Van Norman Lake Aquatic Plant Control Program 2022 Annual Report

A publication of the Van Norman Lake Improvement Board

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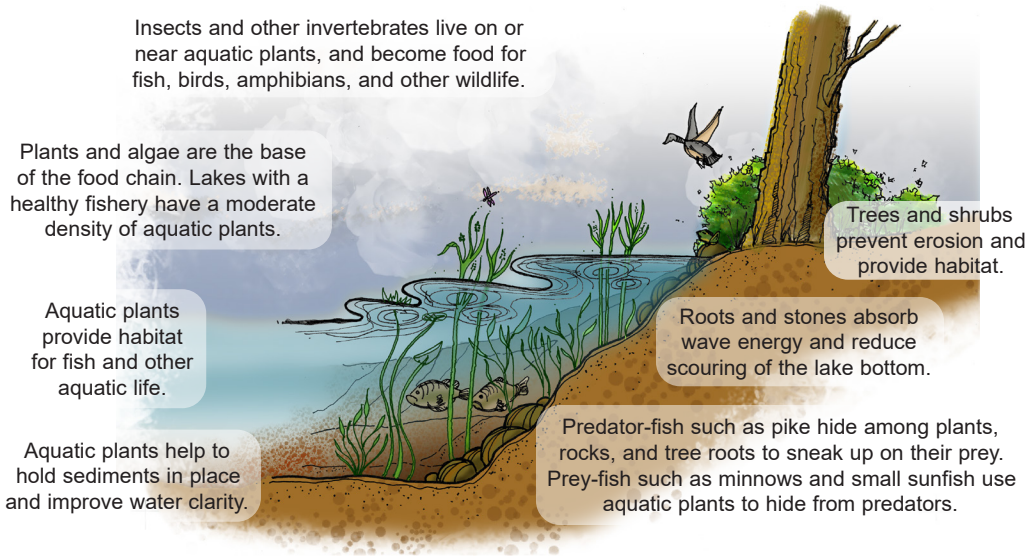
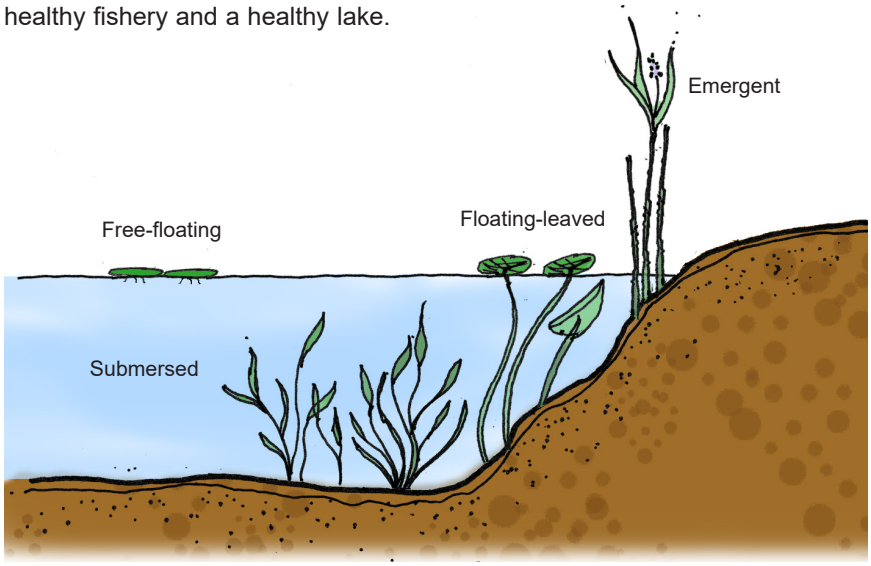
For the past several years, a nuisance plant control program has been ongoing on Van Norman Lake. The primary objective of the program is to prevent the spread of invasive aquatic plants while preserving beneficial plant species. This report contains an overview of plant control activities conducted on Van Norman Lake in 2022.

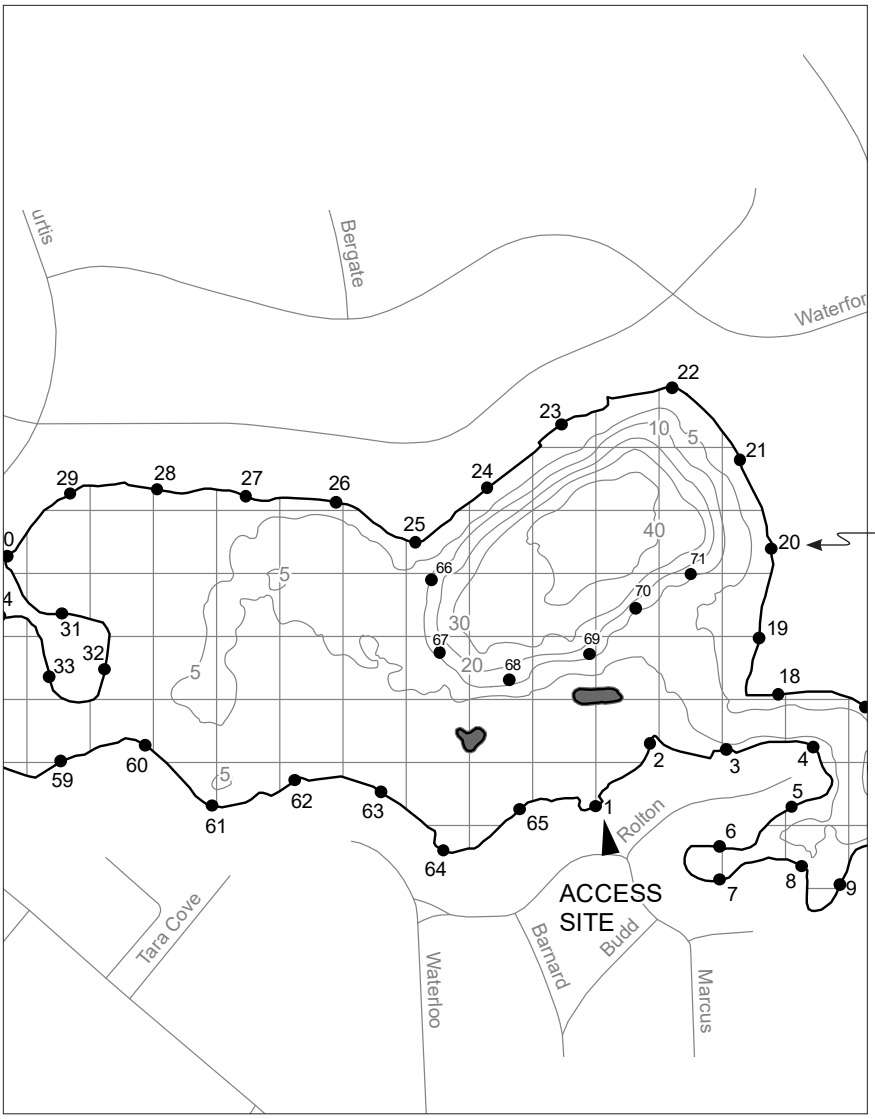
Aquatic plants are an important component of lakes. They produce oxygen during photosynthesis, provide food, habitat and cover for fish, and help stabilize shoreline and bottom sediments.



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.



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 9, June 8, June 28, July 7, July 13, August 10, and September 1.



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

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

VAN NORMAN LAKE
2022 NUISANCE AQUATIC PLANT CONTROL SUMMARY

Treatment Date	Work Type	Acres Treated
May 16	Herbicide: E. milfoil, curly-leaf pondweed, algae	5.75
June 8	Herbicide: E. milfoil, curly-leaf pondweed	5.0
June 13	Herbicide: E. milfoil, starry stonewort	3.0
July 5	Harvest: Starry stonewort and nuisance native plants	20.25
August 23	Herbicide: E. milfoil, starry stonewort, nuisance native plants	8.75
August 25	Harvest: Starry stonewort and nuisance native plants	17.0
September 19	Herbicide: Water lily control	0.25
Total		60

In addition to the surveys of the lake to identify invasive plant locations, a vegetation survey of Van Norman Lake was conducted on August 10 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, one free-floating species, two floating-leaved species, and nine emergent species were found in the lake. Van Norman Lake maintains a good diversity of beneficial, native plants species.

VAN NORMAN LAKE AQUATIC PLANTS
August 10, 2022

Common Name	Scientific Name	Group	Percent of Sites Where Present
Chara	*Chara* sp.	Submersed	82
Wild celery	*Vallisneria americana*	Submersed	76
Illinois pondweed	*Potamogeton illinoensis*	Submersed	67
Thin-leaf pondweed	*Potamogeton* sp.	Submersed	55
Starry stonewort*	*Nitellopsis obtusa*	Submersed	51
Spiny naiad	*Najas marina*	Submersed	35
Eurasian milfoil*	*Myriophyllum spicatum*	Submersed	25
Slender naiad	*Najas flexilis*	Submersed	25
Whitestem pondweed	*Potamogeton praelongus*	Submersed	24
Bladderwort	*Utricularia vulgaris*	Submersed	22
Water stargrass	*Heteranthera dubia*	Submersed	5
Brittle-leaf naiad*	*Najas minor*	Submersed	2
Flat-stem pondweed	*Potamogeton zosteriformis*	Submersed	2
Water marigold	*Bidens beckii*	Submersed	2
American pondweed	*Potamogeton americanus*	Submersed	2
Duckweed	*Lemna minor*	Free-floating	4
White waterlily	*Nymphaea odorata*	Floating-leaved	73
Yellow waterlily	*Nuphar* sp.	Floating-leaved	25
Purple loosestrife*	*Lythrum salicaria*	Emergent	40
Arrowhead	*Sagittaria latifolia*	Emergent	20
Cattail	*Typha* sp.	Emergent	7
Bulrush	*Schoenoplectus* sp.	Emergent	7
Lake sedge	*Carex lacustris*	Emergent	5
Flowering rush	*Butomus umbellatus*	Emergent	2
Pickerelweed	*Pontederia cordata*	Emergent	2
Iris	*Iris* sp.	Emergent	2
Phragmites*	*Phragmites australis*	Emergent	2

* Invasive exotic species