

FIELD NOTES SUMMARY

Customer: Town of Walpole

Pond Name: Turner Pond

Site Location: Walpole, MA

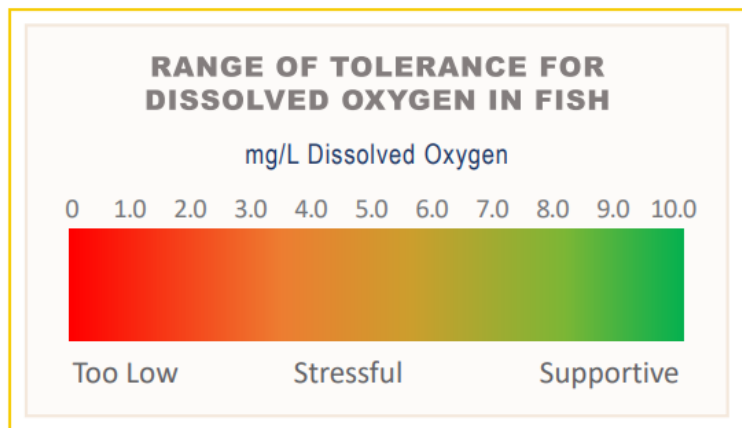
Date: 6/7/23

On 6/7/23, Senior Environmental Scientist, James Lacasse, and Aquatic Field Assistant, Grace Adams, made a visit to Turner 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
Fanwort*	<i>Cabomba caroliniana</i>
Variable Milfoil*	<i>Myriophyllum heterophyllum</i>
Waterlilies	<i>Nymphaeaceae</i>
American Feather Foil	<i>Hottonia inflata</i>
Snailseed Pondweed	<i>Potamogeton bicupulatus</i>
Thin-leaf Pondweed	<i>Potamogeton pusilis</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).



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)
17.4	6.72

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

A treatment was conducted for the control of target nuisance/invasive plant growth. The liquid contact herbicide(s) was applied using a treatment boat equipped with a calibrated sub-surface injection system. This application methodology allows for even coverage within the treatment areas. The treatment was completed without issue. We anticipate plant die-off within just a few days to a few weeks.

Additional Notes from the Biologist
<p>Along the entire shoreline, variable milfoil was observed in dense densities and flowering at the surface. Fanwort was much more scattered but documented in dense densities. Snailseed pondweed and thin leaf pondweed, both native species, were noted in trace densities. Waterlilies were documented in varying densities. American featherfoil was scattered around the shoreline; this plant is much more common this year. We attribute it to last year's drought. A layer of pollen was observed on the surface of the water, and certain populations of the vegetation were covered in epiphytic algae, an indication that the plant is dead or decaying. Prior to treatment, signs were posted noting the treatment.</p> <p>pH was sampled using calibrated meters. The pH was 7.8 which is within a standard range for freshwaters.</p>

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

