

## **Glen Echo Lake, Charlton, Massachusetts 2019 Year-End Report**

*Report Date:* February 12, 2020

*Report Prepared for:* Charlton Conservation Commission  
c/o Mr. Todd Girard  
37 Main Street  
Charlton, MA 01507  
[todd.girard@townofcharlton.net](mailto:todd.girard@townofcharlton.net)

*cc:* Ms. Jackie Nowak; [nowak151@verizon.net](mailto:nowak151@verizon.net)  
Ms. Rose Conway; [Rose.Conway@townofcharlton.net](mailto:Rose.Conway@townofcharlton.net)

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In accordance with the aquatic plant management contracts between SOLitude Lake Management, the Town of Charlton and the Glen Echo Improvement Association (GEIA) for permitting and vegetation surveys in 2019, the following document serves to provide this year's treatment and survey results and management recommendations for next season.

All management activities were consistent with the Order of Conditions (DEP File #128-1073), and the License to Apply Chemicals issued by the MA DEP – Office of Watershed Management (#19337).

### **Pre-Treatment Survey**

A pre-treatment survey was performed by a SOLitude Biologist at Glen Echo Lake on June 27, 2019. The purpose of this survey was to assess the relative abundance and distribution of vegetation within the waterbody, specifically targeting areas with fanwort (*Cabomba caroliniana*) and variable milfoil (*Myriophyllum heterophyllum*). Trace fanwort was observed in patches in the southeastern cove, the northern cove, and on the eastern and western shorelines. Sparse variable milfoil was observed in a patch on the western shoreline and a dense patch was observed in the northern lake area. In a second survey, fanwort was found scattered along the eastern shoreline in trace to sparse abundance with one patch of moderate abundance observed. Sparse abundance of fanwort was observed along the northwestern shoreline along with trace to sparse abundances of variable milfoil within the same areas.

### **Herbicide Treatment**

An herbicide application was performed by SOLitude Lake Management applicators at Glen Echo Lake on September 4, 2019. In accordance with the Order of Conditions for this project, written notification of the scheduled treatment date was sent to the Charlton Conservation Commission. Printed signs warning of the treatment and the associated temporary water-use restrictions were also sent to members of the Association for posting around the lake prior to the application. Treatment areas were delineated prior to application and displayed on a handheld GPS to ensure even application during the treatment. This treatment utilized an 18ft Jon boat equipped with onboard containment and a pump system for which to dilute herbicide with lake water before application. Flumioxazin and diquat based herbicides were utilized



to control variable milfoil and fanwort and dispensed through subsurface hoses in the treatment areas. Treatment focused on areas where the target species were observed during the surveys, particularly along the entire eastern shoreline and the northern half of the western shoreline of the lake. Application followed all product labels and no adverse effects on non-target species were observed during the treatment. No late season survey was contracted for the 2019 season and was not deemed necessary due to the late application, as such, the efficacy of the application will be assessed during the 2020 management season.

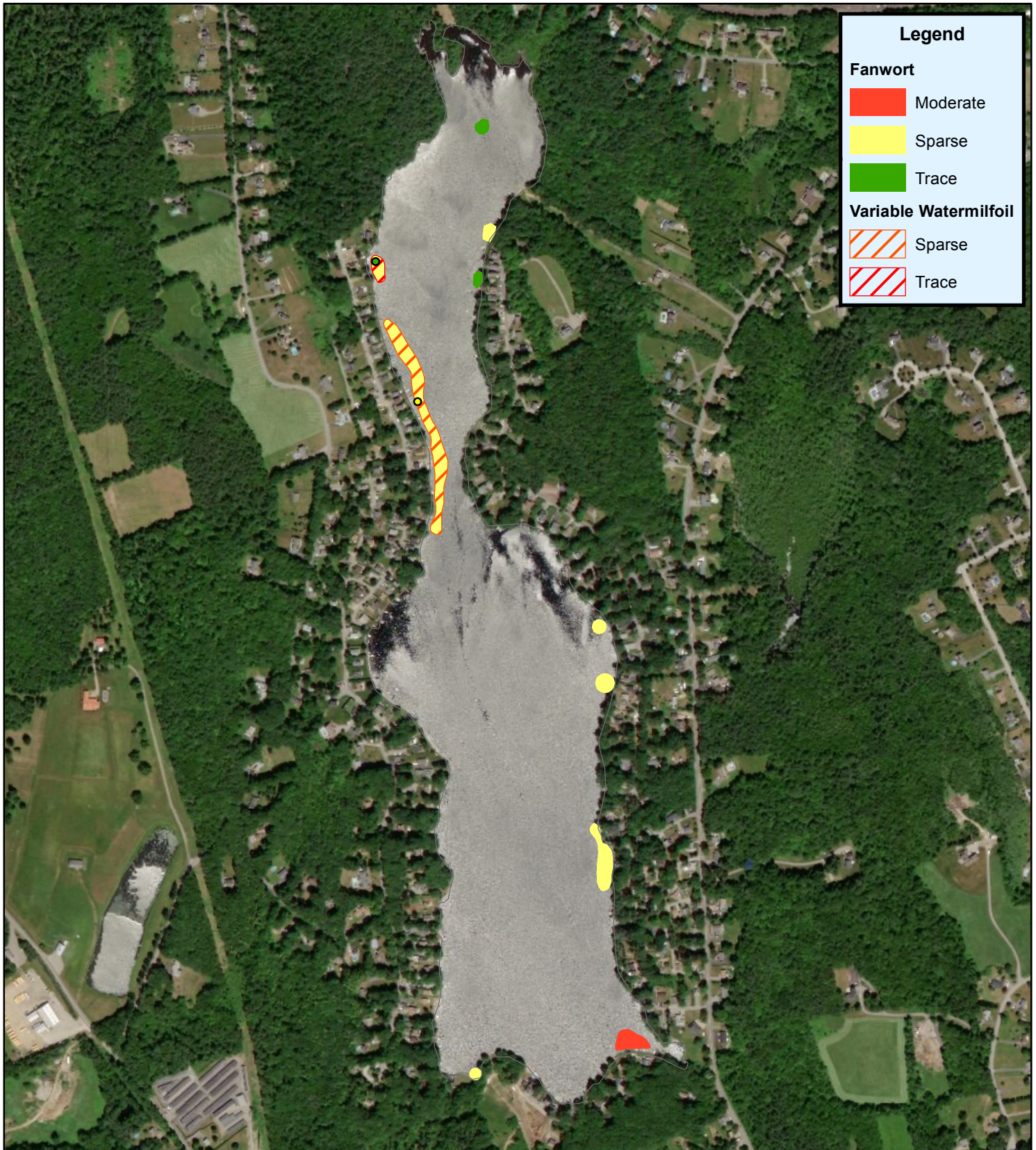
### **Ongoing Management Recommendations**

Given the continued presence of the target species in the waterbody we recommend a similar management program for the 2020 season. Early season surveys will be essential in determining areas of nuisance vegetation. Treatment with diquat and flumioxazin based herbicides, as well use of Sonar (fluridone) in prior years have shown to be very effective in the past and should be continued to maintain control on these species. Continued monitoring will be essential at controlling sporadic growth of fanwort as well as the spread of European Naiad which has been documented in this lake in the past. As with any treatment events, we will advise and receive approval from the GEIA prior to proceeding.

We enjoyed working with you in 2019 and look forward to working with you again in 2020. If you have any questions regarding our 2019 management program or our recommendations for 2020 please do not hesitate to contact our office.



Figure 1: Density & Distribution of Variable Watermilfoil & Fanwort



**Glen Echo Pond**  
Charlton, MA



**Glen Echo Pond**

0 820 1,640  
1:9,539 Feet



Map Date: 08/01/2019  
Prepared by: ALM  
Office: SHREWSBURY, MA