



Biologist:
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 Call/Text With Any Questions!



FIELD NOTES SUMMARY

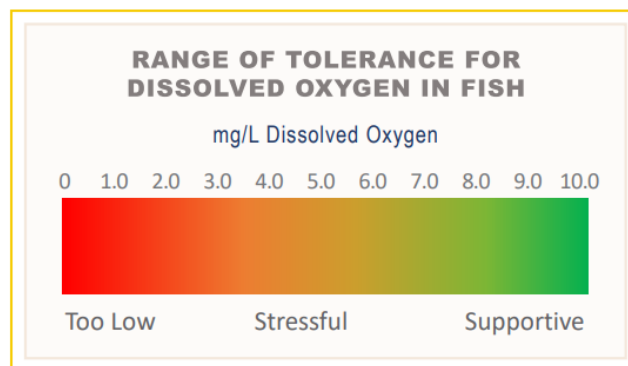
Customer: Town of Winchester - Rec Dept
Pond Name: Wedge Pond
Site Location: Winchester, MA
Date: 9/18/24

On 9/18/24, Aquatic Biologist, Grace Adams, 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
Waterlilies	<i>Nymphaeaceae</i>
Purple Loosestrife*	<i>Lythrum salicaria</i>
Common Waterweed/Elodea	<i>Elodea canadensis</i>
Coontail	<i>Ceratophyllum demersum</i>
Microscopic Algae	
Arrowhead	<i>Sagittaria latifolia</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.



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Results from the visit are included in the table below:

Temperature & Dissolved Oxygen	
Surface Temp (°C)	Surface DO (mg/L)
23.4	9.54

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)	
	4'11"

Additional Notes from the Biologist
<p>Today's site visit consisted of conducting a survey and collecting basic water quality data. The past treatment for microscopic algae appeared to be effective, as there were improvements in water clarity and color. The two most prevalent native species were coontail and waterlilies, which were noted throughout the pond. The coontail appears to be dying off, indicated by the coating of epiphytic algae and brown color. The only invasive noted was a terrestrial species, purple loosestrife. In addition, several rake tosses revealed elodea (Photo 1), a beneficial native species. Curly-leaf pondweed, an invasive species known to frequent Wedge Pond, was not documented during the survey. Overall, we do not recommend any further treatment at this time.</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



Photo 5



Photo 6

