



FIELD NOTES

Lake: North Lake, Washtenaw County, MI
Date of Observation: 30 May 2018
Activity: LakeScan™ Category 700 Pre-Treatment Condition Review

Key Points

- ~ Ebrid milfoil was present in North Lake but was not observed at the expected extreme nuisance levels that have been observed recently in other lakes. It was found in small clumps scattered throughout most of the lake, but was only considered to be growing at nuisance levels in the Southern part of the western lobe of the lake, AROS 426 to 428. The ebrid watermilfoil that was present in other parts of the lake did not appear to be metabolically active and should not be expected to be sensitive to aquatic herbicide applications. It did not constitute an unequivocal nuisance in these areas and AROS where it was found.
- ~ Curly leaf pondweed was a conspicuous plant throughout much of the lake. But it was so scattered that it was not considered be a nuisance at this time.
- ~ Native pondweed production was observed throughout the lake. Growth was considered to be good and beneficial, although some might consider it to be an isolated nuisance. Native pondweeds have not produced nuisance conditions in previous years. Treatment of nuisance native pondweed production is constrained by MDEQ permit policy.
- ~ Starry stonewort rhizoids and bulbils (seed-like structures) were observed to cover most of the lake bottom. This alga is predictably unpredictable and it is impossible to predict that it may or may not become a nuisance in 2018. Lake residents are encouraged to observe the growth of this pernicious weed and report any nuisance conditions.
- ~ Waterlilies were only beginning to appear in the lake. Production is considered to be later than normal.

Narrative

The day was mostly sunny with only a light breeze. The water clarity was good. The water temperature near the water surface was near in the low 80°F.

Ebrid milfoil management has produced acceptable results in North Lake in recent years. However, this pernicious weed is expected to be the dominant nuisance in North Lake in 2018 and dominance levels could approach nuisance levels later in the summer. Ebrid watermilfoil has formed surface mats in only a small area at AROS 426 to 428. No plants appeared to be beginning the exponential phase that is typical of summer growth. Further monitoring is required to determine if ebrid watermilfoil will be a wide-spread general nuisance in 2018. The canals were weed choked and should be treated soon. The lake should be ready for treatment late during the week of 04 June or early the next week.

Curly leaf pondweed is moderately conspicuous this year but did not generally create nuisance conditions. Native pondweeds were also observed to grow at reasonable levels in many of the lake AROS. No management is recommended at this time.

Starry stonewort was conspicuously absent during this survey. Starry stonewort dominance has been declining in Michigan inland lakes and it also seems to be declining in North Lake. Control is not recommended at this time. Growth needs to be closely monitored.

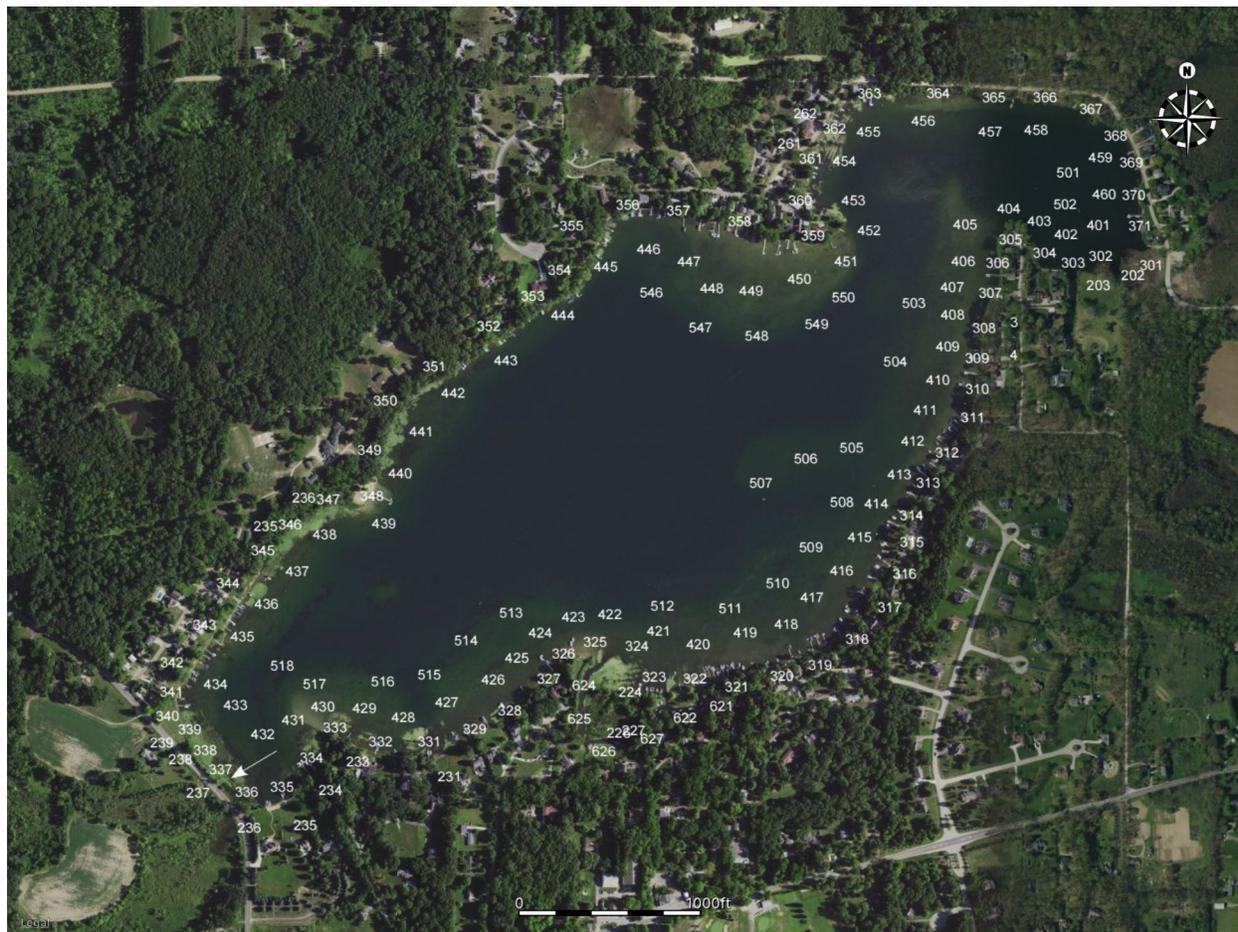


Figure 1. North Lake AROS map.

Management Prescriptives

The ebrid watermilfoil in North Lake has responded well to aquatic herbicides in recent years. There is a considerable risk of failure when herbicides are applied to water where the temperature near the sediments is not greater than 65°F. Some older plants and older plant parts are covered with algae and bacteria that can make the plant less sensitive to herbicide treatment. Furthermore, old plants and cold water can result in lower plant metabolism rates and prevent herbicide treatments from having full effect. Temperatures appeared to be adequate for treatment in North Lake but there were significant areas where the plants did not appear to be receptive to a herbicide application because of sluggish growth. A small area could be treated when the canals are treated.

A potent combination of herbicides and algaecides is recommended for the targeted control of nuisance milfoil and curly leaf pondweed in the canals and AROS 426 to 428. This potent mixture will not have significant impact on nuisance native. Monitoring is needed to determine if either ebrid watermilfoil or starry stonewort will emerge as a significant nuisance later in the summer.

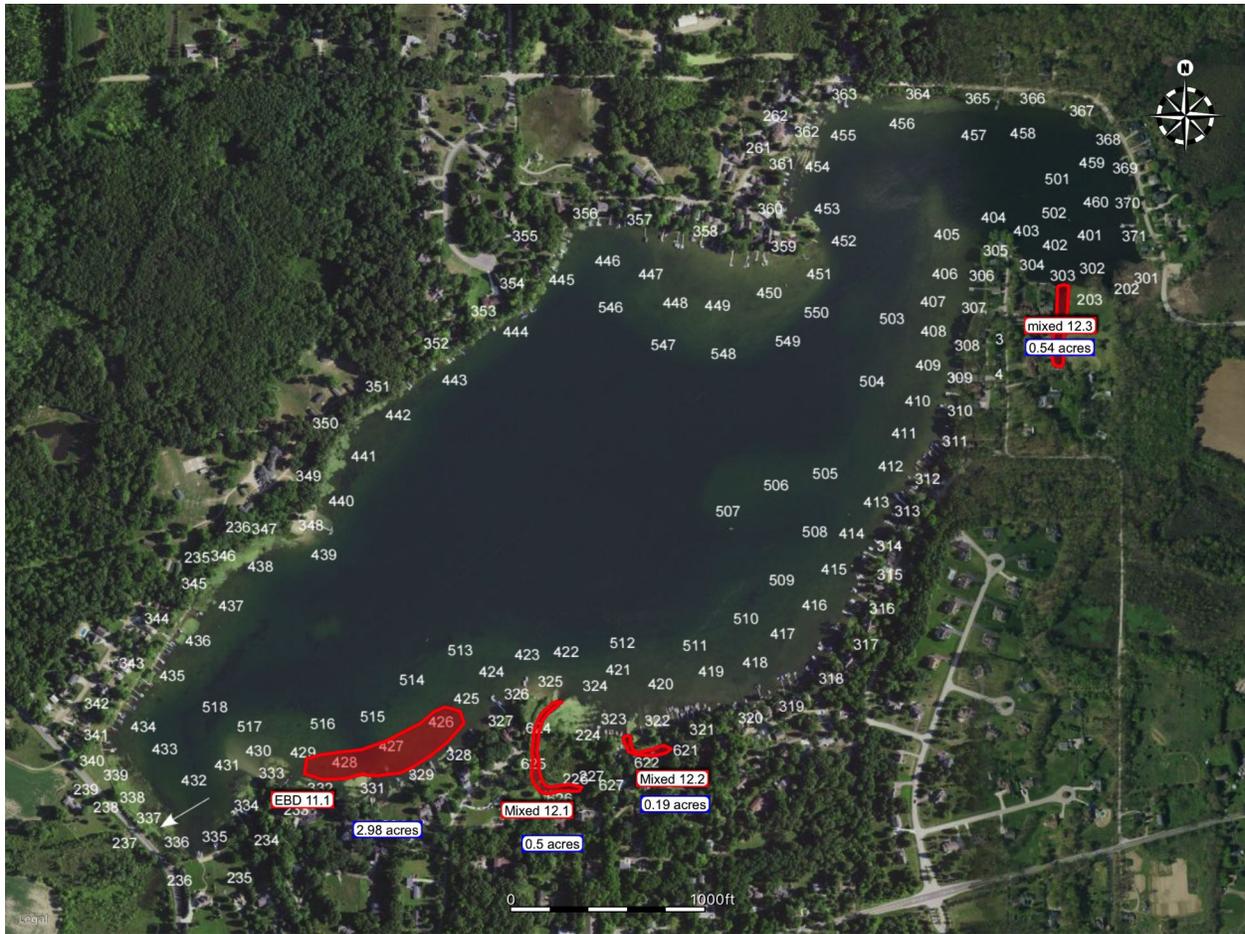


Figure 18TmtZ10 Proposed herbicide treatment for the control of extreme nuisance conditions caused by ebrid watermilfoil and curly leaf pondweed in North Lake, June 2018.