



AquaTechnex

American Lake Eurasian Milfoil Treatment Program 2023



Prepared for
City of Lakewood and
American Lake LMD

**AquaTechnex,
LLC**

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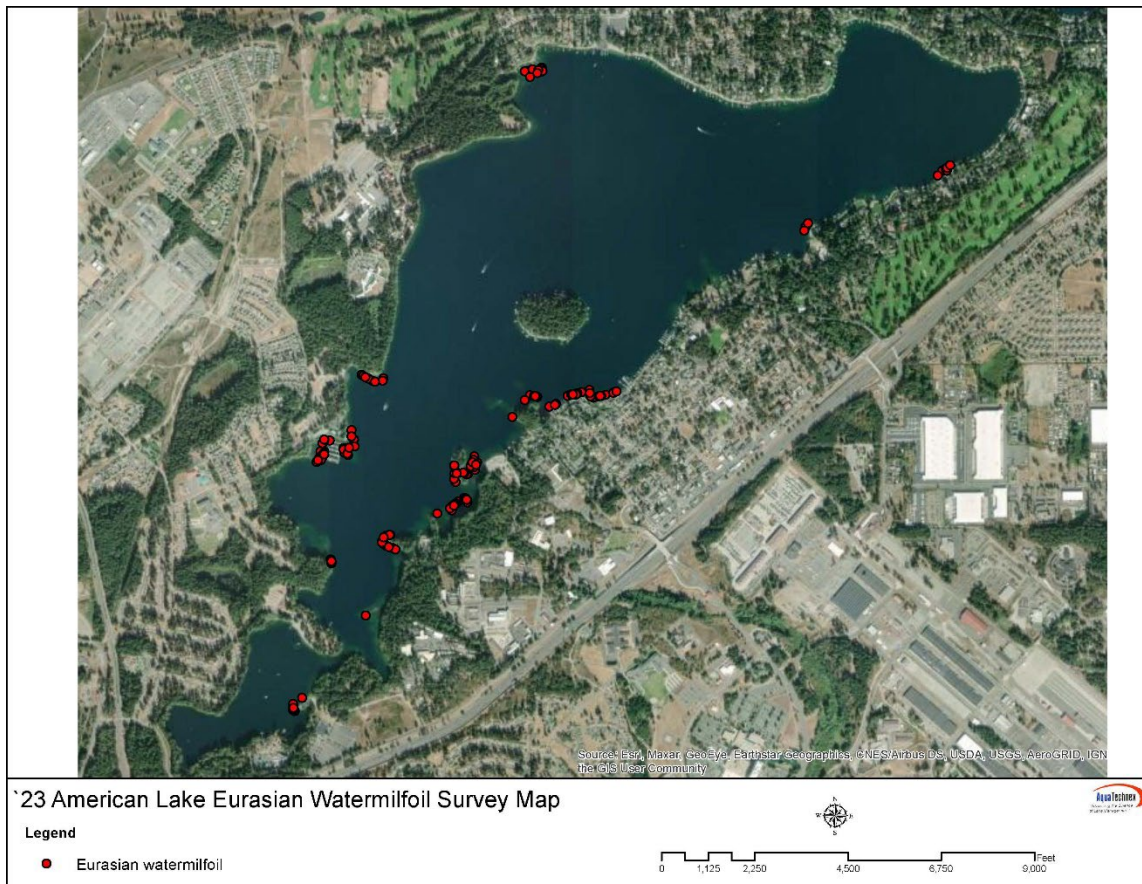
Background

American Lake formed a Lake Management District (LMD) to implement management of invasive aquatic weeds with a primary focus on Eurasian Milfoil. Up until the summer of 2019, the entire littoral zone of the lake was heavily impacted by this noxious aquatic weed. The City of Lakewood received a grant from the Washington Department of Ecology to begin to target and control this plant. The first step was a 2019 lake wide treatment for Eurasian Milfoil using ProcellaCOR aquatic herbicide. ProcellaCOR is a selective systemic herbicide that targets this weed. In the years since the LMD has had our team perform an early summer survey, recommend treatment options based on the available budget and implement those treatments.

Early Survey

Our team performed a Eurasian Watermilfoil survey on June 29th. We equipped our survey team with a Trimble submeter DGPS data logger set up with a data dictionary to mark the locations of Eurasian Watermilfoil plants found on American Lake

This is the fifth summer since the 2019 ProcellaCOR herbicide treatment that targeted the entire littoral zone of the lake. 166 acres of extremely dense Eurasian Watermilfoil were present at that point. In the years since, there have been scattered plants that over time will expand into weed beds however we have been using the budget available to focus on areas that were recovering from the 2019 treatment.



The map above shows our Spring survey for this year specifically showing where EWM was found in American Lake. Based on our Spring survey EWM seemed to be established along shorelines within the southern end of the lake. Patches of EWM were also found in the northeast and northwest corners of American Lake.

Treatment

On July 12th biologists from AquaTechnex mobilized to American Lake and treated 28.69 acres of Eurasian Watermilfoil as shown on the attached treatment map. These zones were primarily concentrated on the southern end of the lake just south of Silcox Island between Fort Lewis, Tillicum, and Camp Murray. However, there were also three smaller zones that were treated towards the northern end of the lake. One zone was located near American Lake North Park and the other two zones located along the shoreline adjacent to the Tacoma Country & Golf Club.

Our team notified the lake residents adjacent to treatment areas and within the Ecology prescribed distance down the shoreline via mail to comply with Ecology permit conditions. This was done in mid-June and there is a 10-day requirement for residents to have received these notices prior to treatment. The team posted the affected areas and performed applications in each zone to target milfoil.



American Lake 2023 Milfoil Treatment

Eurasian Milfoil is an aggressive aquatic weed and if left alone could dominate in this system again within 4-6 years. This summer our team targeted 14.68 acres that were within the waters of the Lake Management District, 6.76 acres that were within the waters of Camp Murray (also part of the LMD) and 7.5 acres that were within the waters of Fort Lewis and the VA property.

Within the LMD waters, the north shore of the lake was largely void of milfoil at the time of the survey. There were scatters plants that we placed a treatment polygon around west of the City Park Boat ramp as mapped. Along the south shoreline native aquatic plants have steadily been filling in space previously occupied by Eurasian Milfoil. There were six areas where we found enough milfoil plants to justify placing a treatment polygon as mapped.

Camp Murray and the Fort Lewis waters had some locations where Eurasian Milfoil plants were recovering in a more robust fashion. These areas were still small and localized, but the milfoil plants present were quite a bit more dense and these were mapped and targeted for treatment.

The 2024 season will be five years after the major treatment that restored the littoral areas of the lake that was performed in 2019. As we saw some larger patches in the Fort Lewis waters this past season, it would be useful to do two surveys in the summer of 2024. The early summer survey would be used to locate and target milfoil plant zones observed. A later summer survey could be beneficial in locating other potential zones, the native plants on the south shoreline are present in a density that could be obscuring milfoil plants earlier in the summer. By August milfoil plants mixed in with dense native growth would be evident and could be mapped for treatment.

As there has been turnover on your LMD board or steering committee, it might be useful to host a field trip just after the initial survey and mapping work in accomplished. We could show the group conditions within the treatment zones, the reason behind treatment polygon design and review native plant communities. We could also present a plant identification session during this event. After the first of the year we could discuss scheduling attendance at meetings and the field trip potential.

