



## Gourdneck Lake Governmental Lake Board

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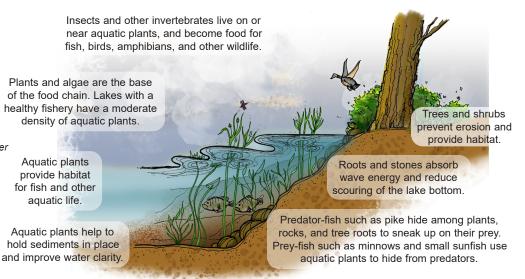
Kalamazoo County Drain Commissioner

## Gourdneck/Hogsett Lakes Aquatic Plant Control Program 2020 Activity Summary

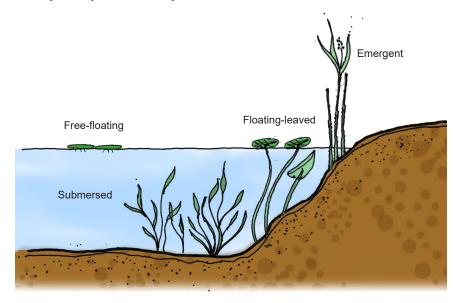
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For the past several years, a nuisance plant control program has been ongoing on Gourdneck Lake. The primary objective of the program is to prevent the spread of invasive aquatic plants while preserving beneficial plant species. This report contains an overview of plant control activities conducted on Gourdneck Lake and Hogsett Lake in 2020.

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.



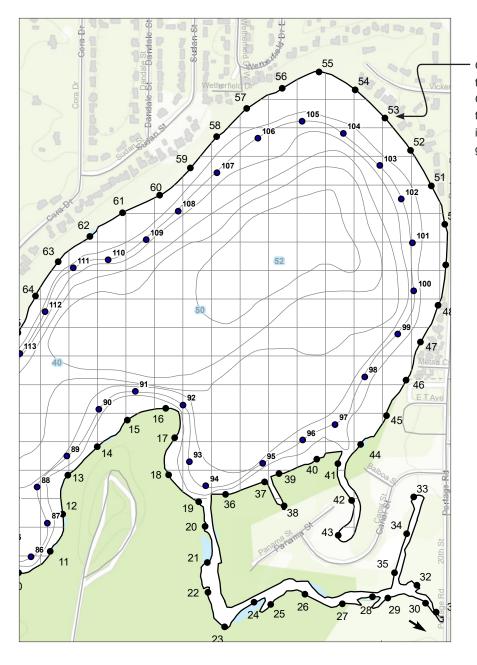
There are four main aquatic plant groups: submersed, floating-leaved, free-floating, and emergent. Each plant group provides important ecological functions. Maintaining a diversity of aquatic plants is important to sustaining a healthy fishery and a healthy lake.



Environmental Consultant
Progressive AE

Herbicide Applicator
PLM Lake & Land Management Corp.

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.



GPS reference points established along the shoreline and drop-off areas of Gourdneck and Hogsett Lakes are used to guide plant surveys and to accurately identify the location of nuisance plant growth areas.

Plant control in Gourdneck and Hogsett Lakes involves the select use of herbicides to control invasive plant growth. Primary plants targeted for control in Gourdneck and Hogsett Lakes include Eurasian milfoil and curly-leaf pondweed. 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)

Curly-leaf pondweed (Potamogeton crispus)

Plant control activities conducted on Gourdneck and Hogsett Lakes in 2020 are summarized in the table below.

## GOURDNECK AND HOGSETT LAKES 2020 NUISANCE AQUATIC PLANT CONTROL SUMMARY

Work Type	Date	Plants Targeted	Acres
Survey	May 19	. ianto la gotoa	
Herbicide	May 28	Eurasian milfoil, curly-leaf pondweed	12
Herbicide	June 4	Nuisance pondweeds	15
Survey	June 17		
Survey	June 22		
Herbicide	June 25	Eurasian milfoil, pondweeds, Chara	29
Survey	July 15		
Herbicide	July 23	Eurasian milfoil, pondweeds, Chara	9
Survey	August 11		
Herbicide	August 19	Eurasian milfoil, Chara, nuisance pondweeds	15
Survey	August 31		
Herbicide	September 2	Nuisance wild celery	1
Total			81

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In addition to the surveys of the lake to identify invasive plant locations, a vegetation survey of Gourdneck Lake was conducted on August 31 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, 16 submersed species, two floating-leaved species, and eight emergent species were found in the lake. Gourdneck Lake maintains a good diversity of beneficial, native plants species.

## GOURDNECK LAKE AQUATIC PLANTS August 31, 2020

			Percent of Sites
Common Name	Scientific Name	Group	Where Present
Chara	Chara sp.	Submersed	79
Wild celery	Vallisneria americana	Submersed	64
Sago pondweed	Stuckenia pectinata	Submersed	35
Illinois pondweed	Potamogeton illinoensis	Submersed	33
Slender naiad	Najas flexilis	Submersed	23
Variable pondweed	Potamogeton gramineus	Submersed	19
Thin-leaf pondweed	Potamogeton sp.	Submersed	12
Coontail	Ceratophyllum demersum	Submersed	11
Eurasian milfoil	Myriophyllum spicatum	Submersed	11
Curly-leaf pondweed	Potamogeton crispus	Submersed	10
Water stargrass	Heteranthera dubia	Submersed	7
Flat-stem pondweed	Potamogeton zosteriformis	Submersed	6
Variable-leaf milfoil	Myriophyllum heterophyllum	Submersed	2
Elodea	Elodea canadensis	Submersed	2
Northern milfoil	Myriophyllum sibiricum	Submersed	1
Bladderwort	Utricularia vulgaris	Submersed	1
White waterlily	Nymphaea odorata	Floating-leaved	70
Yellow waterlily	Nuphar sp.	Floating-leaved	17
Arrowhead	Sagittaria latifolia	Emergent	62
Cattail	Typha sp.	Emergent	46
Pickerelweed	Pontederia cordata	Emergent	31
Purple loosestrife	Lythrum salicaria	Emergent	28
Bulrush	Schoenoplectus sp.	Emergent	26
Swamp loosestrife	Decodon verticillatus	Emergent	16
Iris	<i>Iris</i> sp.	Emergent	14
Phragmites	Phragmites australis	Emergent	1