

 WATER & WETLAND LAKE, POND & WETLAND MANAGEMENT	ENVIRONMENTAL SCIENTIST: JAMES LACASSE JAMES@WATERANDWETLAND.COM C: (774) 276-6098 CALL/TEXT WITH ANY QUESTIONS!	
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FIELD NOTES SUMMARY

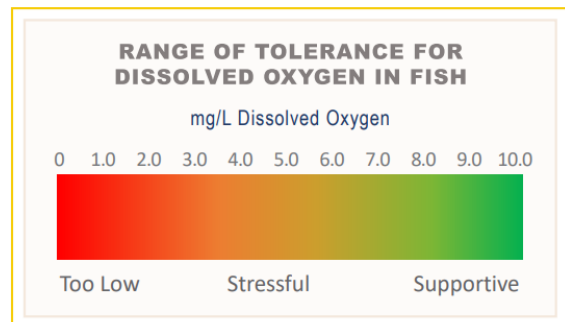
Customer: Town of Winchester - Rec Dept
Pond Name: Wedge Pond
Site Location: Winchester, MA
Date: 5/14/24

On 5/14/24, Senior Environmental Scientist, James Lacasse, 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>
Water Starwort	<i>Callitriche</i>
Common Waterweed/Elodea	<i>Elodea canadensis</i>
Thinleaf Pondweed	<i>Potamogeton pusillus</i>
Curly-leaf Pondweed*	<i>Potamogeton crispus</i>
Waterlilies	<i>Nymphaeaceae</i>
Filamentous Algae	

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)
18.4	13.88

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)	4'9"

Additional Notes from the Biologist
<p>The survey date had moved a few times due to a carnival in the parking lot for Wedge Pond. Ultimately, we were in Winchester today and decided to assess access with a kayak since the potential visit was to conduct a survey only. After kayak assessing the access from Elliot Park, we spoke with Mitch from the Recreation Department who OK'd today's survey.</p> <p>Conditions during the survey were sunny with a slight breeze. Several native species were documented throughout the pond, varying from sparse to moderate densities. Most of the natives (with the exception of waterlilies) were observed in the bottom third of the water column. Curly-leaf pondweed was the only invasive plant documented during the survey, which was found in a handful of areas in sparse to moderate densities. In most cases it was noted growing throughout the water column and occasionally surfacing. Filamentous algae was primarily found along the bottom of the pond and throughout portions of the water column. It was difficult to visually distinguish if there was a slight microscopic bloom or if it was pollen, this will continue to be monitored throughout the season. Several species of birds were documented during the survey including seagulls, geese, swans, and a variety of duck species.</p> <p>A planned EarthTec, copper-based algaecide, treatment will be scheduled in June to proactively control algae growth which has plagued Wedge Pond. We recently spoke with William Band from Winchester Conservation Commission about a potential increase in the level of management of Wedge Pond. Initial recommendations include continuation of the EarthTec algaecide program, adding water quality sampling, management of invasive curly-leaf pondweed, monitoring of native species that have the ability to reach nuisance densities (coontail, elodea, waterlilies) and managing accordingly.</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

