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LAKE, POND & WETLAND MANAGEMENT

BIOLOGIST:
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Call/Email with any questions!

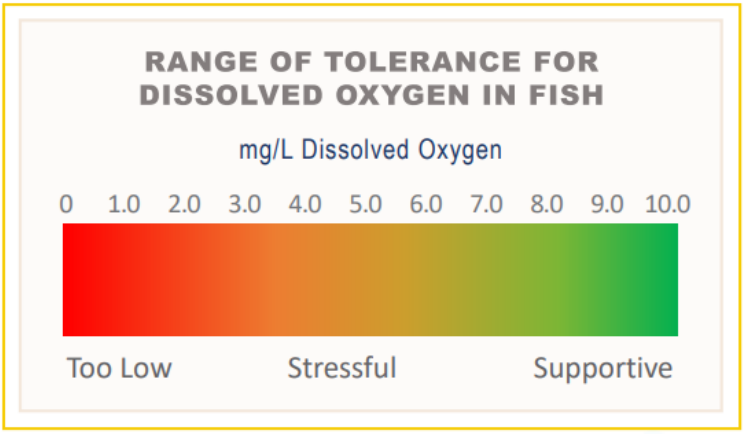
FIELD NOTES SUMMARY

Customer: Methuen Conservation Commission
Pond Name: Forest Lake
Site Location: Methuen, MA
Date: 8/7/25

On 8/7/25, Aquatic Field Biologist, Brian Sweeney, made a visit to Forest Lake. 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**
Clasping-leaf Pondweed	*Potamogeton perfoliatis*
Snailseed Pondweed	*Potamogeton bicupulatus*
Waterlilies	*Nymphaeaceae*



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)
27.0	8.01

Secchi Disk Clarity	
Secchi Disk Depth (Feet)	12 feet 2 inches

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
A survey was conducted at the time of this visit to Forest Lake, in addition to collecting basic water quality data. Upon arrival, the beach was closed until further notice due to high levels of E. coli present. Microscopic algae was visible, predominantly in the south and southwest coves of the pond. Water clarity was incredible per normal, with visibility to the bottom throughout much of the littoral zone. Clasping-leaf pondweed was found present in consistent locations as previous visits this year, as well as snailseed pondweed. Since our survey and map created at the beginning of June, plant growth has increased, with a majority of plants grown to approximately one to two feet under the surface of the pond. Snailseed growth is primarily concentrated in the area immediately surrounding both the beach and the boat launch, where it is mixed in with the clasping leaf. The area directly off of the boat launch hosted some of the densest growth, where snailseed has formed a handful of mats that reach the surface. Clasping-leaf growth is scattered around a majority of the pond, extending towards the middle in moderate densities. Dissolved oxygen readings at the time of today's visit were healthy, with sunny and partly breezy weather conditions.

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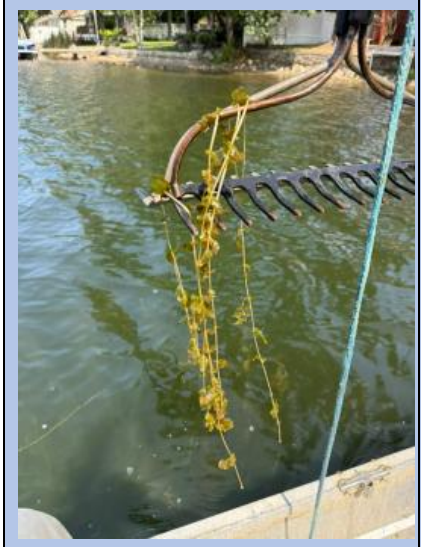
Photo 1	Photo 2	Photo 3
		
Photo 4	**Photo 5**	**Photo 6**
		

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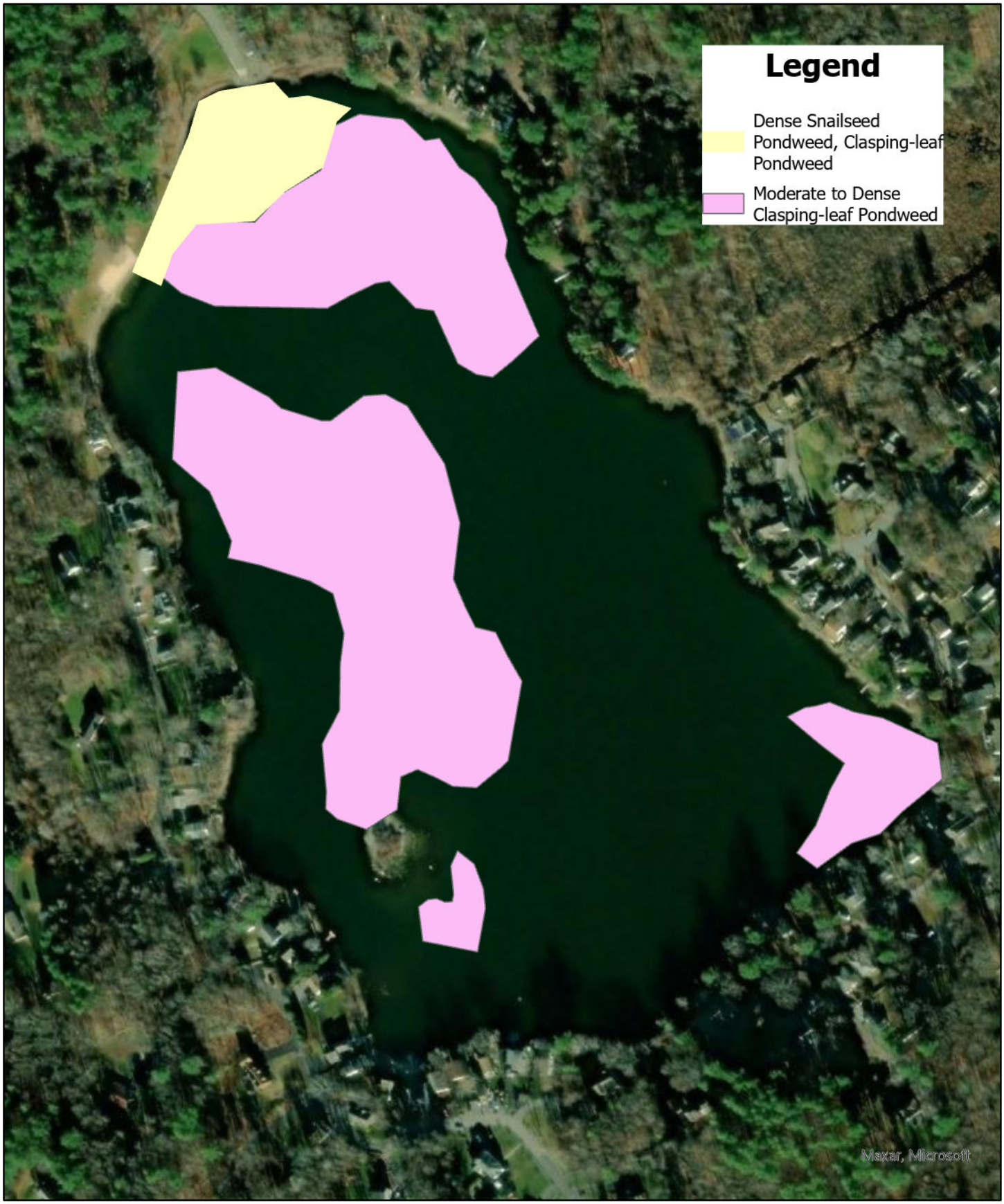

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Forest Lake
Dominant Vegetation Assemblage
Methuen, MA

Survey Date
8/7/2025
Map Date
8/8/2025

N