WATER & WETLAND

LAKE, POND & WETLAND MANAGEMENT

June 24, 2025

Sudbury Conservation Commission
Attention: Ms. Lori Capone
275 Old Lancaster Road
Sudbury, MA 01776

Dear Ms. Capone and Conservation Commission Members,

Water & Wetland will be continuing the Hop Brook Ponds water chestnut control program during the 2025 season. This includes a continuation of the Clearcast (Imazamox) treatments, affiliated surveys, water quality analysis, and reporting at Carding Millpond, Stearns Millpond, and Grist Millpond. Water & Wetland is a small firm, with a large amount of water chestnut control experience. I will be the dedicated project manager and will be on-site for both of the water chestnut treatments.

We have completed the required pre-treatment monitoring and I've included our "field notes," from these surveys, as well as the affiliated maps. Information discussing the surveys, water quality analysis, and treatments will all be included within the year-end report submitted to the Commission by December 1st. Neon signs noting the treatment and any affiliated water-use restrictions will be posted around the shoreline of the ponds prior to treatments.

Special Condition number 2, within section 2 of the Order of Conditions reads that "Each year, prior to commencement of vegetation control, or other related site work other than monitoring, the applicant shall providence a plan to the Conservation Commission showing expected treatment areas. Based on up-to-date site conditions, the applicant shall also include a letter addressing potential impacts on non-target native vegetation, water quality, fish, invertebrate, and aquatic life that could result from that years' work." We are sending this information over to fulfill this condition. As part of the 2025 work, we do not anticipate negative impacts on non-target native vegetation, water quality, fish, invertebrate, and/or aquatic life. Instead, we anticipate an improvement in the overall ecosystem, as water chestnut limits biodiversity of native plant species, and dense water chestnut, like that observed within the Hop Brook Ponds, can limit oxygen exchange, thus lowering dissolved oxygen. By controlling the water chestnut in the three ponds, we anticipate increased open-water habitat for fish and wildlife, improved oxygen transfer, and additional sunlight to allow for native plants to recolonize. The foliar spray will follow all best management practices, including pairing the herbicide with the

UPTON, MA
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approved surfactant, which acts as a sticking agent and helps the herbicide penetrate the target water chestnut plants. Additionally, the treatment will be performed using low-volume application methodology and will be conducted on a day without rain or high winds. These best management practices help limit any overspray. The concentrations of herbicide actually going into the water are so low that they will not impact any beneficial native submerged species such as thin-leaf pondweed, ribbon-leaf pondweed, etc. Scattered duckweed or waterlilies mixed in with water chestnut may be minimally impacted for a short duration, however these species will rebound quickly. Duckweed, while native, also creates dense cover which limits biodiversity and oxygen exchange. All attempts will be made to limit any non-target impacts to native species at the surface of the ponds. This program is identical to that of past years and is consistent with the Notice of Intent narrative approved by the Conservation Commission.

We welcome any questions and look forward to working with the Sudbury Conservation Commission for many years to come, alongside Hop Brook Protection Association, to improve the health of these beautiful ponds, but controlling invasive water chestnut.

Sincerely,

Colin Gosselin
Director of Operations – New England
c: 508-259-3153
o: 888-4WETLAN(D)
colin@waterandwetland.com
www.waterandwetland.com

enclosures: Pre-Treatment Field Notes and Maps, Water Quality Results, Water & Wetland Staff Bios, 2025 MA DEP WM04 Permits

WATER & WETLAND
LAKE, POND & WETLAND MANAGEMENT

BIOLOGIST:
COLIN GOSSELIN
C: (508) 259-3153
COLIN@WATERANDWETLAND.COM

CALL/TEXT WITH ANY QUESTIONS!

FIELD NOTES SUMMARY

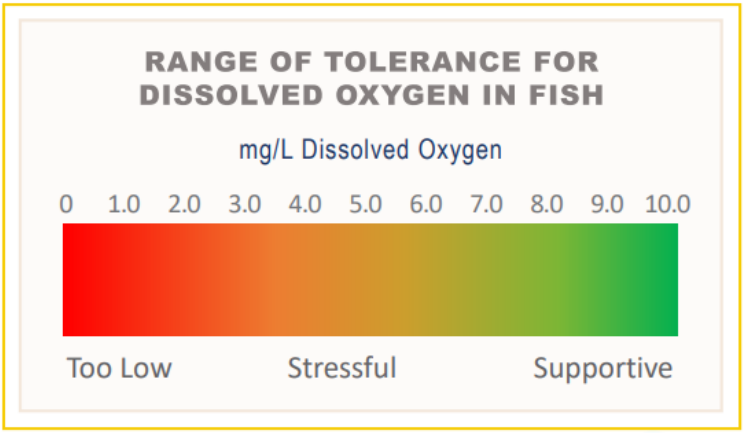
Customer: Hop Brook Protection Association
Pond Name: Hop Brook Ponds – Grist Millpond, Carding Millpond, Stearns Millpond,
Site Location: Sudbury, MA
Date: 6/10/25

On 6/10/25, Senior Aquatic Biologist, Colin Gosselin, made a visit to the Hop Brook Ponds. 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*	*Trapa natans*
Curly-Leaf Pondweed*	*Potamogeton crispus*
Common Waterweed/Elodea	*Elodea canadensis*
Duckweed	*Lemna*
Coontail	*Ceratophyllum demersum*

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			
Pond	Temp (°C)	DO (mg/L)	Depth (Ft)
Stearns Millpond	19.4	8.55	Surface
	19.4	8.35	1
	19.3	8.31	2
	19.2	8.34	3
	18.9	7.09	Bottom
Grist Millpond	19.2	8.70	Surface
	19.2	8.51	1
	18.9	8.30	2
	19.0	8.25	3
	18.8	8.01	Bottom
Carding Millpond	19.7	9.71	Surface
	19.7	9.69	1
	19.5	9.57	2
	19.4	9.10	3
	18.9	8.61	4
	18.8	7.04	Bottom

Water Quality Parameters
Algae & WQ Baseline Plus Bundle = Algae ID - Classification - Biomass, Alkalinity, Chlorophyll A, Conductivity, Hardness, Nitrates and 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. 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.

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Additional Notes from the Biologist
Visits were conducted at Stearns Millpond, Grist Millpond, and Carding Millpond which consisted of vegetation surveys and the collection of basic water quality data. See observations below: Stearns Millpond contained small patches of trace density water chestnut. Trace to sparse densities of invasive curly-leaf pondweed were also noted along the littoral zone. Additionally, scattered patches of coontail and duckweed were observed around the edges. Carding Millpond's vegetation assemblage comprised of trace density water chestnut plants within the shallow coves and by the dam. In addition, a few small water chestnut plants were observed below the surface, but no major mats had surfaced yet. Trace to sparse densities of invasive curly-leaf pondweed were also noted along a majority of the littoral zone. Water flow was heavy at the time of the survey. Grist Millpond contained scattered patches of trace density water chestnut plants near the outlet. The inlet area was clear of any water chestnut plants at the time of survey. However, trace to sparse density invasive curly-leaf pondweed was observed from the outlet to slightly past the millpond's first bottleneck. A few small clumps of waterweed and duckweed were also observed in trace densities near the dam area. The delay in plant growth within the millponds can be attributed to complications involving the later-than-average ice-out/elongated winter, in combination with the excessive rain events during the Spring, which resulted in subpar growing conditions. Based on the prevailing invasive assemblages noted during each survey, an initial treatment for water chestnut will be conducted within all three waterbodies in early to mid-July.

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.

Water & Wetland, LLC
Upton, MA
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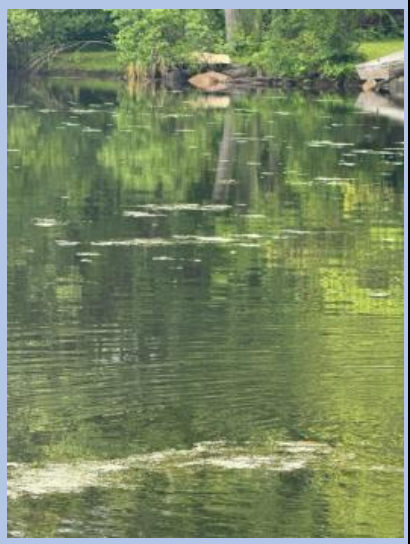
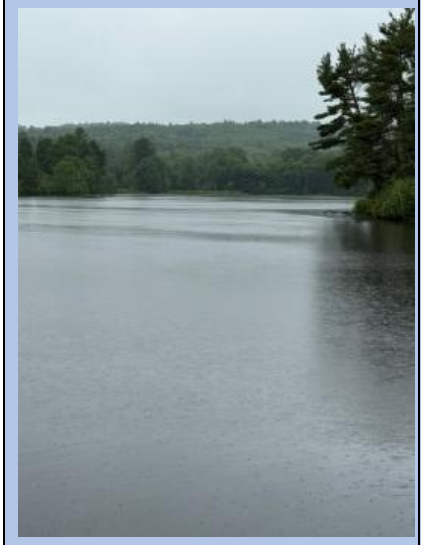
Photo 1	Photo 2	Photo 3
		
Photo 4	**Photo 5**	**Photo 6**
		

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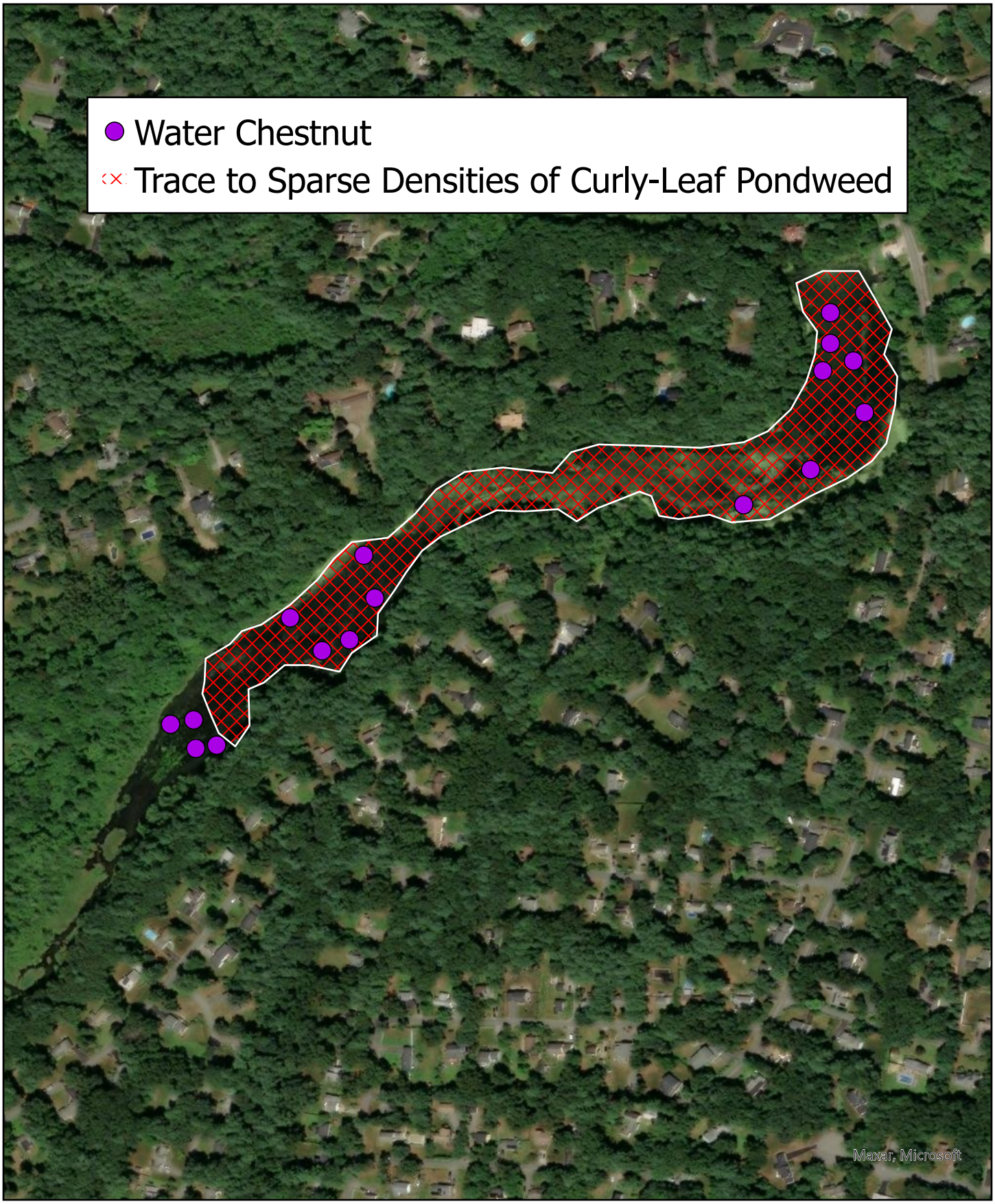

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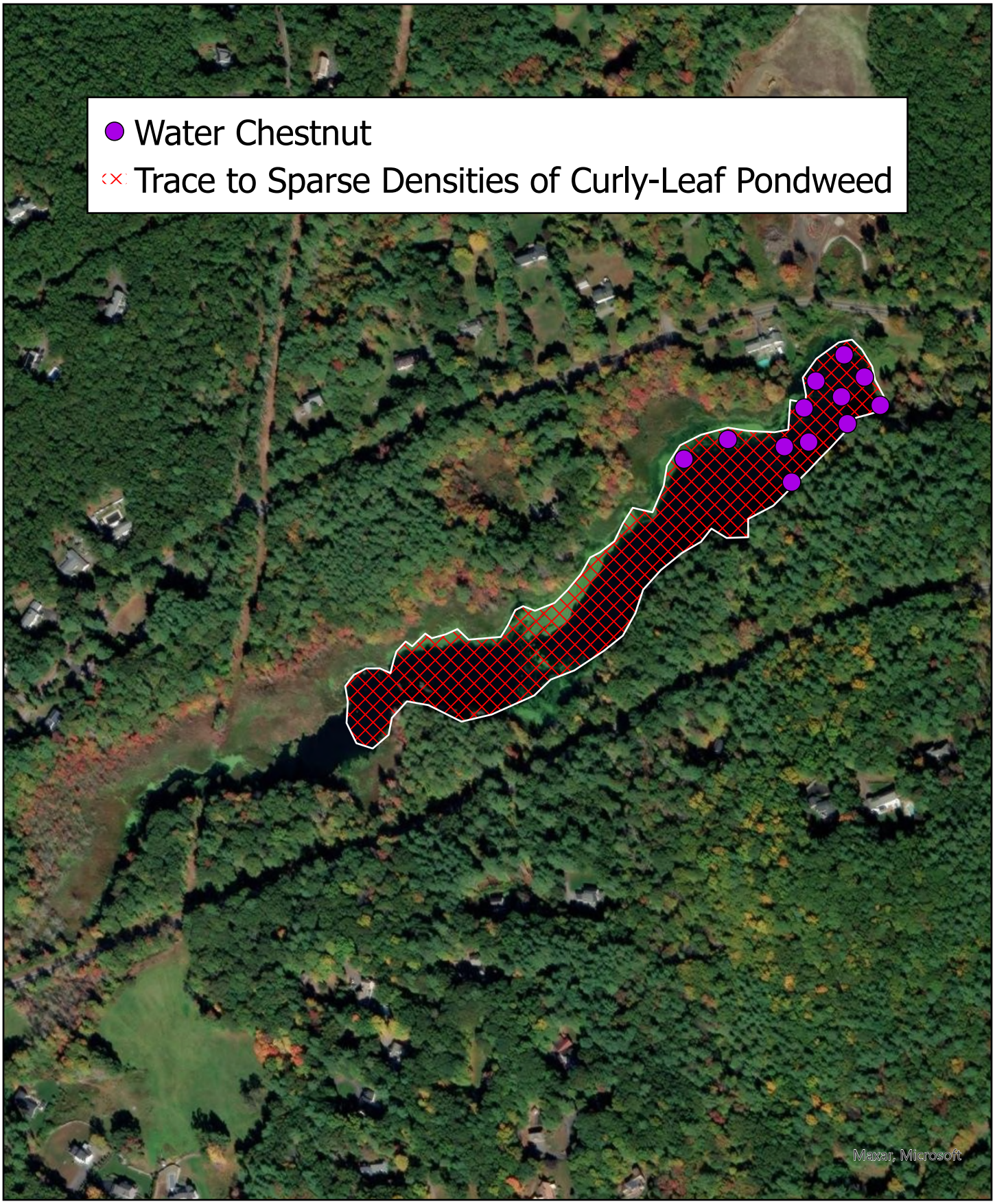
Stearns Mill
Invasive Plant Assemblage
Sudbury, MA

Survey Date
6/10/2025
Map Date
6/12/2025

N



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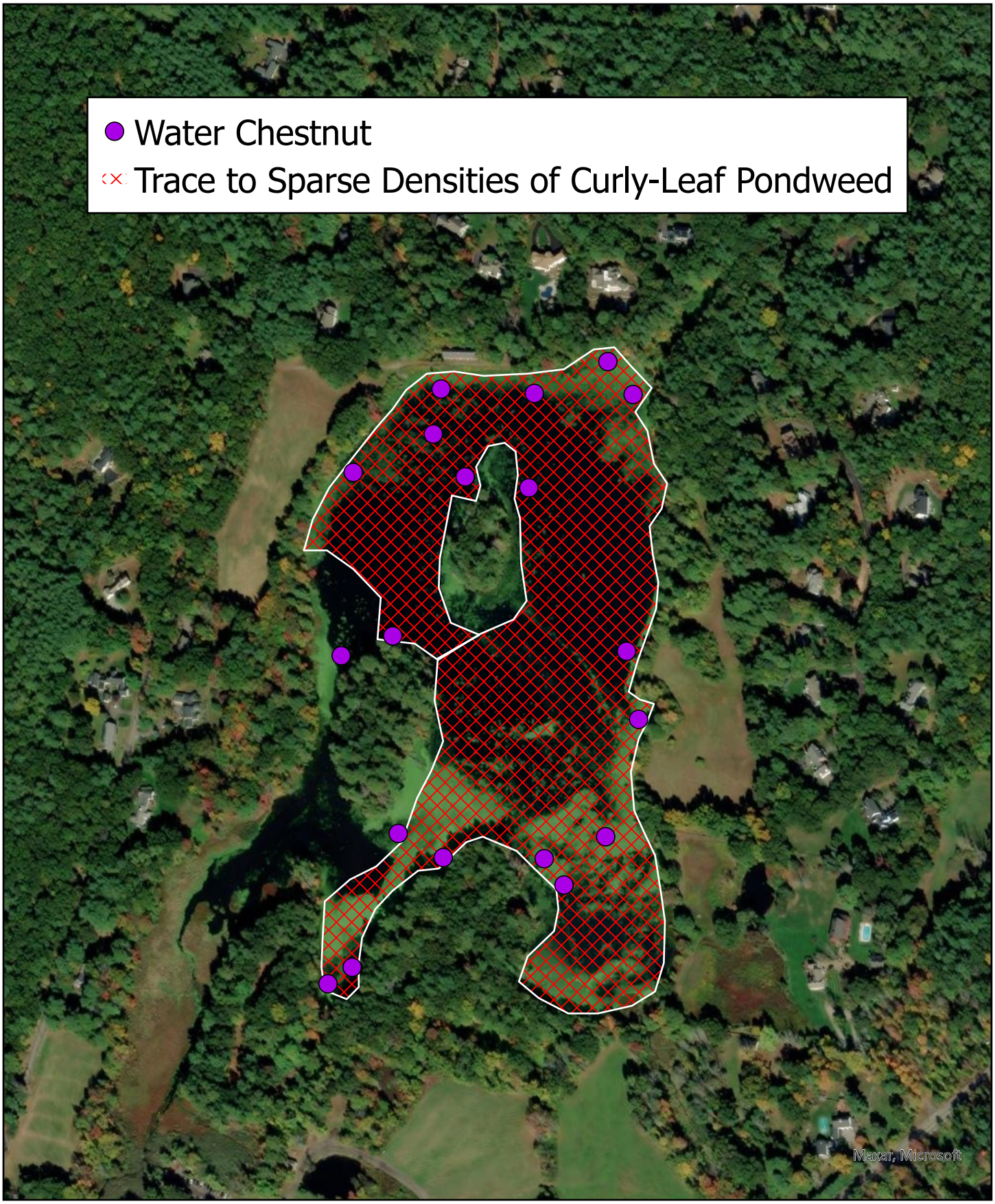
Grist Mill Pond
Invasive Plant Assemblage
Sudbury, MA

Survey Date
6/10/2025
Map Date
6/12/2025

N



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Carding Mill Pond
Invasive Plant Assemblage
Sudbury, MA

Survey Date
6/10/2025
Map Date
6/12/2025

N


Fast.
Accurate.
Reliable.
SePRO Lab
Water Diagnostics for Lakes & Ponds

SeSCRIPT Analysis Report: Hop Brooks Ponds

Company: Water and Wetland
Address: 134 Ferry St. South Grafton, MA. 01560
Contact Person: James Lacasse
Phone: (774)-276-6098
Email: james@waterandwetland.com

Project Name: Hop Brooks Ponds
Surface Area: NA
Average depth: NA
Date Algae Sample Received: 6/11/2024
SeSCRIPT Analysis Performed: Algae ID

Algae ID Results

Hop Brooks Ponds

Identification	Classification	Description	Density/Biomass (cells/mL)
Carding Millpond			
Woronichinia sp.	Cyanophyta-Blue-green algae	Colonial, planktonic, potential toxin producer	< 40
Lyngbya sp.	Cyanophyta-Blue-green algae	Filamentous, mat-forming, potential toxin and taste/odor producer	< 40

Other algae observed at densities less than 40 cells/mL: *Desmodesmus* (Chlorophyta); *Cryptomonas* (Cryptophyta)

Some particulate matter observed

Identification	Classification	Description	Density/Biomass (cells/mL)
Grist Millpond			
Cyclotella sp.	Bacillariophyta-Diatoms	Single-celled, planktonic	< 40
Desmodesmus sp.	Chlorophyta-Green algae	Colonial, planktonic	< 40
Amphora sp.	Bacillariophyta-Diatoms	Single-celled, planktonic	< 40

Some particulate matter observed

Algae ID Results

Hop Brooks Pond

Identification	Classification	Description	Density/Biomass (cells/mL)
Stearns Millpond			
Pediastrum sp.	Chlorophyta-Green algae	Colonial, planktonic	< 40
Snowella sp.	Cyanophyta-Blue-green algae	Colonial, planktonic, potential toxin producer	< 40

Other algae observed at densities less than 40 cells/mL: *Eunotia* (Bacillariophyta); *Desmodesmus* (Chlorophyta); *Cryptomonas* (Cryptophyta)

Some particulate matter observed

SePRO Lab
Water Diagnostics for Lakes & Ponds
SeSCRIPT*
16013 Watson Seed Farm Road, Whitakers, NC 27891

LABORATORY REPORT

Chain of Custody: eCOC17509

Customer Contact Information

Company Name: Water and Wetland	Contact Person: James Lacasse
Address: 134 Ferry St., South Grafton, MA 01560	E-mail Address: james@waterandwetland.com
	Phone: 888-493-8526

Waterbody Information

Waterbody:	Hop Brook Ponds - MA
Waterbody size:	
Depth Average:	

Sample ID	Sample Location	Test	Method	Results	Sampling Date / Time
CTM63973-1	Carding Mill Pond	Turbidity (NTU)	EPA 180.1	3.4	06/10/2025
		Free Reactive Phosphorus (µg/L)	EPA 365.3	9.7	
		Total Phosphorus (µg/L)	EPA 365.3	73.4	
		Alkalinity (mg/L as CaCO3)	EPA 310.2	59.9	
		Total Nitrate (mg/L) and Nitrite (mg/L)	Campbell et al 2004	2.24	
		Nitrite (mg/L)	Campbell et al 2004	0.08	
		Nitrate (mg/L)	calculated	2.16	
		Total Kjeldahl Nitrogen (mg/L)	EPA 351.2	1.19	
		E. coli (CFU/100mL)	EPA 9223B	3.0	
		Total Coliforms (CFU/100mL)	EPA 9223B	1732.9	
		Total Nitrogen (mg/L)	calculated	3.43	
		pH	EPA 150.1	7.5	
		Ammonia (µg/L)	SESC 12	317.1	
		True Color (CU)	EPA 2120C	114	
		Apparent Color (CU)	EPA 2120B	129	
CTM63974-1	Grist Millpond	Turbidity (NTU)	EPA 180.1	2.9	06/10/2025
		Free Reactive Phosphorus (µg/L)	EPA 365.3	7.7	
		Total Phosphorus (µg/L)	EPA 365.3	51.4	
		Alkalinity (mg/L as CaCO3)	EPA 310.2	59.2	
		Total Nitrate (mg/L) and Nitrite (mg/L)	Campbell et al 2004	5.11	
		Nitrite (mg/L)	Campbell et al 2004	0.07	
		Nitrate (mg/L)	calculated	5.04	
		Total Kjeldahl Nitrogen (mg/L)	EPA 351.2	1.01	
		E. coli (CFU/100mL)	EPA 9223B	152.3	
		Total Coliforms (CFU/100mL)	EPA 9223B	344.8	
		Total Nitrogen (mg/L)	calculated	6.12	
		pH	EPA 150.1	7.5	
		Ammonia (µg/L)	SESC 12	103.3	
		True Color (CU)	EPA 2120C	152	
		Apparent Color (CU)	EPA 2120B	201	

CTM63975-1	Stearns Millpond	Turbidity (NTU)	EPA 180.1	3.6	06/10/2025
		Free Reactive Phosphorus (µg/L)	EPA 365.3	26.0	
		Total Phosphorus (µg/L)	EPA 365.3	79.7	
		Alkalinity (mg/L as CaCO3)	EPA 310.2	46.7	
		Total Nitrate (mg/L) and Nitrite (mg/L)	Campbell et al 2004	1.07	
		Nitrite (mg/L)	Campbell et al 2004	0.05	
		Nitrate (mg/L)	calculated	1.02	
		Total Kjeldahl Nitrogen (mg/L)	EPA 351.2	0.95	
		E. coli (CFU/100mL)	EPA 9223B	36.8	
		Total Coliforms (CFU/100mL)	EPA 9223B	1413.6	
		Total Nitrogen (mg/L)	calculated	2.02	
		pH	EPA 150.1	7.3	
		Ammonia (µg/L)	SESC 12	321.9	
		True Color (CU)	EPA 2120C	159	
		Apparent Color (CU)	EPA 2120B	190	

ANALYSIS STATEMENTS:
SAMPLE RECEIPT /HOLDING TIMES: All samples arrived in an acceptable condition and were analyzed within prescribed holding times in accordance with the SRTC Laboratory Sample Receipt Policy unless otherwise noted in the report.
PRESERVATION: Samples requiring preservation were verified prior to sample analysis and any qualifiers will be noted in the report.
QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.
COMMENTS: No significant observations were made unless noted in the report.
MEASUREMENT UNCERTAINTY: Uncertainty of measurement has been determined and is available upon request.

Laboratory Information
Date / Time Received: 06/11/25 12:00 PM
Date Results Sent: Thursday, June 19, 2025

This entire report was reviewed and approved for release.

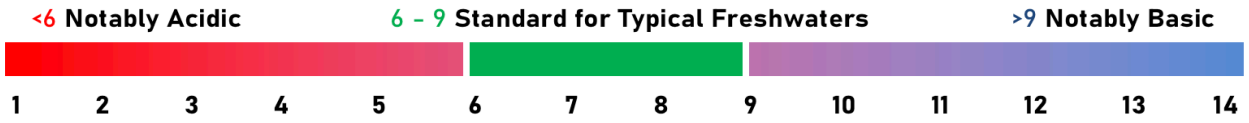
Reviewed By: Laboratory Manager

SePRO Lab
Water Diagnostics for Lakes & Ponds

Water Quality Analysis Explanation

These water quality parameters are essential to document the condition of a water body and design custom treatment prescriptions to achieve the desired management objective.

pH: Measure of how acidic or basic the water is (pH 7 is considered neutral).



Hardness: Measure of the concentration of divalent cations, primarily consisting of calcium and magnesium in typical freshwaters.
0-60 mg/L as CaCO3 soft; 61-120 mg/L as CaCO3 moderately hard; 121-180 mg/L as CaCO3 hard; > 181 mg/L as CaCO3 very hard

Alkalinity: Measure of the buffering capacity of water, primarily consisting of carbonate, bicarbonate, and hydroxide in typical freshwaters. Waters with lower levels are more susceptible to pH shifts.
< 50 mg/L as CaCO3 low buffered; 51-100 mg/L as CaCO3 moderately buffered; 101-200 mg/L as CaCO3 buffered; > 200 mg/L as CaCO3 high buffered

Conductivity: Measure of the waters ability to transfer an electrical current, increases with more dissolved ions.
< 50 µS/cm relatively low concentration may not provide sufficient dissolved ions for ecosystem health; 50-1500 µS/cm typical freshwaters; > 1500 µS/cm may be stressful to some freshwater organisms, though not uncommon in many areas

Phosphorus: Essential nutrient often correlating to growth of algae in freshwaters.

Total Phosphorus (TP): is the measure of all phosphorus in a sample as measured by persulfate strong digestion and includes: inorganic, oxidizable organic and polyphosphates. This includes what is readily available, potential to become available and stable forms. *<12 µg/L oligotrophic; 12-24 µg/L mesotrophic; 25-96 µg/L eutrophic; > 96 µg/L hypereutrophic*

Free Reactive Phosphorus (FRP): is the measure of inorganic dissolved reactive phosphorus (PO4-3, HPO4-2, etc). This form is readily available in the water column for algae growth.

Nitrogen: Essential nutrient that can enhance growth of algae.

Total N is all nitrogen in the sample (organic N+ and Ammonia) determined by the sum of the measurements for Total Kjeldahl Nitrogen (TKN) and ionic forms.

Nitrites and Nitrates are the sum of total oxidized nitrogen, often readily free for algae uptake.
< 1 mg/L typical freshwater; 1-10 mg/L potentially harmful; >10 mg/L possible toxicity, above many regulated guidelines

Chlorophyll a: primary light-harvesting pigment found in algae and a measure of the algal productivity and water quality in a system.
0-2.6µg/L oligotrophic; 2.7-20 µg/L mesotrophic; 21-56 µg/L eutrophic; > 56 µg/L hypereutrophic

Turbidity: Measurement of water clarity. Suspended particulates (algae, clay, silt, dead organic matter) are the common constituents impacting turbidity.
< 10 NTU drinking water standards and typical trout waters; 10-50 NTU moderate; > 50 NTU potential impact to aquatic life.

COLIN GOSSELIN

DIRECTOR OF OPERATIONS/ AQUATIC BIOLOGIST

PERSONAL PROFILE

Colin has been working in the aquatic / invasive species field since 2006. He is a licensed aquatics applicator in MA, RI, and CT. As Director of Operations for Water & Wetland, Colin oversees and is on site for all projects.

SCIENTIFIC FOCUS

- **Invasive Species ID**
- **Invasive Species Management Plans**
- **Water Quality Programs**
- **GIS/GPS Mapping**
- **Invasive Species Control**
- **Phragmites Management**
- **Fountains & Aeration Installation, Service and Design**

CONTACT INFORMATION

Mobile: (508) 259-3153
Office: (888) 493-8526
Email: Colin@waterandwetland.com
Office Address: 115 South St.
Upton, MA 01568

www.waterandwetland.com

WATER & WETLAND
LAKE, POND & WETLAND MANAGEMENT

CAREER SUMMARY

Director of Operations / Aquatic Biologist

WATER & WETLAND, LLC | JUNE 2020 - PRESENT

- Oversees and project manages all projects, including: aquatic & upland surveys, invasive species control treatments, water quality programs, permitting and more
- Maintains equipment such as: airboats, other treatment boats, pumping systems, backpack sprayers, UTV's
- Project design / alternatives analysis
- Effectively communicates project progress / development with customers, regulatory agencies, etc.

Project Manager / Aquatic Biologist

SOLITUDE LAKE MANAGEMENT | 2006 - JUNE 2020

- Biological surveys and aquatic vegetation mapping
- Reporting and Invasive Species Management Plans
- Water quality monitoring
- Invasive species treatments and other management
- Directing crew and project coordination
- GPS/GIS mapping
- Maintenance of equipment
- Permitting and regulatory compliance
- Communication of project progress with customers and regulatory agencies

ACADEMIC HISTORY

Plymouth State University - Plymouth, NH

B.S. IN ENVIRONMENTAL PLANNING, 2009

- Completed in May 2009
- Focus on sustainability in the environment, GIS mapping
- Senior year internship with Town Engineer, Danvers, MA with focus on sewer mapping, oversight of stormwater projects, culverts, etc.

PROFESSIONAL AFFILIATIONS

- NALMS - North American Lake Management Society
- NEAB - New England Association of Environmental Biologist
- NEAPMS - Northeast Aquatic Plant Management Society
- APMS - Aquatic Plant Management Society

JOE ONORATO

DIRECTOR OF BUSINESS DEVELOPMENT / AQUATIC SPECIALIST

PERSONAL PROFILE

As Director of Business Development for Water & Wetland, Joe specializes in working directly with customers on their specific project goals. He is involved with all of Water & Wetland's projects from start to finish.

FOCUS

- **Understanding Customer Goals**
- **Project Design / Alternatives Analysis**
- **Ensuring Proper Communication**
- **Coordination of Project with Operations**
- **Fountains & Aeration Systems**
- **Phragmites Management**
- **Ensuring Regulatory Compliance**

CONTACT INFORMATION

Mobile: (508) 250-6238
Office: (888) 493-8526
Email: Joe@waterandwetland.com
Office Address: 115 South St.
Upton, MA 01568

www.waterandwetland.com

WATER & WETLAND
LAKE, POND & WETLAND MANAGEMENT

CAREER SUMMARY

Director of Bus. Dev. / Aquatic Specialist

WATER & WETLAND, LLC | JUNE 2020 - PRESENT

- Focuses on client management and project design
- Coordinates project implementation and scheduling with Director of Operations
- Presents management options / alternatives analysis to Customers including: municipalities, homeowners associations, lake associations, golf course superintendents, property owners, land trusts, etc.
- Works with herbicide / algaecide manufacturers to properly dose projects
- Works with fountain and aeration manufacturers to properly size aeration systems and fountains for specific waterbodies

Bus. Dev. Consultant / Aquatic Specialist

SOLITUDE LAKE MANAGEMENT | MAY 2016 - JUNE 2020

- Project design and pricing
- Offering best solution for full suite of lake management offerings, including: mechanical, manual and chemical options
- Design of water quality monitoring programs
- Conflict resolution
- Project coordination with Operations
- Growth of revenue YOY, including specific categories such as fountains & aeration, erosion control

ACADEMIC HISTORY

Roger Williams University - Bristol, RI

B.S. IN LEGAL STUDIES, 2004

- Completed in May 2004
- Magna Cum Laude - 3.68 GPA
- Focus on Legal Studies and Spanish with an additional concentration on Life Sciences

PROFESSIONAL SPEAKING ENGAGEMENTS

- "Pond Management Strategies for Homeowners Associations," Condo Associations Institute 2018
- "Mosquito Management in Ponds," Condo Associations Institute Connecticut 2018
- "Pond Management for the Golf Course Industry," New England Turfgrass Association 2019

JAMES LACASSE

SENIOR ENVIRONMENTAL SCIENSTIST/
PROJECT MANAGER

PERSONAL PROFILE

As a Senior Environmental Engineer/Project Manager for Water & Wetland, James specializes in completing projects from design through implementation. This includes everything from developing management plans, through permitting, to treatments, surveys, water quality, fountains / aeration, and reporting.

FOCUS

- **Invasive Species ID**
- **Invasive Species Management Plans**
- **Water Quality Programs**
- **GIS/GPS Mapping**
- **Invasive Species Control**
- **Phragmites Management**
- **Fountains & Aeration Installation, Service and Design**

CONTACT INFORMATION

Mobile: (774) 276-6098
Office: (888) 493-8526
Email: James@waterandwetland.com
Office Address: 115 South St.
Upton, MA 01568

www.waterandwetland.com

WATER & WETLAND
LAKE, POND & WETLAND MANAGEMENT

CAREER SUMMARY

Senior Environmental Scientist
WATER & WETLAND, LLC | MAY 2021 - PRESENT

- Oversees and manages projects, including: aquatic & upland surveys, invasive species control treatments, water quality programs, permitting and more
- Maintains equipment such as: airboats, other treatment boats, pumping systems, backpack sprayers, UTV's
- Project design / alternatives analysis
- Effectively communicates project progress / development with customers, regulatory agencies, etc.
- Prepares and files both Town and State permits
- Installs, maintains, and troubleshoots aeration systems and fountains

Environmental Scientist
SOLITUDE LAKE MANAGEMENT | MAY 2016 - JUNE 2020

- Biological surveys and aquatic vegetation mapping
- Reporting and Invasive Species Management Plans
- Water quality monitoring
- Invasive species treatments and other management
- Directing crew and project coordination
- GPS/GIS mapping
- Permitting and regulatory compliance
- Communication of project progress with customers and regulatory agencies

Field Chemist/Environmental Spec. II
TRIUMVIRATE ENVIRONMENTAL | 2015-2016

- Maintain Research Compliance, Chemical Inventory, Laboratory and Chemical Moves
- Site Remediation and Consulting
- Transportation of Hazardous Material, Emergency Response Planning
- Team Management and Task Management
- Licensing and Permitting: Air Emissions, Wastewater, Storm Water, Biosafety, Flammable Storage

Biologist Assistant/Field Associate
AQUATIC CONTROL TECHNOLOGY, INC. | 2012-2014

- Worked as a Summer intern, assisting with the management of waterbodies throughout New England.

ACADEMIC HISTORY

University of Rhode Island - Kingston, RI
B.S. IN ENVIRONMENTAL SCIENCE, 2015

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs

Department of Environmental Protection
100 Cambridge Street 9th Floor Boston, MA 02114 • 617-292-5500

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

License No.: **WM04-0001568**

LICENSE TO APPLY CHEMICALS FOR CONTROL OF NUISANCE AQUATIC VEGETATION

License Effective Date:**2/10/2025**

Applicant: COLIN GOSSELIN
Name of Waterbody: STEARNS MILLPOND
Location of Waterbody: SUDBURY
Project Proponent: HOP BROOK PROTECTION ASSOCIATION

AUTHORITY FOR ISSUANCE

Pursuant to the authority granted to the Department of Environmental Protection, by Massachusetts G.L.c. 111, s5E, the following license is hereby issued to **Colin Gosselin, Water and Wetland** (hereinafter called the "licensee"), authorizing the application of chemicals for the control of nutrients, algae or aquatic plants to **STEARNS MILLPOND, SUDBURY**; such authorization being expressly conditional on compliance by the licensee with all terms and conditions of the license hereinafter set forth. This license shall become effective on the date of the Director's signature and shall expire on the **12/03/2025**.

Sincerely,

David Wong, Ph.D.
401 Water Quality Cert. Program Manager
Division of Wetlands and Waterways
Massachusetts Department of Environmental Protection

License No.: **WM04-0001568**

A. Application Condition(s)

Chemical Information

Product Brand Name/Trade Name	Chemical Form (dry/liquid)	Total Weight/Volume Applied	Units of Measurement (lbs/gallons)	Acres Treated	Application Rate	Planned Maximum Concentration (ppm)
Clearcast	liquid	7.425	gal	7.425	1 gal/acre	

Treatment Method: The treatment(s) will be conducted via a jon boat or airboat equipped with a foliar spray system. We are permitting for 2-4 applications. All treatment(s) will be based on survey data collected prior to treatment. Each application will be separated by 2-4 weeks apart. Treatment will start in late June/July prior to water chestnut seeds dropping in August. Surveys will help guide and determine treatment necessity, timing, and potential treatment areas. No more than 1/3 of the waterbody and 1/2 of the littoral zone will be treated. Attached are survey maps, the treatment areas will be based on surveys prior to treatment as mentioned. It is important to note that although the whole waterbody is highlighted under the "Potential Treatment/Management Map", this just indicates the management area and potential treatment areas and not the whole treatment area will be the entire pond (only up to 1/3 of the waterbody and 1/2 of the littoral zone will be treated as mentioned - guided by survey data).

B. Application Report

By December 31st of the year of this treatment, the licensee shall submit a written report to the Department certifying the treatment date, application rate and the total weight/volume for each chemical used in the treatment, in accordance with requirements of Section I.A. of this license.
Please send the report to the Massachusetts Department of Environmental Protection (David.W.Wong@mass.gov).

C. Modification of Application Conditions

The licensee shall not apply chemicals in a manner contrary to, or inconsistent with, the application conditions set forth in Section I.A. of this license without the prior written approval of the Department.

General Conditions

A. The licensee is hereby notified that chemical treatments to control aquatic nuisances in public or private lakes and ponds of the Commonwealth involve the alteration of wetland resource areas protected under both Massachusetts G.L.c. 131, s40, the Wetlands Protection Act and 310 CMR 10.00, Massachusetts Wetlands Protection Regulations.

B. The licensee is hereby notified that issuance of this license does not in any way constitute the Department's approval of the chemical treatment as it related to the provisions of the Wetlands Protection Act.

C. The licensee shall obtain either a final Order of Conditions or a negative Determination of Applicability from the **SUDBURY** Conservation Commission(s) prior to application of chemicals authorized under this license.

License No.: **WM04-0001568**

D. Shoreline areas of the lake or pond must be posted with signs warning the general public of any water use restrictions stated on the chemical label minimum for one week. This is especially important at bathing beaches and other areas of common access. These signs shall clearly state that the chemical treatment is being conducted pursuant to a license issued by the Department of Environmental Protection, "DEP". A new sign shall be posted for each treatment event.

E. The Department may require the licensee to cease application of chemicals to a body of water at any time following the issuance of a license if the Department determines that the chemical treatment will be ineffective, or will result in unreasonable restrictions on current water uses, or will produce unnecessary adverse side effects on nontarget flora or fauna.

F. Chemical applications shall be performed in accordance with the manufacturer's label directions, existing pesticide use laws, and any conditions imposed by other local or state agencies.

G. Chemical treatments to water using general use pesticides shall only be performed by an applicator currently licensed by the Massachusetts Department of Agricultural Resources Pesticide Program in the aquatics category. Chemical treatments to Bordering Vegetated Wetlands (310 CMR 10.55(2)(a)) and Salt Marsh (310 CMR 10.32(2)) using general use pesticides and techniques that insure chemicals are not applied to water shall only be performed by an applicator currently licensed in Massachusetts Department of Agricultural Resources Pesticide Program. Chemical treatments using restricted use pesticides shall only be performed by an applicator currently certified by the Massachusetts Department of Agricultural Resources Pesticide Program.

H. Issuance of this license does not release the licensee from liability resulting from the use of chemicals or from negligent or reckless application of chemicals specified in Section I.A of this license.

I. Electronic notification of treatment must be made to the Massachusetts Division of Fisheries and Wildlife (jason.stolarski@mass.gov, jason.carmignani@mass.gov). Notification that the treatment was performed shall be made within 24 hours of treatment. The notification message should include waterbody, town, license number and chemicals used.

J. No chemical treatment shall be conducted while a Massachusetts Department of Public Health advisory is in effect.

K. In general, less than 1/3 of the lake area and less than ½ of the littoral zone should be targeted for herbicide treatment when native plants (particularly low growth forms) are dominant.

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License No.: **WM04-0001578**

LICENSE TO APPLY CHEMICALS FOR CONTROL OF NUISANCE AQUATIC VEGETATION

License Effective Date:**2/10/2025**

Applicant: COLIN GOSSELIN
Name of Waterbody: GRIST MILLPOND
Location of Waterbody: SUDBURY
Project Proponent: HOP BROOK PROTECTION ASSOCIATION

AUTHORITY FOR ISSUANCE

Pursuant to the authority granted to the Department of Environmental Protection, by Massachusetts G.L.c. 111, s5E, the following license is hereby issued to **Colin Gosselin, Water and Wetland** (hereinafter called the "licensee"), authorizing the application of chemicals for the control of nutrients, algae or aquatic plants to **GRIST MILLPOND, SUDBURY**; such authorization being expressly conditional on compliance by the licensee with all terms and conditions of the license hereinafter set forth. This license shall become effective on the date of the Director's signature and shall expire on the **12/03/2025**.

Sincerely,

David Wong, Ph.D.
401 Water Quality Cert. Program Manager
Division of Wetlands and Waterways
Massachusetts Department of Environmental Protection

License No.: **WM04-0001578**

A. Application Condition(s)

Chemical Information

Product Brand Name/Trade Name	Chemical Form (dry/liquid)	Total Weight/Volume Applied	Units of Measurement (lbs/gallons)	Acres Treated	Application Rate	Planned Maximum Concentration (ppm)
Clearcast	liquid	5.21	gal	5.21	1 gal/acre	

Treatment Method: The treatment(s) will be conducted via a jon boat or airboat equipped with a foliar spray system. We are permitting for 2-4 applications. All treatment(s) will be based on survey data collected prior to treatment. Each application will be separated by 2-4 weeks apart. Treatment will start in late June/July prior to water chestnut seeds dropping in August. Surveys will help guide and determine treatment necessity, timing, and potential treatment areas. No more than 1/3 of the waterbody and 1/2 of the littoral zone will be treated. Attached are survey maps, the treatment areas will be based on surveys prior to treatment as mentioned. It is important to note that although the whole waterbody is highlighted under the "Potential Treatment/Management Map", this just indicates the management area and potential treatment areas within the management area, and not the whole treatment area illustrated (only up to 1/3 of the waterbody and 1/2 of the littoral zone will be treated as mentioned - guided by survey data).

B. Application Report

By December 31st of the year of this treatment, the licensee shall submit a written report to the Department certifying the treatment date, application rate and the total weight/volume for each chemical used in the treatment, in accordance with requirements of Section I.A. of this license.
Please send the report to the Massachusetts Department of Environmental Protection (David.W.Wong@mass.gov).

C. Modification of Application Conditions

The licensee shall not apply chemicals in a manner contrary to, or inconsistent with, the application conditions set forth in Section I.A. of this license without the prior written approval of the Department.

General Conditions

A. The licensee is hereby notified that chemical treatments to control aquatic nuisances in public or private lakes and ponds of the Commonwealth involve the alteration of wetland resource areas protected under both Massachusetts G.L.c. 131, s40, the Wetlands Protection Act and 310 CMR 10.00, Massachusetts Wetlands Protection Regulations.

B. The licensee is hereby notified that issuance of this license does not in any way constitute the Department's approval of the chemical treatment as it related to the provisions of the Wetlands Protection Act.

C. The licensee shall obtain either a final Order of Conditions or a negative Determination of Applicability from the **SUDBURY** Conservation Commission(s) prior to application of chemicals authorized under this license.

License No.: **WM04-0001578**

D. Shoreline areas of the lake or pond must be posted with signs warning the general public of any water use restrictions stated on the chemical label minimum for one week. This is especially important at bathing beaches and other areas of common access. These signs shall clearly state that the chemical treatment is being conducted pursuant to a license issued by the Department of Environmental Protection, "DEP". A new sign shall be posted for each treatment event.

E. The Department may require the licensee to cease application of chemicals to a body of water at any time following the issuance of a license if the Department determines that the chemical treatment will be ineffective, or will result in unreasonable restrictions on current water uses, or will produce unnecessary adverse side effects on nontarget flora or fauna.

F. Chemical applications shall be performed in accordance with the manufacturer's label directions, existing pesticide use laws, and any conditions imposed by other local or state agencies.

G. Chemical treatments to water using general use pesticides shall only be performed by an applicator currently licensed by the Massachusetts Department of Agricultural Resources Pesticide Program in the aquatics category. Chemical treatments to Bordering Vegetated Wetlands (310 CMR 10.55(2)(a)) and Salt Marsh (310 CMR 10.32(2)) using general use pesticides and techniques that insure chemicals are not applied to water shall only be performed by an applicator currently licensed in Massachusetts Department of Agricultural Resources Pesticide Program. Chemical treatments using restricted use pesticides shall only be performed by an applicator currently certified by the Massachusetts Department of Agricultural Resources Pesticide Program.

H. Issuance of this license does not release the licensee from liability resulting from the use of chemicals or from negligent or reckless application of chemicals specified in Section I.A of this license.

I. Electronic notification of treatment must be made to the Massachusetts Division of Fisheries and Wildlife (jason.stolarski@mass.gov, jason.carmignani@mass.gov). Notification that the treatment was performed shall be made within 24 hours of treatment. The notification message should include waterbody, town, license number and chemicals used.

J. No chemical treatment shall be conducted while a Massachusetts Department of Public Health advisory is in effect.

K. In general, less than 1/3 of the lake area and less than ½ of the littoral zone should be targeted for herbicide treatment when native plants (particularly low growth forms) are dominant.

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License No.: **WM04-0001576**

LICENSE TO APPLY CHEMICALS FOR CONTROL OF NUISANCE AQUATIC VEGETATION

License Effective Date:**2/10/2025**

Applicant: COLIN GOSSELIN
Name of Waterbody: CARDING MILL POND
Location of Waterbody: SUDBURY
Project Proponent: HOP BROOK PROTECTION ASSOCIATION

AUTHORITY FOR ISSUANCE

Pursuant to the authority granted to the Department of Environmental Protection, by Massachusetts G.L.c. 111, s5E, the following license is hereby issued to **Colin Gosselin, Water and Wetland** (hereinafter called the "licensee"), authorizing the application of chemicals for the control of nutrients, algae or aquatic plants to **CARDING MILL POND, SUDBURY**; such authorization being expressly conditional on compliance by the licensee with all terms and conditions of the license hereinafter set forth. This license shall become effective on the date of the Director's signature and shall expire on the **12/03/2025**.

Sincerely,

David Wong, Ph.D.
401 Water Quality Cert. Program Manager
Division of Wetlands and Waterways
Massachusetts Department of Environmental Protection

License No.: **WM04-0001576**

A. Application Condition(s)

Chemical Information

Product Brand Name/Trade Name	Chemical Form (dry/liquid)	Total Weight/Volume Applied	Units of Measurement (lbs/gallons)	Acres Treated	Application Rate	Planned Maximum Concentration (ppm)
Clearcast	liquid	13	gal	13	1 gal/acre	

Treatment Method: The treatment(s) will be conducted via a jon boat or airboat equipped with a foliar spray system. We are permitting for 2-4 applications. All treatment(s) will be based on survey data collected prior to treatment. Each application will be separated by 2-4 weeks apart. Treatment will start in late June/July prior to water chestnut seeds dropping in August. Surveys will help guide and determine treatment necessity, timing, and potential treatment areas. No more than 1/3 of the waterbody and 1/2 of the littoral zone will be treated. Attached are survey maps, the treatment areas will be based on surveys prior to treatment as mentioned. It is important to note that although the whole waterbody is highlighted under the "Potential Treatment/Management Map", this just indicates the management area and potential treatment areas and not the whole treatment area (only up to 1/3 of the waterbody and 1/2 of the littoral zone will be treated as mentioned - guided by survey data).

B. Application Report

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C. The licensee shall obtain either a final Order of Conditions or a negative Determination of Applicability from the **SUDBURY** Conservation Commission(s) prior to application of chemicals authorized under this license.

License No.: **WM04-0001576**

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