

November

2025

HODUNK-MESSENGER CHAIN OF LAKES

PLANT CONTROL SUMMARY

PREPARED FOR:

HODUNK-MESSENGER LAKE IMPROVEMENT BOARD
BRANCH COUNTY, MI

HODUNK-MESSENGER LAKE IMPROVEMENT BOARD

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Branch County Drain Commissioner

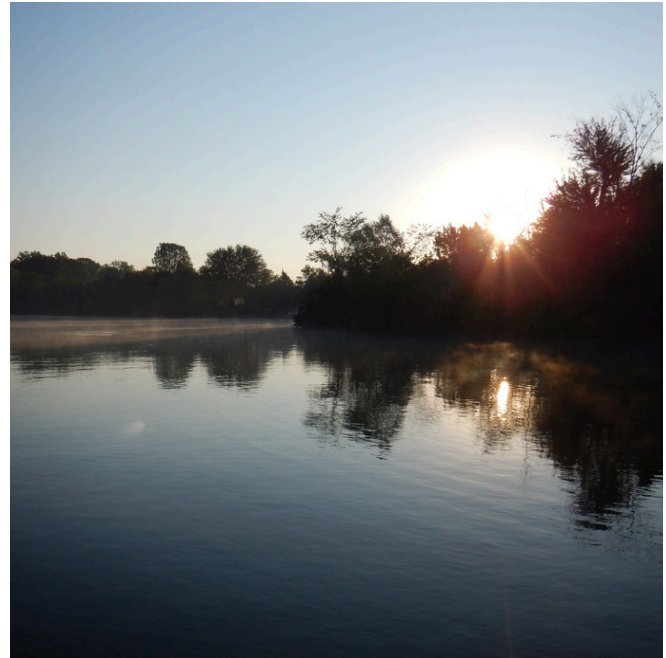
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ENVIRONMENTAL CONSULTANT

Progressive Companies

AQUATIC HERBICIDE APPLICATOR

PLM Lake & Land Management Corp.

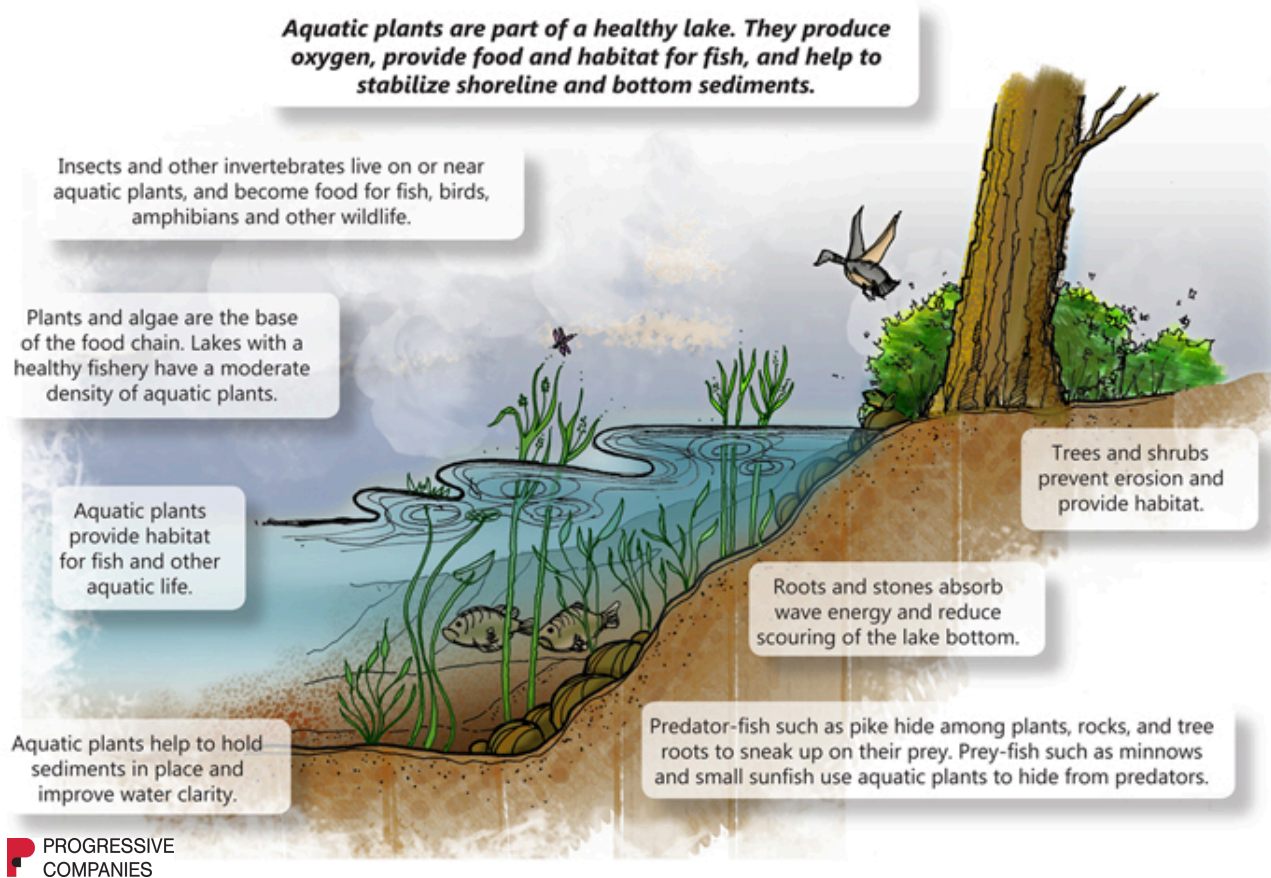
MECHANICAL HARVESTER

PLM Lake & Land Management Corp.



PROGRAM SUMMARY

A nuisance aquatic plant control program has been ongoing on the Hodunk-Messenger Chain of Lakes 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 the Hodunk-Messenger Chain of Lakes 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 the Hodunk-Messenger Chain of Lakes. Plant control efforts in 2025 consisted of four aquatic plant surveys, four aquatic herbicide applications, and one mechanical harvesting event.

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 lakes to identify problem areas, and georeferenced plant control maps are provided to the plant control contractors. GPS reference points are established along the shoreline and drop-off areas of the lakes. These waypoints are used to accurately identify the location of invasive and nuisance plant growth areas.



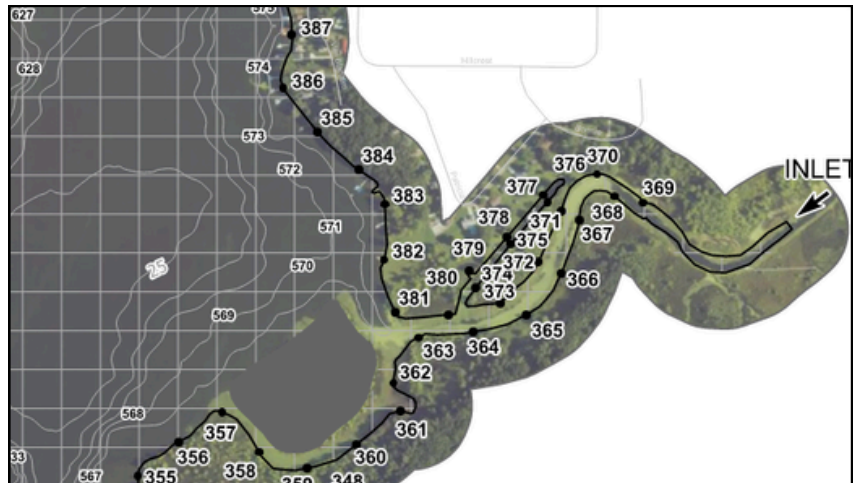
Eurasian milfoil
Myriophyllum spicatum



Curly-leaf pondweed
Potamogeton crispus



Starry stonewort
Nitellopsis obtusa



Primary plants targeted for control in the Hodunk-Messenger Chain of Lakes include Eurasian milfoil, curly-leaf pondweed, and starry stonewort. 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 lakes 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 lakes where herbicides may be applied. Permit requirements are designed to protect public health and the environment. The contracted herbicide applicator on the Hodunk-Messenger Chain of Lakes, PLM Lake & Land Management Corp., holds the ANC permits for the lakes.

PLANT CONTROL

TABLE 1. HODUNK-MESSENGER CHAIN OF LAKES 2025 PLANT CONTROL ACTIVITIES

Date	Plants Targeted	Acreage
May 13	Treatment: E. milfoil, curly-leaf, nuisance natives	115.50
June 16	Harvest: Starry stonewort, nuisance natives	37.75
June 18	Treatment: E. milfoil, starry stonewort, curly-leaf, nuisance natives, algae	50.00
July 22	Treatment: E. milfoil, starry stonewort, nuisance natives, algae	96.50
August 14	Treatment: E. milfoil, starry stonewort, nuisance natives, algae	49.25
Total		349.00

In 2025, 311.25 acres of the Hodunk-Messenger Chain of Lakes were treated with aquatic herbicides throughout the season. Eurasian milfoil was treated with both systemic and contact herbicides. Curly-leaf pondweed was treated in the beginning of the season using contact herbicides providing control of the invasive plant. Starry stonewort and nuisance algae were treated with copper products. Nuisance native plants were treated with contact herbicides to improve navigation in the lake chain. In June, 37.75 acres of the Hodunk–Messenger Chain of Lakes were mechanically harvested to remove excess plant biomass, particularly in areas where dense growth was impeding navigation. The harvest included areas of nuisance-level native plant growth as well as the invasive starry stonewort. Due to drought conditions observed in the latter half of the 2025 season, low water levels in the lake chain tended to exacerbate nuisance conditions and impeded boating navigation in some areas.

PLANT SPOTLIGHT: WILD CELERY

Vallisneria americana, commonly known as wild celery or eelgrass, is a submerged aquatic plant native to North America. It plays an important role in freshwater ecosystems, providing food for migratory waterfowl and habitat for fish and invertebrates, stabilizing sediment, and improving water quality. However, its rapid growth and widespread coverage have raised concerns about navigation and recreational use in the Hodunk-Messenger Chain of Lakes and other regional lakes, as it forms dense mats and accumulates along shorelines when fragmented by boat traffic.

Wild celery is difficult to control with herbicides, as treatments typically suppress rather than eliminate it. Its robust rhizome system allows for rapid regrowth, making season-long control challenging. The most common treatment is chelated copper, a copper compound bound to organic molecules that improve its uptake and reduce toxicity to non-target species. It disrupts photosynthesis and is most effective when applied in late spring or early summer during active growth. However, regrowth and residual plant mass continue to pose management challenges.

EGLE requires a permit be obtained prior to applying herbicides to lakes in Michigan. The permits specify approved herbicides, dosage, use restrictions, and areas of the lakes where treatments are allowed. For wild celery, only two treatments in the same area are permitted per year.

While wild celery does offer ecological benefits, its dense growth can interfere with recreation and navigation. Boaters navigating through areas with dense vegetation should trim up their motors to prevent damage and reduce the risk of becoming stuck. Shoreline property owners are encouraged to manually rake areas of dense wild celery growth along their frontage if its presence is adversely affecting navigational and/or recreational pursuits.

