WATER & WETLAND
LAKE, POND & WETLAND MANAGEMENT

BIOLOGIST:
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Call/Text with any questions!

FIELD NOTES SUMMARY

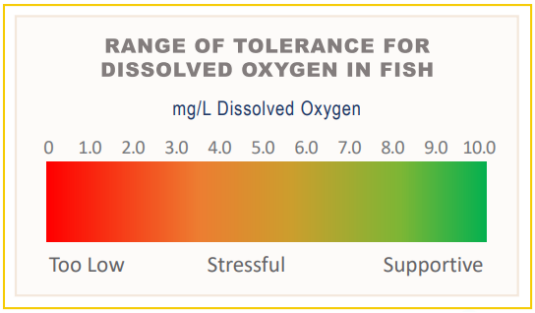
Customer: Town of Walpole
Pond Name: Turner Pond
Site Location: Walpole, MA
Date: 9/11/23

On 9/11/23, Aquatic Biologist, Scott Conrade, 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
Variable Milfoil*	*Myriophyllum heterophyllum*
Fanwort*	*Cabomba caroliniana*
Microscopic Algae	
Yellow Waterlilies	*Nuphar variegata*
White Waterlilies	*Nymphaea ordorata*
Purple Loosestrife*	*Lythrum salicaria*
Cattails	*Typha*

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)
23.7	7.53

Secchi Disk Clarity	
Secchi Disk Depth (Feet)	1ft 8in

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.

Additional Notes from the Biologist
The purpose of today's visit was to assess the efficacy of the 2023 treatment at Turner Pond in addition to guiding subsequent years' management. Conditions were 74 degrees with overcast. Milfoil and fanwort were documented during the survey but were noted as greatly reduced within the treatment/management areas and somewhat reduced outside the direct treatment/management areas. The densest areas were by the inlet. Overall, open-water was greatly improved through the treatment. There was a slight algae bloom occurring during the survey, which is somewhat visible within the photos and the Secchi disk reading was slightly less than what we'd anticipate to see at Turner Pond this time of year. It is worth considering expanding the treatment areas in the future and/or considering the use of Sonar (fluridone).

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.

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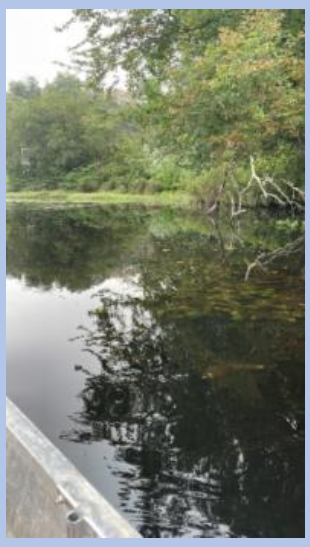
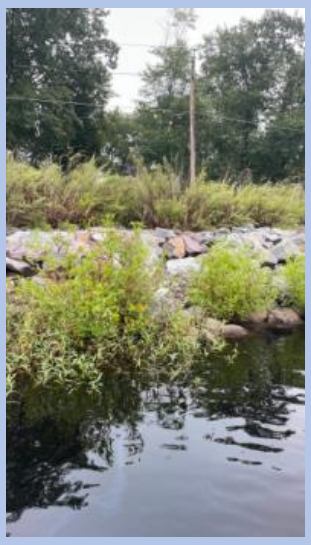
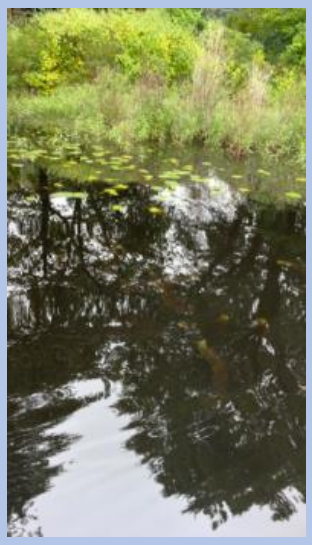
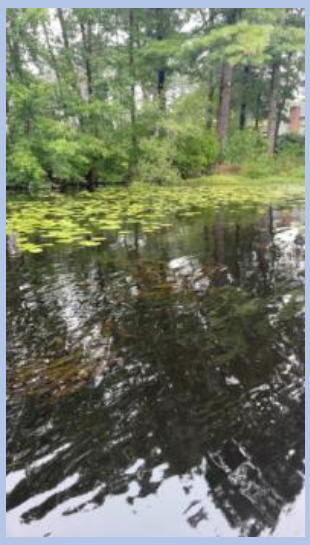
Photo 1	Photo 2	Photo 3
		
Photo 4	**Photo 5**	**Photo 6**
		

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