Wixom Lake
Aquatic Plant Control Program
Annual Activity Summary

A publication of the Wixom Lake Improvement Board

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Wixom Lake Improvement Board
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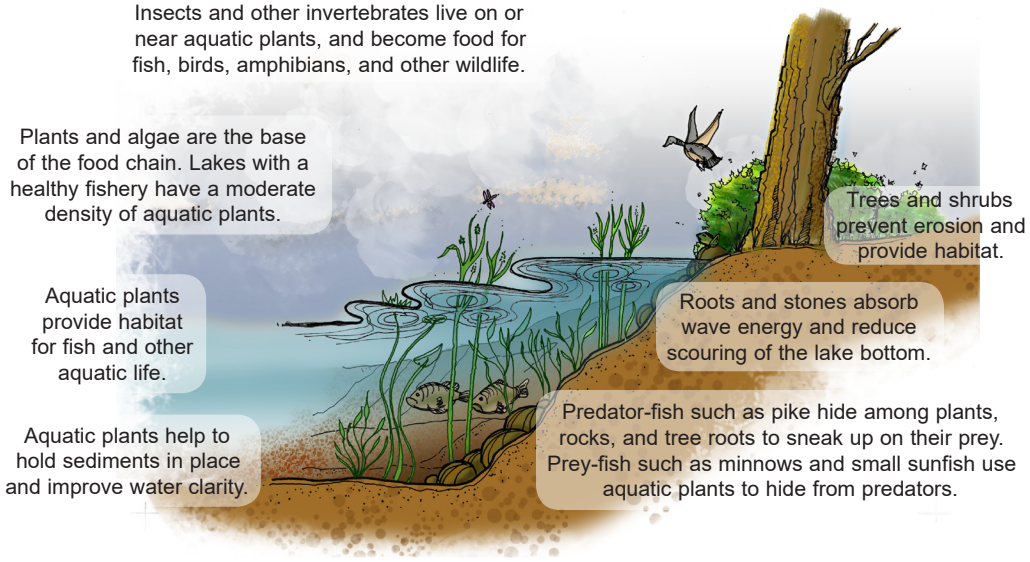
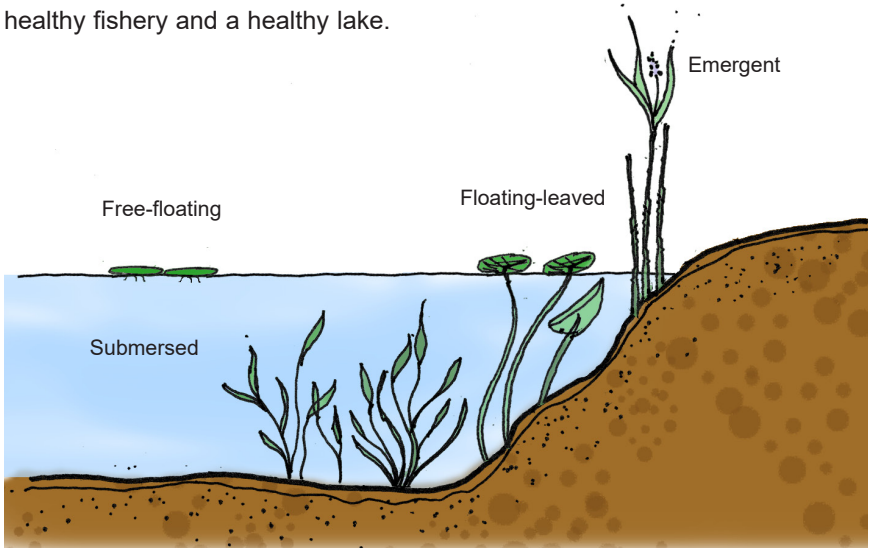
Since 2002, a nuisance plant control program has been ongoing on Wixom Lake. The primary objective of the program is to prevent the spread of invasive aquatic plants while preserving beneficial plant species. The program is financed through special assessment of lake residents in accordance with the Lake Improvements portion of the Natural Resources and Environmental Protection Act. This report contains an overview of plant control activities conducted on Wixom Lake in 2019.

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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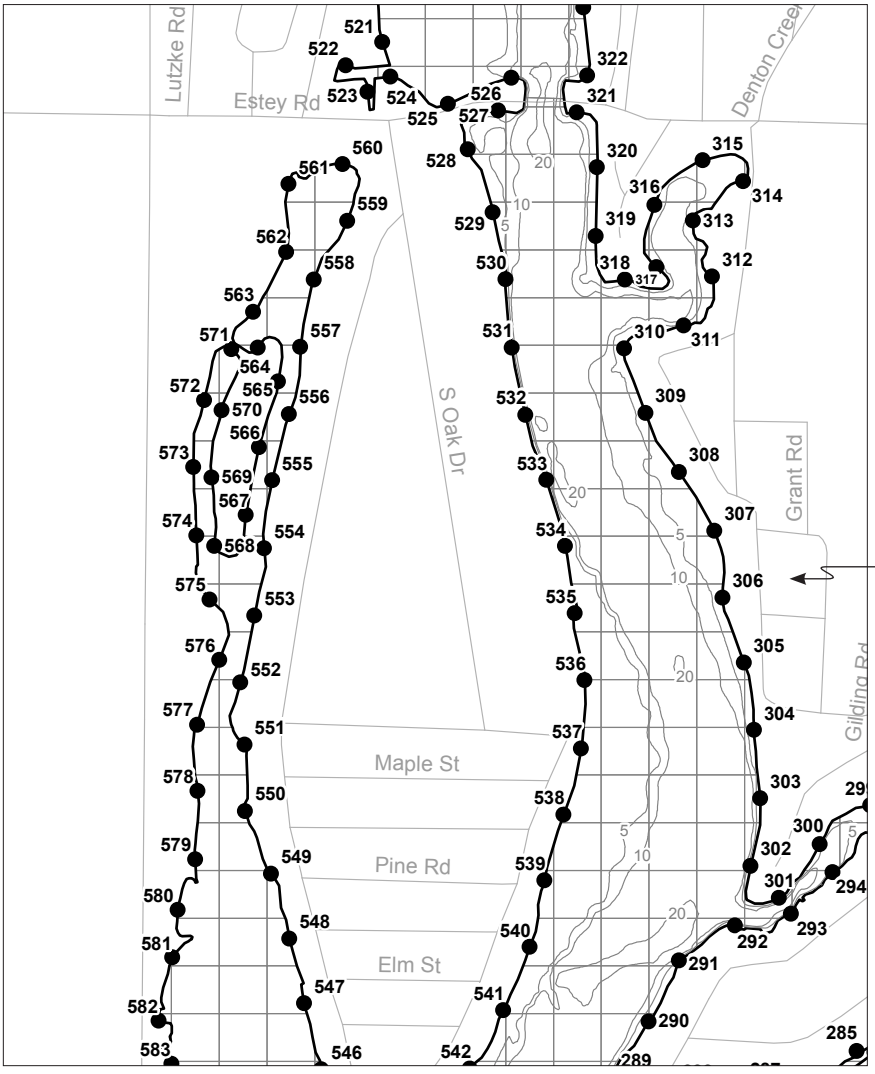
Plant control in Wixom Lake involves the select use of herbicides and mechanical harvesting to control invasive plant growth. Plant control activities are coordinated under the direction of an environmental consultant, Progressive AE. Biologists from Progressive conduct GPS-guided surveys of the lake to identify problem areas and detailed plant control maps are provided to the aquatic herbicide applicator, PLM Lake & Land Management, and the mechanical harvesting contractor, Mike's Clearwater Harvesting. Follow-up surveys are conducted throughout the growing season to evaluate results and the need for additional treatments or follow-up harvesting. In 2019, surveys of the lake were conducted on May 16, May 28, June 12, July 10, August 16, and September 18.



GPS reference points established along the shoreline and across the shallow portions of Wixom Lake are used to guide plant surveys and to accurately identify the location of nuisance plant growth areas.

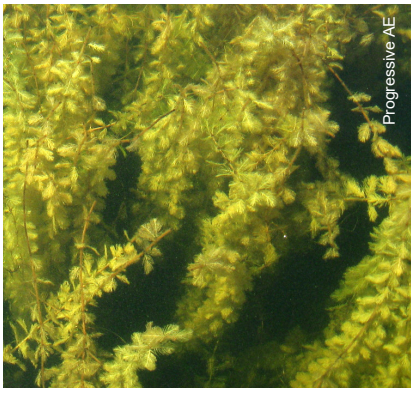
Central portion of Wixom Lake aquatic plant survey map.

In addition to the surveys of the lake to identify invasive plant locations, a vegetation survey of Wixom Lake was conducted on September 18 and 19, 2019 to evaluate the type and abundance of all plants in the lake. The table below lists each plant species observed during the survey and the relative abundance of each. At the time of the survey, 18 submersed species, two free-floating species, one floating-leaved species, and five emergent species were found in the lake. Wixom Lake maintains a good diversity of beneficial native plant species.

WIXOM LAKE AQUATIC PLANTS
September 18 - 19, 2019

Common Name	Scientific Name	Group	Percent of Sites Where Present
Wild celery	*Vallisneria americana*	Submersed	75
American pondweed	*Potamogeton nodosus*	Submersed	64
Coontail	*Ceratophyllum demersum*	Submersed	64
White waterlily	*Nymphaea odorata*	Submersed	59
Water stargrass	*Heteranthera dubia*	Submersed	57
Thin-leaf pondweed	*Potamogeton* sp.	Submersed	40
Slender naiad	*Najas flexilis*	Submersed	29
Eurasian milfoil	*Myriophyllum spicatum*	Submersed	22
Chara	*Chara* sp.	Submersed	19
Illinois pondweed	*Potamogeton illinoensis*	Submersed	11
Flat-stem pondweed	*Potamogeton zosteriformis*	Submersed	7
Elodea	*Elodea canadensis*	Submersed	4
Large-leaf pondweed	*Potamogeton amplifolius*	Submersed	4
Richardson's pondweed	*Potamogeton richardsonii*	Submersed	3
Curly-leaf pondweed	*Potamogeton crispus*	Submersed	2
Milfoil	*Myriophyllum heterophyllum*	Submersed	1
Bladderwort	*Utricularia vulgaris*	Submersed	1
Buttercup	*Ranunculus* sp.	Submersed	1
White waterlily	*Nymphaea odorata*	Floating-leaved	59
Duckweed	*Lemna minor*	Free-floating	3
Watermeal	*Wolffia punctata*	Free-floating	1
Cattail	*Typha* sp.	Emergent	23
Iris	*Iris* sp.	Emergent	15
Bulrush	*Schoenoplectus* sp.	Emergent	8
Purple loosestrife	*Lythrum salicaria*	Emergent	2
Phragmites	*Phragmites australis*	Emergent	2

Primary plants targeted for control in Wixom 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 Wixom Lake in 2019 are summarized in the table below. An 8-foot drawdown of Wixom Lake's water level over the winter of 2018-2019 greatly reduced the need for aquatic plant control measures in 2019.

WIXOM LAKE
2019 NUISANCE AQUATIC PLANT CONTROL SUMMARY

Treatment Date	Plants Targeted	Acres Treated
May 21	Eurasian milfoil and algae	87
June 4	Eurasian milfoil, curly-leaf pondweed, algae	43
June 19	Eurasian milfoil, nuisance natives, algae	51
June 27	Algae	65
July 17	Eurasian milfoil, wild celery, nuisance natives, algae	89
July 23	Eurasian milfoil, nuisance natives	1
August 21	Eurasian milfoil, starry stonewort, wild celery, algae	174
Total		510