American Lake 2026 Fall Eurasian Watermilfoil Survey and Control Report



Prepared for
City of Lakewood and
American Lake LMD

AquaTechnex, LLC

www.aquatechnex.com

HEADQUARTERS
Bellingham, WA 98228

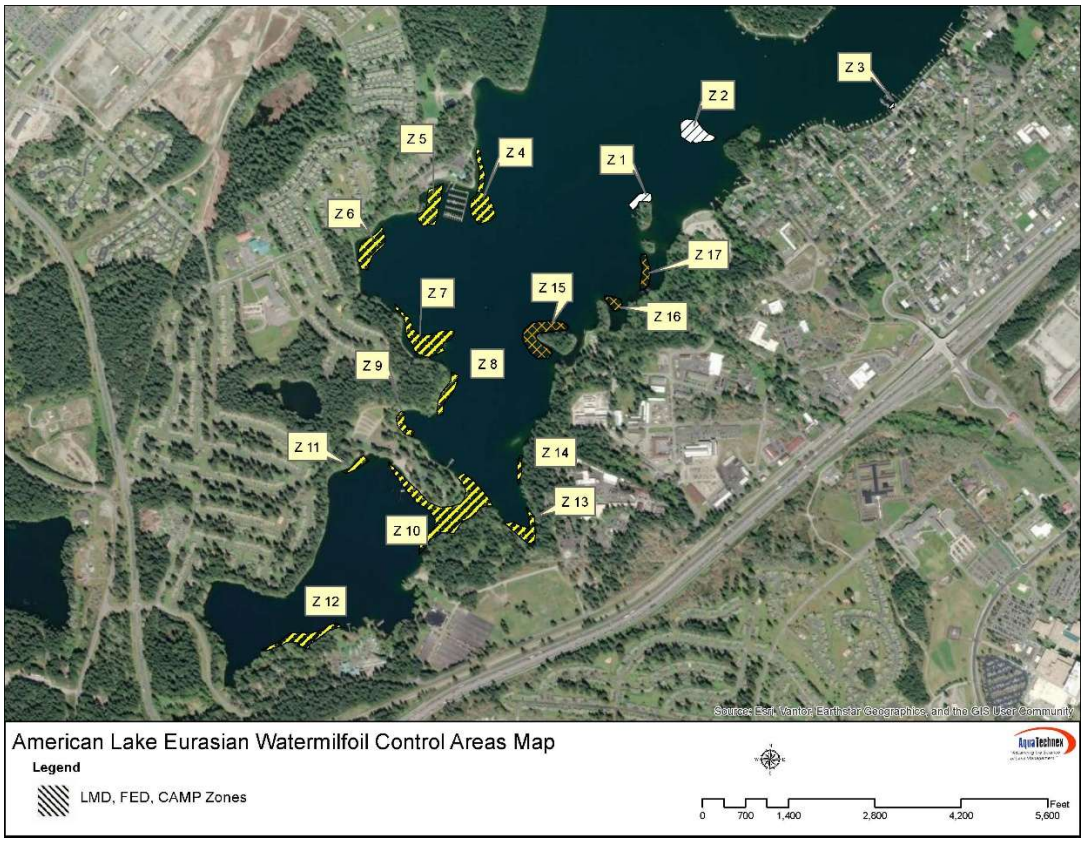
Local Offices
Centralia, WA
Spokane Valley, WA
Pleasant Hill, CA
Missoula, MT
Palm Desert, CA
Boise, ID
Santa Ana, CA

Introduction

American Lake has been challenged with the invasive aquatic weed Eurasian watermilfoil (EWM) over the past few decades. An Integrated Aquatic Vegetation Management Plan (IAVMP) was developed and adopted by the community. During the summer of 2019, a major herbicide treatment targeted 166 acres of milfoil on the lake. ProcellaCOR was selected as the selective systemic aquatic herbicide for EWM control. During the summer of 2020, the lake was largely EWM free. In the years since EWM populations have been recolonizing from reproductive fragmentation. Annually since 2020, AquaTechnex has maximized the available budget to provide control focusing on areas most impacted by EWM and impeding high use areas in the lake.

Treatment 2026

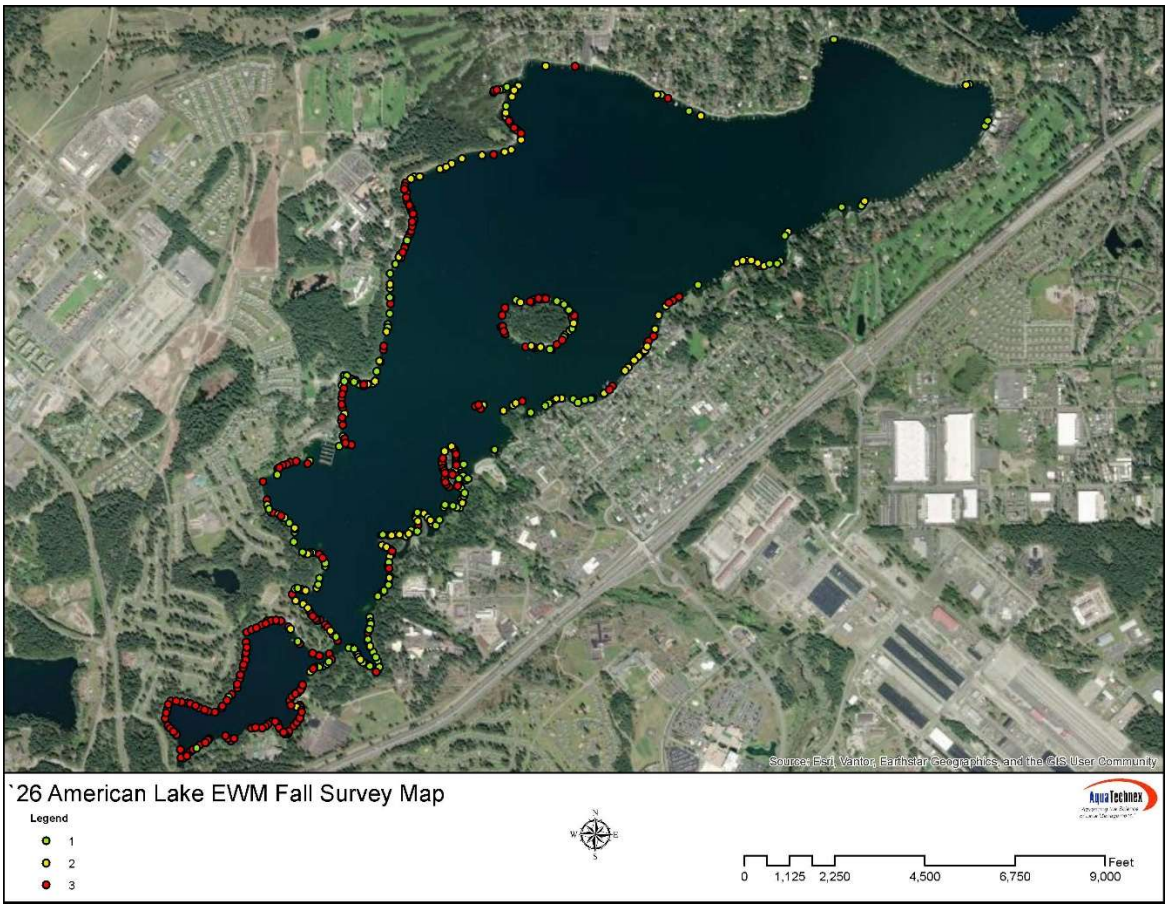
Our team notified the lake residents adjacent to selected control areas and within Washington State Ecology prescribed distance down the shoreline via mail to comply with Ecology permit conditions. This was completed August 3rd and followed by the 10-day requirement for residents to have received these notices prior to treatment. In addition, prior to treatment our teams posted the affected shoreline areas of the lake where applications were to occur.



On August 17th biologists from AquaTechnex mobilized to American Lake and treated 24.63 acres of EWM as shown on the treatment map above. Each treatment zone focused mostly on priority areas with moderate to dense EWM and within high use recreation areas.

Fall Survey 2026

Our team performed the Post-Treatment Fall EWM survey on September 11th. We equipped our survey team with a Trimble submeter DGPS data logger set up with a data dictionary to mark the locations of EWM plants found within American Lake.



The above map of our Fall Survey shows locations EWM at time of survey. Given the survey was completed 25-days post-treatment some EWM was still present. Control was achieved with good reductions of plant densities within the control zones. The EWM plants that remained within the control areas were not health and should continue to die and drop out of the water column. Areas not treated have expanded and increased in densities. EWM is found at depths approximately two feet out to approximately twenty-five feet in depth. Densities varied from sparse to dense. The Legend defines these locations and densities as follows. A point is a specific site location with the density of plants estimated is as follows, 1 = 1 to 5 plants, 2 = 5 – 10 plants, and 3 = 10+ plants.

The biobase map below provides the littoral area's aquatic plant biovolume around the lake. Biovolume data presented can be viewed as a "HEAT" map. The HEAT map has a color ramp for the percentage of the water column filled with vegetation where aquatic plants are present. The bottom of the HEAT ramp is blue and indicates no vegetation present. The top of the HEAT ramp is red and indicates that aquatic vegetation fills the entire water column at those locations.



Suggestions for Next Year

Eurasian Milfoil is widespread around the lake's littoral areas. As noted in the fall survey map, densities range from no plants to sparse/moderate in most locations. There are areas of moderate to dense plants as well found mostly in the southwest portion of the main basin of the lake. Regardless of densities, this plant rapidly expands populations via fragmentation. Two surveys are recommended to monitor EWM locations and densities around the lake in 2026. A spring survey in mid-May through early June should be conducted. Treatment of Eurasian milfoil would be best performed prior to July 4's high recreation time period to reduce fragmentation caused by recreation. Post-treatment survey to occur from September through October time frame.

Hybrid milfoils are present in Washington State. AquaTechnex recommends collecting representative samples from around the lake and having DNA analysis performed. We would be willing to do that. Hybrids are more difficult to control and exhibit a need for higher herbicide application rates.

The first task should be to determine if hybrid milfoil strains are present. The second task should be to obtain as much funding as possible, pursuing the Department of Ecology Grant program for example. Then resources should be

delegated based on obtaining the best available outcome for the lake and residents.

Conclusion

EWM is a very persistent plant reproducing by fragments. During the fall EWM plants auto-fragment and each mature plant can produce hundreds of fragments. These fragments float around the lake until they deposit on the lake bottom to start a new plant. This mode of reproduction gives EWM the ability to expand very quickly. The only way to defeat this plant is to control the full extent of where the plant is growing within the lake. If funding is not available to target all EWM within the lake using systemic herbicides, contact herbicides can be used to temporarily control the EWM, mitigate fragmentation, and prevent its spread to areas controlled with systemic herbicides or that are EWM free at lower cost.