

 <p><b>WATER &amp; WETLAND</b> LAKE, POND &amp; WETLAND MANAGEMENT</p>	<p><b>BIOLOGIST:</b> Scott Conrade C: (607) 267-7103 scott@waterandwetland.com</p> <p>Call/Text with any questions!</p>	
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## FIELD NOTES SUMMARY

**Customer:** Town of Winchester – Recreation Department

**Pond Name:** Wedge Pond

**Site Location:** Winchester, MA

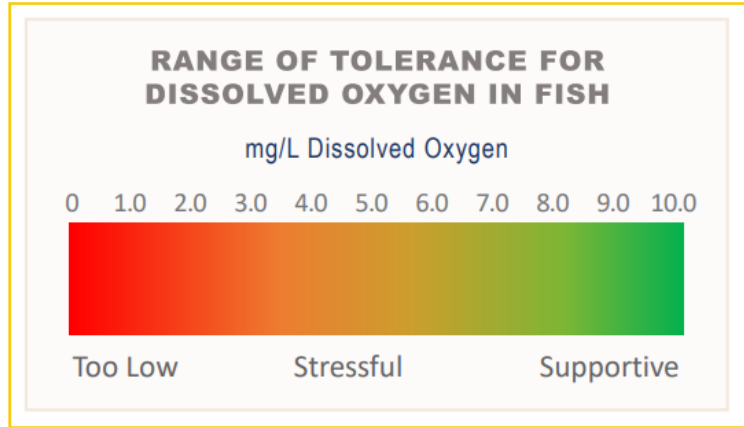
**Date:** 9/14/23

On 9/14/23, Aquatic Biologist, Scott Conrade, made a visit to Wedge 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
Coontail	<i>Ceratophyllum demersum</i>
Curly-leaf Pondweed*	<i>Potamogeton crispus</i>
White Waterlilies	<i>Nymphaea odorata</i>
Pickerelweed	<i>Pontederia cordata</i>
Purple Loosestrife*	<i>Lythrum salicaria</i>
Benthic Algae	
Microscopic Algae	
Thinleaf Pondweed	<i>Potamogeton pusillus</i>
Duckweed	<i>Lemna</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)
23.6	11.10

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 7in	

*Additional Notes from the Biologist*
The purpose of the survey performed at Wedge Pond is to assist in guiding future management, both within the remainder of the 2023 season and beyond. Weather during the survey was sunny, 70 degrees, and perfect for a survey. The Secchi disk reading was in a similar range to what we've expect to see at Wedge Pond and nearly identical to the previous visit. Dissolved oxygen was excellent. Initially, the pond looked extremely clear. On the far end of the pond, a microscopic algae bloom was present. At the very least, this should continue to be monitored. If elected, this may warrant another treatment. It is however very late in the season and the bloom which was confined to only this portion of the pond may subside as the water temperatures cool. Curly-leaf pondweed, an invasive species, was present during the survey. Management of this species should be considered in the future.

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



Photo 6

