Barton Lake
Aquatic Plant Control Program
2023 Activity Summary

A publication of the Barton Lake Association and the Schoolcraft Township Board

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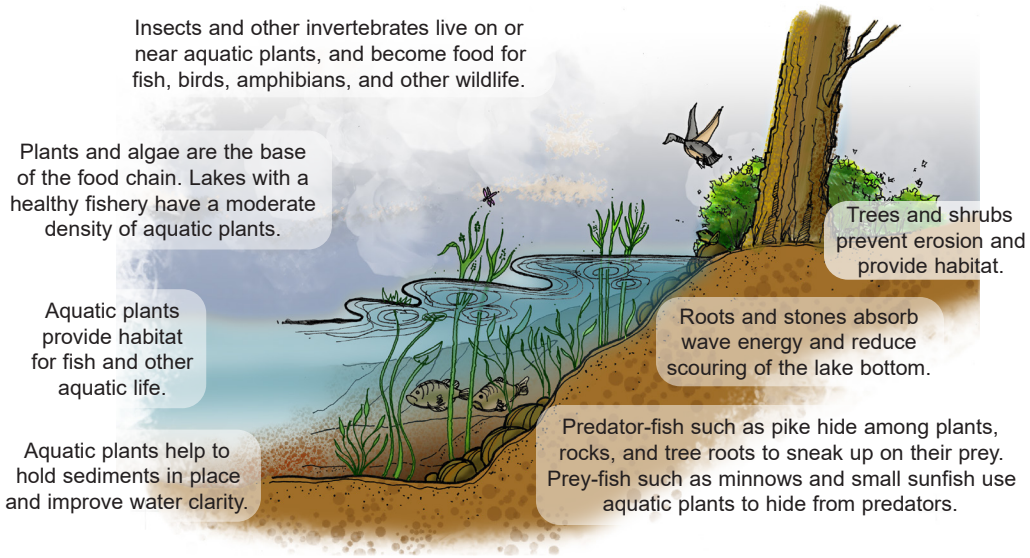
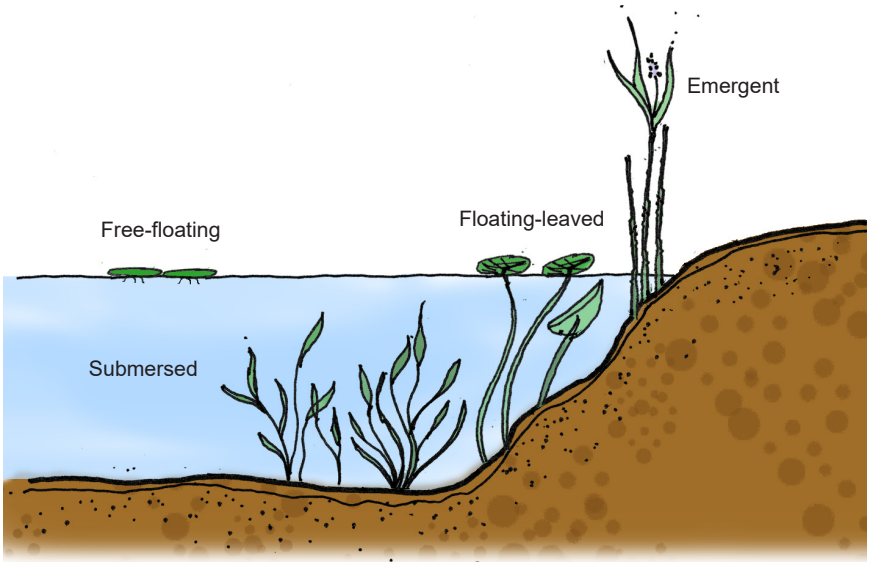
Since 2008, a nuisance plant control program has been ongoing on Barton Lake. The primary objective of the program is to prevent the spread of invasive aquatic plants while preserving beneficial plant species. This report contains an overview of plant control activities conducted on Barton Lake in 2023.

Aquatic plants are an important component of lakes. They produce oxygen during photosynthesis, provide food, habitat and cover for fish, and help stabilize shoreline and bottom sediments.



There are four main aquatic plant groups: submersed, floating-leaved, free-floating, and emergent. Each plant group provides important ecological functions. Maintaining a diversity of aquatic plants is important to sustaining a healthy fishery and a healthy lake.



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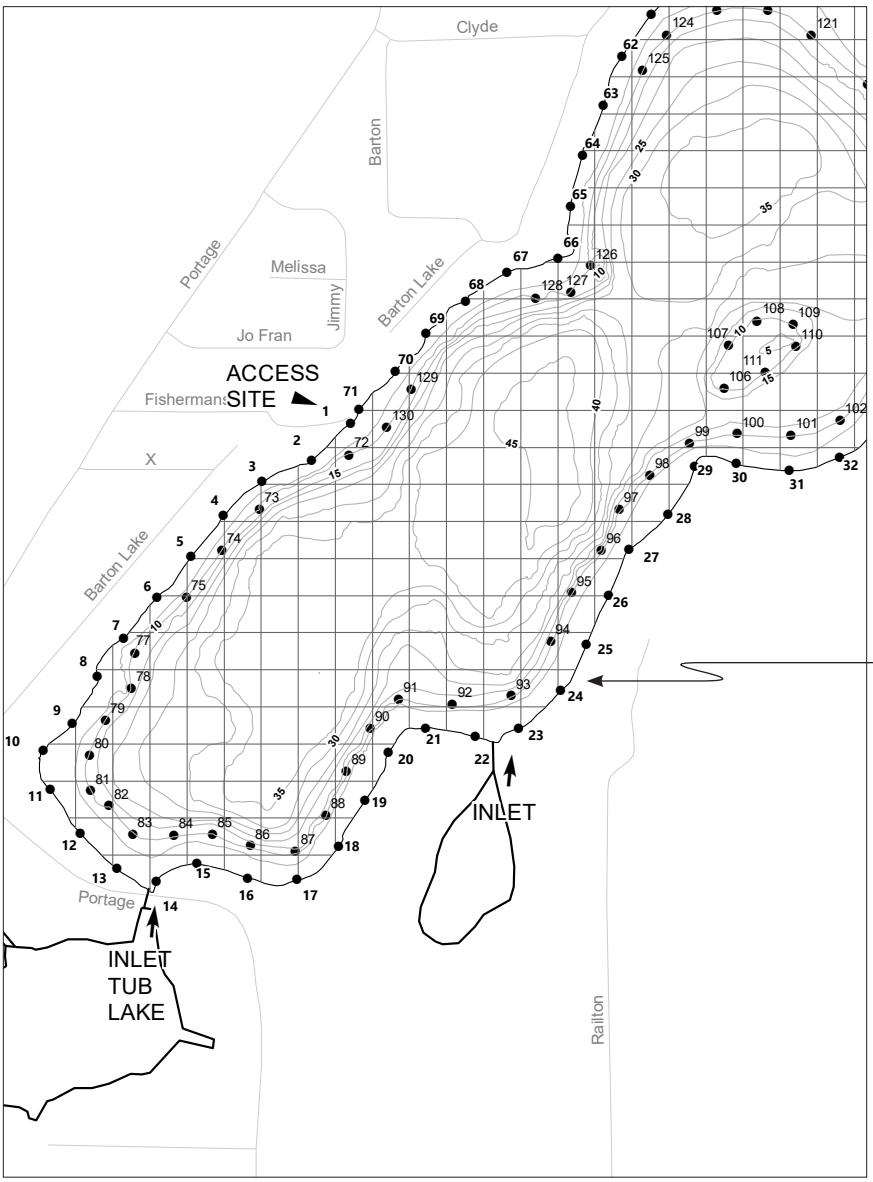
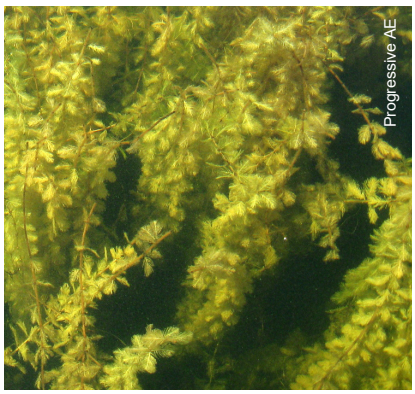
Plant control activities are coordinated under the direction of an environmental consultant, Progressive AE. Biologists from Progressive conduct GPS-guided surveys of the lake to identify problem areas, and georeferenced plant control maps are provided to the plant control contractor. Follow-up surveys are conducted throughout the growing season to evaluate results and the need for additional treatments. In 2023, surveys of Barton Lake were conducted on May 18, June 20, July 19, and August 24.



GPS reference points established along the shoreline and offshore drop-off points of Barton Lake are used to guide plant surveys and to accurately identify the location of nuisance plant growth.

Plant control in Barton Lake involves the select use of herbicides to control invasive plant growth. Primary plants targeted for control in Barton Lake include Eurasian milfoil and starry stonewort. Both of these plants are non-native (exotic) species that tend to be highly invasive and have the potential to spread quickly if left unchecked.



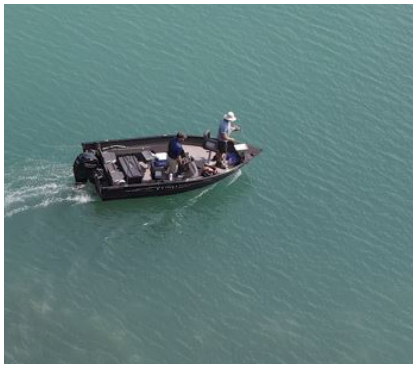
Eurasian milfoil (*Myriophyllum spicatum*)

Starry stonewort (*Nitellopsis obtusa*)

Plant control activities conducted on Barton Lake in 2023 are summarized in the table below.

BARTON LAKE
2023 NUISANCE AQUATIC PLANT CONTROL SUMMARY

Work Type	Date	Plants Targeted	Acres
Survey	May 18		
Herbicide	May 30	E. milfoil, curly-leaf pondweed	14
Survey	June 20		
Herbicide	June 26	Nuisance natives	11.75
Survey	July 19		
Herbicide	July 26	Nuisance natives, starry stonewort	21
Survey	August 24		
Herbicide	August 29	Nuisance natives, starry stonewort, cabomba	12.75
Total			**59.5**



In addition to the surveys of the lake to identify invasive plant locations, a full shoreline vegetation survey of Barton Lake was conducted on August 24. The method used to conduct the vegetation survey follows the Aquatic Vegetation Assessment Site (AVAS) survey procedures established by the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Using this method, the type and abundance of each plant species are recorded at each site. This approach provides a snapshot of the aquatic plant community and the results can be compared to historical data in order to track trends and changes in Barton Lake's aquatic plant community. The table below lists the findings from this year's AVAS survey. At the time of the survey, 14 submersed species, two floating-leaved species, and eight emergent species were found in the lake. Barton Lake maintains a good diversity of beneficial, native plant species.

BARTON LAKE AQUATIC PLANTS
August 24, 2023

Common Name	Scientific Name	Group	Percent of Sites Where Present
Wild celery	Vallisneria americana	Submersed	65
Starry stonewort*	Nitellopsis obtusa	Submersed	63
Carolina fanwort*	Cabomba caroliniana	Submersed	28
Slender naiad	Najas flexilis	Submersed	27
Variable pondweed	Potamogeton gramineus	Submersed	25
Bladderwort	Utricularia vulgaris	Submersed	17
Coontail	Ceratophyllum demersum	Submersed	13
Chara	Chara sp.	Submersed	10
Illinois pondweed	Potamogeton illinoensis	Submersed	8
Curly-leaf pondweed*	Potamogeton crispus	Submersed	4
Thin-leaf pondweed	Potamogeton sp.	Submersed	4
Eurasian milfoil*	Myriophyllum spicatum	Submersed	4
Sago pondweed	Stuckenia pectinata	Submersed	4
Flat-stem pondweed	Potamogeton zosteriformis	Submersed	1
White waterlily	Nymphaea odorata	Floating-leaved	63
Yellow waterlily	Nuphar sp.	Floating-leaved	7
Purple loosestrife*	Lythrum salicaria	Emergent	55
Cattail	Typha sp.	Emergent	51
Arrowhead	Sagittaria latifolia	Emergent	13
Phragmites*	Phragmites australis	Emergent	13
Lake sedge	Carex lacustris	Emergent	7
Water smartweed	Persicaria amphibia var. emersa	Emergent	4
Pickerelweed	Pontederia cordata	Emergent	4
Bulrush	Schoenoplectus sp.	Emergent	3

*Invasive exotic species