

RECEIVED
MAR 08 2022

TOWN OF AYER
TOWN CLERK

12:00 PM


μ≤Town of Ayer
CONSERVATION COMMISSION
Town Hall ♦ One Main Street ♦ Ayer, MA 01432
P: 978-772-8220 x 143

MEETING AGENDA
Thursday, March 10, 2022

Due to the ongoing COVID-19 Pandemic, in accordance with Chapter 20 of the Act of 2021, suspending certain provisions of the Open Meeting Law (OML), public bodies otherwise governed by the OML are temporarily relieved from the requirement that meetings be held in public places, open and physically accessible to the public, so long as measures are taken to ensure public access to the bodies' deliberations "through adequate, alternative means." This meeting will be live on Zoom. The public may participate remotely by joining Zoom (**Meeting ID# 840 4058 0886**) or by calling (**929-205-6099**). For additional information about remote participation, please contact Conservation Commission at concom@ayer.ma.us or by calling 978-772-8220 ext. 143 prior to the meeting.

7:00 PM GENERAL BUSINESS / OPEN SESSION

- Approval of Meeting Minutes for February 24, 2022
- Accounts Payable
- Public Input

Public Hearing (cont'd.): Notice of Intent (NOI) – K137/L138 Mainline OPGW Installation Project Construction Phase, New England Power Company, MassDEP # 100-0479

Public Meeting: Request for Determination of Applicability (RDA) – 8 Standish Avenue, Ronald and Colleen Krieser, Assessor's Map 15, Parcel 46

Discussion: 2022 Aquatic Weed Treatment, Ayer Ponds, Review of RFQ proposals

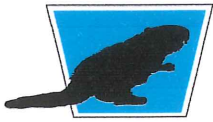
Update: Waterways Signs Project

Discussion: Review of Special Conditions Boilerplate

CONSERVATION OFFICE AND MEMBER UPDATES

9:00 PM ADJOURN

Next Scheduled Meeting: 7 PM, March 24, 2022



BEAVER SOLUTIONS

14 Mountain Rd; Southampton, MA 01073

Phone: (413) 695-0484

Email: info@beaversolutions.com

February 16, 2022

Dear Jo-Anne,

As per our agreement, we completed the 2021 routine maintenance on the flow device(s) we installed for the Commission which includes inspections, cleanings and repairs at least twice annually and as needed. We are pleased to report that all but one flow device continues to be effective at controlling beaver damming and preventing flooding. We trust you are satisfied with the results of our work.

As you are aware, last fall the Long Pond beavers blocked the Pond Leveler pipe that was installed in 2014. We suspect the failure was due to corrosion but the water was too cold to do investigate thoroughly or do any repairs. Trapping and dam notching were the only options to restore normal flow. Even though corrosion after more than 6 years is not covered by our guarantee, as a Goodwill gesture we tried trapping at no cost to the town.

Unfortunately our trapping ended due to two separate incidents of vandalism to the legally set traps. Therefore, the situation remains unresolved.

In late March we should be able to investigate the cause of the pipe blockage more thoroughly and work with you to develop a plan moving forward. We will contact you to set up an on-site meeting with you and any interested Commission members.

After all the ice melts beavers will become active again. Uninterrupted routine maintenance at the other flow device sites should continue to prevent beaver-related flooding damage. A 2022 Maintenance Plan Renewal proposal is enclosed for your review. However, if you would like to take responsibility for this maintenance work, we are willing to answer any questions you may have at no charge. Note, with renewal of your low cost, annual maintenance agreement you will continue to receive our comprehensive Beaver Solutions "Worry-Free Guarantee" at no additional expense. See attached.

We offer this Guarantee because your satisfaction and our reputation are extremely important to us, and we want to continue to provide long-term, cost-effective solutions to beaver problems. We appreciate the opportunity to continue to work for you. Please contact us at your convenience to confirm your Maintenance Plan renewal and we look forward to meeting with you this spring.

Sincerely,



Mike Callahan and John Egan
Beaver Solutions LLC
"Working With Nature"

BEAVER SOLUTIONS

Michael Callahan
14 Mountain Road
Southampton, MA 01073
www.beaversolutions.com

INVOICE

| Date | Invoice Number |
|-----------|----------------|
| 2/16/2022 | 01105602 |

| Bill To |
|--|
| Jo-Anne Crystoff Ayer Conservation Commission Ayer Town Hall 1 Main Street Ayer MA 01432 |

| Project Location |
|------------------|
| Ayer, MA |

| Project Description |
|-------------------------|
| Flow Device Maint. Plan |

| Due Date | Date Completed |
|-----------|----------------|
| 3/15/2022 | 12/31/2022 |

| Description | Number | Rate | Amount |
|---|--------|---------|----------|
| Optional Annual Maintenance Agreement and Guarantee - In 2022 Beaver Solutions will inspect and perform routine maintenance on all flow devices at least twice annually and as needed to ensure effectiveness. Price includes our comprehensive Beaver Solutions "Worry-Free Guarantee" for every site we maintain. The labor and materials for any minor repairs are also included. 5 Flow Device Sites Covered: Nonacoicus Brook dam W. Main St. Easement culvert Rod and Gun Club / Utility ROW Dams x2 Shaker Road dam 1 Flow Device Site Not Covered: Long Pond Spillway (to be billed separately) Multi-Site Maintenance Plan Discount: 10% for 2 sites, 20% for 3 - 4 sites, 25% for 5 - 6 sites, and 30% for 7 or more sites. | 5 | 330.00 | 1,650.00 |
| | | -25.00% | -412.50 |

| | |
|----------------|------------|
| Balance | \$1,237.50 |
|----------------|------------|

Beaver Solutions is licensed and fully insured.

Please make check payable to Beaver Solutions

Bever Solutions LLC
Maintenance Guarantee

If a Culvert or Flexible Pond Leveler pipe
we maintain is blocked by beavers
we will either fix the problem at no charge,
or refund double your Maintenance fee.

This Maintenance Guarantee does not cover damage from other dams,
vandalism, catastrophic events, or corrosion after 6 years.
Minor repairs are included with routine maintenance at no additional cost.



VIA CERTIFIED MAIL

Municipalities listed within Keolis' Vegetation Management Plan 2021-2025:
Board of Health; Conservation Commission; and Chief Elected Municipal Official or Board of Selectman

SUBJECT: 2022 Yearly Operating Plan
Vegetation maintenance activities Commuter Rail

To Whom It May Concern,

On behalf of the Massachusetts Bay Transportation Authority, Keolis Commuter Services, LLC (Keolis) has published the **Yearly Operating Plan ("YOP") for calendar year 2022 for vegetation maintenance** activities prepared in accordance with the Massachusetts Department of Agricultural Resources ("MDAR") Right(s)-of-Way ("ROW") Management Program [333 CMR 11.06]. The **Commuter Rail 2022 YOP** is consistent with the objectives of the Vegetation Management Plan ("VMP") for years 2021-2025. With this notice all communities are advised of the Environmental Monitor Notice ("EMN") issued by MDAR for the 2022 YOP 45-day Public Comment period [333 CMR 11.06 (a)(b)]. During this period, Keolis will consult with the National Heritage of Endangered Species ("NHESP") for approval of the YOP [333 CMR 11.04 (3)(c)].

Keolis has implemented an Integrated Vegetation Management ("IVM") approach that includes **targeted and selective chemical application and mechanical controls** following the Best Management Practices included in the approved VMP 2021-2025. The herbicides for 2022 include products from the **MDAR Rights of Way Sensitive Area Materials List**. All herbicide application is conducted by a State certified and licensed ROW pesticide applicator.

The purpose of the YOP as a companion document to the VMP is to **inform the municipalities of the planned vegetation maintenance activities for the calendar year** in compliance with 333 CMR 11.06(2). The public comment process allows the opportunity for members of the communities to review the YOP and ROW maps, request updates to maps and or comment on any relevant information concerning the YOP. Communities are encouraged to review the maps following the links below and identify any private drinking wells that fall within 100 feet of the ROW. Please register any private well not included in the maps via **MDAR - Private Well Registration Form** (<https://massnrc.org/pwr/>) and inform Keolis and FDCE.

Please review your mailing address and the ten-digit police department emergency telephone number listed in the YOP and notify us of any required revisions. Hard copies of all documents are available upon request. Keolis Commuter Services 2022 YOP, the EMN and map(s) for each municipality can be found electronically at:

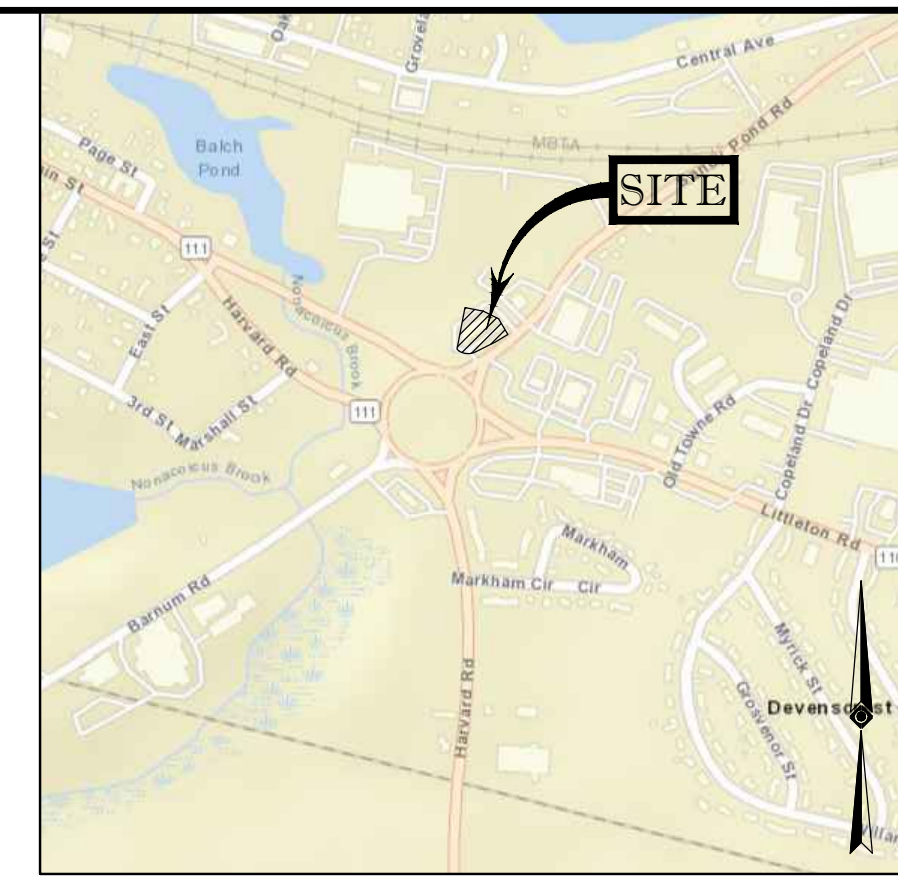
<https://www.fdcerrailroadvegetation.com>

- ➡ KEOLIS Commuter Services
 - ➡ Environmental Monitor Notice
 - ➡ 2022 Yearly Operational Plan
 - ➡ "YOUR MUNICIPALITY"
 - ➡ Right-of-Way Maps

For questions, comments, or concerns related to the above, please follow the EMN Public Comment process and email the Keolis Environmental Department at environmental@keoliscs.com. For any questions accessing the electronic documents, maps, or request for hard copies, please email Matt Donovan at Matt@FDCEngineers.com. All responses to concerns will be coordinated by Tim Dermody from FDCE.

Sincerely,
Clary Coutu, *Keolis Director of Environment and Sustainability*

CC: Janis O. Kearney, *MBTA Director of Compliance*



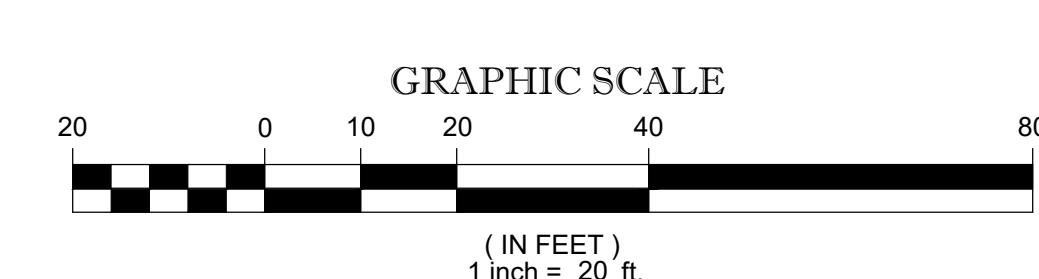
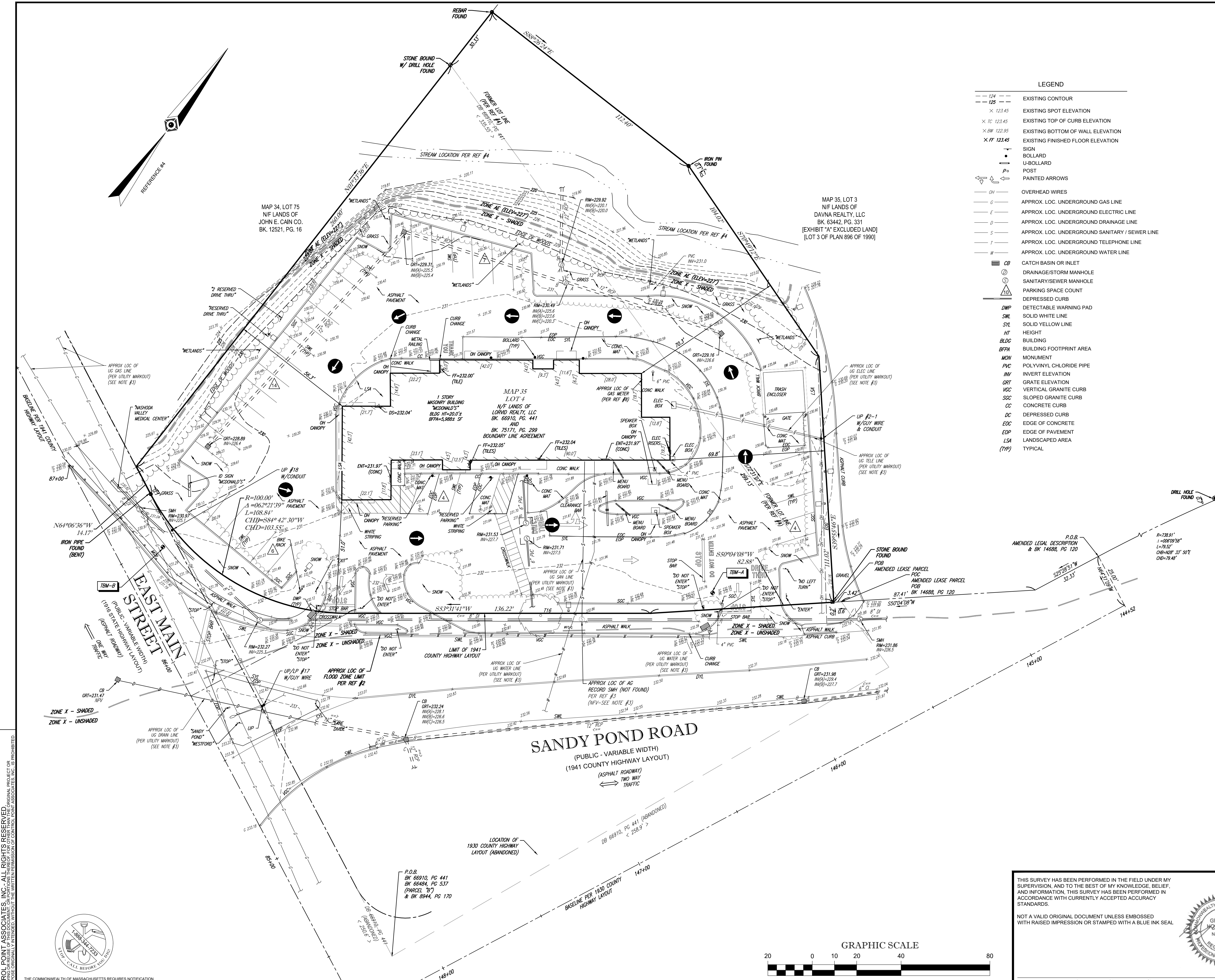
LOCUS MAP (NOT TO SCALE)

LEGEND

| | |
|-------|--|
| --- | EXISTING CONTOUR |
| × | EXISTING SPOT ELEVATION |
| × | EXISTING TOP OF CURB ELEVATION |
| × | EXISTING BOTTOM OF WALL ELEVATION |
| × | EXISTING FINISHED FLOOR ELEVATION |
| — | SIGN |
| — | BOLLARD |
| — | U-BOLLARD |
| — | POST |
| — | PAINTED ARROWS |
| — | OVERHEAD WIRES |
| — | APPROX. LOC. UNDERGROUND GAS LINE |
| — | APPROX. LOC. UNDERGROUND ELECTRIC LINE |
| — | APPROX. LOC. UNDERGROUND DRAINAGE LINE |
| — | APPROX. LOC. UNDERGROUND SANITARY / SEWER LINE |
| — | APPROX. LOC. UNDERGROUND TELEPHONE LINE |
| — | APPROX. LOC. UNDERGROUND WATER LINE |
| CB | CATCH BASIN OR INLET |
| ⊙ | DRAINAGE/STORM MANHOLE |
| ⊙ | SANITARY/SEWER MANHOLE |
| ⊙ | PARKING SPACE COUNT |
| ⊙ | DEPRESSED CURB |
| DWP | DETECTABLE WARNING PAD |
| SWL | SOLID WHITE LINE |
| SYL | SOLID YELLOW LINE |
| HT | HEIGHT |
| BLDG | BUILDING |
| BFPA | BUILDING FOOTPRINT AREA |
| MON | MONUMENT |
| PVC | POLYVINYL CHLORIDE PIPE |
| INVT | INVERT ELEVATION |
| GRV | GRATE ELEVATION |
| VGC | VERTICAL GRANITE CURB |
| SGC | SLOPED GRANITE CURB |
| CC | CONCRETE CURB |
| DC | DEPRESSED CURB |
| EOP | EDGE OF CONCRETE |
| EOP | EDGE OF PAVEMENT |
| LSA | LANDSCAPED AREA |
| (TYP) | TYPICAL |

- NOTES:**
- PROPERTY KNOWN AS LOT 4 AS SHOWN ON THE TOWN OF AYER, MIDDLESEX COUNTY, COMMONWEALTH OF MASSACHUSETTS ASSESSOR'S MAP NO. 35.
 - LOT 4 AREA = 55,685 SQUARE FEET OR 1.278 ACRES
 - THE LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE ASSEMBLY PLANS AND UTILITY MARKOUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES BEFORE ANY EXCAVATION IS TO BEGIN. ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
 - THE LOCATION OF UNDERGROUND UTILITIES ARE SHOWN UTILIZING A QUALITY LEVEL SYSTEM:
- QUALITY LEVEL D - UTILITIES SHOWN BASED UPON REFERENCE MAPPING OR ORAL HISTORY. NOT FIELD VERIFIED.**
- QUALITY LEVEL C - LOCATION OF UTILITY SURFACE FEATURES SUPPLEMENTS REFERENCE MAPPING. INCLUDES MARKOUT BY OTHERS.**
- QUALITY LEVEL B - UTILITY LOCATION DATA IS COLLECTED THROUGH GEOPHYSICAL SENSING TECHNOLOGY TO SUPPLEMENT SURFACE FEATURES AND OR REFERENCE MAPPING. INCLUDES MARKOUT BY CONTROL POINT ASSOCIATES, INC.**
- QUALITY LEVEL A - HORIZONTAL AND VERTICAL LOCATION OF UTILITIES ARE OBTAINED USING VACUUM EQUIPMENT EXCAVATION OR OTHER METHODS TO EXPOSE THE UTILITY. LOCATION SHOWN AT SINGLE POINT WHERE EXCAVATION OCCURRED UNLESS UTILITY WAS LOCATED PRIOR TO FILLING.**
- THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
 - THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
 - BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE AE (SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD. BASE ELEVATIONS DETERMINED. ELEV = 227. NAVD83) AND ZONE X - SHADED (AREAS OF 0.2% ANNUAL CHANCE FLOOD. AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE, AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD) PER REF. #2
 - ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD83), BASED ON GPS OBSERVATIONS UTILIZING THE KEYSTONE VRS NETWORK (KEYNETGPS).
- TEMPORARY BENCH MARKS SET:**
- TBM-A: MAG NAIL SET IN ASPHALT PAVEMENT AT ELEVATION = 231.79'
 - TBM-B: MAG NAIL SET IN ASPHALT PAVEMENT AT ELEVATION = 231.18'
- PRIOR TO CONSTRUCTION IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE BENCHMARKS ILLUSTRATED ON THIS SKETCH HAVE NOT BEEN DISTURBED AND THEIR ELEVATIONS HAVE BEEN CONFIRMED. ANY CONFLICTS MUST BE REPORTED PRIOR TO CONSTRUCTION.
- THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
 - THIS SURVEY DOES NOT SHOW THE EXISTENCE OF WETLANDS. NO WETLAND DELINEATION FLAGS WERE OBSERVED AT TIME OF THE SURVEY.
 - BUILDING DIMENSIONS SHOWN HEREON ARE MEASURED AT GROUND LEVEL OF BUILDING EXTERIOR.
 - SURVEY WAS PERFORMED DURING A PERIOD WHEN THE GROUND WAS SNOW COVERED. UTILITY STRUCTURES AND SITE FEATURES HAVE BEEN LOCATED AND IDENTIFIED WHICH WERE VISIBLE ON THE DATE OF THE FIELD SURVEY. REMOVAL OF THIS NOTE FROM THE SURVEY WILL REQUIRE A LATER SITE VISIT AFTER THE SNOW HAS MELTED. SOME FEATURES KEPT FROM OLD SURVEY FOR THERE IS NO ON SITE PER REF #8

- REFERENCES:**
- THE TAX ASSESSOR'S MAP OF AYER, MIDDLESEX COUNTY, MASSACHUSETTS, SHEET #35.
 - MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM. FIRM. FLOOD INSURANCE RATE MAP. MIDDLESEX COUNTY (ALL JURISDICTIONS), PANEL 212 OF 656," MAP NUMBER 25017C0212E, EFFECTIVE DATE: JUNE 4, 2010.
 - MAP ENTITLED "SITE CONSTRUCTION PLAN, MCDONALD'S RESTAURANT, EAST MAIN STREET AND SANDY POND ROAD, AYER, MASSACHUSETTS," DATED MAY 28, 1982, LAST REVISED MAY 11, 1989.
 - UNRECORDED MAP ENTITLED "MCDONALD'S CORPORATION, EAST MAIN ST, AYER MASSACHUSETTS, TOPOGRAPHICAL PLAN," PREPARED BY SOMERVILLE ENGINEERING, DATED APRIL 15, 1982.
 - MAP ENTITLED "LAND IN AYER, MASS. SURVEYED FOR KENTUCKY FRIED CHICKEN," PREPARED BY DAVID E. ROSS ASSOCIATES, INC., DATED OCTOBER, 1990, RECORDED IN THE MIDDLESEX REGISTRY OF DEEDS, SOUTHERN DISTRICT AS PLAN NO. 896 OF 1990.
 - MAP ENTITLED "LAND IN AYER, MASS., SURVEYED FOR TOWN OF AYER," PREPARED BY CHARLES A. PERKINS CO. INC., DATED NOVEMBER 1971, LAST REVISED OCTOBER 3, 1972.
 - GAS MAPPING PROVIDED BY NATIONAL GRID ON MARCH 3, 2017.
 - PLAN SET ENTITLED "PROPOSED SITE PLAN DOCUMENTS FOR PREPARED FOR MCDONALD'S WITH DRIVE THRU LOCATION OF SITE @ SANDY POND ROAD, TOWN OF AYER, MIDDLESEX COUNTY, MASSACHUSETTS, MAP #35, LOT #4," PREPARED BY BOHLER ENGINEERING, DATED MARCH 4, 2021 AND LAST REVISED: JULY 6, 2021, PROVIDED BY BOHLER.
 - MAP ENTITLED "ALTANSPS LAND TITLE SURVEY MCDONALD'S USA, LLC 2 SANDY POND ROAD LOT 4, MAP 35 TOWN OF AYER MIDDLESEX COUNTY COMMONWEALTH OF MASSACHUSETTS," PREPARED BY: CONTROL POINT ASSOCIATES, INC., DATED MARCH 8, 2017, LAST REVISED: AUGUST 14, 2020.



THIS SURVEY HAS BEEN PERFORMED IN THE FIELD UNDER MY SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE, BELIEF, AND INFORMATION, THIS SURVEY HAS BEEN PERFORMED IN ACCORDANCE WITH CURRENTLY ACCEPTED ACCURACY STANDARDS.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL

GERRY L. HOLDRIGHT, PLS
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

FIELD DATE: 2-7-22
FIELD BOOK NO: 2-12MA
FIELD BOOK PG: 38-39
FIELD CREW: J.S.A.
DRAWN: M.R.D.
REVIEWED: B.A.V.

2-18-2022
DATE

RECORD SURVEY
McDonald's USA, LLC
2 SANDY POND ROAD
LOT 4, MAP 35
TOWN OF AYER
MIDDLESEX COUNTY
COMMONWEALTH OF MASSACHUSETTS

L/C# 064-032

CONTROL POINT ASSOCIATES, INC.
WARREN, NJ 908-668-0999
CHILMARK, MA 508-548-3000
ALBANY, NY 518-217-5010
ROCHESTER, NY 585-259-7264

APPROVED: G.L.H.
DATE: 2-18-2022
SCALE: 1" = 20'
FILE NO: 03-170037-00
DWG. NO: 1 OF 1

CONTROL POINT ASSOCIATES, INC. ALL RIGHTS RESERVED. ORIGINAL PRODUCT OR BY EXCAVATORS, DESIGNERS OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.

THE COMMONWEALTH OF MASSACHUSETTS REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
 100-0479

 MassDEP File #

 eDEP Transaction #
 Ayer

 City/Town

A. General Information (cont.)

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):
 Middlesex South - ROW Easement
 a. County _____ b. Certificate Number (if registered land) _____
 c. Book _____ d. Page _____
7. Dates: Jan. 20, 2022
 a. Date Notice of Intent Filed _____ b. Date Public Hearing Closed _____ c. Date of Issuance _____
8. Final Approved Plans and Other Documents (attach additional plan or document references as needed):
 K137/L138 Sandy Pond to Pratts Jct. & Ayer Tap Transmission Line OPGW Installation (19 sheets)
 BSC Group, Inc. _____ n/a
 b. Prepared By _____ c. Signed and Stamped by _____
 12/13/2021 _____ 1 inch = 100 feet
 d. Final Revision Date _____ e. Scale _____
 K137/L138 Sandy Pond to Pratt Jct. & and Ayer Tap Transmission Line OPGW Installation - Wetland Replication Planting Plan (3) _____ 1/3/2022
 g. Date _____

B. Findings

1. Findings pursuant to the Massachusetts Wetlands Protection Act:
 Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act (the Act). Check all that apply:
- a. Public Water Supply b. Land Containing Shellfish c. Prevention of Pollution
 d. Private Water Supply e. Fisheries f. Protection of Wildlife Habitat
 g. Groundwater Supply h. Storm Damage Prevention i. Flood Control
2. This Commission hereby finds the project, as proposed, is: (check one of the following boxes)

Approved subject to:

- a. the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.



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B. Findings (cont.)

Denied because:

- b. the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect the interests of the Act, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**
- c. the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**
3. Buffer Zone Impacts: Shortest distance between limit of project disturbance and the wetland resource area specified in 310 CMR 10.02(1)(a) _____ a. linear feet

Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)

| Resource Area | Proposed Alteration | Permitted Alteration | Proposed Replacement | Permitted Replacement |
|--|--|--|-----------------------------|-----------------------|
| 4. <input type="checkbox"/> Bank | _____ a. linear feet | _____ b. linear feet | _____ c. linear feet | _____ d. linear feet |
| 5. <input type="checkbox"/> Bordering Vegetated Wetland | 116 _____ a. square feet | _____ b. square feet | 232 _____ c. square feet | _____ d. square feet |
| 6. <input type="checkbox"/> Land Under Waterbodies and Waterways | _____ a. square feet _____ e. c/y dredged | _____ b. square feet _____ f. c/y dredged | _____ c. square feet | _____ d. square feet |
| 7. <input type="checkbox"/> Bordering Land Subject to Flooding | 20 _____ a. square feet | _____ b. square feet | _____ c. square feet | _____ d. square feet |
| Cubic Feet Flood Storage | 0 _____ e. cubic feet | _____ f. cubic feet | _____ g. cubic feet | _____ h. cubic feet |
| 8. <input type="checkbox"/> Isolated Land Subject to Flooding | _____ a. square feet | _____ b. square feet | | |
| Cubic Feet Flood Storage | _____ c. cubic feet | _____ d. cubic feet | _____ e. cubic feet | _____ f. cubic feet |
| 9. <input type="checkbox"/> Riverfront Area | 0 _____ a. total sq. feet | _____ b. total sq. feet | | |
| Sq ft within 100 ft | 0 _____ c. square feet | _____ d. square feet | _____ e. square feet | _____ f. square feet |
| Sq ft between 100-200 ft | 0 _____ g. square feet | _____ h. square feet | _____ i. square feet | _____ j. square feet |



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B. Findings (cont.)

Coastal Resource Area Impacts: Check all that apply below. (For Approvals Only)

| | Proposed Alteration | Permitted Alteration | Proposed Replacement | Permitted Replacement |
|--|---|-------------------------|-------------------------|--------------------------|
| 10. <input type="checkbox"/> Designated Port Areas | Indicate size under Land Under the Ocean, below | | | |
| 11. <input type="checkbox"/> Land Under the Ocean | _____ | _____ | | |
| | a. square feet | b. square feet | | |
| | _____ | _____ | | |
| | c. c/y dredged | d. c/y dredged | | |
| 12. <input type="checkbox"/> Barrier Beaches | Indicate size under Coastal Beaches and/or Coastal Dunes below | | | |
| 13. <input type="checkbox"/> Coastal Beaches | _____ | _____ | _____ cu yd | _____ cu yd |
| | a. square feet | b. square feet | c. nourishment | d. nourishment |
| 14. <input type="checkbox"/> Coastal Dunes | _____ | _____ | _____ cu yd | _____ cu yd |
| | a. square feet | b. square feet | c. nourishment | d. nourishment |
| 15. <input type="checkbox"/> Coastal Banks | _____ | _____ | | |
| | a. linear feet | b. linear feet | | |
| 16. <input type="checkbox"/> Rocky Intertidal Shores | _____ | _____ | | |
| | a. square feet | b. square feet | | |
| 17. <input type="checkbox"/> Salt Marshes | _____ | _____ | _____ | _____ |
| | a. square feet | b. square feet | c. square feet | d. square feet |
| 18. <input type="checkbox"/> Land Under Salt Ponds | _____ | _____ | | |
| | a. square feet | b. square feet | | |
| | _____ | _____ | | |
| | c. c/y dredged | d. c/y dredged | | |
| 19. <input type="checkbox"/> Land Containing Shellfish | _____ | _____ | _____ | _____ |
| | a. square feet | b. square feet | c. square feet | d. square feet |
| 20. <input type="checkbox"/> Fish Runs | Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above | | | |
| | _____ | _____ | | |
| | a. c/y dredged | b. c/y dredged | | |
| 21. <input type="checkbox"/> Land Subject to Coastal Storm Flowage | _____ | _____ | | |
| | a. square feet | b. square feet | | |
| 22. <input type="checkbox"/> Riverfront Area | _____ | _____ | | |
| | a. total sq. feet | b. total sq. feet | | |
| Sq ft within 100 ft | _____ | _____ | _____ | _____ |
| | c. square feet | d. square feet | e. square feet | f. square feet |
| Sq ft between 100-200 ft | _____ | _____ | _____ | _____ |
| | g. square feet | h. square feet | i. square feet | j. square feet |



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 City/Town

B. Findings (cont.)

* #23. If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.5.c (BVW) or B.17.c (Salt Marsh) above, please enter the additional amount here.

23. Restoration/Enhancement *:

_____ a. square feet of BVW

_____ b. square feet of salt marsh

24. Stream Crossing(s):

_____ a. number of new stream crossings

_____ b. number of replacement stream crossings

C. General Conditions Under Massachusetts Wetlands Protection Act

The following conditions are only applicable to Approved projects.

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
 - a. The work is a maintenance dredging project as provided for in the Act; or
 - b. The time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
 - c. If the work is for a Test Project, this Order of Conditions shall be valid for no more than one year.
5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order. An Order of Conditions for a Test Project may be extended for one additional year only upon written application by the applicant, subject to the provisions of 310 CMR 10.05(11)(f).
6. If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not extend the issuance date of the original Final Order of Conditions and the Order will expire on _____ unless extended in writing by the Department.
7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

100-0479

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C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.
18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.
19. The work associated with this Order (the "Project")
- (1) is subject to the Massachusetts Stormwater Standards
- (2) is NOT subject to the Massachusetts Stormwater Standards

If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:

- a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.
- b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that:
- i.* all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures;
 - ii.* as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized;
 - iii.* any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10;



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C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

iv. all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;

v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.

c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement") for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following:

i.) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and

ii.) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.

d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.

e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 18(f) through 18(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 18(f) through 18(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.

f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.



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C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- g) The responsible party shall:
1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
 2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and
 3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.
- h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.
- i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.
- j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.
- k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.
- l) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Special Conditions (if you need more space for additional conditions, please attach a text document):

See Attachment A - Special Conditions

20. For Test Projects subject to 310 CMR 10.05(11), the applicant shall also implement the monitoring plan and the restoration plan submitted with the Notice of Intent. If the conservation commission or Department determines that the Test Project threatens the public health, safety or the environment, the applicant shall implement the removal plan submitted with the Notice of Intent or modify the project as directed by the conservation commission or the Department.



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D. Findings Under Municipal Wetlands Bylaw or Ordinance

1. Is a municipal wetlands bylaw or ordinance applicable? Yes No
2. The Ayer Conservation Commission hereby finds (check one that applies):
 - a. that the proposed work cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw, specifically:

| | |
|---------------------------------|-------------|
| 1. Municipal Ordinance or Bylaw | 2. Citation |
|---------------------------------|-------------|

Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order of Conditions is issued.
 - b. that the following additional conditions are necessary to comply with a municipal ordinance or bylaw:

| | |
|---------------------------------|---------------------|
| <u>Ayer Wetlands Bylaw</u> | <u>Article XXVI</u> |
| 1. Municipal Ordinance or Bylaw | 2. Citation |
3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.
 The special conditions relating to municipal ordinance or bylaw are as follows (if you need more space for additional conditions, attach a text document):

No additional conditions.



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E. Signatures

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

1. Date of Issuance

Please indicate the number of members who will sign this form.

This Order must be signed by a majority of the Conservation Commission.

2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

| | |
|--------------------|--|
| _____ Signature | Jon Schmalenberger, Chair _____ Printed Name |
| _____ Signature | Mark Phillips _____ Printed Name |
| _____ Signature | George Bacon _____ Printed Name |
| _____ Signature | Jennifer Amaya _____ Printed Name |
| _____ Signature | Jessica Gugino _____ Printed Name |
| _____ Signature | _____ Printed Name |
| _____ Signature | _____ Printed Name |
| _____ Signature | _____ Printed Name |

by hand delivery on

by certified mail, return receipt requested, on

Date

Date



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F. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.



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G. Recording Information

Prior to commencement of work, this Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

Ayer

 Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:
Ayer

 Conservation Commission

Please be advised that the Order of Conditions for the Project at:
K137/L138 Transmission Line and Tap 100-0479

 Project Location MassDEP File Number

Has been recorded at the Registry of Deeds of:

 County Book Page

for: Property Owner

and has been noted in the chain of title of the affected property in:

 Book Page

In accordance with the Order of Conditions issued on:

 Date

If recorded land, the instrument number identifying this transaction is:

 Instrument Number

If registered land, the document number identifying this transaction is:

 Document Number

Signature of Applicant



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
Request for Departmental Action Fee
Transmittal Form

DEP File Number:

Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. Request Information

1. Location of Project

a. Street Address

b. City/Town, Zip

c. Check number

d. Fee amount

2. Person or party making request (if appropriate, name the citizen group's representative):

Name

Mailing Address

City/Town

State

Zip Code

Phone Number

Fax Number (if applicable)

3. Applicant (as shown on Determination of Applicability (Form 2), Order of Resource Area Delineation (Form 4B), Order of Conditions (Form 5), Restoration Order of Conditions (Form 5A), or Notice of Non-Significance (Form 6)):

Name

Mailing Address

City/Town

State

Zip Code

Phone Number

Fax Number (if applicable)

4. DEP File Number:

B. Instructions

1. When the Departmental action request is for (check one):

- Superseding Order of Conditions – Fee: \$120.00 (single family house projects) or \$245 (all other projects)
- Superseding Determination of Applicability – Fee: \$120
- Superseding Order of Resource Area Delineation – Fee: \$120

Important:
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.





Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

DEP File Number:

Request for Departmental Action Fee Transmittal Form

Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Instructions (cont.)

Send this form and check or money order, payable to the *Commonwealth of Massachusetts*, to:

Department of Environmental Protection
Box 4062
Boston, MA 02211

2. On a separate sheet attached to this form, state clearly and concisely the objections to the Determination or Order which is being appealed. To the extent that the Determination or Order is based on a municipal bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.
3. Send a **copy** of this form and a **copy** of the check or money order with the Request for a Superseding Determination or Order by certified mail or hand delivery to the appropriate DEP Regional Office (see <https://www.mass.gov/service-details/massdep-regional-offices-by-community>).
4. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

ATTACHMENT A
SPECIAL CONDITIONS
Order of Conditions
K137/L138 Sandy Pond to Pratts Jct. & Ayer Tap Transmission Line OPGW
Installation, Ayer, MA
DEP File # 100-0479

FINDINGS:

Under the Order of Conditions (“the Order”) issued under MassDEP File Number 100-0479 to New England Power Company (NEP)(“the Applicant”), the Ayer Conservation Commission (“the Commission”) hereby finds that in addition to the preceding General Conditions #1-20, Special Conditions listed herewith are necessary to achieve Performance Standards set forth in the Wetlands Protection Act (“WPA”) as codified in 310 CMR 10.00 (“the Regulations”) as well as the Town of Ayer Wetlands Protection Bylaw (Article XXVI). “Resource Areas” are enumerated under 310 CMR 10.02(1), and “Buffer Zone” is defined in 310 CMR 10.04, as amended. Any violation of these Conditions is considered a breach of the Wetlands Protection Act and/or the Ayer Wetlands Protection Bylaw, which may make the Applicant subject to an Enforcement Order or a fine from this Commission and from MassDEP.

This multi-town project qualifies as a Limited Project per 310 CMR 10.53(3)(d). It involves the refurbishment of portions of the existing transmission line as well as the installation of optical ground wire (OPGW) along the line to facilitate faster communication between substations. The OPGW, strung overhead, will replace existing shield wire. Geotechnical soil borings to evaluate the substrate in Ayer were previously performed under a separate Order of Conditions, MassDEP File # 100-0448, issued 9/10/2020. The Conservation Commission conducted a site walk for this project, with the applicant’s representative, on 2/12/2022.2/12/2022.

The maintenance and improvement activities in Ayer will involve 62 existing support structures, 26 of which are located within jurisdictional resource areas or buffer zones (Bordering Vegetated Wetlands, 100-ft. Buffer Zone to BVW, 200 ft. Buffer Zone to Riverfront Area, FEMA 100-Year Floodplain/Bordering Land Subject to Flooding, and Land Under Water). Portions of the project are also within Areas of Critical Environmental Concern and Natural Heritage & Endangered Species Program Priority/Estimated Habitat. Letters from NHESP (Tracking No. 21-40549), 2/17/2022 and 10/28/2021, have indicated their determination that the project will not adversely affect resource area habitat of state-protected rare wildlife species, nor result in a prohibited take of state-listed rare species, as long as the Turtle Protection Plan and impact avoidance measures are implemented as proposed by NEP.

Existing wooden line support structures in need of maintenance will be replaced with in-kind galvanized steel structures; in some areas, the replacements will be with larger steel structures that will require concrete foundations on an enlarged footprint. Areas around replacement structures that have been mowed and re-graded will be reseeded and stabilized afterwards. Vegetation management within the ROW will also be performed. Existing historically-used access points, where deeded easement agreements have been confirmed, will be used for the project. These access areas will be subject to maintenance and improvements - mowing, in

some cases widening (within the existing ROW), and/or having their gravel stone surfaces refreshed.

Regarding the enlarged footprint of two caisson supported structures, this will involve 116 square feet of impact within BVW. A 2:1 wetland replication area of 232 square feet will therefore be constructed, connecting to existing wetland AY-W24, as a result of this impact.

During the project, temporary construction matting will be used to cross wetlands for access to support structures, per Best Management Practices and previous MassDEP guidance. The applicant will install erosion and sediment controls using BMPs.

The Commission orders that all work shall be performed in accordance with said General and Special Conditions, the referenced Notice of Intent, and all other relevant documents listed below in Special Condition 2. The Commission designates the “limit of work” under this Order as the erosion control barriers concurrent with the limit of work line depicted on the referenced plan(s) listed in Special Condition 2.

According to the Bylaws of the Town of Ayer, Article LIII (Enforcement), the Conservation Commission is considered an enforcement officer for Article XXVII (Wetlands Protection). While the Wetlands Bylaw does not specify a fine amount for a violation, Article LIII specifies the fine to be three hundred dollars per violation. Each day a violation exists shall constitute a separate offence.

ADMINISTRATIVE CONDITIONS

General Conditions 1-20 on the DEP WPA Form 5 are in force under this Order, and are all required for compliance, without exception. These Administrative Special Conditions are expanding upon General Condition 1.

1. All work must be in compliance with DEP General Conditions 1-20, and all Special Conditions from the Ayer Conservation Commission herein.
2. The work shall conform to the following plans and documents, unless otherwise specified in this Order. All of these plans will be submitted to the Conservation Administrator in an agreed upon electronic format, if that office does not possess them already:

- a. WPA Form 3/Notice of Intent:
Submitted on behalf of: Kellie Doherty
Property Owner: New England Power Company (NEP)

Project Location: K137/L138 Tap Transmission Line ROW
Ayer, MA 01432

Prepared by: BSC Group, Inc.
Stamped by: n/a
- b. Site Plan: K137/L138 Sandy Pond to Pratts Jct. & Ayer Tap
Transmission Line OPGW Installation (19 sheets)

Final Rev. Date: 12/13/2021

c. Wetland Replication
Planting Plan 1/3/2022 (3 sheets)

3. Any violation of these Conditions will make the Applicant subject to an Enforcement Order or a fine.
4. Members and agents of the Commission shall have the right to enter and inspect the premises at reasonable times, in reasonable intervals, with reasonable notification to the Site Supervisor, to evaluate compliance with the Conditions, up to such a time that the Certificate of Compliance is issued. The Commission may require the submittal of additional data (such as work or data logs, purchase receipts, or product specifications) reasonably deemed necessary by the Commission to determine whether the project is in compliance with the Conditions. Potential violations of perpetual Conditions shall not grant the Commission or its agents' passage over private property.
5. **The Applicant (or Applicant's representatives, who in this instance may be any of the Environmental Monitor, Site Superintendent, the Contractor, or design project Engineer) is responsible for the Project's completion in accordance with the Plans and these Conditions, and shall have on site at all times a copy of this Order, including all referenced documents, while activities regulated by this Order are being performed.**
6. Any change in the Plans approved under this Order, including those due for review by other boards or resulting from the aforementioned conditions, must be submitted to the Commission in writing for approval prior to implementation. The Commission will then decide whether the change is substantial enough to require a new Notice of Intent filing or a request for an amendment to this Order of Conditions. Any errors found in the Plans or information submitted by the Applicant shall be considered as changes. If any unforeseen problem occurs during construction of the Project which affects any of the seven statutory interests of the WPA, the Applicant shall notify the Commission, and shall convene an immediate meeting between the Commission and/or the Agent, the Applicant (or the Applicant's representative(s) which may include the Environmental Monitor, Engineer, Site Supervisor, or Contractor), and other invited parties to determine and agree upon the appropriate corrective measures. In the event of a dispute amongst the participants of any meeting, the Commission's view shall prevail.
7. The Site Supervisor is responsible for ensuring all parties on site abide by the Conditions set forth in this Order. This oversight responsibility extends to any sub-contractors, and persons delivering items or materials to the project.
8. No proposed earthen embankment in the buffer zone shall have a slope steeper than 2:1 (horizontal : vertical) without prior written approval of the Commission.
9. Pumps, generators, or other stationary equipment containing fuel, oil, hydraulic fluid, or other potential contaminants shall only be stored overnight or operated within the wetland resource area, wetland buffer zone, or riverfront area with approval of the Commission. Equipment shall be located on an impervious barrier. The barrier shall be

of light color to allow observation of any liquid spillage. If spillage is observed, the equipment shall be taken out of service immediately.

10. No oil, calcium chloride, or other salt shall be used within Resource Areas or Buffer Zones during any construction phase for the control of dust.
11. Non-organic fertilizers shall not be used. Organic fertilizers used shall be slow-release. Additionally, soil and plant fertilization must be done in accordance with the Act Relative to the Regulation of Plant Nutrients (Act) (330 CMR 31.00). The Act includes, but is not limited to, the following provisions:
 - a. Phosphorous-containing fertilizer may only be applied when a soil test indicates that it is needed or when a lawn is being established, patched or renovated;
 - b. Do not apply plant nutrients to sidewalks or other impervious surfaces. Plant nutrients that land on these surfaces must be swept back onto the grass or cleaned up.
 - c. No applications of plant nutrients shall be made: – between December 1 and March 1; – to frozen and/or snow covered soil; – to saturated soil, or soils that are frequently flooded; – within 20 feet of waterways if using a broadcast method, or 10 feet if using a more targeted application method, such as a drop spreader; – within a Zone I of a public water supply well or within 100 feet of surface waters that are used for public drinking water supply.
12. No vehicles or equipment are to enter or cross a Resource Area or Buffer Zone outside of the limits of work, unless the location of disturbance is marked on the Plans referenced in this Order, submitted for review to the Commission with a plan for restoration of the Resource Area disturbance, and approved by the Commission prior to the entry or crossing. Equipment is considered anything motorized, or that may potentially leak harmful materials such as fuels or lubricants into Resource Areas or Buffer Zones.

PRE-CONSTRUCTION CONDITIONS: These Pre-Construction Special Conditions are an expansion of General Conditions 8, 9, and 10.

13. Prior to commencement of any work on site:
 - a. The wetland boundaries shall be clearly marked
 - b. The Applicant shall submit in writing to the Commission the names, addresses, and telephone numbers (both business and 24-hour emergency numbers) of the person(s) responsible on-site for compliance with this Order and his/her alternate. The Applicant shall also notify the Commission in writing of any changes to this information.
 - c. The Applicant, or designee, shall hold a pre-construction meeting with the Agent, Environmental Monitor, Engineer, Site Superintendent, and Contractor (if different), prior to the start of any work to ensure this Order is fully understood by all parties. At this meeting, a Method of Procedures (MOP) shall be outlined, discussed, and written down for submitted to the Commission.

The MOP shall address protocols and contingencies for protecting Resource Areas during construction, responding to unforeseen conditions, and reporting back to the Commission. This MOP shall be established therewith and implemented throughout construction.

- d. All erosion and sedimentation control measures shall be installed as needed or required for the project.
- e. Proof of recording of this Order at the South Middlesex Registry of Deeds must be presented to the Commission or its Agent.

DURING CONSTRUCTION CONDITIONS: INVASIVE SPECIES MANAGEMENT

- 14. Any fill brought on site must be clean, debris-free, and be devoid of invasive plants, their parts, or their seeds.
- 15. All construction vehicles must be cleaned of accumulated soil or plant matter from other sites prior to entering the site, through washing, brooming, or other method approved in advance by the Commission.
- 16. In order to prevent the spread of invasive species from one portion of the project site to another, construction vehicles may not enter locations infested with invasive species. If this is unavoidable, vehicles shall be washed or cleaned prior to leaving the infested portion of the site.

DURING CONSTRUCTION CONDITIONS: SEDIMENT AND EROSION CONTROLS

These During Construction Conditions are an expansion of Form 5 General Condition 18.

- 17. Soil erosion and deposition into wetland resource areas shall be prevented at all times by effective control methods. The Applicant shall implement the methods indicated in the referenced Notice of Intent and as specified below:
 - a. Upon the discovery of any failure of erosion control measures resulting in deposition of soils into Resource Areas, the incident shall be **immediately** reported to the Commission at (978) 772-8249 and to concom@ayer.ma.us .
 - b. The Applicant shall take steps as soon as reasonably practical to control any erosion that occurs on site that impacts areas under jurisdiction of the Wetlands Protection Act and the Ayer Wetlands Bylaw and Regulations.
 - c. Exposed soils shall be stabilized as soon as practical following disturbance. Slopes and other disturbed areas not subject to construction activities shall be stabilized (either temporarily or permanently) immediately following excavation/grading. Temporary stabilization shall consist of covering bare soil with straw mulch.

18. **Erosion control devices and wetland flags shall remain in place until all disturbed surfaces have been reseeded as proposed and permanently stabilized and a Certificate of Compliance is signed by the Commission.** The erosion control devices may only be removed once the Applicant has submitted a Request for a Certificate of Compliance AND the Commission and/or its Agent has conducted a site visit and granted permission to do so. Biodegradable erosion controls may be broken up and spread on site, but not within any wetland resource area(s) or Conservation Easement. Any non-biodegradable material approved for use must be removed and discarded off-site.

DURING CONSTRUCTION CONDITIONS: SOIL STOCKPILES AND FILL STORAGE

19. At no time shall debris or other material be buried or disposed of within the buffer zone, other than that fill which is explicitly allowed by this Order and as shown on the referenced plans.
20. All fill not drawn from the site itself, stumps, brush, logs, rubbish, construction debris, excavated materials, construction equipment and vehicles, and construction materials (i.e. gravel, bentonite, etc.), if permitted to be stored on-site, shall be stored in a designated location approved by the Commission.
21. Stockpiled earth and other materials shall be piled outside the 100-foot Buffer Zone and/or the 200-foot Riverfront Area, and shall be stabilized to prevent erosion into wetland resource areas and/or prevent any runoff off-site.
22. Any soil stockpiles that will remain on site for longer than thirty (30) days must be seeded with the same mixture of seeds already intended for use within the replication area and/or the upstream area that will be seeded in accordance with Special Condition 22(l).

END OF CONSTRUCTION CONDITIONS:

23. Upon completion of this project, and within two years of the completion of the wetland replication area, the owner or his designee shall submit the following to the Conservation Commission to receive a Certificate of Compliance per Condition 12:
- a. A letter from New England Power Company or its designee requesting a Certificate of Compliance for DEP File # 100-0479.

PROJECT SPECIFIC CONDITIONS:

24. The Turtle Protection Plan and impact avoidance measures proposed to NHESP shall be implemented as described.





Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

Ayer
City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. General Information

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Applicant:

Ronald Krieser Name rkrieser@fitchburgstate.edu E-Mail Address
8 Standish Avenue Mailing Address
Ayer City/Town MA State 01432 Zip Code
(978)-609-1059 Phone Number
Fax Number (if applicable)

2. Representative (if any):

Firm
Contact Name E-Mail Address
Mailing Address
City/Town State Zip Code
Phone Number Fax Number (if applicable)

B. Determinations

1. I request the Ayer Conservation Commission make the following determination(s). Check any that apply:

- a. whether the area depicted on plan(s) and/or map(s) referenced below is an area subject to jurisdiction of the Wetlands Protection Act.
b. whether the boundaries of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.
c. whether the work depicted on plan(s) referenced below is subject to the Wetlands Protection Act.
d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any municipal wetlands ordinance or bylaw of:

Ayer Name of Municipality

- e. whether the following scope of alternatives is adequate for work in the Riverfront Area as depicted on referenced plan(s).



WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- Single family house on a lot recorded on or before 8/1/96
- Single family house on a lot recorded after 8/1/96
- Expansion of an existing structure on a lot recorded after 8/1/96
- Project, other than a single family house or public project, where the applicant owned the lot before 8/7/96
- New agriculture or aquaculture project
- Public project where funds were appropriated prior to 8/7/96
- Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- Residential subdivision; institutional, industrial, or commercial project
- Municipal project
- District, county, state, or federal government project
- Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)



WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Name and address of the property owner:

Ronald Krieser
Name

8 Standish Avenue
Mailing Address

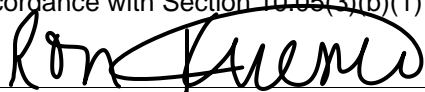
Ayer
City/Town

MA
State

01432
Zip Code

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.


Signature of Applicant

3/7/2022
Date

Signature of Representative (if any)

Date



Price Proposal
**2022 Aquatic Plant Management for
Ayer Ponds**

Prepared for:
Ayer Conservation Commission
1 Main Street
Ayer, MA 01432

March 8, 2022

©2022 SOLitude Lake Management
590 Lake Street
Shrewsbury, MA 01545
Prepared By: Dominic Meringolo, Project Manager/Sr. Environmental Engineer
Phone: (508)373-4526
FAX: (508) 917-7157
DMeringolo@Solitudelake.com
www.solitudelakemanagement.com

COST AND PAYMENT SCHEDULE

Costs shown below are inclusive of all materials, labor, and equipment required to perform all work detailed in the 2022 Aquatic Plant Management for Ayer Ponds Technical Proposal.

| 2022 | | |
|------------------------------------|--|-------------|
| Management Task | Description | Cost |
| Permitting/Notifications | - File MA DEP License to Apply Chemicals permit. - Shoreline posting | \$750 |
| Surveys & Reporting | - Pre- & post-treatment surveys - Interim surveys and summary reports - Year-end reporting | \$3,750 |
| Sandy Pond Treatment Program | - Perform Sonar herbicide treatment and up to two booster applications to targeted areas of fanwort growth(approx 3-4-acres). - Diquat herbicide treatment to control variable milfoil. - Glyphosate treatment(s) to scale back nuisance-level waterlilies. - Glyphosate treatment(s) to control Phragmites | \$5,720 |
| Flannagan Pond Treatment Program | - Perform Sonar herbicide treatment and up to two booster applications to targeted areas of fanwort growth(approx 1-2 acres). - Diquat herbicide treatment to control variable milfoil and curlyleaf pondweed. - Aquapro treatment(s) to control nuisance level waterlilies. | \$9,480 |
| Pine Meadow Pond Treatment Program | - Diquat treatment as needed to control variable leaf watermilfoil and curlyleaf pondweed. - Aquapro treatment(s) to control nuisance level waterlilies. | \$3,190 |

TOTAL 2022 PROGRAM COST

\$22,890

PAYMENT SCHEDULE

Invoices will be submitted to the Town commensurate with the work performed. Our standard practice that payment is due within 30 days of the issuance of each invoice. However, we agree to negotiate final payment terms and schedule with the Town if we are selected for this project.

ADDITIONAL SERVICES

Additional monitoring/consulting services requested by the Town beyond the scope of work proposed herein would be billed at the following rates.

- Principal Biologist \$135/hr.
- Sr. Biologist/Environmental Engineer \$105-115/hr.
- Biologist \$75-95/hr.
- Field Technician/Technical Support \$45/hr.
- Expenses: (mileage \$0.35/mi; copies \$0.15/pg; faxes \$0.50/pg; water analysis, postage and miscellaneous expenses cost plus 15%)

Thank you for giving us an opportunity to submit a proposal for this work. We are confident that our experience, familiarity with the ponds of Ayer, and our recommended approach for this project will provide effective results. Please do not hesitate to contact me if you have any questions or would like to discuss our submittal in greater detail. Thank you.

Sincerely,



3/7/2021

Date

Dominic Meringolo
Project Manager
SOLitude Lake Management
590 Lake Street
Shrewsbury, MA 01545



Technical (Non-Price) Proposal
**2022 Aquatic Plant Management for
Ayer Ponds**

Prepared for:
Ayer Conservation Commission
1 Main Street
Ayer, MA 01432

March 7, 2022

©2022 SOLitude Lake Management
590 Lake Street
Shrewsbury, MA 01545
Prepared By: Dominic Meringolo, Project Manager/Sr. Environmental Engineer
Phone: (508)373-4526
FAX: (508) 865-1220
DMeringolo@Solitudelake.com
www.solitudelakemanagement.com

SCOPE OF SERVICES

The following Scope of Services provides for the reduction, control, and management of the growth of aquatic invasive and nuisance, non-native plants for the purpose of restoring and maintaining habitat, public enjoyment, and recreation at Sandy Pond, Flannagan Pond and Pine Meadow Pond. SOLitude Lake Management has an extensive prior history in managing Ayer's Ponds, which aided us in developing treatment plans. We also referred to past year-end reports and the "Biological Survey, Assessment and Management Recommendations for Ayer's Ponds," prepared by Geosyntec Consultants (Final Report, May 2016).

We have thoroughly reviewed the RFQ and understand and agree to comply with all specifications and provisions therein.

Permitting: Based on information provided in the Request for Quotes (RFQ), it is our understanding that the Town holds a valid Order of Conditions allowing herbicide treatments at all three ponds. SOLitude Lake Management (SLM) will prepare and file the required site-specific License to Apply Chemicals permits from MA DEP – Office of Watershed Management, in order to treat Sandy Pond, Pine Meadow Pond and Flannagan Pond.

Surveys and Reporting: Prior to treatment, SOLitude will survey: Sandy Pond, Pine Meadow Pond and Flannagan Pond, to visually document the extent and maturity of the target plant growth. The pre-treatment surveys will be scheduled in June and any fanwort treatment will be initiated prior to that based on 2021 post-treatment mapping (i.e. three locations in Sandy Pond and one location in Flannagan Pond).

The survey will be performed from a boat using a throw-rake, an underwater camera system and visual observation. The survey will be coordinated with the Town's representative and one person is welcome to accompany our staff. The target plant locations and treatment area boundaries will be recorded using a GPS unit and data will be mapped using ArcView GIS software. Data points taken with the GPS will be spaced at 10' or less and will provide an accurate plot of the areas to be treated. The survey will include a photographic survey and GPS-generated plot of the region(s) to be treated. A plot of pre-treatment data points will be submitted to the Commission a minimum of seven days prior to the first treatments, per the RFP requirements.

Following completion of the treatment program SOLitude will inspect target plant growth conditions, likely sometime in August/September. The post-treatment protocol/specifications will follow that of the pre-treatment survey.

Following the post-treatment survey, SOLitude will prepare and submit a written report that provides a) a description of the treatment program, b) plant response observed, and c) on-going management options/recommendations. The report shall specify the total surface area of targeted species and the percent of surface area targeted for eradications. An overlay of the GPS-generated pre- and post-treatment plots, a calculation of pre- and post-treatment areas, and a notarized statement by SOLitude Lake Management stating that the eradication goal of 90% was met for fanwort and milfoil and the goal of 50% was met for Phragmites in all three ponds throughout 2022 will also be included with the final report.

Notifications: In advance of treatment, SOLitude Lake Management will provide a written notification of treatment to the Town, to be published in the local newspaper, cable access, etc, as required. Prior to treatment, SOLitude will post laser-printed 8 ½ x11 warning signs on colored stock that detail the treatment date and water use restrictions to be imposed following treatment. A minimum notice of 7 calendar days will be given to the Town prior to each herbicide application.

**Ayer Ponds
Herbicide
Treatments:**

Flannagan Pond

Based on a review of the 2021 Year-End Report prepared by Water & Wetlands, the entirety of Flannagan Pond was treated with Sonar (fluridone) herbicide to control fanwort (*Cabomba caroliniana*), variable watermilfoil (*Myriophyllum heterophyllum*) and curlyleaf pondweed (*Potamogeton crispus*). Spot treatments were also conducted with glyphosate to reduce the density of nuisance waterlilies.

Based on the 2021 report, the treatments were largely successful with only a small patch of fanwort remaining near the inlet from Sandy Pond. For 2022, we recommend the following treatment tasks.

- Spot-Treatment of the remaining fanwort at the inlet from Sandy Pond with Sonar (fluridone) granular formulations.
- Treatment with diquat to control curlyleaf pondweed and any variable milfoil re-growth.
- Treatment with glyphosate in the late summer to manage overabundant waterlilies.

A MA DAR licensed applicator licensed in the Aquatic category will oversee the treatment. An airboat or other treatment boat, equipped with the proper application equipment, will be used for the treatment. A Differential/WAAS GPS system will also be used for real-time navigation during the treatment and to ensure that the herbicide is applied evenly within the designated treatment areas.

The most current research suggests that ultra-low dose applications of Sonar can be effective when applied early in the growing season and when utilizing the latest formulations. The pellet formulation, called Sonar One, enables more uniform coverage in areas of target vegetation growth. This product also releases active ingredient slowly over time, which increases our ability to maintain herbicide concentration exposure time in systems that have the potential for high flushing rates.

As such, we recommend initiating treatment at the onset of active plant growth, probably late April or early May. SOLitude will work with the Town to determine the appropriate time frame for surveys and herbicide applications and will comply with the Town's requests. Using the pellet formulation early in the growing season should reduce the number of applications required and result in plant control by mid-summer. We anticipate conducting an initial application and 1-2 follow-up, booster applications in targeted areas. Given the relatively small treatment area, the granular product will be applied using a calibrated gas-powered blower.

Diquat herbicide liquids will also be applied to target areas of Flannagan Pond to spot treat areas of variable watermilfoil and curlyleaf pondweed. The USEPA/MA registered contact herbicide Tribune has proven to have good activity on both species.

SOLitude will also spot-treat nuisance growth of waterlilies using Aquapro (glyphosate) as needed. Glyphosate – has been used effectively in the treatment of Cattails, Phragmites, Lilies and other emergent aquatic vegetation in prior years. We would recommend initiating treatment once the waterlilies have surfaced, flowered and matured and are focusing their energy downward towards the root system; this will help translocate the systemic herbicide to the roots. This method achieves the greatest amount of control. We anticipate conducting the application in August or September.

The objective of this treatment program is to eradicate at least 90% of fanwort, variable watermilfoil and curlyleaf pondweed in Flannagan Pond and thin out waterlilies to more desirable levels during the 2022 season, for the purpose of maintaining habitat and facilitating the recreational uses of Flannagan Pond for boating and fishing.

Treatment will be scheduled and performed on a date mutually agreed to by the Town and SLM.

Sandy Pond

Based on a review of the 2021 Year-End Report prepared by Water & Wetlands, spot treatments of variable watermilfoil (*Myriophyllum heterophyllum*), nuisance waterlilies and Phragmites were conducted last summer.

Based on the 2021 report, the treatments were largely successful, however several areas of fanwort were observed later in the season and re-growth of milfoil and waterlilies is expected. For 2022, we recommend the following treatment tasks.

- Spot-Treatment of fanwort in several areas of Sandy Pond with Sonar (fluridone) granular formulations.
- Treatment with diquat to control variable milfoil re-growth.
- Treatment with glyphosate in the late summer to manage overabundant waterlilies and to continue management of the Phragmites.

A MA DAR licensed applicator licensed in the Aquatic category will oversee the treatment. An airboat or other treatment boat, equipped with the proper application equipment, will be used for the treatment. A Differential/WAAS GPS system will also be used for real-time navigation during the treatment and to ensure that the herbicide is applied evenly within the designated treatment areas.

The most current research suggests that ultra-low dose applications of Sonar can be effective when applied early in the growing season and when utilizing the latest formulations. The pellet formulation, called Sonar One, enables more uniform coverage in areas of target vegetation growth. This product also releases active ingredient slowly over time, which increases our ability to maintain herbicide concentration exposure time in systems that have the potential for high flushing rates.

As such, we recommend initiating treatment at the onset of active plant growth, probably late April or early May. SOLitude will work with the Town to determine

the appropriate time frame for surveys and herbicide applications and will comply with the Town's requests. Using the pellet formulation early in the growing season should reduce the number of applications required and result in plant control by mid-summer. We anticipate conducting an initial application and 1-2 follow-up, booster applications in targeted areas. Given the relatively small treatment areas, the granular product will be applied using a calibrated gas-powered blower.

Diquat herbicide liquids will also be applied to target areas of Sandy Pond to spot treat areas of variable watermilfoil (and any potential nuisance growth in the area of the Town Beach). The USEPA/MA registered contact herbicide Tribune has proven to have good activity on both species.

SOLitude will also spot-treat nuisance growth of waterlilies and Phragmites using Aquapro (glyphosate) as needed. Glyphosate – has been used effectively in the treatment of Cattails, Phragmites, Lilies and other emergent aquatic vegetation in prior years. We would recommend initiating treatment once the waterlilies have surfaced, flowered and matured and are focusing their energy downward towards the root system; this will help translocate the systemic herbicide to the roots. This method achieves the greatest amount of control. We anticipate conducting the application in August or September.

The objective of this treatment program is to eradicate at least 90% of fanwort and variable watermilfoil and at least 50% of Phragmites in Sandy Pond and thin out waterlilies to more desirable levels during the 2022 season, for the purpose of maintaining habitat and facilitating the recreational uses of Sandy Pond for boating and fishing.

Treatment will be scheduled and performed on a date mutually agreed to by the Town and SLM.

Pine Meadow Pond

According to the Request for Quotes (RFP) and based on the 2021 Year-End Report, the objective at Pine Meadow Pond is for 90% eradication of variable leaf watermilfoil and curlyleaf pondweed, for the 2022 season. Based on the Geosyntec study, in addition to SLM's history at Pine Meadow Pond, we find no evidence to show that Pine Meadow Pond contains fanwort. Based on this information, we are proposing a spot treatment program of variable leaf watermilfoil/curlyleaf pondweed using diquat in May/June, as well as spot treatment of waterlilies using Aquapro (glyphosate) as needed. The foliar application of Glyphosate will be administered along with a surfactant as required. Treatment of lilies is anticipated in August/September, if required.

Herbicide Residue Monitoring:

For waterbodies treated with Sonar herbicide, SLM will conduct appropriate herbicide sampling to monitor Sonar herbicide concentrations during the course of the project. Samples will be collected and shipped to SePRO (Sonar manufacturer for immunoassay analysis).

TENTATIVE SCHEDULE OF PERFORMANCE

| Task | Timeline |
|---|----------------------|
| File MA DEP License to Apply Chemicals Applications | Upon Notice of Award |
| Pre-treatment Inspection | June |
| Initial Sonar herbicide spot-treatment at Flannagans & Sandy Pond | early May |
| FasTEST Herbicide Residue Monitoring | May - July |
| Second Sonar herbicide treatment | Late May/early June |
| Diquat Treatment at Pine Meadow Pond, Sandy Pond, Flannagan Pond | June |
| Third Sonar herbicide treatment (if required) | Late June - July |
| Glyphosate treatment(s) at all three ponds | August |
| Post-treatment inspection | September |
| Project completion report | November |

STATEMENT OF GUARANTEE

For Flannagan Pond, Sandy Pond and Pine Meadow Pond, we guarantee a ≥90% reduction in the overall pre-treatment biomass of the targeted plants (milfoil, fanwort and curlyleaf pondweed) will be achieved within approximately 30 days (60-90 days for fanwort) of the chemical treatment. This level of control is guaranteed throughout the remaining 2022 season. In the event that this level of control is not reached, SLM will re-treat the targeted vegetation at no additional cost to reach the level of guaranteed control. For Phragmites, SLM guarantees at least a 50% reduction in the existing stands present around Sandy Pond.

INSURANCE COVERAGE

SOLitude is properly insured to undertake aquatic herbicide and algaecide application work in Massachusetts. Insurance Certificates are attached.

FIRM EXPERIENCE AND QUALIFICATIONS

SOLitude is a full-service Lake Management Company that specializes in control of non-native and invasive aquatic vegetation. We now work on and manage over 700 waterbodies each year, employing a variety of chemical and non-chemical nuisance plant control strategies. We chemically treat an estimated 350 ponds/lakes in New England. In MA alone, we'll work on ponds/lakes situated in some 125 different cities/towns this coming year.

SOLitude works closely with all of the state environmental agencies in New England and is consistently chosen by those agencies to perform the high profile and more challenging Lake Management Projects. In 2013 alone, SOLitude was under contract for management programs with the Massachusetts Department of Conservation and Recreation, the Maine Department of Environmental Protection, the New Hampshire Department of Environmental Services, the Vermont Department of Environmental Conservation and the Rhode Island Department of Environmental Management. SOLitude has been selected for the past ten years for an "on-call" contract with the Connecticut Department of Environmental Protection to conduct invasive aquatic plant surveys and management programs, such as addressing newly found infestations of exotic plant species in the State. We've performed aquatic invasive plant control work for the US Army Corp of Engineers, the US Fish & Wildlife Service and environmental organizations such as the Nature Conservancy of CT.

Aside from herbicide and algaecide treatments, SOLitude practices a truly integrated approach to lake management. We own and operate one of the largest fleets of mechanical Harvesters and Hydro-Rakes for contract hire in the Country. While many lakes are turning away from harvesting programs for milfoil control, it is still the primary strategy used for control of water chestnut (*Trapa*) weed. SOLitude has been selected by VT DEC for the extensive water chestnut harvesting project that has been performed at South Lake Champlain in VT/NY for the past 22 consecutive years and by MA DCR for harvesting of water chestnut in the Charles River Lakes District situated in Newton/Waltham. For the past several years, we have been managing water chestnut at Log Pond Cove on the Connecticut River in Holyoke, MA through a program that integrates mechanical harvesting, hand-pulling and chemical treatment. Additionally, we sell and install bottom weed barriers and aeration equipment.

In addition to project implementation, our professional staff conducts numerous water quality studies, vegetation surveys, dredging and drawdown feasibility studies and lake management plans each year. We partnered with ENSR Corporation, to complete the Lake George (NY) Milfoil Control Evaluation also completed a Long-Term Vegetation Management Plan for 4,000-acre Saratoga Lake (NY).

The SOLitude New England office employs thirteen full-time professionals with backgrounds in biology and environmental engineering, two full-time mechanics/operations personnel and an additional crew of seasonal equipment operators and field technicians. SOLitude has invested in some of the most recent technological advances including Geographic Information Systems (GIS) based computer mapping and Differential Global Position System (DGPS) to enhance survey and navigational capabilities. These items enable us to truly utilize a multi-disciplinary approach to lake management.

Comprehensive lists of representative projects and client references are Attached.

CHEMICAL TREATMENT EXPERIENCE

SOLitude has extensive experience with all of the aquatic herbicides and algaecides that are currently registered for aquatic usage. We have performed literally thousands of treatments with the following products: Imazamox (Clearcast), flumioxazin (Clipper), fluridone (Sonar), diquat (Reward), 2,4-D granular (Aqua-Kleen/Navigate), endothall (Aquathol K), glyphosate (Rodeo and generics); triclopyr (Renovate) and copper (copper sulfate and liquid complexes). In Massachusetts, we perform the majority of all the permitted aquatic herbicide and algaecide treatments each year. In New Hampshire, we have been selected for and performed more than 70% of all state-funded aquatic herbicide applications to control non-native variable watermilfoil on public lakes over the past 20 years. We have been selected by Maine DEP in recent years to perform herbicide treatment programs at the only two Maine waterbodies where herbicide use has been allowed, over the past 20 years. While most of our chemical treatment experience is in lakes and ponds, we have become increasingly involved in treatment of invasive emergent weeds such as *Phragmites* and purple loosestrife in recent years. Working for the CT Nature Conservancy in recent years, we have treated more than 300 acres of *Phragmites* growth at two sites.

SOLitude has treated 1,000 or more different ponds/lakes with Reward herbicide which has been registered with EPA for over 40 years. Many of the more complicated treatments that we have performed in recent years were whole-lake treatments with Sonar (fluridone) herbicide. SOLitude is considered by SePRO (manufacturer of Sonar) to be a Preferred Applicator for the northeast region. We have been instrumental in developing low-dose Sonar treatment protocol for the northeast, and have utilized many new approaches. We utilize a Differential GPS system with sub-meter accuracy for vegetation surveys and as an on-board navigational tool to insure even passes and distribution of the herbicide. To provide protection for an endangered aquatic plant species, we have utilized a water impermeable, suspended containment barrier. SOLitude has the most extensive Sonar treatment experience in New England and eastern New York. We have treated over 300 waterbodies with Sonar since it received its full EPA aquatic registration in 1986.

PERSONNEL SUMMARY

All of SOLitude's full-time staff hold degrees in either Biology or Engineering and all employees are Certified Applicators in Massachusetts and many other New England states. Each of our projects is assigned a Project Manager, who will coordinate all aspects of the projects with assistance from other staff members. All SOLitude employees assigned to this project have passed our standard background check procedures.

PROJECT CONTACT

SOLitude Lake Management
590 Lake Street
Shrewsbury, MA 01545

Phone: 508-865-1000
Fax: 508-865-1220
E-mail: DMeringolo@solitudelake.com

PROJECT TEAM

SOLitude's professional team comes from a wide scientific and engineering background and we have a vast knowledge of aquatic ecosystems and the interactions between humans and the environment. We strive to promote an ecologically balanced aquatic community. SOLitude's key personnel for this project will include Dominic Meringolo, John Maday, Amanda Mahaney and other permitting, operations and support staff as necessary. Resumes and applicator licenses are attached.

Dominic Meringolo, Regional Manager/Senior Environmental Engineer has over 25 years of experience with SOLitude managing lakes, ponds, and reservoirs in New England. Dominic is licensed to perform chemical aquatic treatments in MA, CT, and NY. Dominic has completed hundreds of plant surveys and designed and performed numerous comprehensive monitoring protocols for large and small lake systems. Dominic is well versed in plant identification, operation of the GPS equipment, and has extensive experience with Alum applications. Dominic is a member of the Northeast Aquatic Plant Management Society and has presented at a number of professional conferences as well as various municipal agencies and lake groups.

John Maday, Environmental Scientist – John's primary responsibility is as an Environmental Scientist and a licensed applicator in Connecticut and Massachusetts. He has assisted SLM with the management of lakes and ponds for the past six years conducting water quality sampling, utilizing GPS equipment, and undertaking herbicide and algaecide treatments. John received his Bachelor of Science degree in environmental science from Clark University. John may assist with sampling, project reporting, chemical applications and may maintain equipment used for the proposed project.

Amanda Mahaney, Biologist – Ms. Mahaney's primary responsibilities include aquatic plant survey work and GIS mapping. Amanda has performed dozens of aquatic plant surveys and authored numerous reports and aquatic plant management plans. She is well versed in maintaining an array of water quality instruments, including maintenance and calibration of several water quality parameter meters. Amanda holds a Bachelor's Degree in Environmental Science from Anna Maria College in Paxton, MA.

SOLitude also staffs more than 20 additional full-time professionals (Biologists, Mechanical Specialists, Environmental Engineer, and GIS analysts) and several experienced Field Technicians that will be available to assist with all aspects of the project as the need arises.

REFERENCES

A comprehensive list of representative projects and client references is attached.

| Staff | Contact Information | Responsibilities |
|--|---|--|
| Dominic Meringolo, Senior Environmental Engineer Project Manager | Mobile – 508-373-4526 dmeringolo@solitudelake.com | Project Manager – will serve as primary point of contact and supervisory applicator. |
| John Maday, Environmental Scientist | Mobile – 774-239-3772 jmaday@solitudelake.com | Primary Applicator |
| Amanda Mahaney, Aquatic Biologist | Mobile – 774-633-0538 amahaney@solitudelake.com | Surveys and reporting. |

We are confident that the proposed treatment program will result in excellent control of the target milfoil and fanwort. Should you have any questions regarding our Proposal, please feel free to contact us.

Sincerely,



Dominic Meringolo
Project Manager
SOLitude Lake Management
590 Lake Street
Shrewsbury, MA 01545

3/7/2022
Date

ATTACHMENTS

- Sonar Treatment Representative Projects*
- Municipal Chemical Treatment References*
- Tax Attestation and Non-Collusion Statement*
- Certificate of Liability Insurance*
- Massachusetts Pesticide Licenses*

| MUNICIPALITY | WATERBODY | CONTACT/CLIENT | ADDRESS | TELEPHONE | PROJECT DESCRIPTION |
|--|---|---|--|----------------|---|
| Westford ponds | Various | Carol Gumbart | Town Offices 55 Main Street Westford, MA | (978) 692-5524 | SOLitude has managed various ponds throughout the Town of Westford for the last several years. Each year, we coordinate the treatment/management effort with ESS Group, who handles the monitoring tasks. |
| Army Coprs of Engineers, Royalston, MA | Tully Lake | Jennifer Samela | Army Corps of Engineers New England District | 978-318-8324 | Management and monitoring of cyanobacteria in Tully Lake in 2018. This was a coordinated effort with DeRosa Environmental Consulting, who handled the monitoring tasks and permitting. |
| Town of Tewksbury | Long Pond | Brian Gilbert, DPW Superintendent | Town Offices 999 Whipple Road Tewksbury, MA | (978) 640-4440 | Mechanical Hydro-Raking of Long Pond in coordination with DeRosa Environmental who is handling additional shoreline work. |
| Town of Halifax | West Monponsett Pond | Charles Seelig | Town Offices 499 Plymouth Street Halifax, MA | (781) 294-1316 | Conducted Alum Treatment in 2017 to control phosphorus causing toxic algae blooms. This effort was coordinated with monitoring conducted by Biodrawvrsity |
| Andover | Pomps Pond | Kim Stamas, Director Parks & Recreation Dept. | Town Offices Andover, MA | 978-623-8276 | Assessment, permitting & implementation of an annual management program to control invasive fanwort, curlyleaf pondweed and algae in Pomps Pond, the Town's primary recreation & swim facility. Both Hydro-Raking and herbicide/algaeicide treatment are utilized in this program. |
| Arlington | Spy Pond | Joey Glushko Planning Dept. | Town Offices Arlington, MA 02474 | 781-316-3093 | Sonar herbicide treatments in 2001, 2005, and 2013 for control of Eurasian watermilfoil. Alum treatment in 2004. Also conducted detailed surveys of several town waterbodies in 2007. Treatment of milfoil re-growth in 2009. Phragmites control 2009, 2010, 2011 & 2012 |
| Ashland | Waushakum Pond | Pamela Bathan, Lake Activist | c/o Town Offices Ashland, MA 01721 | 508-626-8698 | Assessment, permitting & implementation of an annual program to manage invasive watermilfoil weed & other nuisance vegetation |
| Ayer | Flannagans Pond, Sandy Pond, Pine Meadow Pond | Bill Daniels Conservation Commission | Town Offices Ayer, MA 01432 | 978-772-8249 | Treatment of nuisance vegetation in Flannagans and Sandy Ponds on several occasions since the early 1990's. Performed base-line surveys and water quality monitoring program on six town ponds/lakes in 2005. Sonar herbicide treatment conducted at both ponds in 2007 and just Flannagans in 2013 |
| Barnstable | Long Pond | Rob Gatewood, Conservation Administrator | Town Offices Hyannis, MA | 508-862-4093 | Annual management & monitoring of invasive Hydrilla weed infestation in Long Pond since 2001. |
| Belchertown | Arcadia Lake, Lake Holland, Lake Metacomet, | Lee Anne Connolly, Con. Comm. | Town Hall, Box 670 Belchertown, MA 01007 | 413-323-0405 | Prepared a Tri-Lakes Management Plan for the Town in 1998. Performed Sonar treatment at Arcadia Lake in 2000 |

Solitude Lake Management

| MUNICIPALITY | WATERBODY | CONTACT/CLIENT | ADDRESS | TELEPHONE | PROJECT DESCRIPTION |
|--------------|---|--|--|-------------------------|---|
| Bellingham | Jenk's Reservoir, Silver Lake | Clifford Matthews, Chairman Con. Comm. | Town Hall Bellingham, MA 02019 | 508-966-2327 | Annual treatment of nuisance vegetation and algae. |
| Billerica | Nuttings Lake | Peggy Hannon-Rizza, Recreation Dept. | 248 Boston Road Billerica, MA 01821 | 978-671-0921 | Annual copper sulfate algaecide treatments for nuisance algae control , as requested by Recreation Department. |
| Boston | Chandler Pond | Stan Ivan Parks and Recreation Department | 1010 Massachusetts Ave., Boston, MA 02118 | 617-635-4505 | Sonar treatment program conducted in 2005 & 2009 for the control of Eurasian Watermilfoil at this rapidly flushing, 11-acre park pond in Brighton. |
| Braintree | Eatons Pond, Sunset Lake | Kelly Phelan Conservation Administrator | 1 JFK Memorial Drive Braintree, MA 02184 | 781-848-1870 | Annual monitoring and "spot treatment" program performed annually or biannually since the mid-1990's. |
| Danvers | Mill Pond | Robert Lee, Tree & Grounds Division - DPW | Town Hall, Sylvan St. Danvers MA 01923 | 978-777-0001 | Annual treatment of nuisance vegetation and algae since the mid-1990's |
| Duxbury | Lower Chandler Mill Pond | Joe Grady, Conservation Administrator | Town Offices Duxbury, MA 02331-332 | 781-934-1104 | Management program design, permitting, implementation & follow-up for Sonar herbicide treatment programs completed in 2000, 2007, and 2013. More than four years of invasive fanwort weed control were provided from the 2000 management program until the pond was re-treated in 2007 and similarly between 2007 and 2013. |
| Framingham | Farm, Gleason, Learned, Mowhawk, Norton, and Washakum Ponds | Rob McArthur, Conservation Administrator. | Town Offices Memorial Bldg. Framingham, MA 01701 | 508-532-5460 | Annual management programs involving pond assessment and treatment of nuisance vegetation and algae. Program initiated in the mid-1990's |
| Groton | Lost Lake, Knops Pond | Art Prest ??? | 8 Weymisset Rd Groton, MA, 01450 | 978-448-2384 | Designed, permitted, and implemented a Sonar herbicide treatment program to combat dense invasive submerged vegetation growth for 130 acres. |
| Holbrook | Lake Holbrook | Janet DeLonga, Conservation Administrator | Town Offices 50 N. Franklin St. Holbrook, MA 02343 | 781-767-9058 | Annual treatment of nuisance vegetation and algae at this enhanced, eutrophic waterbody |
| Hopedale | Hopedale Pond | Rick Espanet, Chmn., Parks & Recreation Commission | 129 Mill St. Hopedale, MA 01747 | 508-473-8139 (evenings) | Annual or bi-annual treatment of nuisance vegetation (predominantly fanwort and invasive watermilfoil weed) and algae since the mid- 1980's. DEM grant funded Sonar treatment in 1999 and 2004 & 2007. Re-growth of milfoil was treated with Reward herbicide in 2009. |
| Lexington | Old Res | Karen Simmons, Director, Recreation Dept. | 1625 Mass. Ave. Lexington, MA 02173 | 781-862-0500 ext. 263 | Annual treatment of nuisance vegetation and algae as requested by the Recreation Department. |

Solitude Lake Management

| MUNICIPALITY | WATERBODY | CONTACT/CLIENT | ADDRESS | TELEPHONE | PROJECT DESCRIPTION |
|--------------------|--|---|--|---|---|
| Lynn | Flax Pond, Floating Bridge Pond, Sluice Pond | John Kasian, Office of Economic & Community Development | City Hall, Room 311 Lynn, MA | 781-586-6767 | Designed, permitted and implemented an Aquatic Management Program including chemical treatment, Hydro-Raking and monitoring at these two waterbodies in 2007 with continued management through 2009. |
| Lynnfield | Pillings Pond | Betty Adelson, Conservation Admin. | Town Offices Lynnfield, MA 01940 | 781-334-2054 617-645-2126 (cell) | Management of nuisance algae, submersed & floating-leaved vegetation. Program initiated in 2003 and continued annually since then. |
| Marlborough/Hudson | Fort Meadow Reservoir | Lee Thompson, Chairman Fort Meadow Commission | 140 Main Street Marlborough, MA 01752 | 508-460-3768 | Assessment and herbicide treatment of invasive watermilfoil in 2008 & 2009 |
| Melrose | Ell Pond, Towner's Pond | Meredith de -Carbonnel, Chairman Con. Comm. | City Hall Melrose, MA 02176 | 781-979-4312 (evenings) 617-665-8421 | Hydro-Raking of waterlilies in Towner's Pond in 1995 and annual or bi-annual treatment of nuisance vegetation and algae in Ell & Towner's Ponds, since the mid-1990's. |
| Medfield | Medfield Swim Pond | James Snyder, Director Parks & Recreation Dept. | Town Offices Medfield, MA 02052 | 508-359-2715 | Annual monitoring and buffered Aluminum Sulfate treatment of microscopic algae at this heavily used Town swimming pond |
| Milford | Louisa Lake | Mike Bresciani, Director Parks & Recreation | 52 Main Street Milford, MA 01757 | 508-634-2391 | DEM Grant funded chemical treatment and mechanical hydro-raking program to control nuisance vegetation in the mid-1990's. Bi-annual chemical treatment of invasive milfoil weed & waterlilies since then & up to the present time. |
| Nantucket | Long Pond, Miacomet Pond | Dave Fonzuto, Marin Supt. | 34 Washington St. Nantucket, MA 02554 | 508-228-7261 | Mechanical hydro-raking of Phragmites from Long Pond in 1996 and 1999, and DEM funded study of Miacomet Pond in 1997 |
| Needham | Walker Pond | Patty Carey, Director, Park and Recreation Dept. | 1471 Highland Ave. Needham, MA 02192 | 781-455-7521 | Integrated management program utilizing hydro-raking and chemical treatment to control nuisance plant growth 1995-1996. DEM Grant funded. Spot-treatment work in 1997 & 1998. |
| Newbury | Duck Pond | Tim Leonard, Newbury Highway Department | 197 High Road Newbury, MA 01951 | 978-465-0112 | Annual treatment of nuisance vegetation and algae |
| North Andover | Lake Cochichewick, Stevens Pond | Bruce D Thibodeau, Director of Public Works | Town Offices, 120 Main St. North Andover, MA 01845 | 978-688-9570 | Copper sulfate algaecide treatments of the Town's drinking water reservoir, Lake Cochichewick, (as required) since the early 1990's. In an effort to reduce nuisance algae blooms in Stevens Pond, a low-dose alum treatment was successfully performed in 2013 |
| Northborough | Bartlett Pond | Fred Litchfield, Town Engineer | Town Offices, Main St. Northborough, MA 01532 | 508-393-5015 | Sonar treatment to control invasive watermilfoil and fanwort weed in 1996, 1999, 2003, 2007, and 2011. The distribution of the milfoil/fanwort infestation in 2011 was less than half of what is was prior to the 1999, 2003, and 2007 treatment programs. |

Solitude Lake Management

| MUNICIPALITY | WATERBODY | CONTACT/CLIENT | ADDRESS | TELEPHONE | PROJECT DESCRIPTION |
|-----------------------------|---|---|---|--|---|
| Norwell | Jacobs Pond | Cliff Prentiss, Conservation Comm. In Norwell & also Conservation Admin. In Hingham | Town Hall P.O. Box 295 Norwell, MA 02061 | 781-741-1445 | Sonar treatment program in 1997 to selectively control fanwort throughout this 59 acre pond. Treatment was repeated in 2001 and 2007. |
| Peabody | Peabody Reservoirs | Peter Smyrnios, Director DPW - Water Division | Lake Winona Treat. Plant Butternut Ave. Peabody, MA 01960 | 978-536-5069 | Perform copper sulfate algacide treatments of City's drinking water reservoirs, as requested since the mid-1980's |
| Pittsfield | Onota Lake | James McGrath, Director, Parks & Recreation Dept. | 874 North Street Pittsfield, MA 01201 | 413-499-9343 | Whole-lake Sonar herbicide treatment of 620-acre Onota Lake in 1999/2000 to control Eurasian watermilfoil. Spot-treatments of milfoil in 2000, 2001 & Reward treatment of milfoil in 2005 & 2011 |
| Pittsfield/ Lanesborough | Pontoosuc Lake | Paul Boudreau, Chief Procurement Officer, Town of Lanesborough | 83 No. Main St. Lanesborough, MA 01237 | 413-442-1167 | Multiple year Aquatic Management Program to address Eurasian watermilfoil and curlyleaf pondweed in 2009-2013. Treatment of ~200-acres was conducted from 2009-2013 using the Reward herbicide. |
| Salem | Sargent Pond | Ron Malionek, Supt., Greenlawn Cemetery | 1 Salem Green Salem, MA 01970 | 978-745-0195 | Annual treatment of nuisance algae and maintenance of pond aerators as requested by Cemetery staff, since the early 1990's |
| Shrewsbury/ Worcester | Flint Pond Lake Quinsigamond | Karen Hemmdinger, Shrewsbury Public Works | 100 Maple Ave Shrewsbury, MA 01545 | 508-841-8512 | Assessment and herbicide treatment of invasive watermilfoil in 2008 & 2009 for these large multiple use waterbodies. |
| Southwick | Congamond Lakes | Karl Stinehart, Town Administrator | 454 College Highway Southwick, MA 01077 | 413-569-5995 | Performed whole-lake Sonar herbicide treatment of this 450-acre lake system in 2001 for control of Eurasian watermilfoil. Annual "spot-treatment" & maintenance since then. |
| Upton | Mill, Pratt, Taft and Wildwood Ponds | Jim Bates, Jr, Chmn. Lakes & Ponds Study Committee | Town Offices Upton, MA 01568 | 508-222-3755 | Annual or bi-annual treatment of nuisance vegetation and algae as requested by the Study Committee or Con. Comm. |
| Wakefield | Crystal Lake | Steven Fitzpatrick, Water & Sewer Department | 1 Lafayette St. Wakefield, MA 01880 | 781-246-6318 | Annual copper sulfate algacide treatments of City's drinking water reservoir, as requested. |
| Walpole | Memorial Pond & Turners Pond | Landis Hershey, Conservation Agent | 135 School Street Walpole, MA 02081 | 508-660-7253 | Management of nuisance aquatic vegetation at Memorial Park & Turner's Ponds |
| Wayland | Dudley Pond | Ted Fiust, Surface Water Quality Committee | Town Building 41 Cochituate Road Wayland, MA 01778 | 508-647-1544 (evenings) 508-380-7286 (cell) | Sonar treatment on four occasions since 1992 to manage invasive Eurasian watermilfoil in this important waterbody. Selected by Town for multiple year Sonar and Renovate treatment program in 2008, 2010, and 2013. |
| Webster | Webster Lake | Dick Ricker, Webster Lake Commission | PO Box 156 Webster, MA 01570 | 508-561-0207 (cell) | Program design, permitting and implementation of targeted chemical treatments to control invasive watermilfoil weed and fanwort in this large 1,200 acre lake |

Solitude Lake Management

| MUNICIPALITY | WATERBODY | CONTACT/CLIENT | ADDRESS | TELEPHONE | PROJECT DESCRIPTION |
|--------------|---|--|---|--------------|--|
| Wellesley | Morses Pond | Jan Kaseta, Director Recreation Dept. | Warren Bldg. 90 Washington St. Wellesley, MA 02481 | 781-235-2370 | Annual monitoring & chemical treatment of nuisance algae (as required) since 2001 |
| Westborough | Chauncy Lake | Frank DeSiata, Dir. Recreation Dept. | Town Offices Westborough, MA 01581 | 508-366-3066 | Annual treatment of nuisance vegetation and algae in Town Beach Area since the 1980's. |
| Winchester | Upper Mystic Lake, Forebays | Elaine Vreeland, Conservation Admin. | Town Offices Winchester, MA | 781-721-7152 | Regulatory oversight for treatment program to control nuisance vegetation and algae. Program has continued intermittently from 1994-2013 based on funding availability |
| Worcester | Crystal Park, Elm Park, Green Hill Park | Rob Antonelli Jr. Parks Commissioner | 50 Skyline Drive Worcester, MA 01605 | 508-799-1190 | Annual management programs conducted at three prominent parks in the City. |

REPRESENTATIVE TREATMENT PROJECTS WITH SONAR (FLURIDONE) HERBICIDE

SOLitude Lake Management

| WATERBODY NAME | CLIENT/ CONTACT | YEAR | WATERBODY SIZE | DESCRIPTION & RESULTS |
|---|---|---|---|---|
| <i>Billington Sea Plymouth, MA</i> | Billington Sea Association Contact: Mike Leary 508-317-7115 | 2018 | 280 Acres | A partial lake treatment to control fanwort using Sonar One herbicide within a shallow 80 acre portion of the lake was performed. Limno-barrier was used to maintain concentration within this treatment area. An extensive monitoring program was performed to ensure that the herbicide treatment did not cause mortality of the Eastern Pond Mussel, a species of special concern. The treatment program successfully controlled the fanwort without observable impact to the Eastern Pond Mussel |
| <i>Neponset Reservoir Foxboro, MA</i> | NRRC Contact: Rhys Bowen 508-698-3599 | 2009 -2018 | 315 Acres | Whole-lake Sonar herbicide treatment program performed in 2009 to control fanwort and variable milfoil. The treatment was very effective and cover of both target non-native plants was drastically reduced following treatment. Conditions in the reservoir remained favorable through the summer of 2011, with only limited re-growth of variable watermilfoil fanwort observed. In the fall of 2011 extensive growth of variable watermilfoil was observed in the SW, NW and SE coves of the reservoir, prompting the NRRC to complete a Reward (diquat) herbicide treatment to control areas of dense milfoil growth in 2012. This treatment program successfully controlled variable milfoil for the 2012 summer season. |
| <i>Attitash Lake Amesbury, MA</i> | Lake Attitash Association Contact: Cindy Roberts 978-388-2445 | 2012 | 380 | Whole-lake Sonar herbicide treatment program performed in 2012 to control invasive Eurasian milfoil. Milfoil plants dropped out of the water column by mid-late June, leaving the lake free of nuisance milfoil growth for the majority of the summer season. Native plant populations survived and some species even flourished during the year of treatment. No significant drop in water clarity caused by increased microscopic algae growth occurred. There was no downstream migration of fluridone herbicide. |
| <i>Tri-Lakes Belchertown, MA</i> | Belchertown Conservation Commission Contact: LeaAnne Connolly 413-323-0405 | 2012 & 2019 | 52 acres (Metacomet) and 36 acres (Arcadia) | A comprehensive herbicide treatment program to control invasive fanwort (<i>Cabomba caroliniana</i>) and variable milfoil (<i>Myriophyllum heterophyllum</i>) was completed at Lake Arcadia and Lake Metacomet in 2012. The use of the two newest formulations of Sonar was recommended. Sonar One pellets were recommended to allow for strategic placement on herbicide on infested areas and the time-release pellets were desired to maintain long herbicide concentration-exposure-time. Sonar Genesis liquid was also applied. By all accounts, the Sonar herbicide treatment programs performed at Lake Arcadia and Lake Metacomet in 2012 were successful. The length of control will be assessed in the years to come. |
| <i>Lake Hayward East Haddam, CT</i> | Property Owners Association of Lake Hayward • Contact: Tim Pelton 800-437-8347 (days) | 2003 2008, follow up management through 2018 | 180 Acres | Whole-lake Sonar herbicide treatment program performed in 2003 to control fanwort. That 2003 treatment held up well for the following four years. Treatment was closely scrutinized by DEP Fisheries because the lake is a prized bass fishery. Treatment program provided 3 full years of nuisance level fanwort control. Annual monitoring has been performed since the 2003 treatment program. Another whole-lake Sonar treatment is planned for 2007. |

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| <i>Fosters Pond</i> Andover, MA | Foster's Pond Corporation • Contact: Steve Cotton 978-475-5679 (days/eve.) | 2005 | 120 Acres | Completed a detailed aquatic plant survey and developed a nuisance aquatic vegetation management for this 120-acre pond in 2004. Based on the recommendations of that Report, the Foster's Pond Corporation decided to move forward with the permitting and implementation of a whole-pond Sonar herbicide treatment program for control of fanwort. The treatment program, which was carried out in 2005, provided excellent control of the fanwort plant. A comprehensive Project Completion Report was prepared for the Corporation. |
| <i>Bartlett Pond</i> Northborough, MA | Engineering Department • Contact: Fred Litchfield 508-393-5015 (days) | 1996, 1999 & 2002 & 2007, 2018 | 45 Acres | Sonar treatment program to selectively control non-native and invasive Eurasian watermilfoil and fanwort growth in this 45-acre pond, while maintaining a diverse assemblage of native plants. Pond has a rapid flushing rate, so a split-treatment program was performed in May and June of 1996. Comprehensive pre and post-treatment aquatic plant monitoring and reporting accompanied this treatment program. Excellent milfoil and fanwort control (>95%) achieved for three years following treatment. The pond has been treated subsequently in 1999, 2002 and 2007. Extended control (4-5 years) of fanwort and milfoil has been experienced between treatments. |
| <i>Congamond Lakes</i> Southwick, MA / Suffield, CT | Citizens to Restore Congamond • Contact: Gerald Crane 860-668-5783 (days/eve.) | 2001, follow up management through 2018 | 465 acres | Whole lake Sonar AS treatment to control Eurasian watermilfoil. Milfoil biomass and cover were reduced by >95% within 60 days of treatment. Detailed plants surveys and wetlands assessments have accompanied this high profile project. Spot annual treatments with Reward (Diquat) herbicide have been performed since then at just ~ \$10,000 - \$15,000/year to keep invasive milfoil populations well under control. |
| <i>Copake Lake</i> Copake, NY | Copake Lake Conservation Society • Contact: David Crow 845-724-3359 (day) | 2002, follow-up management through 2018 | 420 Acres | Whole lake Sonar treatment program performed in 2002, to selectively control non-native and invasive Eurasian watermilfoil growth in this 420-acre lake. The treatment program was desired to replace harvesting that was no longer providing sufficient control. The treatment has provided two seasons of excellent milfoil control. Only widely scattered milfoil has returned and it is being aggressively hand-pulled. |
| <i>Cushing Pond</i> Hingham, MA | Cushing Pond Preservation Group, Inc. • Contact: Mr. Henry Day (781) 749-4868 day/eve. | 2007 | 17-acres | Conducted multiple applications of the Sonar liquid and pellet formulations to control fanwort and curlyleaf pondweed. The pond is 17-acres and experiences very high flow volume in the spring and during storm events. Nearly 100% control of the fanwort was achieved post-treatment as well as a significant reduction in the curly-leaf pondweed. We are expecting 2-3 years of carry over control of fanwort. |
| <i>Dudley Pond</i> Wayland, MA | Surface Water Quality Committee • Contact: Ted Fiust 508-647-1544 (evening) | 1992 & 1996, 1999 & 2003, follow-up management through 2018 | 91 Acres | Four whole-lake Sonar treatments have occurred at Dudley Pond since 1992. Control of Eurasian watermilfoil. A more comprehensive approach to Sonar treatment is proposed for 2008, with subsequent "spot treatments" of Renovate (Triclopyr) proposed for 2009 and 2010 if needed. |

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| <p><i>Flannagans Pond</i> Ayer, MA</p> <p><i>Sandy Pond</i> Ayer, MA</p> | <p>Board of Selectmen & Conservation Commission</p> <ul style="list-style-type: none"> Contact: Bill Daniels 978-772-8249 | <p>1996, 1999, 2002 & 2007, 2017, 2018</p> | <p>78 Acres</p> | <p>Sonar treatment program to selectively control non-native and invasive variable watermilfoil and fanwort in this 78-acre pond, while maintaining a diverse assemblage of native plants. Pond has a rapid flushing rate, so a split-treatment program performed in May and June of 1996. Excellent milfoil and fanwort control (>95%) achieved for three years following treatment. Sonar AS treatment was repeated in 1999, 2002 and most recently in 2007 with good results.</p> <p>Sandy Pond, which been included in the ongoing monitoring program was treated in 2007 with Sonar pellets to control a fairly new, but rapidly expanding population of fanwort and variable watermilfoil</p> |
| <p><i>Heart Pond</i> Chelmsford & Westford, MA</p> | <p>Heart Pond Association</p> <ul style="list-style-type: none"> Contact: David Lavoie, President (978) 250-9793 (days) | <p>2005, follow up management through 2018</p> | <p>91 acres</p> | <p>Whole lake Sonar treatment to selectively control non-native and invasive fanwort growth, while at the same time maintaining a desirable native plant assemblage. Concerns over downstream water use by a local cranberry grower required careful in-pond and downstream monitoring of herbicide concentrations. Excellent control (>95%) of the targeted fanwort was achieved by the end of the 2005 season. Based on the post-treatment conditions, multiple years of control are anticipated.</p> |
| <p><i>Indian Lake</i> Sharon, CT</p> | <p>Indian Lake Association</p> <ul style="list-style-type: none"> Contact: Don Mayland 860-435-9915 (evenings) | <p>1994, follow up management through 2018</p> | <p>222 Acres</p> | <p>Sonar SRP treatment program to selectively control non-native and invasive Eurasian watermilfoil growth in the littoral zone of this 222-acre lake located on the border of CT and NY. Excellent control of the milfoil (>95%) was achieved throughout the treatment area and maintained for two seasons following treatment.</p> |
| <p><i>Jacobs Pond</i> Norwell, MA</p> | <p>Conservation Commission</p> <ul style="list-style-type: none"> Contact: Michelle Simoneaux 781-659-8022 (days) Or: Cliff Prentiss 781-741-1445 (days) | <p>1997 & 2001 & 2007, 2017, 2018</p> | <p>59 Acres</p> | <p>Sonar treatment program to selectively control non-native and invasive fanwort growth in this 59-acre pond, while maintaining a diverse assemblage of native plants. Treatment performed under scrutiny of the South Shore Natural Science Center, which is located adjacent to the pond and uses the pond as a field laboratory. Pond has a rapid flushing rate, so a split-treatment program was performed in June and July of 1997. Comprehensive pre and post-treatment aquatic plant monitoring and reporting accompanied this treatment program. Excellent fanwort control (>95%) was maintained for nearly four years until the pond was again successfully treated in 2001 and 2007</p> |
| <p><i>Lake St. Catherine & Lake Hortonia</i> VT</p> | <p>Their respective Lake Associations</p> <p>Contact: Ann Bove at VT DEC 802-241-3782</p> | <p>2004, follow up work through 2018</p> | <p>1,100 and 600 acres, respectively</p> | <p>Whole-lake Sonar AS applications targeting selective control of Eurasian watermilfoil. A series of four treatments were performed at each lake during late spring/summer of 2004. Greater than 95% control of EWM was achieved. This program included comprehensive permitting along with pre and post-treatment monitoring. At 1,100 acres, this is the largest "whole-lake" Sonar treatment performed in the northeast.</p> |

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| <p><i>Lower Chandler Mill Pond</i></p> <p><i>Duxbury, MA</i></p> | <p>Conservation Commission</p> <ul style="list-style-type: none"> • Contact: Joseph Grady Conservation Administrator 781-934-1104 (days) | <p>2000 & 2007, 2014, 2019</p> | <p>40</p> | <p>A series of sequential treatments were performed with Sonar herbicide commencing in late spring. Excellent control of the targeted fanwort was obtained throughout the summer of 2000 and 2001. Significant re-growth was not seen until late in 2005, prompting treatment again in 2007. Treatment at the pond in 1999 by another lake management company reportedly provided one year of plant control. We encourage you to call this client.</p> |
| <p><i>Onota Lake</i></p> <p><i>Pittsfield, MA</i></p> | <p>City of Pittsfield</p> <ul style="list-style-type: none"> • Contact: James Mc Grath 413-499-9343 (days) | <p>1999/ 2000, follow up management through 2017</p> | <p>620 Acres</p> | <p>Low dose, whole lake Sonar treatment to selectively control Eurasian watermilfoil. Treatment program initiated in 1999 with excellent reductions in Eurasian watermilfoil biomass and distribution. Two-year contract currently being continued through the 2000 season</p> |
| <p><i>Pine Pond</i></p> <p><i>Kent, NY</i></p> | <p>Gypsy Trail Club</p> <ul style="list-style-type: none"> • Contact: Mark Walsh 518-432-7511 (days) | <p>1997 & 2001</p> | <p>75-Acres</p> | <p>Whole lake treatment with Sonar AS herbicide was conducted in 1997. Re-growth of milfoil, as of 2001, was limited to a small (<0.5 acre) plot which was successfully treated this year using Sonar SRP herbicide.</p> |
| <p><i>Pratt Pond</i></p> <p><i>Upton, MA</i></p> | <p>Conservation Commission & Lake Study Committee</p> <ul style="list-style-type: none"> • Contact: Jim Bates, Jr. 508-222-3755 (days) | <p>1994-2012, follow up management through 2018</p> | <p>38 Acres</p> | <p>Sonar SRP treatment program to selectively control non-native and invasive fanwort growth in the littoral zone of this 38-acre pond, while maintaining a diverse assemblage of native plants. The pond was re-treated in 2002 for control of fanwort with the Sonar AS herbicide and we have been managing the pond for the Town annually since that time.</p> |
| <p><i>Reservoir Pond</i></p> <p><i>Canton, MA</i></p> | <p>Reservoir Pond Association</p> <ul style="list-style-type: none"> • Contact: Sandy Denehey 508-529-3370 (days) | <p>2001, follow-up management through present</p> | <p>240 Acres</p> | <p>Sonar AS treatment of this 240 acre impounded waterbody for control of variable watermilfoil and fanwort. Multiple applications yielded excellent control of all targeted plants.</p> |
| <p><i>Saratoga Lake</i></p> <p><i>Saratoga Springs, Ballston Spa, Malta, NY</i></p> | <p>Saratoga Lake Protection and Improvement District</p> <ul style="list-style-type: none"> • Contact: Joe Finn 518-387-7336 (days) | <p>2000 and 2007</p> | <p>4,000 Acres</p> | <p>Two 100-acre demonstration plots were treated in 2000 with Sonar herbicide. A comprehensive aquatic plant survey and management program was developed for this very large and important NY lake by Aquatic Control in 2004. Sonar and/or Renovate (Triclopyr) herbicide are intended for use in the lake in 2007-2009. Sonar treatment in 2007 was very effective and well received by the lake users and NY DEC.</p> |

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| <i>Spy Pond</i> <i>Arlington, MA</i> | Spy Pond Association • Contact: Ms. Joey Glushko 781-316-3093 (days) | 2001& 2005 | 103 Acres | Treatment of Eurasian watermilfoil and coontail during the late spring of 2001 & 2005 with Sonar AS herbicide. Greater than 99% control of the milfoil biomass & cover was achieved. In addition to the effective Sonar treatment, ACT successfully, permitted the project in accordance with the Massachusetts Wetland Protection Act. |
| <i>Sunset Lake</i> <i>Braintree, MA</i> | Planning and Conservation Department • Contact: Conservation Administrator 781-794-8233 (days) | 1994-2007 | 57 Acres | Sonar treatment program to selectively control non-native and invasive Eurasian watermilfoil growth in this 57-acre lake. Treatment performed as part of a long-term management program being developed for the lake. Comprehensive pre and post-treatment aquatic plant monitoring and reporting accompanied this treatment program. Excellent milfoil control (>95%) was achieved for three complete years following treatment. Town retained ACT to continue an annual aquatic plant monitoring program. Approximately 15-acres of milfoil was spot-treated with Reward® (Diquat) herbicide in 1997, to prevent a widespread infestation of milfoil from becoming established. Reward "spot treatments" have occurred periodically since then, pending availability of funding. |
| <i>West Twin Lake</i> <i>Salisbury, CT</i> | Town of Salisbury • Contact: Curtis Rand, 1st Selectman 860-435-5170 (days) | 2001-2005, follow up management through 2018. | 105 Acres | Multiple application Sonar AS treatment to control Eurasian watermilfoil in the "third lake" basin of the Twin Lakes system located in Salisbury, CT. A barrier was used to segregate the treated areas from sensitive upstream habitat containing an endangered submersed plant species. Limited drawdown was used prior to application in order to manage retention times during the treatment. Excellent control of target plants was achieved post-treatment |

◆ **Note:** For all Massachusetts projects listed above, SOLitude prepared and filed Notice of Intent applications with the Conservation Commission and was successful in obtaining a valid Order of Conditions. In addition, SOLitude prepared and filed the License to Apply Chemicals with MA DEP, Office of Watershed Management.

PROFESSIONAL REFERENCES
FOR SOLITUDE LAKE MANAGEMENT KEY
PERSONNEL

- * Ms. Ann Bove (802) 241-3782 (days)
VT Department of Environmental Conservation (VT DEC)
Oversees **Vermont's** aquatic invasive plant control program
- * Ms. Amy Smagula (603) 271-2248 (days)
Limnologist/Exotic Species Program Coordinator amy.smagula@des.nh.gov
NH Dept. of Environmental Services (NH DES)
Concord, NH
Oversees New Hampshire's aquatic invasive plant control program
- * Mr. Larry Eichler (518) 644-3541 (days)
Rensselaer Polytechnic Institute
Troy, NY
NY and regional expert on aquatic plants
- * Dr. Kurt Getsinger (601) 634-2498 (days)
US Army Corp of Engineers
Vicksburg, MS
Leading national researcher on chemical control of aquatic plants
- * Dr. William Haller (352) 392-9615 (days)
University of Florida, Aquatic Plant Research Center
Gainesville, FL
Recognized international leader in aquatic plant management and research
- * Dr. Michael Netherland (352) 392-0335 (days)
University of Florida, Aquatic Plant Research Center
Gainesville, FL
Recognized international leader in aquatic plant management
- * Mr. Charles Lee (860) 424-3716 (days)
CT DEP, Bureau of Water Management
Hartford, CT
Oversees management of CT state owned waterbodies.
- * Mr. James Straub (617) 626-1411 (days)
MA Department of Conservation and Recreation (MA DCR)
Boston, MA
Manages MA DCR's Ponds and Lakes Program

TAX ATTESTATION AND NON-COLLUSION STATEMENT

Pursuant to MGL Chapter 62C Section 49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I have filed all state tax returns and paid all state taxes required under law.

The undersigned certifies under penalties of perjury that this quote is in all respects bona fide, fair, and made without collusion or fraud with any other person. As used in this section, the word "person" shall mean any natural person, joint venture, partnership, corporation, or other business or legal entity.

The undersigned declares that the only parties interested in this quote as principals are named herein; that this quote is made without collusion with any other person, firm, or corporation; that he/she has carefully examined the specifications therein referred to; and he/she proposes and agrees that, if this quote is accepted, he/she will contract the Owner, in accordance with the specifications, to provide all necessary work to be done and also furnish all the materials specified in the manner and time prescribed and according to the requirements as set forth; and that he/she will take in full payment the following sum(s) to wit:

54-1940110

Social Security Number or
Federal Identification Number

By: 

Print Name: Marc Bellaud, Director of Technical Services

Date: 3/4/2022



The SOLitude Lake Management, LLC

Local To Nationwide Lake And Pond Management

SOLitude Lake Management, LLC is a **Limited Liability Corporation** and was established in 1999. From the beginning, our main focus has been to provide our clients with the best value in lake and pond management, through superior service and expertise, with an unconditional desire to preserve our natural resources. Throughout this journey, we have maintained a local presence in each of the communities we serve, providing our clients with unsurpassed value, their waterbodies with ecological balance and beauty, and our industry with technological and scientific innovation.

Our incredible success and growth over the years include the most talented people, provide our clients with unmatched quality service, and help us lead our industry in innovation.

The organization prides itself on the **Principle Leaders** of SOLitude. Which includes the following individuals:

Mr. John Myers, President/CEO

Mr. Bruce Gelting, Secretary

Mr. Jason Coyle, Treasurer/CFO



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

9/17/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

| | | |
|---|---|------------------------|
| PRODUCER Edgewood Partners Insurance Center 200 Glenridge Point Parkway Suite 400 Atlanta GA 30342 | CONTACT NAME: Certificate Unit PHONE (A/C No. Ext): 404-439-8000 E-MAIL ADDRESS: certificate@epicbrokers.com | FAX (A/C, No): |
| | INSURER(S) AFFORDING COVERAGE | |
| INSURED SOLitude Lake Management, LLC. Rentokil North America, Inc. (REN478) 1320 Brookwood Drive, Suite H Little Rock AR 72202-4412 | INSURER A : ACE American Insurance Company | NAIC # 22667 |
| | INSURER B : ACE Property & Casualty Insurance Company | 20699 |
| | INSURER C : Arch Insurance Company | 11150 |
| | INSURER D : Arch Indemnity Insurance Company | 30830 |
| | INSURER E : Interstate Fire & Casualty Company | 22829 |
| | INSURER F : | |

COVERAGES

CERTIFICATE NUMBER: 473640764

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSD | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS |
|----------|---|-----------|----------|------------------------------|-------------------------|-------------------------|--|
| A | <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC OTHER: | | | OGLG27240331 | 10/1/2021 | 10/1/2022 | EACH OCCURRENCE \$5,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$5,000,000 MED EXP (Any one person) \$5,000 PERSONAL & ADV INJURY \$5,000,000 GENERAL AGGREGATE \$5,000,000 PRODUCTS - COMP/OP AGG \$5,000,000 \$ |
| C | AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY | | | 31CAB1044401 31CAB1044501 | 10/1/2021 10/1/2021 | 10/1/2022 10/1/2022 | COMBINED SINGLE LIMIT (Ea accident) \$2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ |
| B | <input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000 | | | XOOG27239420 | 10/1/2021 | 10/1/2022 | EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$ |
| C | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below | Y/N | N/A | 31WC11044201 34WC11044301 | 10/1/2021 10/1/2021 | 10/1/2022 10/1/2022 | <input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$2,000,000 E.L. DISEASE - EA EMPLOYEE \$2,000,000 E.L. DISEASE - POLICY LIMIT \$2,000,000 |
| A | Errors & Omissions Liability | | | OGLG27240331 | 10/1/2021 | 10/1/2022 | Each Incident/Agg \$5,000,000 |
| E | CPL (Excluding Aerial Ops) | | | USL01372121 | 10/1/2021 | 10/1/2022 | Each Incident/Agg \$5,000,000 |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CPL = Contractor's Pollution Liability

CERTIFICATE HOLDER**CANCELLATION**

Evidence of Insurance

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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Dominic Meringolo
Senior Environmental Engineer,
Regional Leader



Education

Bachelor of Science in Engineering Physics,
Worcester Polytechnic Institute

Master of Science in Environmental Engineering,
Worcester Polytechnic Institute

Professional Licenses and Accreditations

Certified Supervisory Applicator in MA, CT and NY

Joined Our Team

May 1998

Professional Associations

Northeast Aquatic Plant Management Society (NEAPMS)
North American Lake Management Society (NALMS)
New England Chapter of NALMS (NEC-NALMS)
Connecticut Federation of Lake (CFL)
Massachusetts Congress of Lake and Pond Associations (MA COLAP)
New England Association of Environmental Biologists (NEAEB)

Training and Certifications

SePRO Preferred Applicator

Biography – Areas of Expertise and Successful Projects

Dominic Meringolo is a Senior Environmental Engineer and Territory Leader with more than 20 years of experience leading phosphorus management projects throughout SOLitude's central New England territory. He has a Master of Science degree in Environmental Engineering and has worked in the lake management industry since 1995.

Dominic specializes in the large, in-lake alum applications and has played a critical role in the restoration of more than two dozen high-profile lakes and reservoirs in Massachusetts, Rhode Island, Connecticut and Vermont since 2001. In particular, Dominic led the successful treatment of SOLitude's most notable alum project at Long Pond, a 750-acre waterbody in Brewster, MA. Dominic's team currently serves more than 250 clients and state agencies across the region, including the Massachusetts Department of Environmental Protection, Massachusetts Department of Conservation and Recreation, Massachusetts Water Resources Authority, and Vermont Department of Environmental Conservation.

Over the past decade, Dominic has presented extensively to clients, associations and agencies about effective nutrient management strategies. Most recently, Dominic led seminars on the topic of alum applications for the North American Lake Management Association's New England chapter (2017), Massachusetts Congress of Lake and Pond Associations (2016), New England Association of Environmental Biologists (2015), and at the Connecticut Federation of Lakes annual conference (2017). He has also served as a guest speaker to the University of Massachusetts Lowell and the Massachusetts Institute of Technology and is an active member of many industry organizations.

Testimonials

"We have been working with SOLitude for several years and we have been especially pleased with the level of service. Dominic Meringolo has always gone above and beyond to assist us in any way. He and his team truly rose to the occasion to ensure our alum treatment was completed recently, working through sun, rain, lightning and hail all in one day and staying until nearly 8pm to finish."

Beth Proko, Lake Association President, Worcester, MA

"Our beautiful 82-acre pond was being choked by Eurasian Milfoil. Dominic Meringolo directed the treatment. Dominic worked closely with me and even took me around the pond on his boat to survey and explain the process. When I think back a few months ago, I'm amazed at the result! I'm a swimmer and I couldn't find a single living milfoil plant on my swim yesterday. Early this summer I couldn't swim in many parts of the pond because the weeds were so thick. These guys know what they are doing!"

Dennis Dressel - Park Pond, Winchester Center, CT

"Kendall Pond has never looked so good! A property owner that comes up from Florida for the summer told me that the pond was as clear this year as it was when she was a

child. Everyone who has visited the pond has told me that this year was the clearest they have seen it in years and it's all thanks to SOLitude! Dominic Meringolo and his team have done a great job and should be complimented for their work and communication with our association."

John Cestone - President, Kendall Pond Betterment Association, East Templeton, MA,

John Maday

Environmental Scientist

Education

Bachelor of Science degree in Environmental Science,
Clark University

Professional Licenses and Accreditations

Licensed Pesticide Applicator in CT

Joined Our Team

May 2015

Biography – Areas of Expertise and Successful Projects

John Maday is an environmental scientist with SOLitude Lake Management who serves as a team member of the Central Region in New England. When it comes to restoring ecological balance in his clients' waterbodies, John is focused on providing environmentally sustainable and cost-effective management solutions. He is a certified commercial pesticide applicator in Connecticut. John started his career in lake and pond management as a summer intern with SOLitude while earning his bachelor's degree in Environmental Science at Clark University in Worcester, MA. After graduation in 2016, John joined the SOLitude team full-time.



Amanda Mahaney

Aquatic Biologist

Education

Bachelor's degree in Environmental Science,
Anna Maria College

Joined Our Team

June 2015

Additional Experience

1 year and 3 months of experience as an Asian Long-horned Beetle Forestry Technician
6 months of experience with the Department of Conservation and Recreation,
Sutton, MA, Purgatory Chasm State Reservation
3-month internship as an invasive species management intern at Redwood National
Park through the Student Conservation Association (SCA)

Professional Associations

New England Wildflower Society Member since 2015
New England Aquatic Plant Management Society Member since 2015

Training and Certifications

Wetland Delineation Certification, University of New Hampshire
Working to obtain Field Botany certificate, New England Wildflower Society

Biography – Areas of Expertise and Successful Projects

As an Aquatic Biologist on SOLitude's Biology team, Amanda Mahaney helps clients develop and achieve environmentally sustainable goals for their aquatic ecosystems. She has a special interest in GIS data collection and map preparation, and enjoys educating the public about the importance of land preservation. Amanda has performed invasive species management in many prominent locations throughout the country, including the threatened prairies at the Redwood National Park in California and has contributed her expertise to the New England Wildflower Society. Prior to joining SOLitude, Amanda worked in various branches of the environmental field,



including horticulture and forestry, and in the Department of Conservation and Recreation where she provided environmental education.

SOLitude Lake Management

2021 MA Applicator Licenses

COMMONWEALTH OF MASSACHUSETTS
 Department of Agricultural Resources
PESTICIDE CERTIFICATION/LICENSE

DOMINIC MICHAEL MERINGOLO
 27 LOUISA DRIVE
 WHITINSVILLE, MA 01588

License Type: **Commercial** Date Issued: **11/17/2020**
 License Number: **CC-0024004** Expiration Date: **12/31/2021**

Category/Subcategory: **39**

Sign here

COMMONWEALTH OF MASSACHUSETTS
 Department of Agricultural Resources
PESTICIDE CERTIFICATION/LICENSE

KEITH RICHARD GAZAILLE
 245 BAKER ROAD
 SWANSEA, MA 02777

License Type: **Commercial** Date Issued: **12/10/2020**
 License Number: **CC-0026792** Expiration Date: **12/31/2021**

Category/Subcategory: **39**

Sign here

COMMONWEALTH OF MASSACHUSETTS
 Department of Agricultural Resources
PESTICIDE CERTIFICATION/LICENSE

JOHN MADAY
 3 HEALY RD
 WORCESTER, MA 01603

License Type: **Applicator (Core)** Date Issued: **12/8/2020**
 License Number: **AL-0048473** Expiration Date: **12/31/2021**

Sign here

COMMONWEALTH OF MASSACHUSETTS
 Department of Agricultural Resources
PESTICIDE CERTIFICATION/LICENSE

KARA SLIWOSKI
 43 JOLICOEUR AVE
 SPENCER, MA 01562

License Type: **Applicator (Core)** Date Issued: **12/22/2020**
 License Number: **AL-0045051** Expiration Date: **12/31/2021**

Sign here

COMMONWEALTH OF MASSACHUSETTS
 Department of Agricultural Resources
PESTICIDE CERTIFICATION/LICENSE

JAMESON BASTARACHE
 590 LAKE STREET
 SHREWSBURY, MA 01545

License Type: **Applicator (Core)** Date Issued: **11/20/2020**
 License Number: **AL-0051727** Expiration Date: **12/31/2021**

Sign here

COMMONWEALTH OF MASSACHUSETTS
 Department of Agricultural Resources
PESTICIDE CERTIFICATION/LICENSE

EVAN BRILLHART
 34 COLLINS ROAD
 NORTHBOROUGH, MA 01532

License Type: **Applicator (Core)** Date Issued: **12/22/2020**
 License Number: **AL-0051204** Expiration Date: **12/31/2021**

Sign here

Price Proposal

March 3, 2022

Ayer Conservation Commission
c/o Office of the Board of Selectmen
Town Hall, One Main Street
Ayer, MA 01432

Dear Commission Members:

We hope that you found our technical proposal to be clear and concise. We are certain that our recommended approach will exceed the Town's expectations and will provide systemic control of fanwort, leading to reduced program costs in subsequent years. The tables below summarize the costs for each task/pond. We are happy to discuss this with the Town in greater detail and to adjust accordingly to maximize the Town's budget.

| Permitting / Surveys / Reporting (All Ponds) | | |
|---|---|----------------|
| Pond | Task | Cost |
| All Ponds | <ul style="list-style-type: none"> Prepare and file MA-DEP License to Apply Chemicals Permit | \$350 |
| All Ponds | <ul style="list-style-type: none"> Pre-Treatment Survey | \$1,500 |
| All Ponds | <ul style="list-style-type: none"> Post-Treatment Survey | \$1,500 |
| All Ponds | <ul style="list-style-type: none"> Delivery of Year-End Report | \$1,000 |
| Total Cost: Permitting / Surveys / Reporting (All Ponds) | | \$4,350 |

| Treatment Tasks (Sandy Pond) | | |
|---|---|----------------|
| Pond | Task | Cost |
| Sandy Pond | <ul style="list-style-type: none"> Initial Sonar ONE Application at Inlets | \$3,700 |
| Sandy Pond | <ul style="list-style-type: none"> Sonar ONE "Bump" Treatment at Inlet | \$1,580 |
| Sandy Pond | <ul style="list-style-type: none"> Diquat Treatment | \$1,250 |
| Sandy Pond | <ul style="list-style-type: none"> Phragmites/Waterlily Treatment | \$750 |
| Total Cost: Treatment Tasks (Sandy Pond) | | \$7,280 |

| Treatment Tasks (Flannagan Pond) | | |
|---|--|----------------|
| Pond | Task | Cost |
| Flannagan Pond | <ul style="list-style-type: none"> Initial Sonar ONE application at inlet | \$2,900 |
| Flannagan Pond | <ul style="list-style-type: none"> Sonar ONE "Bump" Treatment | \$1,285 |
| Flannagan Pond | <ul style="list-style-type: none"> Diquat Treatment | \$3,250 |
| Flannagan Pond | <ul style="list-style-type: none"> Waterlily Treatment | \$750 |
| Total Cost: Treatment Tasks (Flannagan Pond) | | \$8,185 |

| Treatment Tasks (Pine Meadow Pond) | | |
|---|---|----------------|
| Pond | Task | Cost |
| Pine Meadow Pond | <ul style="list-style-type: none"> • Diquat Treatment | \$2,750 |
| Pine Meadow Pond | <ul style="list-style-type: none"> • Waterlily Treatment | \$850 |
| Total Cost: Treatment Tasks (Pine Meadow Pond) | | \$3,600 |

Total Cost.....\$23,415.00

Tasks are typically billed upon completion, and we are happy to finalize the approach and payment terms with the Town of Ayer prior to contract execution.

Sincerely,

Joe Onorato, Co-Owner
 Water & Wetland, LLC
 joe@waterandwetland.com
 c: (508) 250-6238
 o: (888) 493-8526

March 3, 2022

Ayer Conservation Commission
c/o Office of the Board of Selectmen
Town Hall, One Main Street
Ayer, MA 01432

Dear Commission Members:

Thank you for allowing Water & Wetland to provide a quote for management of aquatic plants in Sandy, Flannagan, and Pine Meadow Ponds. Water & Wetland holds vast individual experience managing lakes, ponds, and wetlands throughout New England. Our company has completed several successful municipal pond and lake projects during our time in business and if your Water & Wetland project manager, Colin Gosselin, holds 15 years of experience in the pond and lake industry. Additionally, James Lacasse, would be involved in the Ayer Ponds Project. James has worked in the lake management industry since 2012 and has experience working on the Ayer Ponds. We currently have projects for several municipalities throughout the Commonwealth and worked on the Ayer Ponds in 2021. We also worked on projects with MA DCR and Army Corps of Engineers. Looking toward 2022, we have several unique projects planned including a water chestnut control project under contract with US Fish & Wildlife Service.

We pride ourselves on great communication with our clients, as balancing management goals within a defined budget is always a daunting task. When working with Water & Wetland, you'll deal directly with the owners of the company. Included in our quote is a detailed scope of work, which addresses the specific needs of each pond. Additionally, you'll find individual qualifications, company info, contact information, timeline, license information and much more. Lastly, you will find cost information provided in a separate sealed envelope, as required.

We trust that you will find our response to be thorough and well researched. Should you have any questions at all, please do not hesitate to reach out to me directly. We look forward to continued work with the Town of Ayer in 2022 and beyond.

Sincerely,

Joe Onorato, Co-Owner
Water & Wetland, LLC
joe@waterandwetland.com
c: (508) 250-6238
o: (888) 493-8526

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Attachments

- Tax Attestation and Non-Collusion Statement
- Key Staff Bios/Resumes
- Reference Sheet
- Applicator License
- Certificate of Insurance
- W-9 Form

Company Info

Water & Wetland is a family owned, local company with nearly two decades of individual experience in pond, lake, and wetland management. Prior to founding Water & Wetland, Colin Gosselin and Joe Onorato worked in lake management and saw an opportunity to change the industry. Our goal is to provide unique, individual attention to each water body we work on. Plans are completely customized, and we pride ourselves on excellent communication with our customers. We want you to know we care about your water bodies as much as you do. While wetlands are complex and precious, they are also highly regulated in New England. We aim to find the perfect balance between restoring a healthy ecosystem and achieving our client's goals, all while working within their desired budget. The photo above shows the results of a 2021 whole lake Sonar (fluridone) program we performed for the control of invasive variable watermilfoil and nuisance waterlilies.



Water & Wetland offers a variety of services that stem from the initial consultation through the implementation of management. Some of these services include pond and lake vegetation surveys, water quality collection and analysis, fountain and aeration installation and service, herbicide and algacide treatments, biological options, and much more.

In 2021 we worked on several municipal pond and lake projects for towns such as Lynnfield, Upton, Oxford, Canton, Ayer, Malden, and many more. The included attachments provide info for Colin Gosselin and Joe Onorato, co-owners of Water & Wetland, who will be responsible for the Ayer Ponds Project from start to finish. In addition to the owners, James Lacasse, Senior Environmental Scientist for Water & Wetland, will be involved in the project. James has experience performing herbicide and algacide treatments on the Ayer Ponds and has been in the lake management industry since 2012.

Scope of Services

Water & Wetland has vast experience with each of the three Ayer Ponds. We have reviewed our detailed 2021 report results and recommendations. We fully understand the Town's objective of managing invasive species and nuisance waterlilies within the three waterbodies. We understand the purpose of the program is to restore and maintain habitat, public enjoyment, and recreation. The scope of services provided below provides for the permitting, survey, management and reporting tasks necessary to exceed the Town's expectations. Our company prides itself on being flexible and therefore are willing to discuss our recommendations in more detail and adjust accordingly.

Task 1: Permitting

Immediately upon notice to proceed, Water & Wetland will prepare and file for the required State Pesticide Use Permit (WM04) with Massachusetts Department of Environmental Protection (MA-DEP). The permit application will include all required forms, maps, and project descriptions. We understand

that a recent extension to the Orders of Conditions has either been recently issued, or will be soon. If we are selected for this project, we kindly ask that this extension permit be sent to us. Copies of the DEP Permits will be sent to the Conservation Commission upon issuance.

Task 2: Pre/Post Treatment Surveys



A pre-treatment survey of Sandy Pond, Flannagan Pond and Pine Meadow Pond will be performed in early-June from a motored boat and will include visual observation as well as a standard throw-rake, as necessary. Data points spaced out at 10' or less will be surveyed. Hand-held GPS will be used to document the distribution of nuisance and invasive species in the waterbodies. Following the survey, a plot of pre-treatment data points will be provided to the Conservation Commission. The data will be provided to the Commission a minimum of seven days prior to the first contact herbicide treatment. The narrative below discusses our treatment approach. It is important to note that we are recommending the initial fanwort treatments with Sonar (fluridone) to occur during this pre-treatment survey at both Sandy

Pond and Flannagan Pond, based on the 2021 post-treatment survey data. We are willing to discuss this in greater detail with the Conservation Commission, as necessary. Additional visual monitoring visits will be performed throughout the growing season at each of the ponds. Following the treatments, Water & Wetland will perform a post-treatment survey of all three ponds. Data points spaced out at 10' or less will again be surveyed. Hand-held GPS will be used to document the presence/density of invasive and nuisance species. The post-treatment survey will document that the guaranteed control has been exceeded. Water & Wetland collects basic water quality info such as: temperature, dissolved oxygen, and Secchi disc clarity during each visit to the ponds. Additionally, we provide an update to the Commission each time we are on-site, which includes field notes and photos.

Task 3: Herbicide Treatment

Following the pre-treatment survey, initial diquat herbicide treatments for the control of variable milfoil and curly leaf pondweed will be performed at the appropriate time. Sonar (fluridone) for fanwort control will be applied to Sandy Pond and Flannagan Pond during the pre-treatment survey, as immature plants are typically most susceptible to low concentrations of fluridone. Additionally, this will help limit biomass die-off. Water & Wetland will apply the most appropriate herbicides to the treatment areas using an airboat or other treatment boat with a sub-surface calibrated pumping system for liquid applications and a calibrated spreader for granular applications. Our specialized equipment allows for on-board mixing of liquid product, which is then injected into the water column. This methodology helps get the herbicide down to the plants where they are most susceptible to concentrations of herbicide. Brightly colored, neon posters will be posted around the shoreline of the ponds prior to any treatments, the Town will also be notified of treatment a minimum of seven days in advance. The neon posters will fulfill permit requirements and will note, at a minimum, the pond name, treatment date, Water & Wetland contact

info, and any affiliated water use restrictions. A detailed description of the services for each pond is provided below.

Sandy Pond

Historically, Sandy Pond has battled three non-native species: fanwort, variable milfoil, and curly leaf pondweed (CLP). Diquat herbicide has worked well to provide seasonal control of variable milfoil and CLP. Unfortunately, diquat does not impact fanwort, which is the most aggressive of the three non-native species in Sandy Pond. Given this, another herbicide option must be used to control fanwort in not only Sandy Pond but also Flannagan Pond. Only two herbicides approved in Massachusetts are effective on fanwort, Sonar (fluridone) and Clipper (flumioxazin). Unfortunately, Clipper is not approved within the Ayer Ponds and therefore Sonar is the only available option. Sonar is an aquatic herbicide that was initially registered with the Environmental Protection Agency (EPA) in 1986 and has been used throughout



Massachusetts and the United States for decades. The herbicide inhibits the photosynthesis process by stopping plants from making a protective pigment that keeps chlorophyll from breaking down in the sunlight. Fluridone moves quickly throughout a waterbody and is therefore usually applied as a whole lake/basin treatment. Luckily, Sandy Pond's fanwort growth has been fairly limited to small areas around the two inlets. Given that Sonar works through maintaining the desired concentration of fluridone until plant mortality, spot treatment is somewhat difficult. Sonar ONE is the time-released granular formulation and allows for applications directly on the target weed beds. By emitting the active ingredient, fluridone, much more slowly than the liquid variants, Sonar ONE leads to a slower build in concentration and assists with maintaining the desired concentration within the smaller target areas. Best practice when using Sonar is to apply the herbicide at early on-set target plant growth. Target plants are much more susceptible to low concentrations of fluridone early in the growth stage. Additionally, early treatment will minimize biomass following die-off. Given this, we recommend treatment of just the inlets with Sonar ONE in early-June, paired with the pre-treatment surveys. At the direction of Ayer Conservation Commission, fanwort was not managed in Sandy Pond during the 2021 season.



Phragmites in Sandy Pond (pre-treatment 2021)

Diquat treatment for the control of variable milfoil and/or CLP will be applied in mid-late June following the pre-treatment survey. We also anticipate a "bump" application of Sonar ONE to be applied to the historical fanwort areas of Sandy Pond to be paired with the contact herbicide diquat treatment.

Several patches of non-native phragmites growth are also present around the shoreline of Sandy Pond. These areas were treated in 2021 but will require re-treatment to manage regrowth. The pre-treatment survey in June will

determine the 2022 phragmites treatment areas. The treatment area map will be provided to Ayer Conservation Commission prior to phragmites treatment.

Once the appropriate treatment areas have been confirmed, Water & Wetland will initiate management of phragmites. Research and our historical experience have shown that cutting of phragmites alone, and even mechanical removal will not control phragmites, given their extensive rhizome structure. Treatment, using EPA/MA approved AquaPro (glyphosate), or equivalent such as Rodeo will be applied to the phragmites. Glyphosate has shown excellent efficacy on phragmites growth throughout Massachusetts for many years. While herbicide choice is especially important, other factors to success are timing and application methodology. The herbicide mixture (paired with a methylated seed oil surfactant – MSO) will be applied through foliar application directly to the phragmites plants. The MSO, a surfactant, acts as a sticking agent and increases plant uptake and herbicide efficacy. Given that 2021 was the initial phragmites treatment year, primarily low-volume backpack sprayers were used to apply the herbicide. This same approach will be the default in 2022, however in areas where phragmites have just started to encroach on native plants or lower density regrowth, hand-wiping of individual stems will be incorporated, as applicable. This approach paired with standard application procedures/label requirements such as treatment in non-windy conditions and when precipitation is not forecasted will limit non-target impacts. A late season treatment window of September allows for the systemic herbicide to translocate into the rhizomes, providing drastic reduction in subsequent growing years. Glyphosate, unlike some other herbicide options such as imazapyr, has no soil activity and therefore only plants that encounter the herbicide will be subject to mortality.

The September phragmites treatment will be paired with the post-treatment survey to document the results of the aquatic weed treatment program. Given the slow-acting nature of the glyphosate-based herbicide, impacts to both phragmites and any non-target vegetation will be fully realized and surveyed in Spring/Summer of 2023. Results of the 2021 phragmites treatments will be realized during the 2022 pre-treatment survey. We will also include a waterlily treatment during this visit if necessary, using a foliar approach similar to that of the phragmites treatment.

Flannagan Pond

Flannagan Pond poses the most challenging conditions of all three managed Ayer Ponds. The northeastern portion of the pond is densely vegetated with waterlilies and makes access difficult. No milfoil was documented during the 2020 pre-treatment survey, yet curly leaf pondweed proliferated. While fanwort was not addressed in Flannagan Pond in 2020, the pure domination of fanwort in Flannagan Pond was most concerning. The 2020 maps showed fanwort throughout most of the waterbody (roughly 50 acres of the 86 total surface acres). Based on this, a significant effort was made to control fanwort in Flannagan Pond during the 2021 season. A whole pond Sonar treatment was conducted in the Spring to specifically target the dense fanwort. Sonar also has efficacy on milfoil and curly-leaf pondweed, so contact herbicides were not needed over the course of the 2021 season. Given that this systemic approach was implemented in 2021 and conditions were much improved, we are very much back into “maintenance mode.” Given the heavy flows of 2021, especially at the inlet, a small area of fanwort at the inlet of Flannagan Pond was still present during the 2021 season. While the desired percentage of control was certainly achieved, eradication is never possible, and maintenance is recommended moving forward.

For the 2022 season, we anticipate a similar approach to that detailed for Sandy Pond above. During our pre-treatment survey, the inlet area containing fanwort during the 2021 post-treatment survey will be

spot-treated using Sonar ONE, the granular time-released formulation of fluridone. By managing the fanwort early in the season, it will have the most efficacy and will limit biomass die-off. Following the pre-treatment survey, a treatment using diquat will be scheduled to target the variable milfoil and curly leaf pondweed. While both species were impacted during the 2021 Sonar treatment, curly leaf pondweed is a perennial plant that reproduces through turions. The turions typically germinate in the fall and the curly leaf pondweed plants typically grow extensively shortly after ice-out in the Spring. Given that CLP turions can survive at least five years of dormancy in ponds, annual control is recommended to gain extensive control over time. Variable milfoil is also much more prone to regrowth following a Sonar treatment than fanwort, although we do expect significant reduction in variable milfoil regrowth in Flannagan Pond during the 2022 season. Based on this, diquat will be necessary to manage both species. During the diquat treatment, a Sonar bump application will be applied to the inlet area for fanwort control. This will allow us to maintain the desired fluridone concentrations in this area to reach fanwort mortality.

Following these June treatments, and during the post-treatment survey, a treatment specific to waterlilies will be conducted. The goal of the waterlily treatments is never to eliminate lilies as they are a native species which provides valuable habitat and cover. They can however limit oxygen exchange, biodiversity, etc. For this reason, we will plan to scale back the lily growth using the approach detailed above in the Sandy Pond language. This approach allows for selectivity in management and will utilize best management practices such as not treating during windy days, or when precipitation is forecasted.

Pine Meadow Pond

Historically, two submerged non-native species, variable watermilfoil, and curly leaf pondweed have been managed in Pine Meadow Pond. The 2020 conditions showed a limited area of milfoil, which was treated with diquat. No curly leaf pondweed was found in 2020, likely due to the survey timing. When looking back at the 2018 and 2019 reports, treatment areas for control of variable milfoil and curly leaf pondweed were approximately 8-10 acres. No fanwort has been found in Pine Meadow Pond since being added to the Ayer Pond Management program in 2018. The 2021 pre-treatment survey documented variable milfoil throughout approximately half of the pond, with curly leaf pondweed found at less points in lower densities.

Both curly leaf pondweed and variable milfoil can be seasonally controlled through the application of diquat, as has been conducted in past years. We do not anticipate the need for fluridone use; however we will include this for fanwort control if found during the pre-treatment survey. All diquat treatment will be based on the pre-treatment survey. Once the pre-treatment survey/treatment area maps have been sent to the Conservation Commission, the treatment will be scheduled. We anticipate diquat treatment in mid-late June.

Nuisance waterlilies have also been an issue at Pine Meadow Pond. Our 2021 survey documented only native cattails around the perimeter of Pine Meadow Pond, with a large area at the northern end of the pond. No phragmites was found during the 2021 surveys. Treatment of waterlilies will occur in September (see more detailed narrative under Sandy Pond Section). In the event phragmites are documented during the 2022 season, these will also be managed during this event. Our plan is to continue the work that has been started in reclaiming open water habitat. We will selectively scale back the waterlily/watershield growth using a glyphosate-based herbicide. Phragmites growth, if any, will be documented and treated largely through the use of low-volume backpack sprayers, but may include hand-wiping in low-density areas, as necessary.

Task 4: Year End Reporting

As required in the Request for Quotes, a year-end report will be submitted to the Ayer Conservation Commission by the end of November 2022. The report will include pre- and post-treatment inspection data, an overlay of the GPS-generated pre- and post-treatment plots, a calculation of the pre- and post-treatment areas, and a notarized statement by the Consultant that the eradication goal of 90% for fanwort and milfoil and 50% for phragmites was met in specified ponds throughout the project year of 2021. Additionally, included in the year-end report will be photos of the ponds, temperature and dissolved oxygen information. Periodic updates will be communicated to the Town to keep key personnel informed of project progress and results.

Statement of Guarantee

Water & Wetland, LLC guarantees a minimum of 90% reduction of fanwort and milfoil, and a minimum of 50% reduction of phragmites will be achieved during the 2022 season (when following the above recommended program).

Anticipated Project Timeline

Our anticipated project timeline for the scope of services detailed above is below. Please note that this may change slightly based on weather conditions, flow, and plant growth activity. We are committed to working with the Town to confirm mutually agreeable survey and treatment dates.

| Sandy Pond | |
|--|--------------------|
| Task | Approximate Timing |
| • Prepare and file MA-DEP License to Apply Chemicals Permit | April |
| • Pre-treatment survey / Initial Sonar treatment of fanwort at inlets | Early-June |
| • Diquat treatment of milfoil/curly leaf pondweed / Sonar “bump” application | Mid-Late June |
| • Post-treatment Survey / phragmites (and waterlily if necessary) treatment | September |
| • Delivery of year-end report | November |

| Flannagan Pond | |
|--|--------------------|
| Task | Approximate Timing |
| • Prepare and file MA-DEP License to Apply Chemicals Permit | April |
| • Pre-treatment survey / Initial Sonar treatment of fanwort at inlet | Early-June |
| • Diquat treatment of milfoil/curly leaf pondweed / Sonar “bump” application | Mid-Late June |
| • Post-treatment Survey / phragmites (and waterlily if necessary) treatment | September |
| • Delivery of year-end report | November |

| Pine Meadow Pond | |
|---|--------------------|
| Task | Approximate Timing |
| • Prepare and file MA-DEP License to Apply Chemicals Permit | April |
| • Pre-treatment survey | Early-June |
| • Diquat treatment of milfoil/curly leaf pondweed | Mid-Late June |
| • Post-treatment Survey / waterlily treatment (and phragmites if present) | September |
| • Delivery of year-end report | November |

Project Managers

Water & Wetland is proudly an owner operated local firm. If we are selected to continue managing the Ayer Ponds, Colin Gosselin will be the project manager. Colin is co-owner of Water & Wetland and is also a Senior Aquatic Biologist and Director of Operations. He is a graduate of Plymouth State University in New Hampshire with a degree in Environmental Planning and has worked in the lake management industry since 2006. During his 16 years in the industry, he has gained vast experience in project design and implementation including a variety of programs including: chemical, mechanical, and manual. For more than a decade, Colin has managed hundreds of waterbodies and excels at controlling invasive species, both in water and in wetland. Colin is a licensed supervisory applicator in MA, CT, and RI. Wetland and upland projects have always been Colin’s expertise having managed thousands of acres of phragmites and identifying and managing species such as glossy buckthorn, multiflora rose, Japanese barberry, Asiatic bittersweet, and much more. From water quality to invasive species control, Colin has in depth experience. Colin is affiliated with NALMS (North American Lake Management Society), NEAB (New England Association of Environmental Biologists), NEAPMS (Northeast Aquatic Plant Management Society). As an owner of Water & Wetland, Colin’s main role is to project manage including completion of field work.

James Lacasse will be assisting with project management. James is a Senior Environmental Scientist and Project Manager for Water & Wetland. He is a graduate of University of Rhode Island and holds a degree in Environmental Science. Since 2012, James has worked for companies such as: Aquatic Control Technology, Inc., Triumvirate Environmental, and SOLitude Lake Management. During this time, he has gained extensive experience managing ponds and lakes throughout New England, including everything from surveys and water quality analysis through the implementation of management. James is a licensed herbicide applicator in Massachusetts and is also a PADI certified scuba diver.

Joe Onorato is a graduate of Roger Williams University in Rhode Island. Prior to co-founding Water & Wetland he worked for a leading lake management firm, where he managed projects from the design phase through the implementation of management. He specializes in educating clients on best practices and has been featured as a guest speaker for New England Turfgrass Association, CAI CT as well as other associations, discussing pond management best practices. Joe's main role within Water & Wetland is implementing new projects and insuring client satisfaction.

More detailed biographies/resumes as well as license information is provided within the attachments to this bid. Direct contact info for both owners of Water & Wetland is provided below.

| Contact | Name | Cell Phone | Email |
|----------------------------------|----------------|-------------------|---------------------------|
| 1 st Point of Contact | Colin Gosselin | (508) 259-3153 | colin@waterandwetland.com |
| 2 nd Point of Contact | Joe Onorato | (508) 250-6238 | joe@waterandwetland.com |

Site walk, 2/12/2022 to chart sign locations:

1. McPherson Road

Near West Main Street entrance, small parking area on Nashua River side

NEED TO CHECK WITH DEVENS??



2. Nonacoicus Brook

On sidewalk to Shirley side of culvert crossing (so as not to block view)

DPW -- Can sign be attached to the guardrail?



3. Grove Pond -- Pirone Park

Perimeter Path, by shore, between two benches

CHECK WITH PARKS DEPARTMENT



4. Grove Pond -- Pirone Park

By parking area, next to Rain Garden sign, near to Field 4 – NO PHOTO TAKEN

CHECK WITH PARKS DEPARTMENT

5. Grove Pond – near Community Garden

By big tree near parking area

CHECK WITH DPW



6. Shaker Mill Pond

Near beaver deceiver area at bend in road, blue flag marker



7. Long Pond

Up by fence/road, near top of walkway down to dock

ASK PONDVIEW ASSOCIATION



8. Sandy Pond

Behind fence at corner at end of parking area (on side as move further down Snake Hill)

PARKS DEPARTMENT



9. Flannagan Pond – Central Avenue
By Pump Station



10. Flannagan Pond
Oak Ridge Drive, on FP side of culvert where Pine Meadow Pond flows in



11. Pine Meadow Pond

Oak Ridge Drive, on PMP side of culvert and dam where PMP flows to FP



12. Pine Meadow Pond

At trail fork after you enter conservation land from Groton-Harvard Road, where Sign point to pond to right, or trail continues on straight.

NO PHOTO TAKEN