Lake Templene Aquatic Plant Control Program 2022 Activity Summary

A publication of the Lake Templene Improvement Board

Lake Templene Improvement Board
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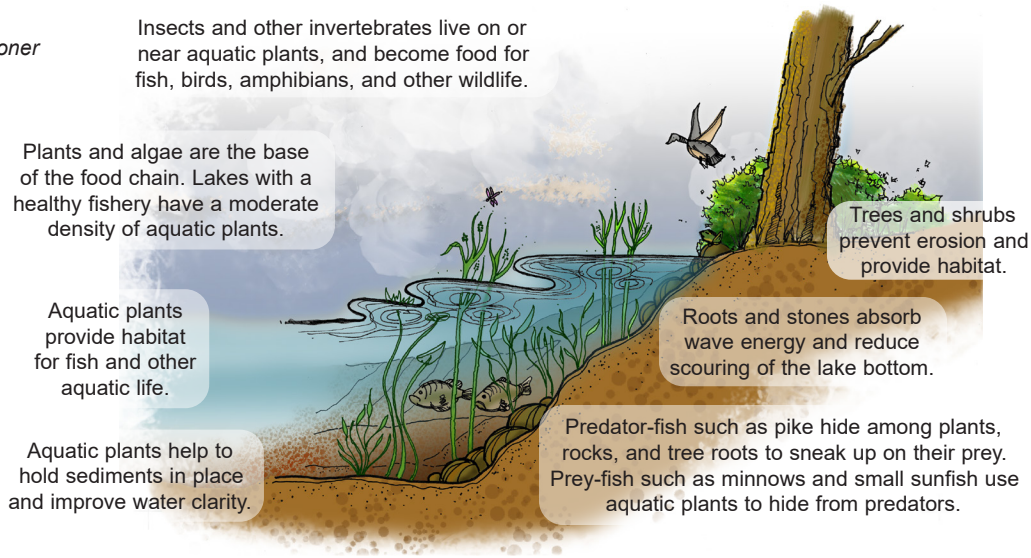
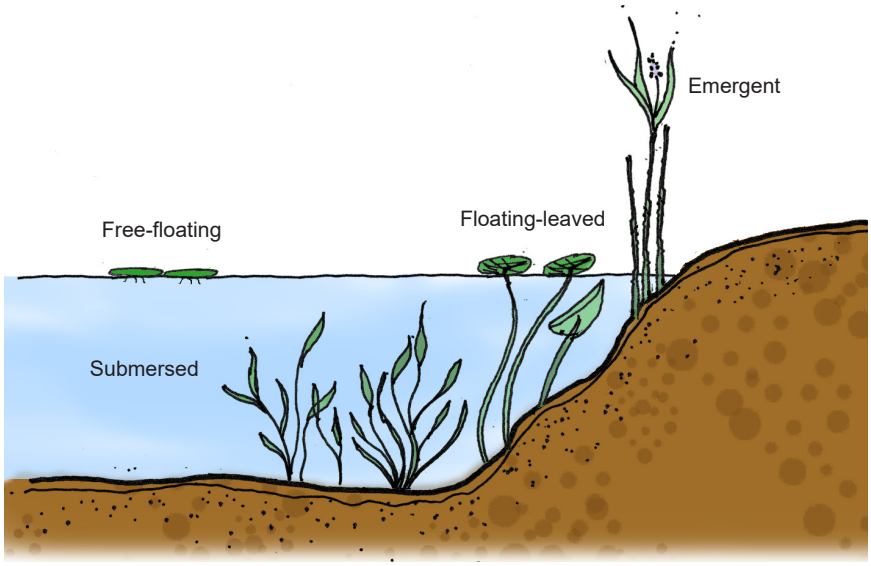
For many years, a nuisance plant control program has been ongoing on Lake Templene. The primary objective of the program is to prevent the spread of invasive aquatic plants while preserving beneficial plant species. This report contains an overview of plant control activities conducted on Lake Templene 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.



Environmental Consultant
Progressive AE

Herbicide Applicator
Clarke Aquatic Services

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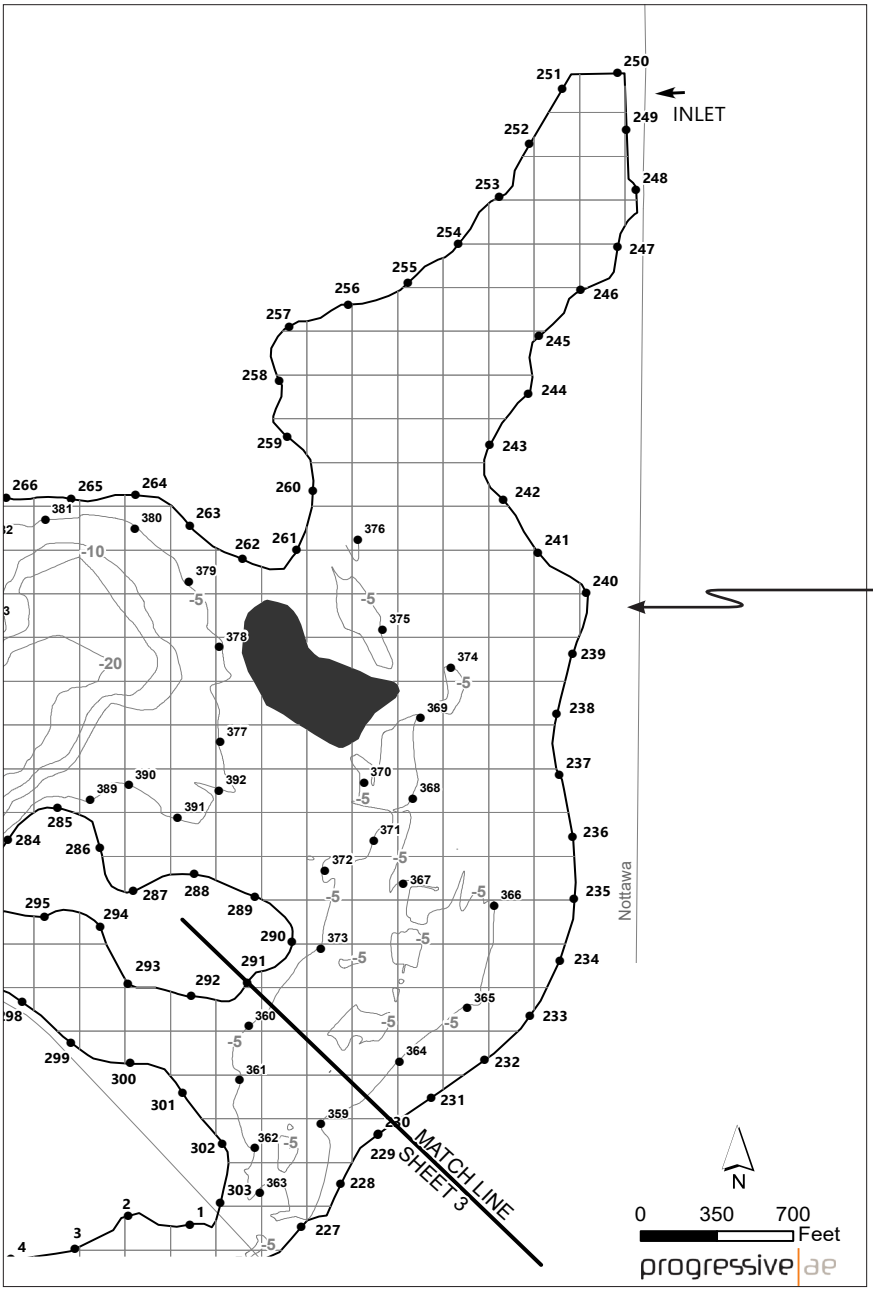
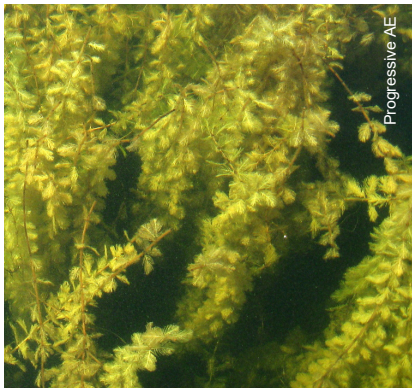
Plant control activities are coordinated under the direction of an environmental consultant, Progressive AE. Biologists from Progressive conduct GPS-guided surveys of the lake to identify problem areas, and georeferenced treatment maps are provided to the plant control contractor. Follow-up surveys are conducted throughout the growing season to evaluate results and the need for additional treatments. In 2022, surveys of the lake were conducted on May 5, May 19, June 2, June 15, July 14, and August 18.



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

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

LAKE TEMPLENE
2022 NUISANCE AQUATIC PLANT CONTROL SUMMARY

Work Type	Date	Plants Targeted	Acres
Survey	May 5		
Treatment	May 17	E. milfoil, curly-leaf, algae	8
Survey	May 19		
Survey	June 2		
Treatment	June 7	E. milfoil, curly-leaf	36
Survey	June 15		
Treatment	June 23	E. milfoil, algae, nuisance natives, starry	37
Survey	July 14		
Treatment	August 3	E. milfoil, algae, nuisance natives, starry	26.5
Survey	August 18		
Treatment	August 30	E. milfoil, nuisance natives, starry	12.5
Total			**120**

In addition to mapping and identifying invasive plant species locations, a comprehensive vegetation survey of Lake Templene was conducted on August 18, 2022 to evaluate the type and abundance of all plants along the shoreline of 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, 17 submersed species, two floating-leaved species, and eight emergent species were found in the lake. Lake Templene maintains a good diversity of beneficial, native plants species.

LAKE TEMPLENE AQUATIC PLANTS
August 18, 2022

Common Name	Scientific Name	Group	Percent of Sites Where Present
Illinois pondweed	*Potamogeton illinoensis*	Submersed	41
Wild celery	*Vallisneria americana*	Submersed	38
Thin-leaf pondweed	*Potamogeton* sp.	Submersed	24
Sago pondweed	*Stuckenia pectinata*	Submersed	12
Slender naiad	*Najas flexilis*	Submersed	10
Chara	*Chara* sp.	Submersed	10
Coontail	*Ceratophyllum demersum*	Submersed	9
Richardson's pondweed	*Potamogeton richardsonii*	Submersed	8
*Brittle-leaf naiad	*Najas minor*	Submersed	7
Whitestem pondweed	*Potamogeton praelongus*	Submersed	5
*Starry stonewort	*Nitellopsis obtusa*	Submersed	3
Bladderwort	*Utricularia vulgaris*	Submersed	2
*Eurasian milfoil	*Myriophyllum spicatum*	Submersed	2
Water stargrass	*Heteranthera dubia*	Submersed	1
*Curly-leaf pondweed	*Potamogeton crispus*	Submersed	1
Variable pondweed	*Potamogeton gramineus*	Submersed	1
Large-leaf pondweed	*Potamogeton amplifolius*	Submersed	1
White waterlily	*Nymphaea odorata*	Floating-leaved	57
Yellow waterlily	*Nuphar* sp.	Floating-leaved	22
Cattail	*Typha* sp.	Emergent	23
Arrowhead	*Sagittaria latifolia*	Emergent	22
Pickerelweed	*Pontederia cordata*	Emergent	7
Lake sedge	*Carex lacustris*	Emergent	6
*Purple loosestrife	*Lythrum salicaria*	Emergent	4
Bulrush	*Schoenoplectus* sp.	Emergent	2
Swamp loosestrife	*Decodon verticillatus*	Emergent	2
Small bur-reed	*Sparganium natans*	Emergent	1

* Exotic invasive species