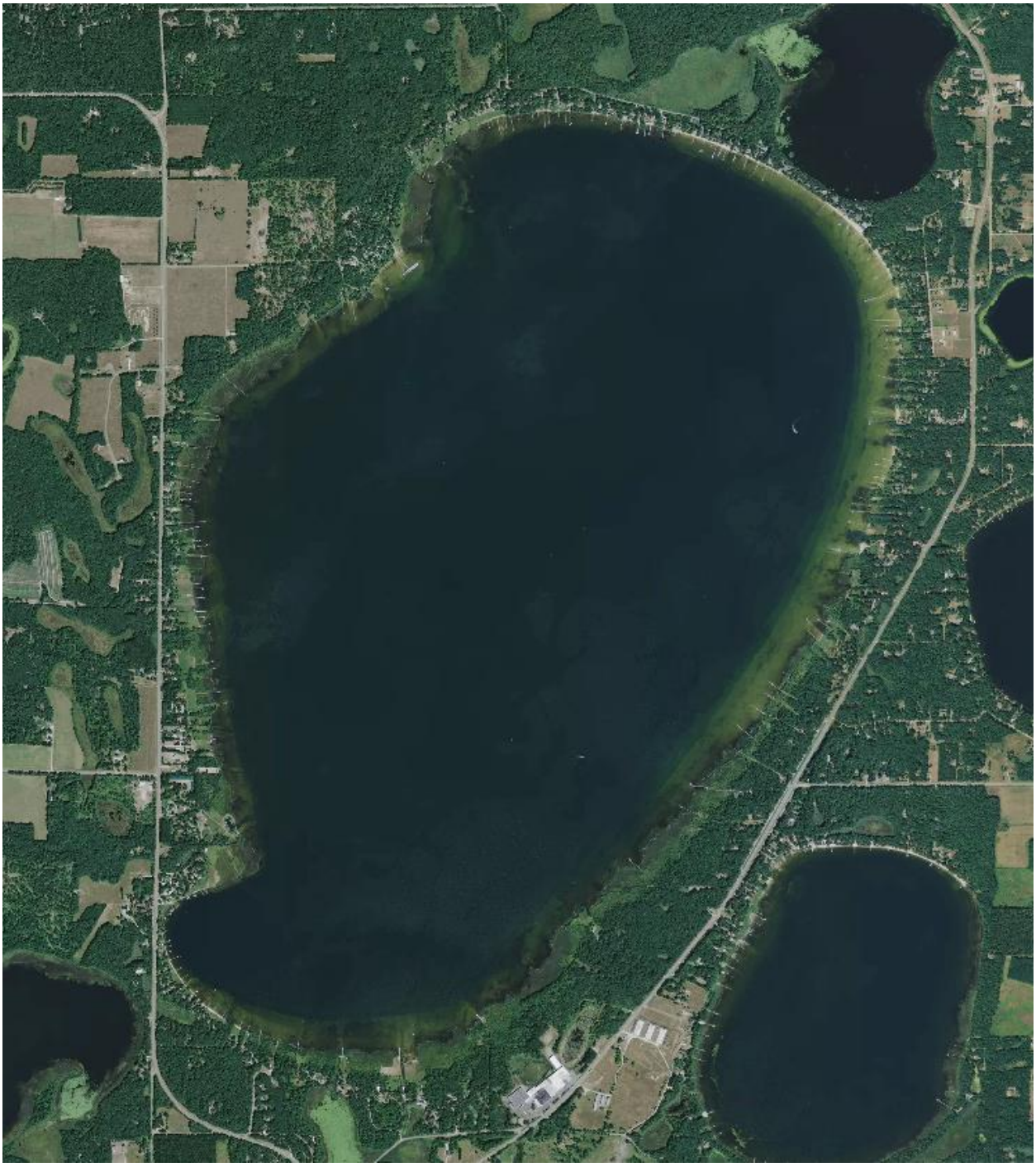

Photo 1. Lake Edward, Central Minnesota Aquatics, Inc.

Invasive Aquatic Plant Delineation Survey Information for May 9, 2025

This survey was conducted from a boat. Plants were attempted to be documented by visually sighting them in the water, utilizing a two-sided aquatic plant sampling rake, underwater graph equipment and underwater viewing equipment. Also, downward and side imaging sonar equipment was utilized. The lake water temperature about two feet below the waters' surface was between 57-63 degrees Fahrenheit, the air temperature was variable between 70 and 80 degrees. The Secchi disc reading was over 23 feet. Due to the extremely clear water the lake bottom was easily viewed down to about 15 feet of water depth. No curlyleaf pondweed, Eurasian watermilfoil or starry stonewort was identified within the survey areas. A GPS receiver was used to create a survey track log.

Photo 2. Survey conditions May 9, 2025 on Lake Edward

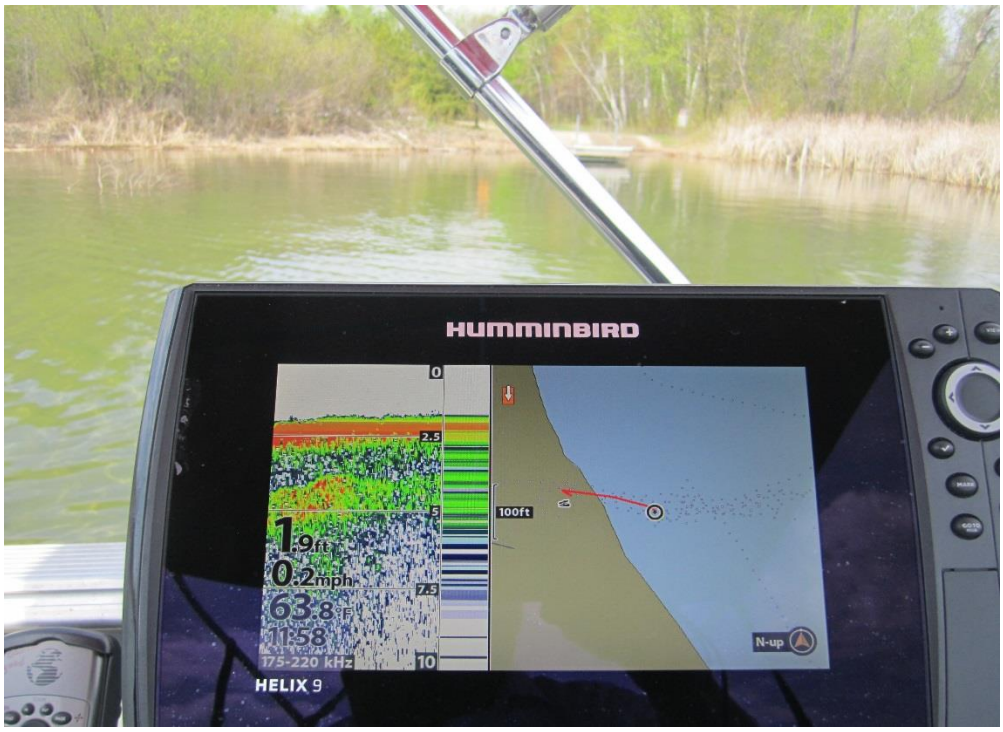

Photo 3. The surface water temperature at the public boat access was 63.8 degrees at 11:58 a.m.

Photo 4. The surface water temperature in front of Cozy Bay Resort was 57.7 degrees at 4:27 p.m.

Following is the survey boat track log in red, the survey boat traveled about 23.27 nautical miles and the survey area was about 180 acres in size.

Photo 5. Boat survey track log for May 9, 2025

Observations and Conclusion

The 2024-2025 winter was again fairly warm with less snowfall than average. Some area lakes have abundant curly-leaf pondweed growth this spring and others have had little to no growth. Lake Edward, at this time, has seen no change in curly-leaf pondweed growth compared to 2024. It appears that the sixteen (16) acre curly-leaf pondweed treatment performed in 2022 within the north bay has been very successful.

No curly-leaf pondweed was identified within any of the 2025 survey areas. It is our recommendation to continue surveying Lake Edward areas yearly to continue monitoring and managing this invasive plant.