



FIELD NOTES SUMMARY

Customer: Town of Mendon

Pond Name: Lake Nipmuc

Site Location: Mendon, MA

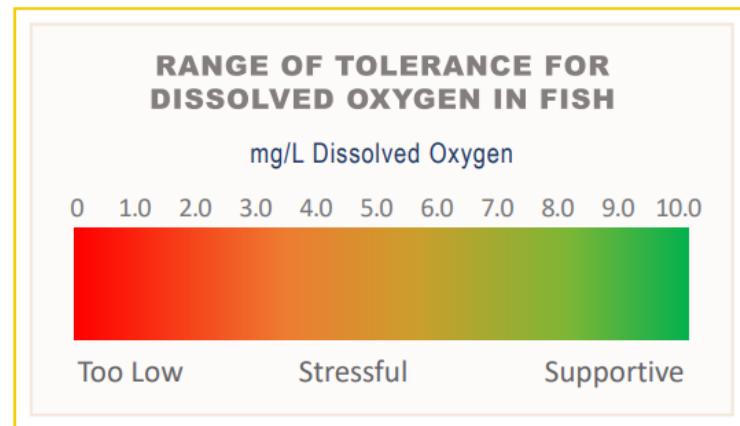
Date: 8/7/25

On 8/7/25, Field Biologist, Irini Stefanakos, and Aquatic Field Biologist, Jake McNary, made a visit to Lake Nipmuc. 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* | <i>Myriophyllum heterophyllum</i> |
| Tape Grass | <i>Vallisneria americana</i> |
| Bushy Pondweed | <i>Najas flexilis</i> |
| Ribbon-leaf Pondweed | <i>Potamogeton epihydrus</i> |
| Water Chestnut* | <i>Trapa natans</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) |
| 27.3 | 9.35 |

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) | |
| | 7'4" |

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.

Prior to the treatment(s), the shoreline was posted with neon pink signs noting the treatment, affiliated water use restrictions, and Water & Wetland contact information. The signs fulfill permit obligations for shoreline posting.

Additional Notes from the Biologist

The purpose of this visit to Lake Nipmuc was to complete an herbicide treatment for the curbing of any prevailing variable milfoil within the waterbody. A brief survey and the collection of basic water quality data were also carried out. The target areas for this treatment were the northern, northwestern, and southwestern coves where pondweed densities were at their highest. Overall, the treatment was conducted successfully, and excellent coverage was achieved via jon boat within the target areas listed above. Scarce densities of water chestnut were also found in the southwest cove which were promptly removed via hand pulling.

During our visit, water clarity was excellent and dissolved oxygen readings maintained healthy levels. Aside from the pondweeds, the site appeared to be in great condition. A follow-up visit will be scheduled to determine the effectiveness of the treatment and monitor the overall health of Lake Nipmuc, in addition to targeting purple loosestrife.

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

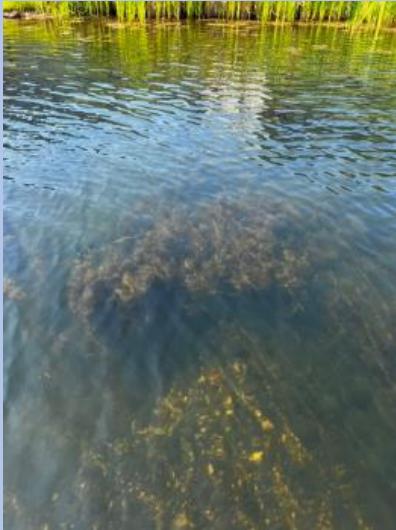


Photo 5

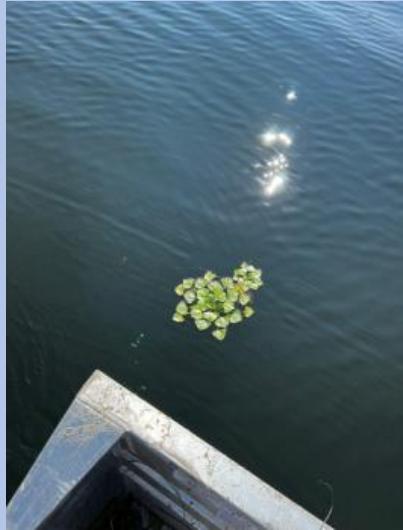


Photo 6

