Stone Lake
Aquatic Plant Control Program
2022 Activity Summary

A publication of the Stone Lake Improvement Board

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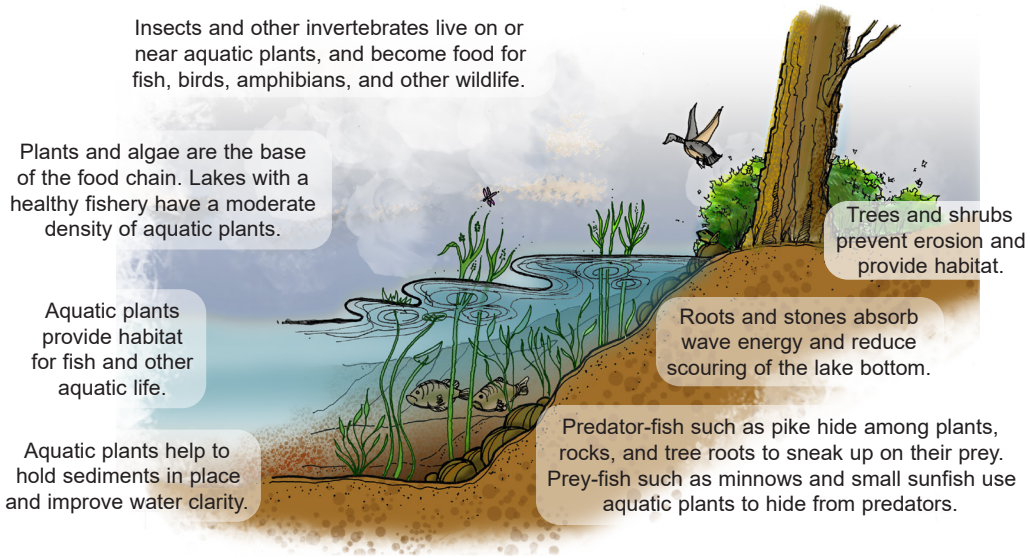
Progressive AE

Herbicide Applicator
PLM Lake & Land Management Corp.

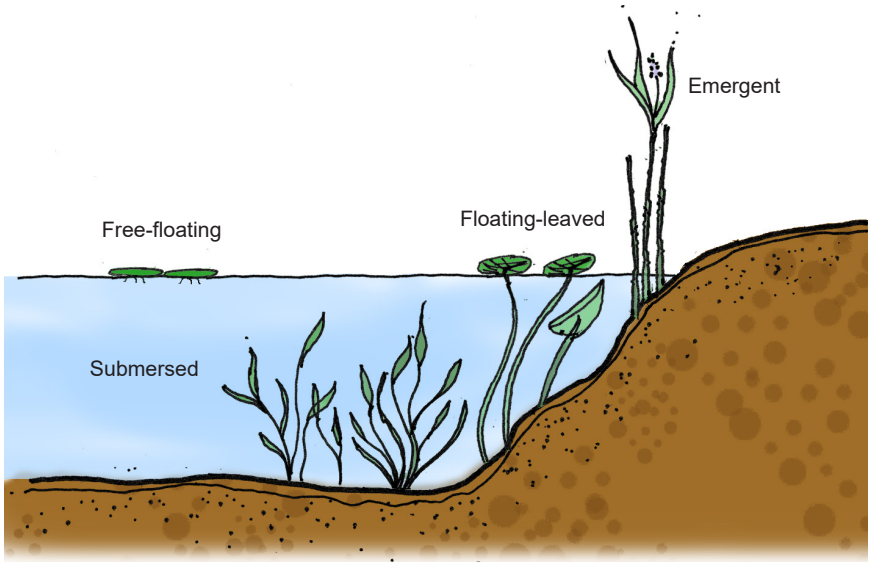
Harvesting Contractor
Savin Lake Services

For the past several years, a nuisance plant control program has been ongoing on Stone 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 Stone Lake in 2022.

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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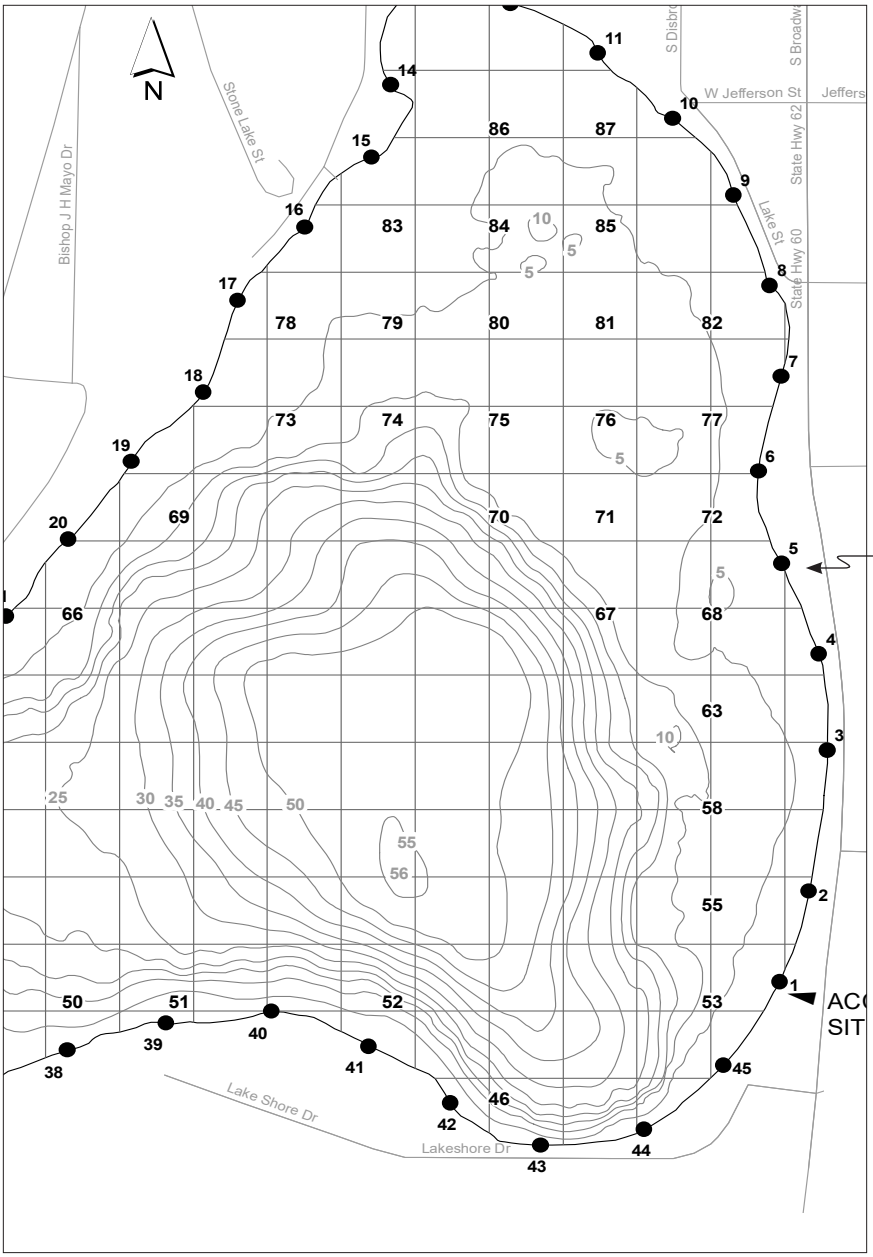
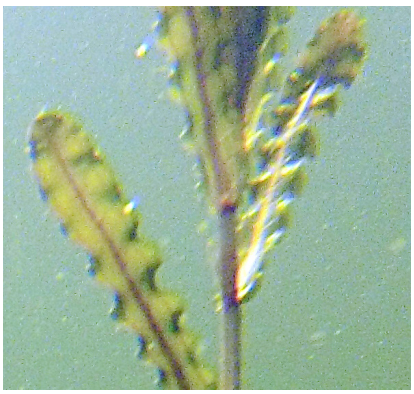
Plant control activities are coordinated under the direction of an environmental consultant, Progressive AE. Biologists from Progressive conduct GPS-guided surveys of the lake to identify problem areas, and georeferenced plant control maps are provided to the plant control contractor. Follow-up surveys are conducted throughout the growing season to evaluate results and the need for additional treatments. In 2022, surveys of the lake were conducted on May 24, June 23, and August 1.



GPS reference points established along the shoreline and off-shore shallow areas of Stone Lake are used to guide plant surveys and to accurately identify the location of nuisance plant growth areas.

Plant control in Stone Lake involves the select use of herbicides and mechanical harvesting to control invasive plant growth. Primary plants targeted for control in Stone Lake 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 Stone Lake in 2022 are summarized in the table below.

STONE LAKE
2022 NUISANCE AQUATIC PLANT CONTROL SUMMARY

Date	Work Type	Acres Treated
May 24	Survey	
June 6	Herbicide: E. milfoil, curly-leaf	6.25
June 20	Harvest	29.00
June 23	Survey	
July 7	Herbicide: E. milfoil	2.00
August 1	Survey	
August 10	Herbicide: E. milfoil	0.75
Total		38.00

In addition to the surveys of the lake to identify invasive plant locations, a vegetation survey of Stone Lake was conducted on August 1 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, 15 submersed species, three floating-leaved species, and six emergent species were found in the lake. Stone Lake maintains a good diversity of beneficial, native plant species.

STONE LAKE AQUATIC PLANTS
August 1, 2022

Common Name	Scientific Name	Group	Percent of Sites Where Present
Flat-stem pondweed	*Potamogeton zosteriformis*	Submersed	84
Coontail	*Ceratophyllum demersum*	Submersed	80
Whitestem pondweed	*Potamogeton praelongus*	Submersed	64
Water marigold	*Bidens beckii*	Submersed	38
Robbins pondweed	*Potamogeton robbinsii*	Submersed	33
Water stargrass	*Heteranthera dubia*	Submersed	31
Wild celery	*Vallisneria americana*	Submersed	29
Small pondweed	*Potamogeton pusillus*	Submersed	16
Thin-leaf pondweed	*Potamogeton* sp.	Submersed	11
Elodea	*Elodea canadensis*	Submersed	9
Chara	*Chara* sp.	Submersed	4
Eurasian milfoil	*Myriophyllum spicatum*	Submersed	2
Variable-leaf milfoil	*Myriophyllum heterophyllum*	Submersed	2
Variable pondweed	*Potamogeton gramineus*	Submersed	2
Water smartweed	*Persicaria amphibia* var. *stipulacea*	Submersed	2
White waterlily	*Nymphaea odorata*	Floating-leaved	76
Yellow waterlily	*Nuphar* sp.	Floating-leaved	58
Water shield	*Brasenia schreberi*	Floating-leaved	7
Cattail	*Typha* sp.	Emergent	44
Purple loosestrife	*Lythrum salicaria*	Emergent	36
Swamp loosestrife	*Decodon verticillatus*	Emergent	16
Bulrush	*Schoenoplectus* sp.	Emergent	11
Phragmites	*Phragmites australis*	Emergent	9
Pickerelweed	*Pontederia cordata*	Emergent	2

Exotic invasive species*