December 2025

LONG LAKE

PLANT CONTROL SUMMARY

PREPARED FOR:
LONG LAKE GOVERNMENTAL LAKE BOARD
KALAMAZOO COUNTY, MI

PROGRESSIVE COMPANIES

LONG LAKE GOVERNMENTAL LAKE BOARD

John Speeter, Chair
Long Lake Resident Representative

Vacant
City of Portage Representative

Greg Thomas, Treasurer
Pavilion Township Representative

John Gisler
Kalamazoo County Commissioner

Jason Wiersma
Kalamazoo County Drain Commissioner

ENVIRONMENTAL CONSULTANT

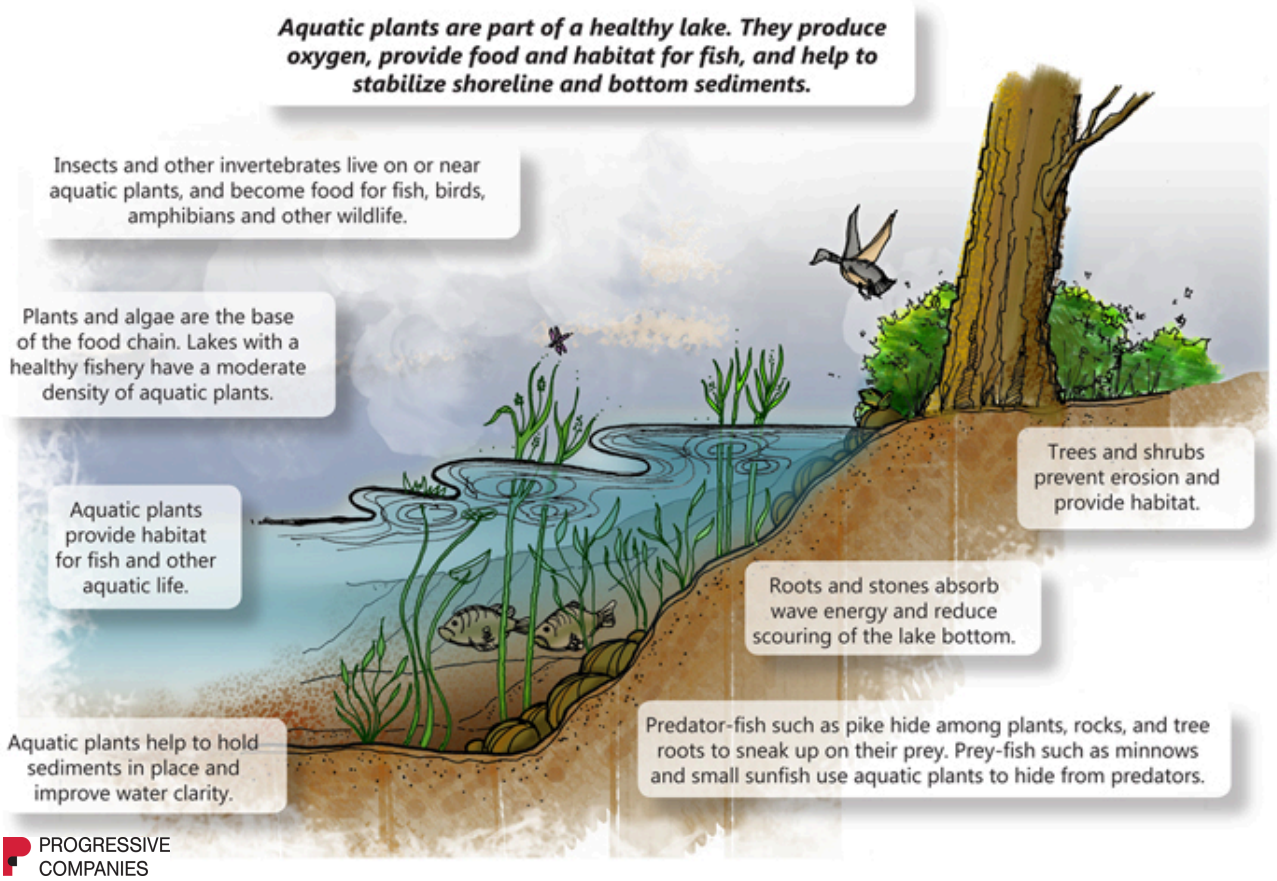
Progressive Companies

AQUATIC HERBICIDE APPLICATOR

PLM Lake & Land Management Corp.

PROGRAM SUMMARY

A nuisance aquatic plant control program has been ongoing on Long Lake for many years. The primary objective of the program is to prevent the spread of invasive aquatic plants while preserving beneficial native plant species. This report contains an overview of plant control activities conducted on Long Lake in 2025.



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 native aquatic plants is important to sustaining a healthy fishery and a healthy lake. Invasive aquatic plant species have negative impacts on the lake's ecosystem. It is important to maintain an active plant control program to reduce the establishment and spread of invasive species within Long Lake. Plant control efforts in 2025 consisted of four aquatic plant surveys and four aquatic herbicide treatments.

PLANT CONTROL

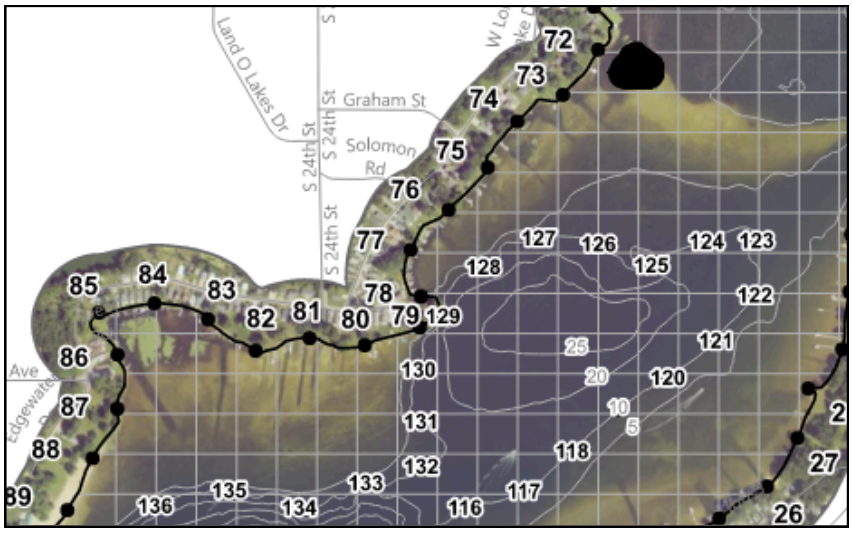
Plant control activities are coordinated under the direction of an environmental consultant, Progressive Companies. Scientists from Progressive conduct GPS-guided surveys of the lake to identify problem areas, and georeferenced plant control maps are provided to the plant control contractor. GPS reference points are established along the shoreline and drop-off areas of the lake. These waypoints are used to accurately identify the location of invasive and nuisance plant growth areas.

Eurasian milfoil
Myriophyllum spicatum

Curly-leaf pondweed
Potamogeton crispus

Starry stonewort
Nitellopsis obtusa

Carolina fanwort
Cabomba Caroliniana



Primary plants targeted for control in Long Lake include Eurasian milfoil, curly-leaf pondweed, starry stonewort, and Carolina fanwort. These plants are non-native (exotic) species that tend to be highly invasive and have the potential to spread quickly if left unchecked. Plant control activities conducted on the lake in 2025 are summarized in Table 1.

In Michigan, an Aquatic Nuisance Control (ANC) permit must be acquired from the Department of Environment, Great Lakes, and Energy (EGLE) before herbicides are applied to inland lakes. The permit lists the herbicides that are approved for use, maximum dose rates, use restrictions, and indicates specific areas of the lake where herbicides may be applied. Permit requirements are designed to protect public health and the environment. The contracted herbicide applicator on Long Lake, PLM Lake & Land Management Corp., holds the ANC permit for the lake.

PLANT CONTROL

TABLE 1. LONG LAKE 2025 PLANT CONTROL ACTIVITIES

Date	Plants Targeted	Acreage
May 29	E. milfoil, Carolina fanwort, curly-leaf, nuisance natives	21.75
July 10	E. milfoil, Carolina fanwort, nuisance natives	21.25
August 7	E. milfoil, Carolina fanwort, starry stonewort, nuisance natives	11.00
September 4	E. milfoil, Carolina fanwort, starry stonewort, *Phragmites*	7.25
Total		**61.25**

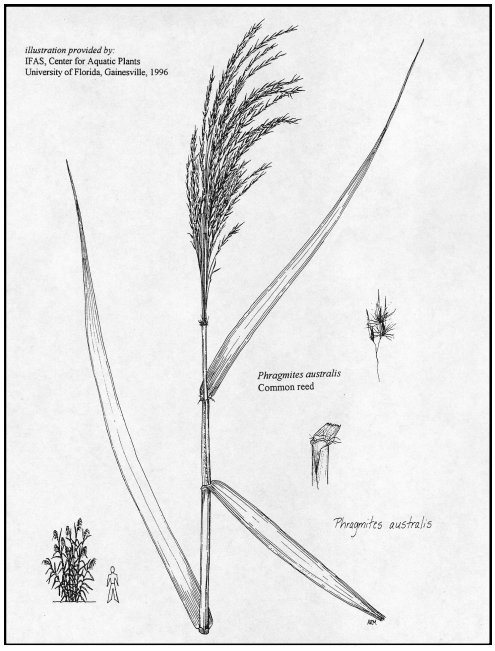
In 2025, 61.25 acres of Long Lake were treated with aquatic herbicides throughout the season. Eurasian milfoil was treated with both systemic and contact herbicides throughout the 2025 season. Curly-leaf pondweed was treated in late May using contact herbicides, which effectively controlled the invasive species. Starry stonewort was treated with a copper sulfate algaecide in August and September. Carolina fanwort was treated with a contact herbicide throughout the entire 2025 season. Limited areas of nuisance native vegetation were also treated to improve navigation near docks. *Phragmites*, an invasive emergent plant, was treated to limit expansion.

PLANT SPOTLIGHT: PHRAGMITES

Phragmites (*Phragmites australis*) is an aggressive-growing, exotic emergent plant that is infesting Michigan's coastal areas, wetlands, and lake shores. Plants can exceed 15 feet in height and obstruct shoreline views and uses. *Phragmites* can greatly reduce the diversity of desirable native plants, including the native variety of *Phragmites*, and reduce wildlife habitat.

Phragmites is a perennial plant that is dormant during the winter months. Primary growth occurs during mid-summer with flowering and seed dispersal in late summer and fall. Besides seed dispersal, *Phragmites* can also spread through the expansion of underground stems called rhizomes. In fact, much of the plant's biomass is underground. Rhizomes can exceed 60 feet in length, grow several feet per year, and readily grow into new plants when fragmented. *Phragmites* rhizomes can penetrate the ground several feet and the plant can survive in relatively dry uplands as well as shallow wetlands. However, water depths greater than a few inches typically inhibit *Phragmites* seed germination.

It is recommended that herbicide treatments or prescribed burning be used to control *Phragmites*. Herbicide treatments are the primary control method and appear most effective when applied later in the growing season (September-October). To be effective, prescribed burnings should only be considered the year after the plants have been treated with herbicides. Mechanical cutting of the plant is not recommended as this can trigger further growth throughout its root structure. *Phragmites* is difficult to completely eradicate and will likely require integrated, long-term maintenance. Professional assistance may be required to differentiate between native and exotic varieties of *Phragmites*, and to implement proper control methods. Recommended herbicides include imazapyr and glyphosate products, or a combination of both. (EGLE 2014)



Phragmites. Aquatic plant line drawing is the copyright property of the University of Florida Center for Aquatic Pants (Gainesville). Used with permission.

Stand of *Phragmites* during winter months.

REFERENCES

Michigan Department of Environment, Great Lakes, and Energy. 2014. A guide to the control and management of invasive Phragmites. https://www.michigan.gov/-/media/Project/Websites/invasives/Documents/Response/Status/egle-ais-guide-phragmites.pdf?rev=99773b1ab927407ba5cd7e4532a3ad4d