

 <p>WATER & WETLAND LAKE POND & WETLAND MANAGEMENT</p>	<p>BIOLOGIST: Brian O Leary (o): (888)493-8526 BrianO@waterandwetland.com</p> <p>Call/Email with any questions!</p>	
--	--	---

FIELD NOTES SUMMARY

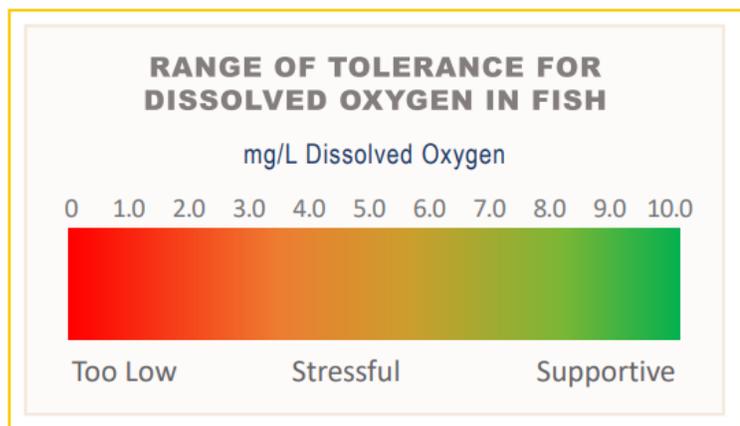
Customer: The City of Framingham
Pond Name: Learned Pond
Site Location: Framingham, MA
Date: 5/27/25

On 5/27/25, Aquatic Field Biologist, Brian O'Leary, and Field Biologist, Drew Felter, made a visit to Learned 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
Benthic Algae	
Cattails	<i>Typha sp.</i>
Waterlilies	<i>Nymphaeaceae</i>
Low-water milfoil	<i>Myriophyllum humile</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		
Depth (ft)	Surface Temp (°C)	Surface DO (mg/L)
Surface	21.2	9.05
1	21.1	9.08
2	19.88	9.25
3	18.61	9.35
4	18.00	9.29
5	17.72	9.39
6	17.5	9.32
7	17.38	9.29
8	17.22	9.24
9	17.05	9.21
10 (bottom)	17.00	9.18

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)	10 feet 9 inches

Water Quality Parameters
WQ Baseline Plus Bundle = Alkalinity, Chlorophyll A, Conductivity, Hardness, Nitrates & Nitrites, Nitrogen - Total (Kjeldahl), pH, Phosphorus - Free Reactive (Water), Phosphorus - Total (water), Turbidity
Microbial Bacteria (total coliforms & E. coli)

Additional samples were collected from the contracted locations. The samples were properly preserved, and shipped on-ice via FedEx Overnight, or transported directly to the most appropriate lab. The lab will analyze the samples for the contracted/required parameters which are listed in the table above. Results will be provided upon

receipt from the lab or in the year end-summary report, as applicable. Any concerning results will immediately be brought to the attention of the Client.

Additional Notes from the Biologist

The site visit consisted of collecting basic water quality data in addition to samples and completing a survey. The Learned Pond survey was conducted at 4:15 PM on Tuesday, May 27th, 2025. A few small groupings of cattails were present at the boat launch. Scarce, moderately sized patches of water lilies dotted the pond's perimeter. Benthic algae was observed in scattered densities within the littoral zone. Scattered, dense patches of low-water milfoil were observed at its characteristic depth when moving along the pond's western/southwestern perimeter. No overly significant nuisance vegetation was observed otherwise. The northern edge of the pond was especially sparse. No surface algal blooms were observed at the time of visit.

Water clarity was above average at the time of visit. Based on the survey data collected, we do not recommend treatment at this time.

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.

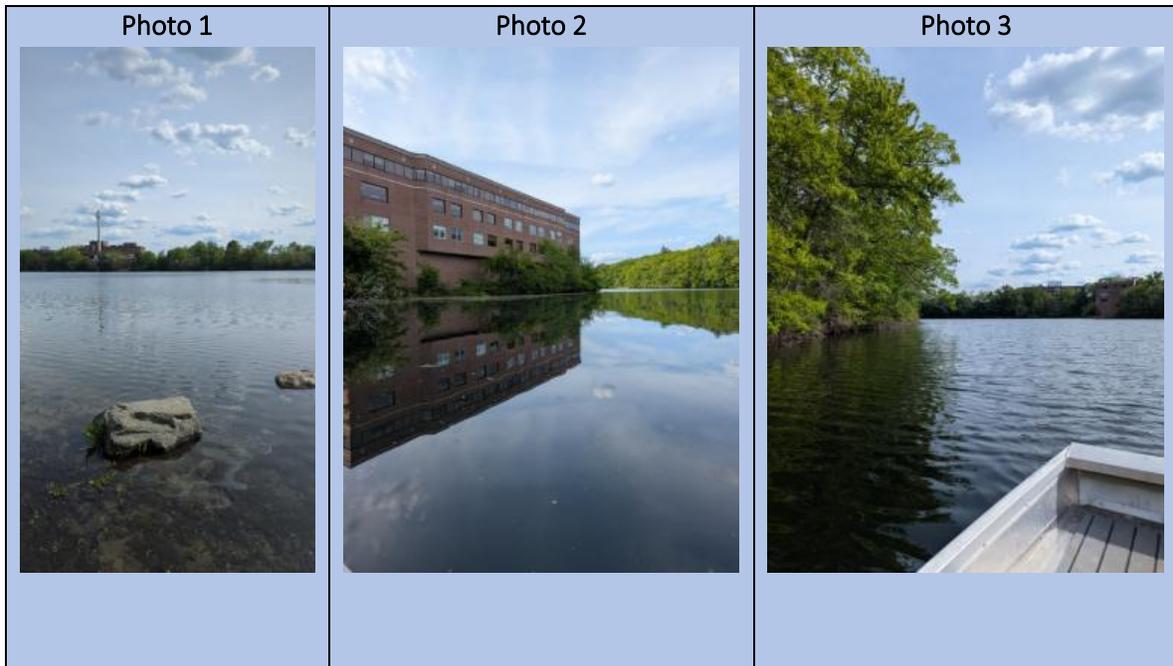


Photo 4

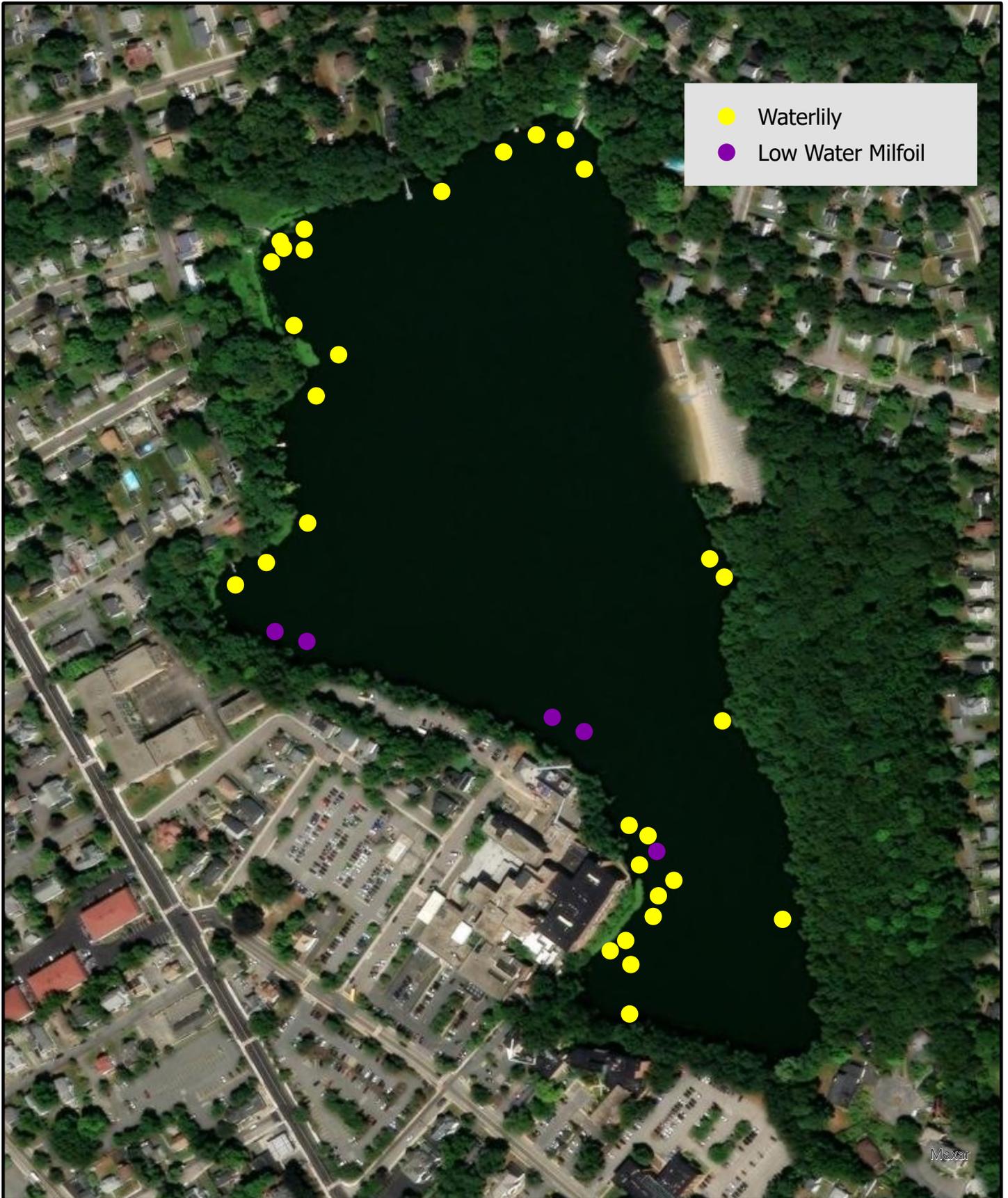


Photo 5



Photo 6





- Waterlily
- Low Water Milfoil

Learned Pond
Survey Map
Framingham, MA

Survey Date
5/27/2025
Map Date
6/3/2025



 <p>WATER & WETLAND LAKE POND & WETLAND MANAGEMENT</p>	<p>BIOLOGIST: Brian O Leary (o): (888)493-8526 BrianO@waterandwetland.com</p> <p>Call/Email with any questions!</p>	
--	--	---

FIELD NOTES SUMMARY

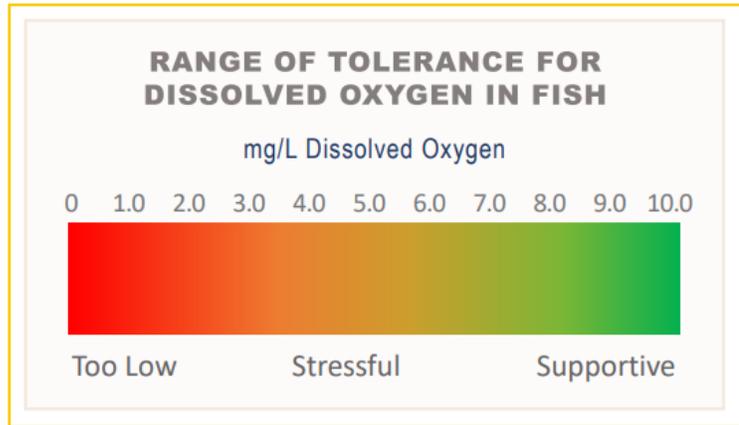
Customer: The City of Framingham
Pond Name: Big Farm Pond
Site Location: Framingham, MA
Date: 5/27/25

On 5/27/25, Aquatic Field Biologist, Brian O'Leary, and Field Biologist, Drew Felter, made a visit to Big Farm 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
Water Chestnut*	<i>Trapa natans</i>
Waterlilies	<i>Nymphaeaceae</i>
Eurasian Milfoil*	<i>Myriophyllum spicatum</i>
Clasping-leaf Pondweed	<i>Potamogeton perfoliatis</i>
Curly-leaf Pondweed*	<i>Potamogeton crispus</i>
Coontail	<i>Ceratophyllum demersum</i>
Robbin's Pondweed	<i>Potamogeton robbinsii</i>
Arrowhead	<i>Sagittaria latifolia</i>
Elodea	<i>Elodea canadensis</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		
Depth (ft)	Surface Temp (°C)	Surface DO (mg/L)
Surface	21.2	9.41
1	19.6	9.79
2	18.6	9.69
3	17.6	9.83
4	17.3	9.92
5	16.8	10.14
6	16.7	10.49
7	16.38	10.79
8	16.5	10.93

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)	5 feet 2 inches

Water Quality Parameters
WQ Baseline Plus Bundle = Alkalinity, Chlorophyll A, Conductivity, Hardness, Nitrates & Nitrites,

Nitrogen - Total (Kjeldahl), pH, Phosphorus - Free Reactive (Water), Phosphorus - Total (water), Turbidity	Additional samples were collected from the contracted locations. The samples were properly preserved, and shipped on-ice via FedEx Overnight, or transported directly to the most appropriate lab.
Microbial Bacteria (total coliforms & E. coli)	

The lab will analyze the samples for the contracted/required parameters which are listed in the table above. Results will be provided upon receipt from the lab or in the year end-summary report, as applicable. Any concerning results will immediately be brought to the attention of the Client.

Additional Notes from the Biologist

The site visit consisted of completing a survey and collecting basic water quality data in addition to water samples. The Big Farm Pond survey was conducted at 12:40 PM on Tuesday, May 27th, 2025.

Scattered patches of varying densities of several different species were mixed in with each other at a high density along the pond's littoral zone. The most dominant species included curly-leaf pondweed, Eurasian milfoil, Robbins pondweed, clasping-leaf pondweed, elodea, and water chestnut. In addition, curly-leaf and Eurasian milfoil were observed extending into the pond's mid-section. A few small pockets of coontail were also observed within these stands. Aquatic species density began to drop off moving southward, with Eurasian milfoil becoming extremely prominent towards the southeastern perimeter, along with a few small sections of curly-leaf pondweed. Young cattails were observed mixed in with water lilies along the western/southwestern perimeter. A few small patches of broadleaf arrowhead were observed towards the boat launch and the western bank.

No significant algal blooms were observed. Water clarity was average at the time of visit. Given the Natural Heritage Endangered Species Program restrictions, no management will occur in 2025. It is worth considering hand-pulling of water chestnut if NHESP allows. Water chestnut spreads rapidly and requires long-term management given the reproductive cycle of this plant. If managed before further spread, it will help long-term and allow for hand-pulling of this species to continue in lieu of treatment.

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

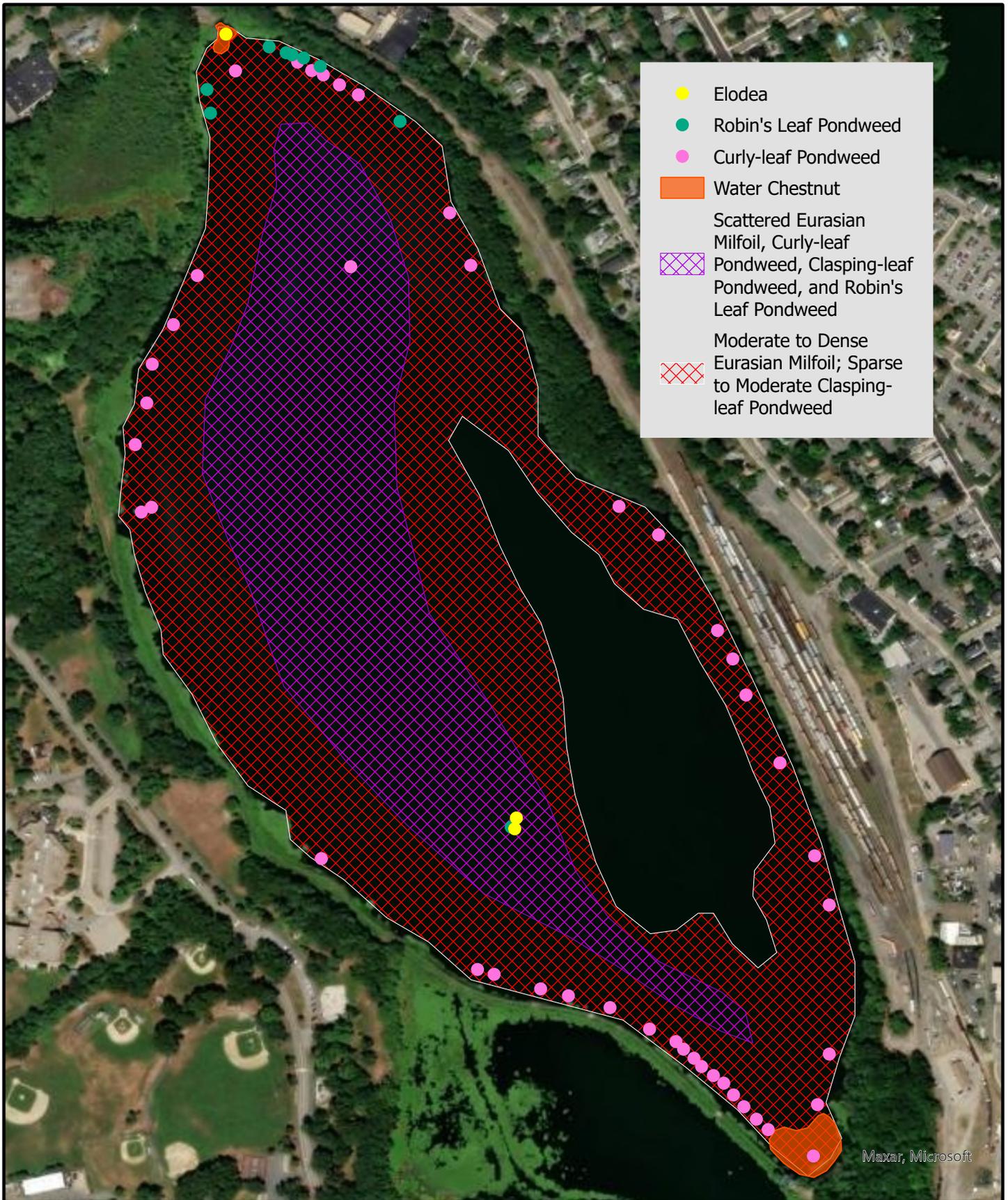


Photo 5



Photo 6





 <p>WATER & WETLAND LAKE POND & WETLAND MANAGEMENT</p>	<p>BIOLOGIST: Brian O Leary (o): (888)493-8526 BrianO@waterandwetland.com</p> <p>Call/Email with any questions!</p>	
--	--	---

FIELD NOTES SUMMARY

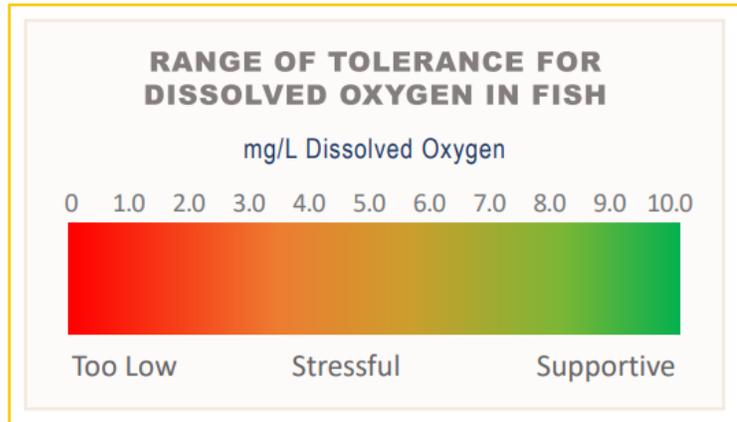
Customer: The City of Framingham
Pond Name: Little Farm Pond
Site Location: Framingham, MA
Date: 5/27/25

On 5/27/25, Aquatic Field Biologist, Brian O'Leary, and Field Biologist, Drew Felter, made a visit to Little Farm 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>
Robbin's Pondweed	<i>Potamogeton robbinsii</i>
Curly-leaf Pondweed*	<i>Potamogeton crispus</i>
Water Chestnut*	<i>Trapa natans</i>
Waterlilies	<i>Nymphaeaceae</i>
Benthic Algae	
Filamentous Algae	
Eurasian Milfoil*	<i>Myriophyllum spicatum</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		
Depth (ft)	Surface Temp (°C)	Surface DO (mg/L)
Surface	19.4	10.78
1	18.8	11.18
2	17.7	11.40
3	17.11	12.08
4	17.11	12.30
5	16.38	13.33

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)	6 feet 5 inches (to bottom)

Water Quality Parameters
WQ Baseline Plus Bundle = Alkalinity, Chlorophyll A, Conductivity, Hardness, Nitrates & Nitrites, Nitrogen - Total (Kjeldahl), pH, Phosphorus - Free Reactive (Water), Phosphorus - Total (water), Turbidity

Microbial Bacteria (total coliforms & E. coli)

Additional samples were collected from the contracted locations. The samples were properly preserved, and shipped on-ice via FedEx Overnight, or transported directly to the most appropriate lab. The lab will analyze the samples for the contracted/required parameters which are listed in the table above. Results will be provided upon receipt from the lab or in the year end-summary report, as applicable. Any concerning results will immediately be brought to the attention of the Client.

Additional Notes from the Biologist

The site visit consisted of conducting a survey in addition to collecting basic water quality data and water samples. The vegetation assemblage was fairly similar to that of previous years. Highly dense stands of Robbins pondweed and coontail dominated the pond's littoral zone with 60-70% coverage overall. Eurasian milfoil and curly-leaf pondweed were found in sparse, scattered densities along the pond's perimeter. Waterlilies dotted the perimeter of the pond with a large concentration on the southwestern edge. Only a few sparse, small patches of filamentous algae and water chestnut were observed throughout the whole pond.

Due to Natural Heritage Endangered Species Program restrictions, no management will occur in 2025. At a minimum, consideration should be given to seeking NHESP approval to allow for hand-pulling of the invasive water chestnut. If this approval is gained, this could likely be completed by volunteers.

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

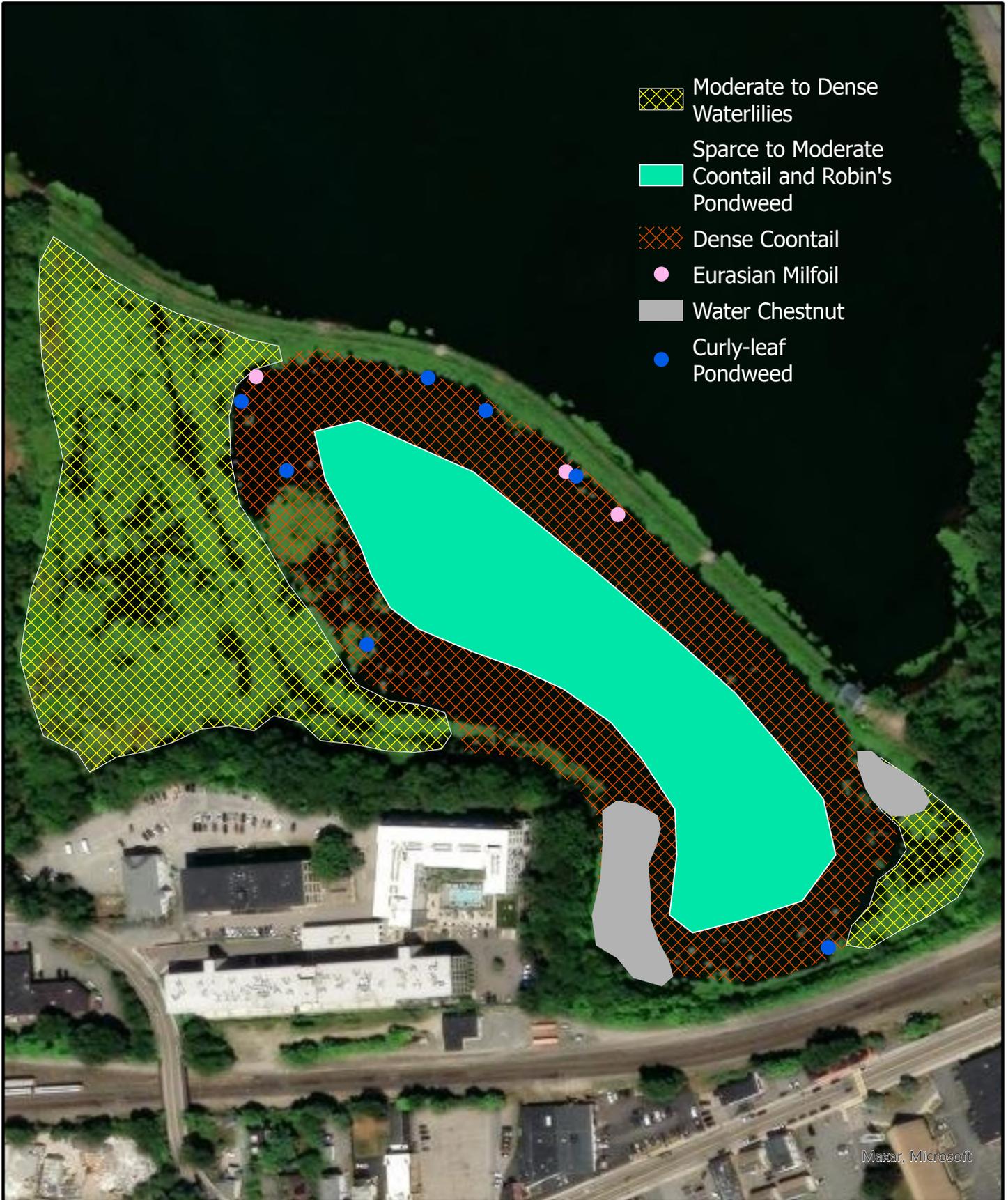


Photo 2



Photo 3





 <p>WATER & WETLAND LAKE POND & WETLAND MANAGEMENT</p>	<p>BIOLOGIST: Brian O Leary (o): (888)493-8526 BrianO@waterandwetland.com</p> <p>Call/Email with any questions!</p>	
--	--	---

FIELD NOTES SUMMARY

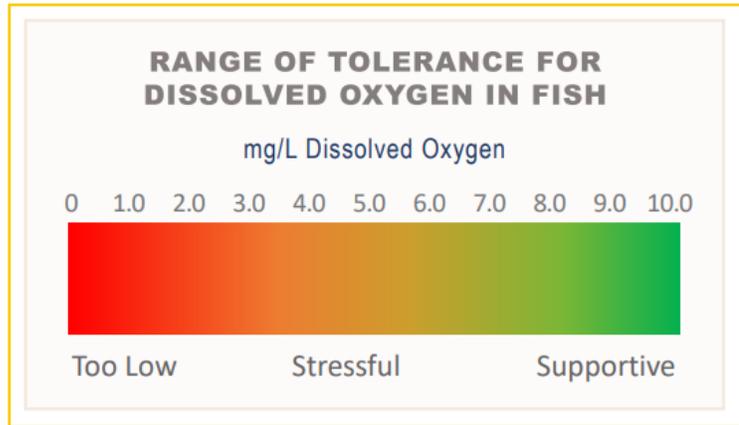
Customer: The City of Framingham
Pond Name: Sudbury River
Site Location: Framingham, MA
Date: 5/27/25

On 5/27/25, Aquatic Field Biologist, Brian O'Leary, and Field Biologist, Drew Felter, made a visit to the Sudbury River. 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
Fanwort*	<i>Cabomba caroliniana</i>
Cattails	<i>Typha sp.</i>
Waterlilies	<i>Nymphaeaceae</i>
Water Chestnut*	<i>Trapa natans</i>
Floating-leaf Pondweed	<i>Potamogeton natans</i>
Thin-leaf Pondweed	<i>Potamogeton pusillus</i>
Variable Milfoil*	<i>Myriophyllum heterophyllum</i>
Duckweed	<i>Lemna</i>
Smartweed	
Arrowhead	<i>Sagittaria latifolia</i>
Waterlilies	<i>Nymphaeaceae</i>
Common Waterweed/Elodea	<i>Elodea canadensis</i>
Eurasian Milfoil	<i>Myriophyllum spicatum</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		
Depth (ft)	Surface Temp (°C)	Surface DO (mg/L)
Surface	17.6	9.32
1	17.38	9.60
2	17.27	9.64
3	17.21	9.69

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 feet 4 inches

Water Quality Parameters
WQ Baseline Plus Bundle = Alkalinity, Chlorophyll A, Conductivity, Hardness, Nitrates & Nitrites, Nitrogen - Total (Kjeldahl), pH, Phosphorus - Free Reactive (Water), Phosphorus - Total (water), Turbidity
Microbial Bacteria (total coliforms & E. coli)

Additional samples were collected from the contracted locations. The samples were properly preserved, and shipped on-ice via FedEx Overnight, or transported directly to the most appropriate lab. The lab will analyze the samples for the contracted/required parameters which are listed in the table above. Results will be provided upon

receipt from the lab or in the year end-summary report, as applicable. Any concerning results will immediately be brought to the attention of the Client.

Additional Notes from the Biologist

The Sudbury River survey was conducted at 2:30 PM on Tuesday, May 27th, 2025. The littoral zone of the pond was dominated by large, dense patches of fanwort which spread throughout the littoral zone. Small, scarce patches of variable and Eurasian milfoil were mixed in with the fanwort stands. Water chestnut was primarily observed towards the pond's northeastern edges. Small, dense patches of arrowhead lined the northern perimeters of the pond accompanied by several stretches of duckweed. Sparse, but moderate-sized patches of smartweed and cattails were found at multiple shoreline locations. Large, dense patches of waterlilies were observed primarily on the pond's southern perimeter. Nuisance vegetation densities began to drop off moving southward, disappearing almost entirely just before the interstate bridge. A small patch of elodea was observed on the pond's southwestern edge.

No significant algal blooms were observed. Water clarity was average at the time of visit. We recommend the management of water chestnut to continue, through either treatment or hand-pulling. The methodology of management will be confirmed upon arrival for the following site visit, which will consist of a brief survey prior to management.

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

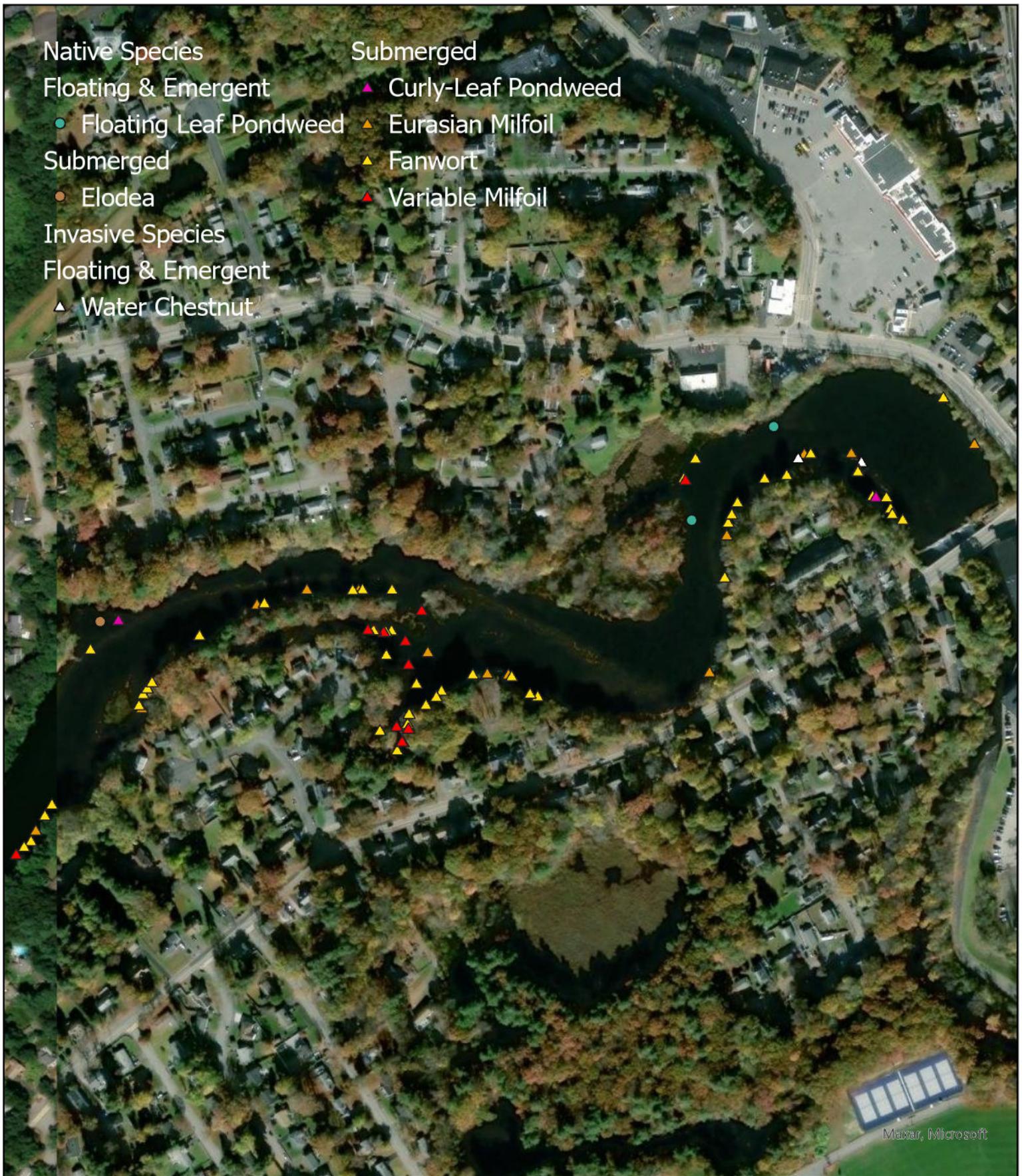


Photo 5

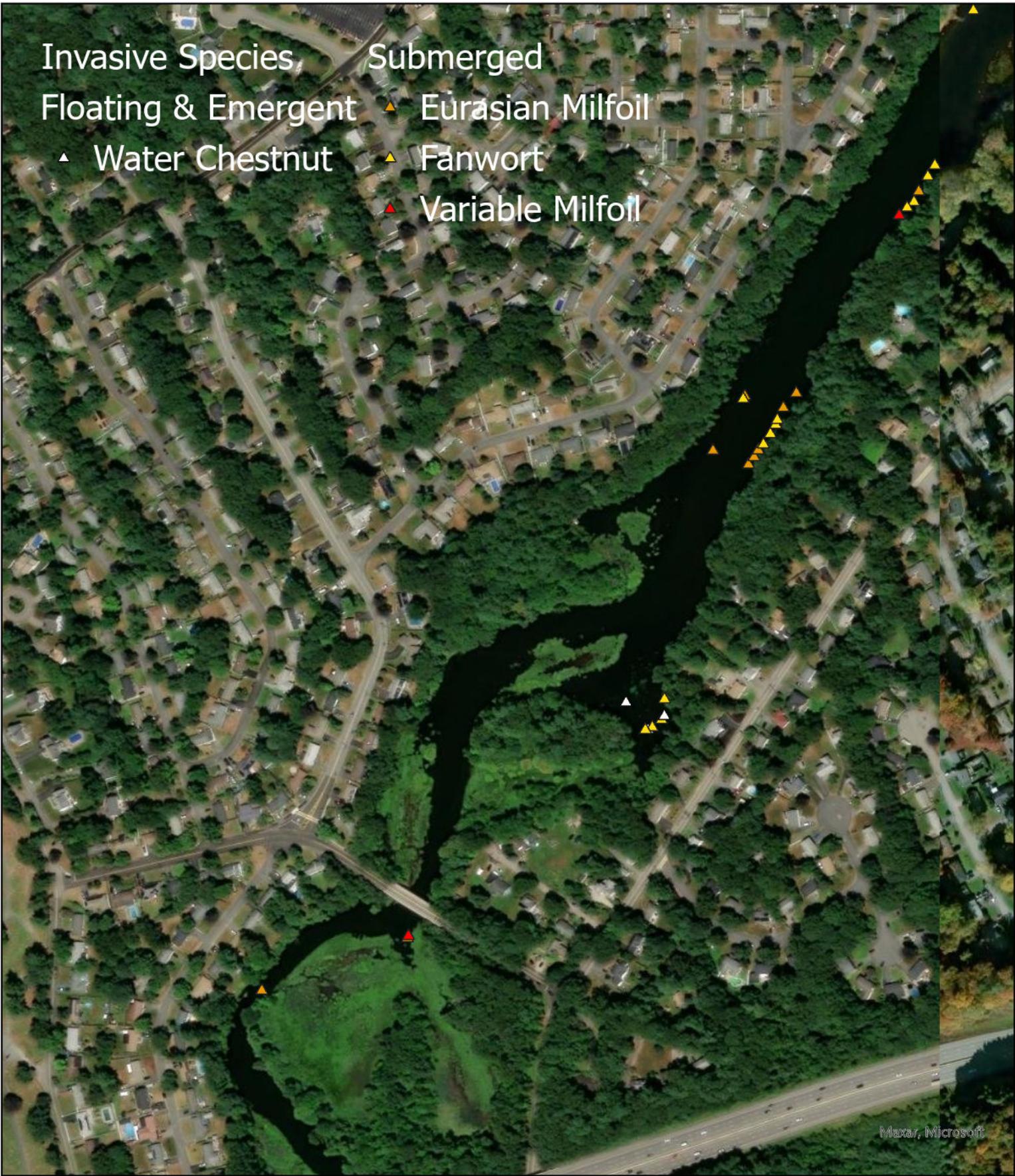


Photo 6





Maxar, Microsoft



Invasive Species,
Floating & Emergent
▲ Water Chestnut

Submerged
▲ Eurasian Milfoil
▲ Fanwort
▲ Variable Milfoil

Maxar, Microsoft



Sudbury River (Framingham)
Vegetation Assemblage
Framingham, MA

Survey Date:
05/27/2025





Maxar, Microsoft