

STEEL LAKE - SUMMARY OF ACTIVITIES IN 2019



11/11/2019

2019 – Survey and Control Summary

Prepared by AquaTechnex, LLC.

Steel Lake – Summary of Activities in 2019

2019 - SURVEY AND CONTROL SUMMARY

Introduction

Steel Lake has a history of being impacted by noxious weeds. Fragrant Water Lily, Yellow Flag Iris, and Eurasian Milfoil have all been present in the past. Steel Lake has targeted Eurasian Milfoil aggressively in the past with up to two treatments each season in an effort to eliminate it from the lake. The last treatment for milfoil in Steel Lake occurred in 2012. The lake is surveyed twice annually, and no additional milfoil has been located since 2012.

AquaTechnex has been contracted to provide survey and aquatic plant management services at Steel Lake for the several years. Our survey and control efforts in 2019 focused on the continued monitoring of noxious and nuisance weed populations and control activities to manage their presence.

2019 Survey Summary

The first survey of Steel Lake occurred on June 27th and the second survey occurred on August 9th. Survey maps follow this report. There are several aspects of the survey and typically they are completed one at a time with a few trips around the lake. This allows the biologists and technicians to focus on each task separately and also increase their familiarity with the lake overall. The entire lake was surveyed by boat with the first pass of the lake taking the crew around the lake in the shallow, 6 feet deep or less area of the lake. This area is easily checked from the surface for milfoil and any other submerged noxious weed species which may have been introduced to the lake. Once this initial pass is completed the plant community is sampled with a series of rake-tosses to collect samples of the plants at given depth ranges throughout the lake.

Transects running perpendicular from the shore were traveled and at the 5, 10, 15, and 20-foot depth contour a rake-toss sample was made.

Plant Community

The native plant community in Steel Lake has a level of diversity common for the lakes in this area. Typically, the dominant species is Naiad. This plant is native to Washington but can grow to nuisance levels in an urban lake environment like Steel Lake. Narrow Leaf pondweed, Largeleaf pondweed, White Stem pondweed, and Common elodea, other native aquatic plant species also noted in Steel Lake during the 2019 surveys.

There were scattered emergent noxious aquatic plants present on the lake margins, primarily on the south shoreline. This consisted mostly of Yellow Flag Iris. There is one Japanese Knotweed plant located on the south shoreline. The majority of these plants are well into the individual properties.

2019 Control Efforts and Discussion

AquaTechnex biologist reviewed data from the 2019 surveys. Growth of submersed plants was present, though biovolume in the water column did not warrant treatment. Moreover, present plant growth was not interfering with the beneficial uses of the lake to trigger thresholds for control to be considered.

2020 Recommendations:

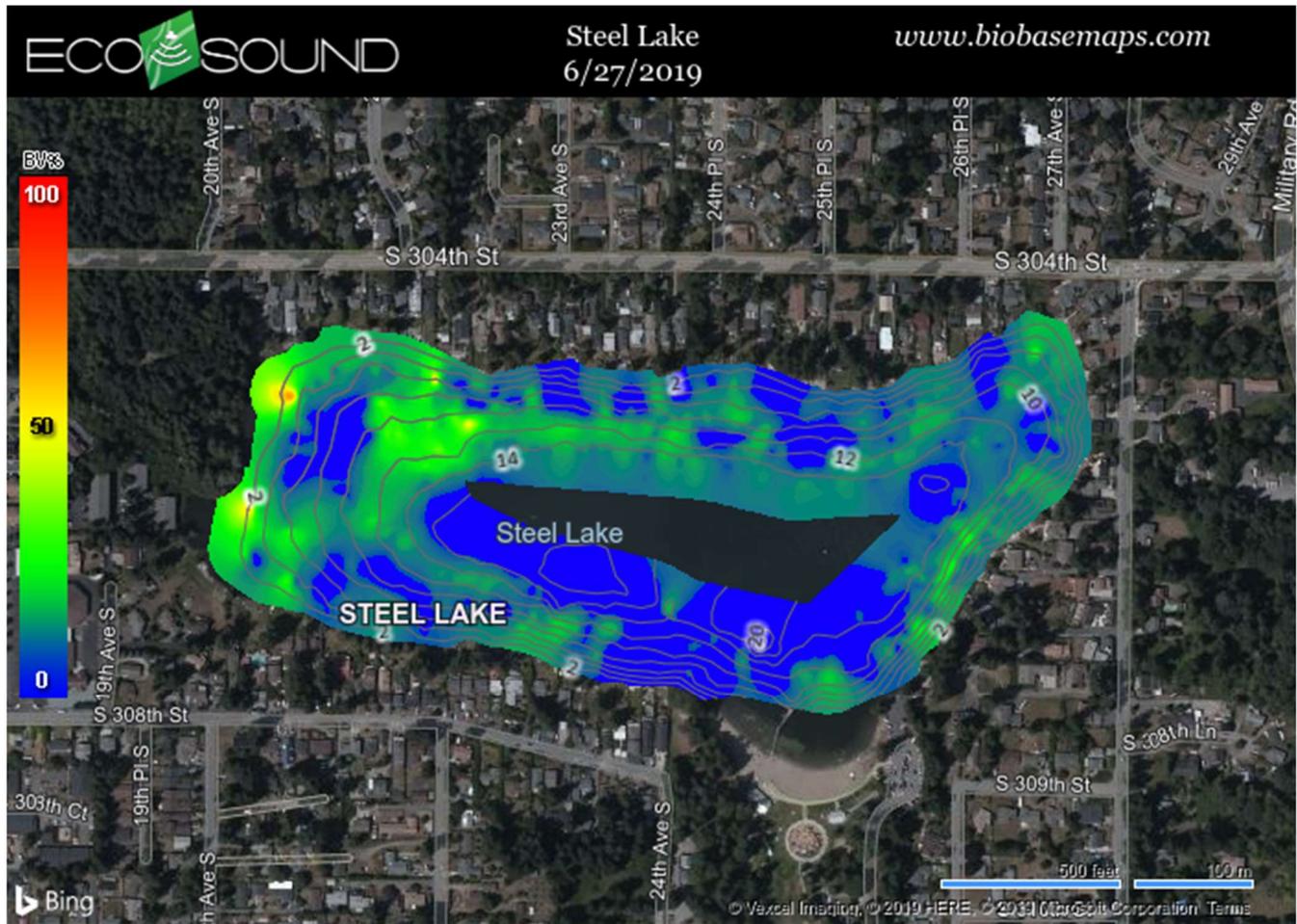
For 2020, AquaTechnex recommends the continued surveying of Steel Lake for Eurasian Watermilfoil and any other submerged invasive plants. Continued monitoring of shoreline emergent invasive plants such as Yellow Flag Iris is also advised. Though populations of Yellow Flag Iris remain minimal, it is important to continue to educate homeowners on this plant. Complete eradication will not occur unless everyone on the lake is willing to remove this invasive. However, with continued monitoring and treatment this plant will continue to remain at very low levels. In the past, there was a permission layer for property owners which approved application. This should be re-visited in terms of ensuring that treatments on private property can go forward.

In addition to invasive plants, it is recommended that AquaTechnex continues to monitor the native plant community. Maintaining a diverse native plant community is beneficial and important to overall health of Steel Lake.

Conditions change annual and AquaTechnex will continue to monitor and make recommendation to treat select problem areas with contact herbicide to reduce the nuisance plants if warranted. These problem areas would be determined at the discretion of the City of Federal Way and Steel Lake homeowners.

Please feel free to contact Terry McNabb by phone at 360-201-2612 or email at tmcnabb@aquatechnex.com with any questions. Thank you for your time and consideration.

Map 1. June 27, 2019



Map 2. August 9, 2019

