



**WATER & WETLAND**  
LAKE, POND & WETLAND MANAGEMENT

**BIOLOGIST:**  
Scott Conrade  
C: (607) 267-7103  
scott@waterandwetland.com

Call/Text with any questions!



## FIELD NOTES SUMMARY

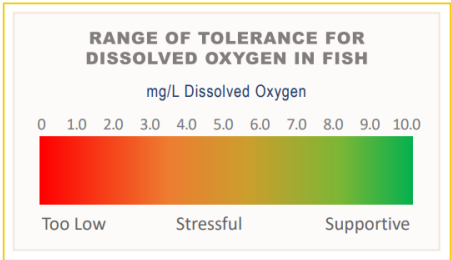
**Customer:** Town of Walpole  
**Pond Name:** Memorial Pond  
**Site Location:** Walpole, MA  
**Date:** 9/11/23

On 9/11/23, Aquatic Biologist, Scott Conrade, made a visit to Memorial Pond. The following services were completed during the visit:

Upon arrival to the site, a survey was conducted using visual observation paired with a standard throw-rake and handheld GPS/ArcGIS Field Maps, as applicable. Plants documented during the survey are documented in the table below. (\*) denotes an invasive species. Invasive species are non-native to the ecosystem and are likely to cause economic harm, environmental harm, or harm to human health.

Species Identified	
Common Name	Latin Name
Water Chestnut*	<i>Trapa natans</i>
White Waterlilies	<i>Nymphaea odorata</i>
Yellow Waterlilies	<i>Nuphar variegata</i>
Fanwort*	<i>Cabomba caroliniana</i>
Duckweed	<i>Lemna</i>
Pickerelweed	<i>Pontederia cordata</i>
Benthic Algae	
Yellow Waterlilies	<i>Nuphar variegata</i>
Cattails	<i>Typha</i>
Thinleaf Pondweed	<i>Potamogeton pusillus</i>

While on-site, dissolved oxygen (DO) and temperature readings were collected using a calibrated YSI meter with optical sensor. Dissolved oxygen is the amount of oxygen in water that is available to aquatic organisms. DO is necessary to support fish spawning, growth, and activity. Tolerance varies by species, but the figure below provides a general range of fish tolerance (Source: epa.gov).



**Water & Wetland, LLC**  
 Upton, MA  
 (888) 4WETLAN(D)  
[www.waterandwetland.com](http://www.waterandwetland.com)

Dissolved oxygen can be affected by many outside factors, such as: temperature, time of day, and pollution. Dissolved oxygen levels are typically lowest early in the morning. Healthy water should generally have concentrations of about 6.5-8+ mg/L.

Results from the visit are included in the table below:

Temperature & Dissolved Oxygen	
Surface Temp (°C)	Surface DO (mg/L)
23.7	7.71

A Secchi disk is a disk with alternating black and white quadrants. It is lowered into the water of a lake until it can no longer be seen by the observer. This depth of disappearance, called the Secchi depth, is a measure of the transparency of the water.

Secchi Disk Clarity	
Secchi Disk Depth (Feet)	3ft 2in

*Additional Notes from the Biologist*
The purpose of today's visit was to survey Memorial Pond's conditions post-treatment. This will allow us to not only gauge the success of the 2023 program, but also to guide subsequent years' management. Overall, the Sonar treatment program worked extremely well this year, despite being started slightly later than we'd hope due to permit delays. Fanwort was still present but was greatly reduced and the majority of remaining fanwort (primarily documented on the inlet side of the pond) did not appear healthy. Water chestnut was also greatly reduced through the provided treatments, which were not part of the scope but were completed in an effort to greatly improve conditions this year. Any remaining water chestnut was near the inlet side of the pond, with a few individual plants near the outlet area. Overall, the program worked well; however, continued management will be necessary to further improve and maintain conditions.

As always, we will notify you prior to any upcoming visits, as applicable. Please feel free to reach out to us directly with any questions.

Photo 1



Photo 2



Photo 3



Photo 4



Photo 5

