

Lake Templene Aquatic Plant Control Program Annual Activity Summary

Fall 2019

A publication of the Lake Templene Improvement Board

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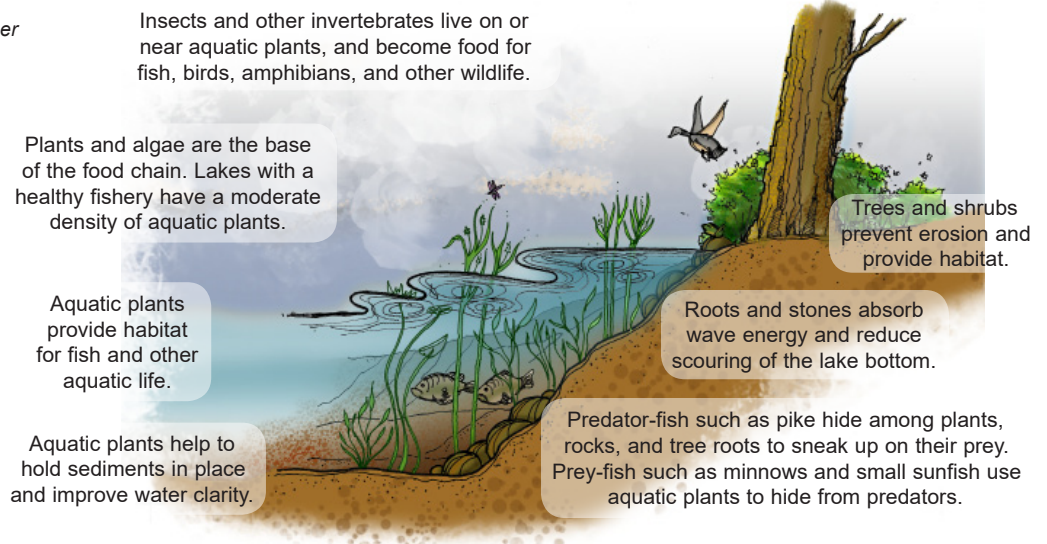
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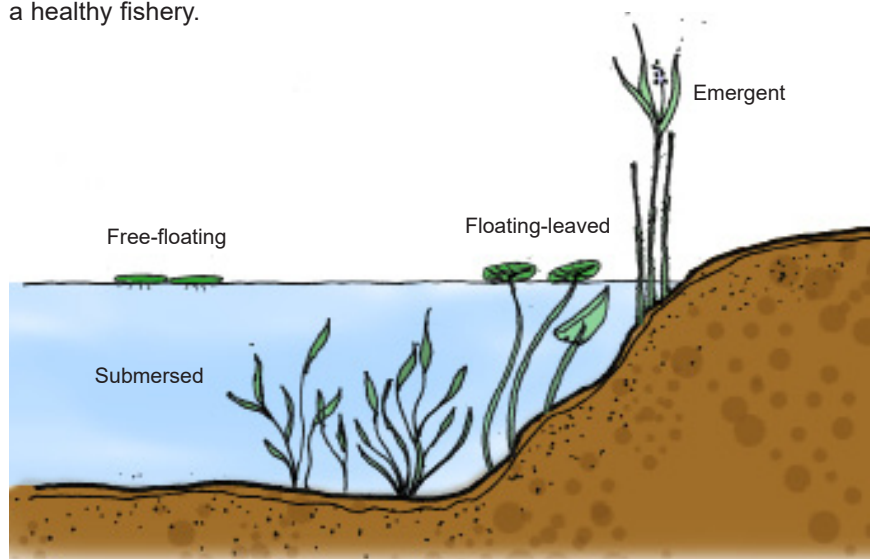
For the past several years, a nuisance plant control program has been ongoing on Lake Templene. The primary objective of the program is to prevent the spread of invasive aquatic plants while preserving beneficial plant species. This report contains an overview of plant control activities conducted on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

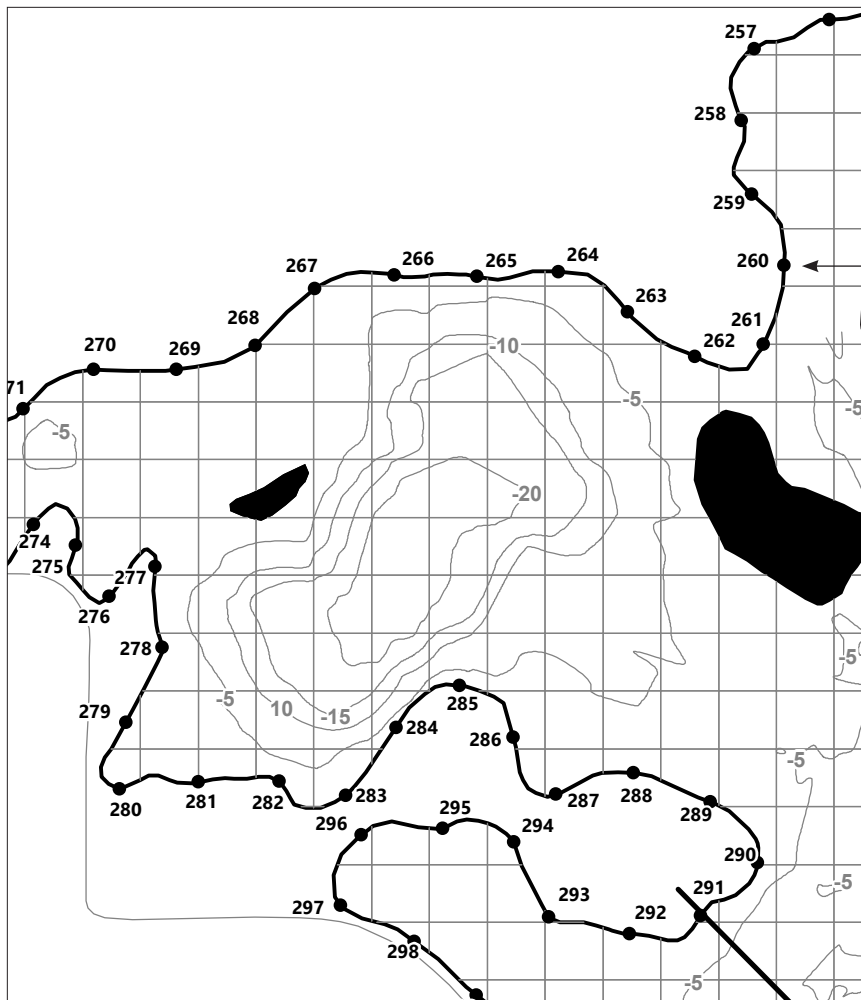
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There are four main aquatic plant groups: submersed, floating-leaved, free-floating, and emergent. Each plant group provides important ecological functions. Maintaining a diversity of aquatic plants is important to sustaining a healthy fishery.



Plant control activities in Lake Templene are coordinated under the direction of an environmental consultant, Progressive AE. Biologists from Progressive AE conduct GPS-guided surveys of the lake to identify problem areas, and detailed treatment maps are provided to the plant control contractor, Clarke Aquatic Services. Follow-up surveys are conducted throughout the growing season to evaluate treatment effectiveness and the need for additional treatments. In 2019, surveys of the lake were conducted on May 6, May 23, June 13, July 15, July 31, and September 6.



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

A portion of the Lake Templene aquatic plant survey map showing GPS reference points placed at 300-foot intervals along the shoreline.

In addition to the surveys of the lake to identify invasive plant locations, a vegetation survey of Lake Templene was conducted on September 6 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, 14 submersed species, two floating-leaved species, and seven emergent species were found in the lake.

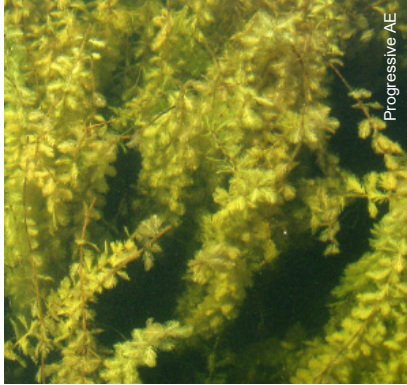
LAKE TEMPLENE AQUATIC PLANTS

September 6, 2019

Common Name	Scientific Name	Group	Percent of Sites Where Present
Thin-leaf pondweed	<i>Potamogeton</i> sp.	Submersed	61
Illinois pondweed	<i>Potamogeton illinoensis</i>	Submersed	46
Coontail	<i>Ceratophyllum demersum</i>	Submersed	25
Slender naiad	<i>Najas flexilis</i>	Submersed	12
Eurasian milfoil	<i>Myriophyllum spicatum</i>	Submersed	8
Chara	<i>Chara</i> sp.	Submersed	6
Starry stonewort	<i>Nitellopsis obtusa</i>	Submersed	6
Wild celery	<i>Vallisneria americana</i>	Submersed	4
Underwater arrowhead	<i>Sagittaria</i> sp.	Submersed	2
Flat-stem pondweed	<i>Potamogeton zosteriformis</i>	Submersed	1
Curly-leaf pondweed	<i>Potamogeton crispus</i>	Submersed	1
Small pondweed	<i>Potamogeton pusillus</i>	Submersed	1
American pondweed	<i>Potamogeton americanus</i>	Submersed	1
Variable-leaf milfoil	<i>Myriophyllum heterophyllum</i>	Submersed	<1
White waterlily	<i>Nymphaea odorata</i>	Floating-leaved	53
Yellow waterlily	<i>Nuphar</i> sp.	Floating-leaved	25
Cattail	<i>Typha</i> sp.	Emergent	26
Arrowhead	<i>Sagittaria latifolia</i>	Emergent	15
Bulrush	<i>Schoenoplectus</i> sp.	Emergent	6
Swamp loosestrife	<i>Decodon verticillatus</i>	Emergent	3
Iris	<i>Iris</i> sp.	Emergent	2
Pickerelweed	<i>Pontederia cordata</i>	Emergent	1
Purple loosestrife	<i>Lythrum salicaria</i>	Emergent	<1

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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 2019, are summarized in the table below.

LAKE TEMPLENE 2019 AQUATIC PLANT CONTROL SUMMARY

Treatment Date	Plants Targeted	Acres Treated
May 30	Eurasian milfoil, curly-leaf pondweed, starry stonewort	21
June 24	Eurasian milfoil, starry stonewort, nuisance natives	82
July 24	Eurasian milfoil, starry stonewort, nuisance natives	19
August 22	Eurasian milfoil	14
Total		136