

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 a early summer survey, recommend treatment options based on the available budget and implement those treatments. A fall survey and report to the group is also part of the effort each year.

2022 Scope of work

In June of this year, the City extended a contract with our team to manage milfoil control efforts.

Early Survey

Our team performed an Eurasian Milfoil survey on June 29th. Weston Ott with the City asked to accompany us and we met him at the City Park. We equipped our survey team with a Trimble submeter DGPS data logger set up with a data dictionary for the various conditions we expected to find.

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

This year we selected 12.85 acres as shown on the attached proposed treatment map. These zones were primarily on the south shoreline. One zone was in the northeast bay where a band of milfoil was starting to form in patches. Another zone was at the Beach within the Fort Lewis portion of the lake. Lastly a small zone on the shores of Silcox Island exhibited patches that were targeted.

Treatment

Our team notified the lake residents adjacent to treatment areas and within the Ecology proscribed distance down the shoreline via mail to comply with Ecology permit conditions. This was done in mid-July and there is a 10-day requirement for residents to have received these notices prior to treatment.

The herbicide application was performed in late July. The team posted the affected areas and performed applications in each zone to target milfoil.

Fall survey and comments

This fall, our biologists returned to the lake and performed a fall survey. Again, a Trimble DGPS data logger was used to record the location and density of plants present.

We reviewed the treatment areas and found them to be clear of Eurasian Milfoil and as expected we observed good control.

The team did see several locations where individual plants were present. The lake is lower in the fall and the plants grow closer to the surface than they do in the spring survey window. These were mapped at three densities.

The first locations on the attached map show individual plants observed. These are primarily in deeper water on the South shoreline with a few scattered plants on the northern shoreline as noted on the attached map. These are indicated by a point on the map.

The second condition observed are shown as a line on the map. These areas are primarily within the Fort Lewis/Federal portion of the lake. These areas are showing more than scattered individual plants present. These areas will fill in over time if allowed. These areas are indicated by a line along the shoreline in the legend.

The third condition was located near the Washington Department of Fish and Wildlife boat ramp. While this zone was not anywhere close to as dense as it was prior to 2019, there are plants throughout this zone at a density that is more than elsewhere in the lake.

We did observe a few locations where Curly Leaf Pondweed was present. This plant is not yet present at problem levels. These areas should be assessed in the spring 2023 survey and if expanding should be targeted.

Eurasian Milfoil is an aggressive aquatic weed and if left alone could dominate in this system again within 4-6 years. There is a budget available from the LMD to target approximately 14-16 acres each year. To this point we have been focusing those acres where plants have been the most problematic. There are however many more acres in the lake that have scattered plants present. So, if the budget remains the same, the acres treated should continue to focus on areas where more plants are present.

Eventually this plant may outcompete the funding available however and the City and LMD may want to consider going back to the Washington Department of Ecology Grant Program. This program is funded by boat trailer taxes and can fund implementation of control programs up to \$75,000.00. There is also an early infestation component to this program that can be applied for when a invasive aquatic plant is present but has not yet expanded to significant levels. The Ecology grant program has been utilized by the City once before. Each year grant applications are received and scored by the Ecology review committee. After ranking those proposals received, the grant program funds projects from the top of that list until they expend the funds available. Several programs statewide have received funding a number of years in a row such as the Pend Oreille County Flowering Rush program, the Chehalis River Brazilian Elodea project and so on. A case could be made to get support for your program in the next year or so.