

Glen Echo Lake, Charlton, Massachusetts 2017 Year-End Report

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Report Prepared for: Charlton Conservation Commission
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In accordance with the aquatic plant management contract between SÖLitude Lake Management and the Glen Echo Improvement Association (GEIA) for permitting and vegetation surveys in 2017, the following document serves to provide this year's treatment and survey results and the 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 (#17298).

Early Season Inspections

On June 1st and June 28th, a SÖLitude Biologist conducted vegetation surveys to assess the relative abundance and distribution of aquatic vegetation (specifically fanwort [*Cabomba caroliniana*] and variable milfoil [*Myriophyllum heterophyllum*]) throughout Glen Echo Lake and to finalize management strategies for the 2017 season. During the early and late June surveys, the entire waterbody was toured and plant growth observations were noted. At the time of these surveys, variable milfoil and fanwort growth was not yet present. Conversation was started with members of the Glen Echo Improvement Association at the end of July into early August on whether or not there were any observations variable milfoil or fanwort by members or lake goers; according to the members there were no observations of either species up to this point.

Late Season Inspection

On September 8th, a SÖLitude biologist performed a late season inspection of Glen Echo Lake to evaluate any density and distribution of aquatic vegetation species, both native and non-native, that may have proliferated at the end of the summer. Results from last year's treatments were positive as the density and distribution of both fanwort and variable milfoil were still reduced significantly in 2017 without



performing. These species were observed during the late season inspection. The only observation of Fanwort was noted along the western shoreline of the norther basin; the plants observed were 6" – 1.5' tall, indicating that the growth was new, recent growth. Variable Milfoil was observed at multiple locations, also mainly along the western shoreline of the northern basin and finger cove.

Other species observed during the survey are listed in the following table in descending order:

Common Name	Scientific Name
Small Pondweed	<i>Potamogeton pusillus</i>
European Naiad	<i>Najas minor</i>
Robbins Pondweed	<i>Potamogeton robbinsii</i>
Large-leaf Pondweed	<i>Potamogeton amplifolius</i>
Ribbon-leaf Pondweed	<i>Potamogeton epihydrus</i>
Bladderwort spp.	<i>Utricularia spp.</i>
Southern Naiad	<i>Najas guadalupensis</i>
Low Watermilfoil	<i>Myriophyllum humile</i>

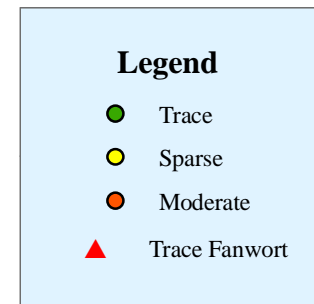
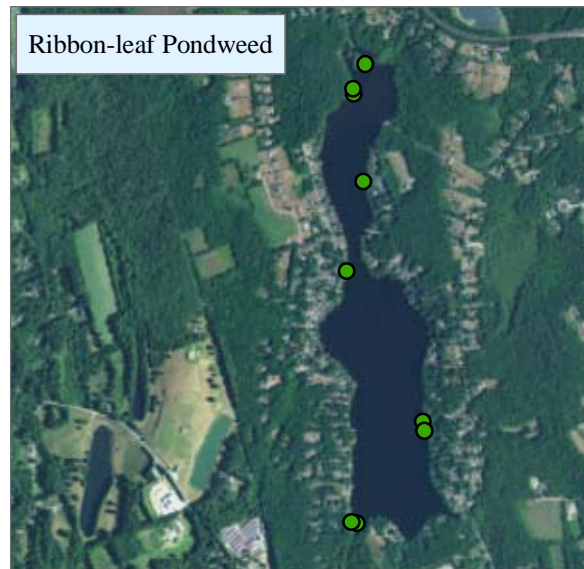
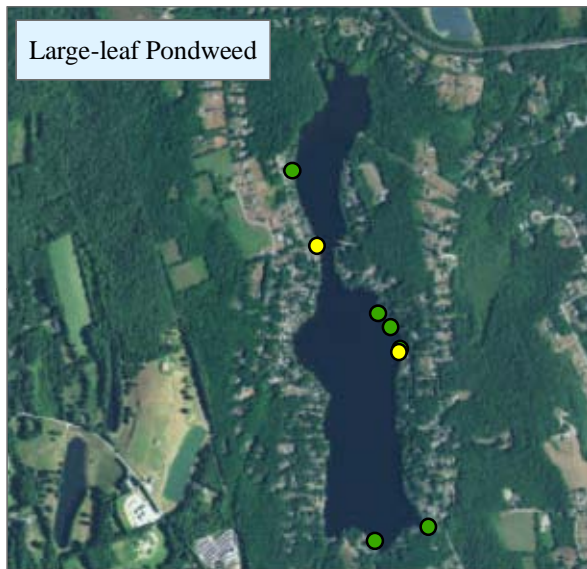
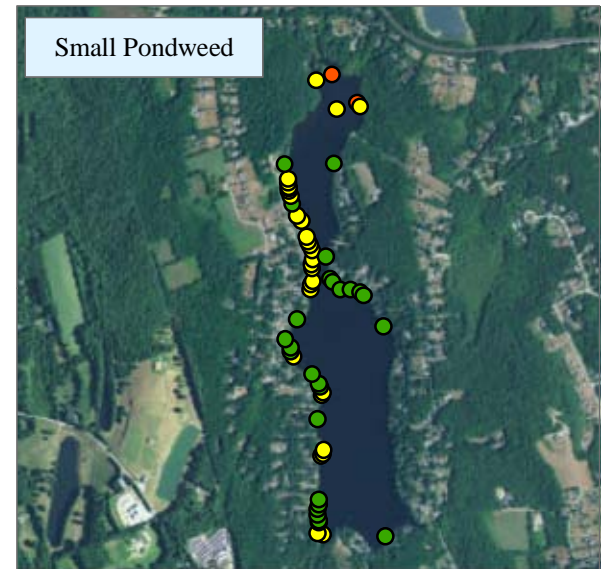
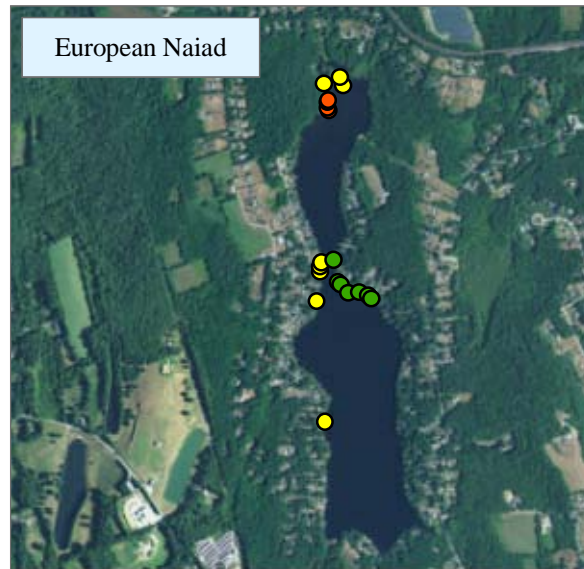
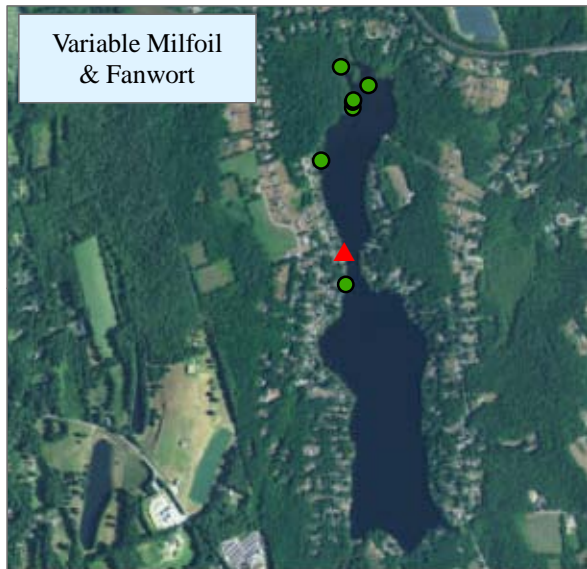
Please note that European naiad is considered an invasive species and should be monitored and considered for treatment. This species tends to arise later in the season around late July.

A map depicting the late season aquatic vegetation distribution is attached.

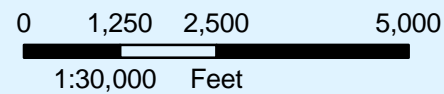
Ongoing Management Recommendations

Based on the success of the Sonar and Reward treatments performed in 2016, and their continued success into 2017, we recommend continuing the monitoring and treatment approach in 2018 and beyond. Pre-management surveys will continue to give us the most accurate area and acreage for treatment. In the past couple of years, fanwort growth has been sporadic and areas of growth have emerged at different times so we will continue to conduct surveys on the day of treatment to ensure that all growth is documented. If any additional treatment is required, we will advise and receive approval from the GEIA prior to proceeding.

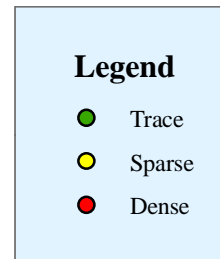
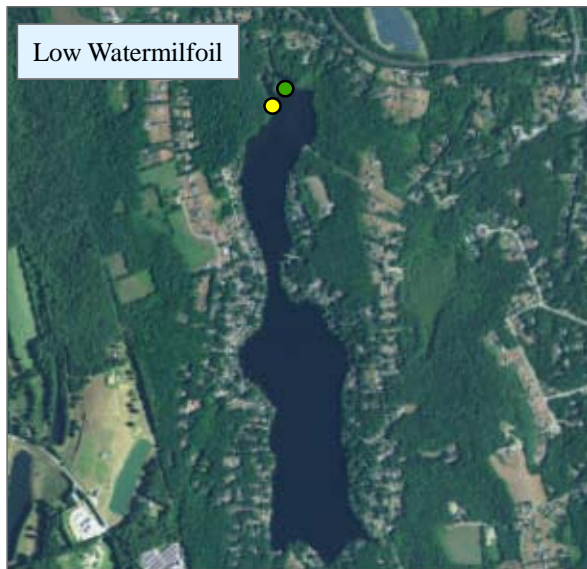
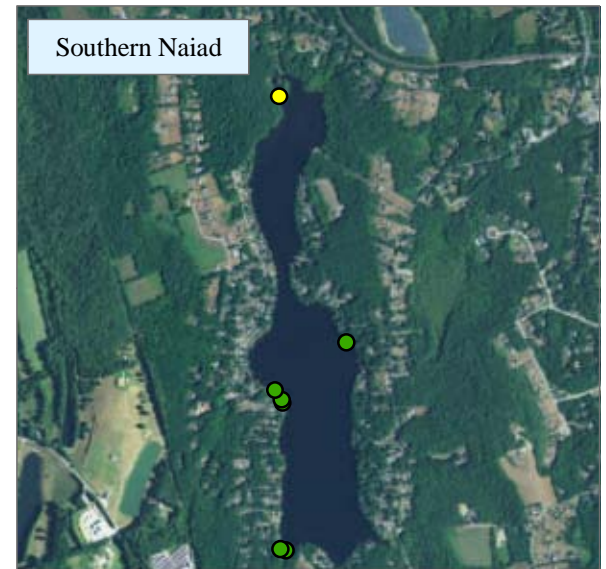
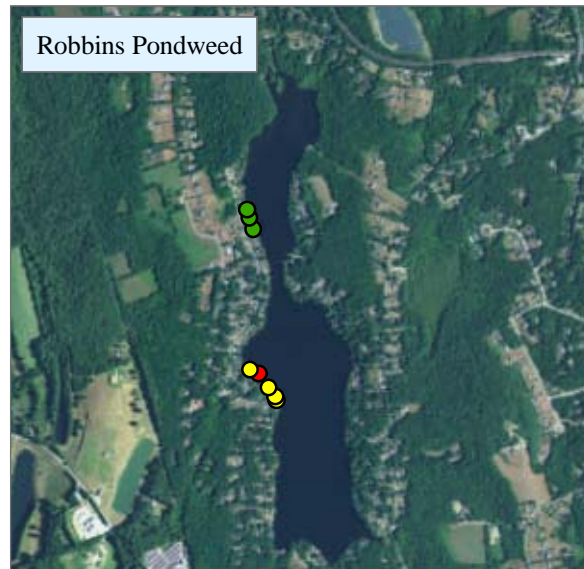
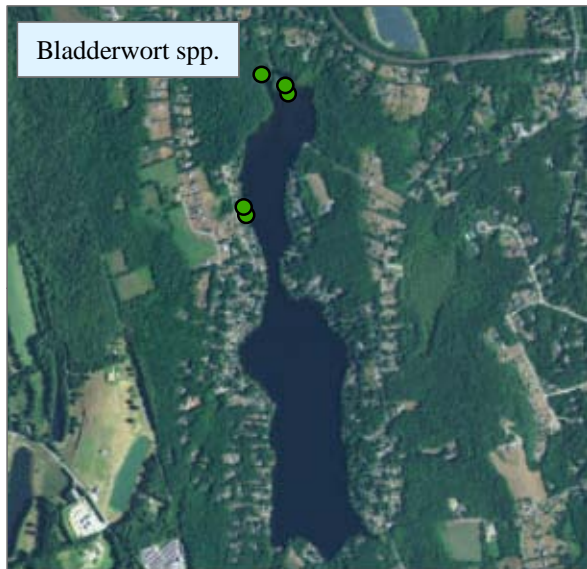
September 8, 2017 Distribution and Relative Abundance of Aquatic Vegetation Species



Glen Echo Lake
Charlton, MA



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