

May 12, 2025
Onterra-ECO

Early Season AIS Surveys - Silver Springs Lake (Marquette County)

Performed by Ryan Flynn and Samuel Dodge

Onterra-ECO conducted the 2025 early-season pretreatment mapping survey of invasive weed species growth in Silver Springs Lake, on Monday May 12th, 2025.

The conditions were excellent, with almost full sun and winds of 5 mph or less. An early-afternoon Secchi reading was 13.2 ft, demonstrating very good water clarity. The survey crew met with Terry Klaves and David Lester at the beginning of the survey to discuss weed growth observations to date. The crew systematically meandered the entire lake, tracking meanders in GPS to help ensure as full of coverage of the lake surface area as possible. The crew had the Eurasian Watermilfoil (EWM) and Curly-leaf Pondweed (CLP) locations from the 2024 surveys loaded into our onboard computer systems. Extra attention was given at these locations, as well as to those conveyed by Terry/David at the beginning of the day. The crew used a submersible camera and a rake sampler to assist in confirming visual observations.

Curly-leaf Pondweed

The crew observed numerous native pondweeds, such as Illinois and clasping-leaf pondweed, during the survey. The CLP encountered was largely growing in waters 5ft deep and less, and a lot was located in the disturbance zone under/around docks. Most of these occurrences consisted of single or a few plants with scattered native pondweeds nearby. Low-density colonized areas of CLP were found at the ends of the Pirates Cove and Oak Leaf Bay channels, where soft organic sediment has settled. The crew also found a scattered and highly scattered CLP colony near the inlet where the 2024 endothall treatment took place. Also within this former treatment site was bright green common waterweed (see attached picture), which may be the plant Terry mentioned seeing at the beginning of the day.

In our opinion, no areas of the lake warrant herbicide treatment for CLP. If the group wanted to take an aggressive approach, targeting the same area treated in 2024 again in 2025 could be considered to further reduce the turion base in this area. The crews did not see turion formation occurring yet. I also don't think there is enough CLP that I would worry about the mechanical harvesting spreading turions around the lake. Some lake groups even harvest CLP on purpose in an attempt to remove some of the turions from going back in the lake. But in response to that cutting, studies have shown that the CLP compensates for that stress and produces turions lower on the plant and even on the underground rhizomes.

So we don't overly subscribe to the philosophy of purposefully targeting CLP plants with harvesting for population management but think it can be a good tool to get rid of some of the unwanted nuisance plant biomass.

Eurasian Watermilfoil

Our crews located a fair amount of EWM/HWM during this survey, but almost all consisted of individual plants located in slightly deeper areas of the system. A few denser areas of EWM consisting of small plant colonies (patches roughly the size of a kitchen table) were located in some areas, and one larger scattered EWM colony was located south of the deep hole in the mouth of Breezy Cove. At the current levels, the EWM is not acting overly invasive and not at levels that we would consider warranting herbicides.

If herbicides were used on your system, the most effective approach would be to purposefully target an entire cove/bay, as the best herbicide to target EWM (ProcellaCOR) needs longer exposure times that can be achieved with small, isolated herbicide treatments. If some of these deeper water EWM populations get a little larger and denser as the summer progresses, it may be worthwhile to target them with mechanical harvesting. While it won't impact the population, it definitely will remove the biomass in the upper part of the water column and resolve some of the nuisance and unsightliness of these occurrences.

Terry – if your group has any follow-up questions or wants to solicit more information on herbicide potential, please let me know. But our recommendation would be to withhold herbicide treatment in 2025 and rely on the mechanical harvesting approach. That would mean some level of tolerance of these non-native species. If you wanted to take an aggressive approach towards the low-density CLP in front of the inlet, we would be happy to make an updated treatment map for your records. DASH efforts could be effective locally on both species, but it is important to be realistic in regard to what can be accomplished from that technique.

Thanks,

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Attachments: EWM and CLP Survey maps



