Squaw Lake
Aquatic Plant Control Program
2022 Report

A publication of the PST Association

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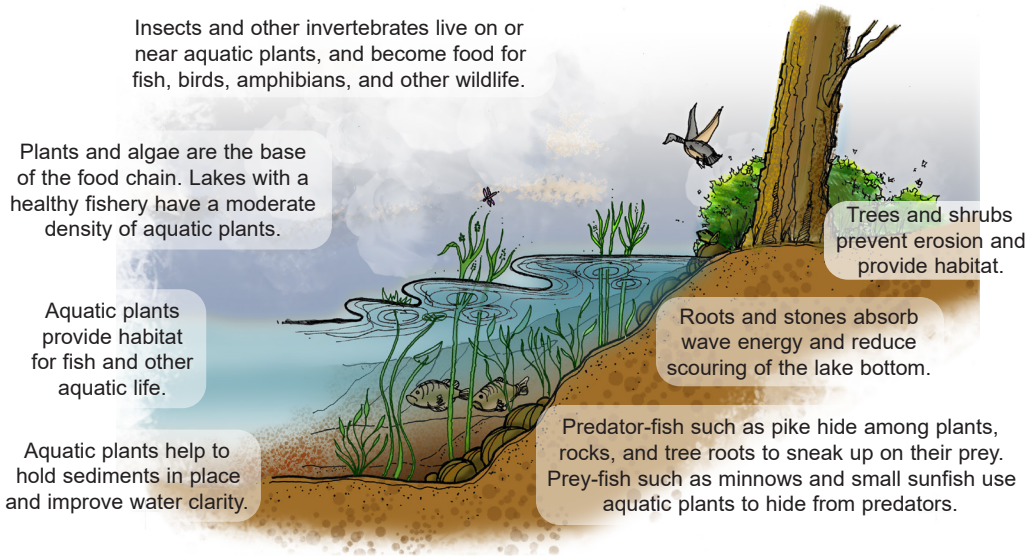
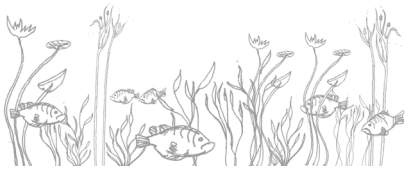
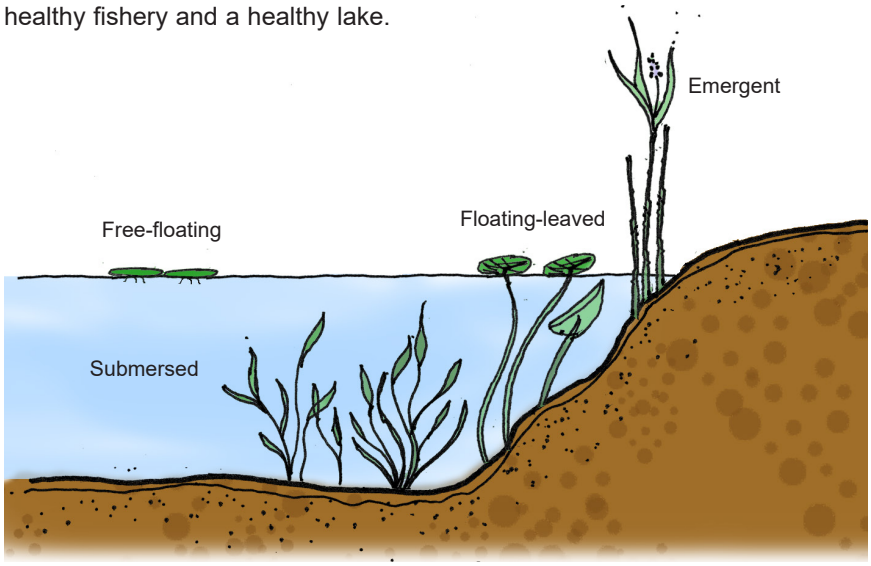
For the past few years, a nuisance plant control program has been ongoing on Squaw Lake. The primary objective of the program is to prevent the spread of invasive aquatic plants while preserving beneficial plant species. This report contains an overview of plant control activities conducted on Squaw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





Environmental Consultant
Progressive AE

Herbicide Applicator
PLM Lake and Land Management

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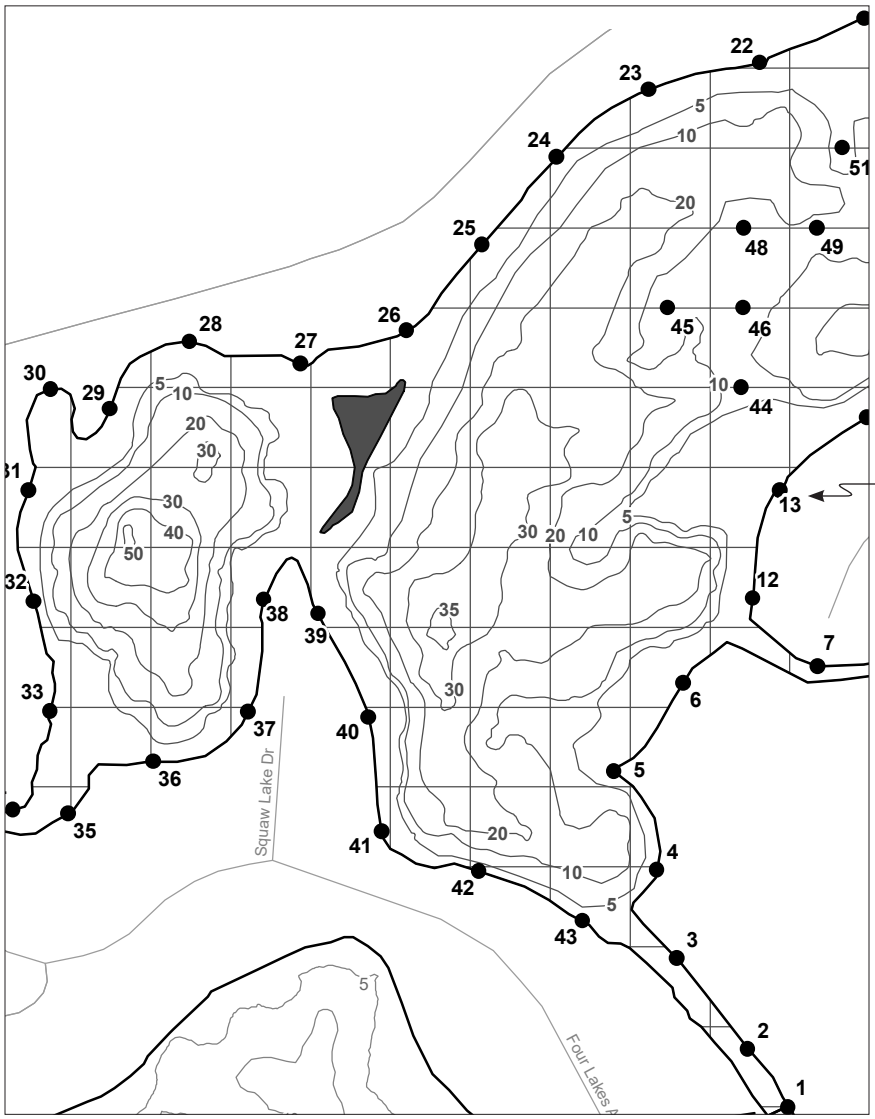
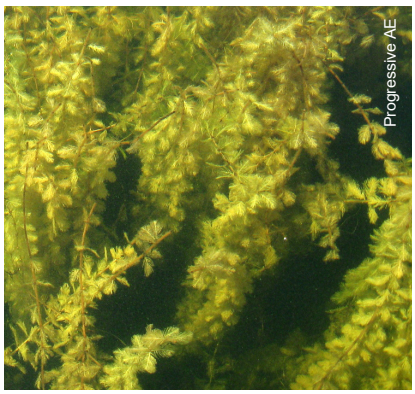
Plant control activities are coordinated under the direction of an environmental consultant, Progressive AE. Biologists from Progressive conduct GPS-guided surveys of the lake to identify problem areas, and detailed treatment maps are provided to the plant control contractor. Follow-up surveys are conducted throughout the growing season to evaluate results and the need for additional treatments. In 2022, surveys of the lake were conducted on May 25, June 23, July 18, and August 24.



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

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

SQUAW LAKE
2022 NUISANCE AQUATIC PLANT CONTROL SUMMARY

Date	Work Type	Acres Treated
May 25	Survey	
June 2	E. milfoil, curly-leaf	10.5
June 23	Survey	
June 29	Starry stonewort, nuisance natives, algae	10.25
July 18	Survey	
July 27	Starry stonewort, nuisance natives	10.5
August 24	Survey	
September 7	E. milfoil, starry stonewort, nuisance natives, algae	7
Total		38.25

In addition to the surveys of the lake to identify invasive plant locations, a vegetation survey of Squaw Lake was conducted on August 24, 2022 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, two floating-leaved species, and eight emergent species were found in the lake. Squaw Lake maintains a good diversity of beneficial, native plants species.

SQUAW LAKE AQUATIC PLANTS
August 24, 2022

Common Name	Scientific Name	Group	Percent of Sites Where Present
Variable pondweed	*Potamogeton gramineus*	Submersed	65
Illinois pondweed	*Potamogeton illinoensis*	Submersed	65
Wild celery	*Vallisneria americana*	Submersed	58
Chara	*Chara* sp.	Submersed	42
Eurasian milfoil*	*Myriophyllum spicatum*	Submersed	26
Starry stonewort*	*Nitellopsis obtusa*	Submersed	23
Slender naiad	*Najas flexilis*	Submersed	19
Thin-leaf pondweed	*Potamogeton* sp.	Submersed	19
Large-leaf pondweed	*Potamogeton amplifolius*	Submersed	14
Water smartweed	*Persicaria amphibia* var. *stipulacea*	Submersed	9
Bladderwort	*Utricularia vulgaris*	Submersed	9
Flat-stem pondweed	*Potamogeton zosteriformis*	Submersed	2
Richardson's pondweed	*Potamogeton richardsonii*	Submersed	2
Northern milfoil	*Myriophyllum sibiricum*	Submersed	2
Brittle-leaf naiad*	*Najas minor*	Submersed	2
White waterlily	*Nymphaea odorata*	Floating-leaved	74
Yellow waterlily	*Nuphar* sp.	Floating-leaved	26
Arrowhead	*Sagittaria latifolia*	Emergent	35
Cattail	*Typha* sp.	Emergent	26
Purple loosestrife*	*Lythrum salicaria*	Emergent	21
Swamp loosestrife	*Decodon verticillatus*	Emergent	19
Lake sedge	*Carex lacustris*	Emergent	14
Bulrush	*Schoenoplectus* sp.	Emergent	14
Pickerelweed	*Pontederia cordata*	Emergent	7
Phragmites*	*Phragmites australis*	Emergent	5

Invasive exotic species*