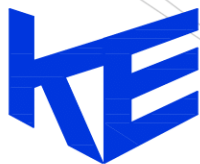


NOTICE OF INTENT

08/01/25

**109 HEATHER LANE EXTENSION
RC LOT 2
768 CHESTNUT ST.
NEEDHAM, MA**

PREPARED BY:



KELLY ENGINEERING GROUP
civil engineering consultants
0 Campanelli Drive, Braintree, MA 02184
Phone: 781-843-4333 www.kellyengineeringgroup.com

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Natural Heritage Atlas

August 1, 2025

Town of Needham
Conservation Commission
Public Services Administration Building
500 Dedham Avenue
Needham, MA 02492

RE: ***Notice of Intent***
109 Heather Lane Extension (Residential Compound Lot 2)
Needham, MA 02492
Assessors Map 204 Block 0051

Dear Members of the Commission;

Attached herewith are the following documents:

1. *Two (2) copies of the "Site Development Plans", dated July 28, 2025 by Kelly Engineering Group, Inc.
2. *Two (2) copies of the "Notice of Intent", dated August 1, 2025 by Kelly Engineering Group, Inc.
3. One (1) check in the amount of \$67.50 made payable to the Town of Needham (Local portion of State Fee)
4. One (1) check in the amount of \$42.50 made payable to the Commonwealth of Massachusetts (State portion of State Fee) submitted to MassDEP.
5. One (1) check in the amount of \$50.00 made payable to the Town of Needham (Local Fee-Minor Activities for Single Family Home)

*These documents have also been sent electronically to the Needham Conservation Agent by email.

The purpose of these documents is to respectfully request that the Commission issue an order of conditions under the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, § 40) and its implementing regulations (310 CMR 10.00); and the Town of Needham General Bylaws Article 6 General Wetlands Protection and the Town of Needham Wetlands Protection Regulations for the above referenced project, as described in the enclosed documents.

Existing Site

The site is located on 768 Chestnut St. in the Heather Lane Subdivision Residential Compound Lot 2 with an address of 109 Heather Lane Extension. The lot is approximately 1.13 acres and consists of an existing house, paved driveway, lawn areas and four subsurface recharge systems handling roof runoff.

Resource Areas

Resource Areas on the site consists of the Charles River and its associated 200' Riverfront Area, Bordering Land Subject to Flooding ("BLSF"), and Bordering Vegetated Wetlands ("BVW"). The site was inspected and the resource areas adjacent to the proposed project were delineated by John P. Rockwood, Ph.D., PWS of EcoTec, Inc. A description of the resource areas is included in the accompanying Wetland Resource Evaluation by EcoTec, Inc. The FEMA base flood plain elevation is 96.

Project Description

The proposed project entails the construction of terraced retaining walls, patio, stairs, and fencing along the retaining walls. The proposed grading of the site is raised at the rear of the property with the use of retaining walls. The total impervious area in the buffer zone is 176 s.f.

The proposed work that will occur in the Buffer Zone to Bordering Vegetated Wetlands will be for the retaining walls and the proposed grading associated with them. The proposed limit of work is greater than 55 feet from Bordering Vegetated Wetlands. No work will occur within the 200' Riverfront Area nor within Bordering Land Subject to Flooding.

Performance Standards

Performance standards are listed in italic text and responses are in plain text.

TOWN OF NEEDHAM WETLANDS PROTECTION REGULATIONS

2.06 LAND WITHIN 100 FEET OF A WATER BODY, WATER WAY, BANK, OR VEGETATED WETLAND (THE BUFFER ZONE)

(3) Performance Standards

- (a) No construction within 25 feet of the limit of Bank or Vegetated Wetland ("The 25-Foot Buffer Zone") may be permitted. Construction is here defined to include (but not limited to) all new roadways, driveways, buildings, decks (except as in (b) below), clearing and grading, stormwater detention basins, and point-source discharges. Any construction within the Buffer Zone must be designed to preserve a minimum of 25 feet of undisturbed natural vegetation and soils adjacent to a Vegetated Wetland or Bank.*

No construction is proposed within the 25 Foot Buffer Zone.

- (b) Work within 25 feet of the limit of Bank or Vegetated wetland may be permitted when the work consists of:*
- removing existing structures;*
 - planting native tree, shrub, or herbaceous species;*
 - removing invasive plant species and restoring native vegetation;*
 - adding a deck or patio to an existing dwelling, where no new impervious surfaces are proposed and the work area is existing lawn.*

No work is proposed within the 25 Foot Buffer Zone.

- (c) *Where the Buffer Zone provides wildlife habitat (i.e., is forested, meadowland, or otherwise undeveloped except for lawful existing lawn and ornamental or vegetable gardens), no alteration of vegetation or construction within 50 feet of the limit of Vegetated Wetland or Bank (the "50-Foot Buffer Zone") is permitted.*

No construction is proposed within the 50 Foot Buffer Zone.

- (d) *No construction may be permitted within 100 feet of a Vernal Pool, as defined in Section 1.04 above.*

There are no mapped Certified Vernal Pools within the property.

- (e) *No work within the Buffer Zone shall impair the water quality, water temperature, or wildlife habitat of the adjacent Water Body, Waterway, Bank, or Vegetated Wetland.*

The proposed work within the Buffer Zone will not impair surrounding resource areas.

- (f) *Where new point-source discharges are proposed within the Buffer Zone, a comprehensive stormwater management system shall be designed that will not degrade the values or functions of the receiving or downstream Water Bodies, Waterways, or Vegetated Wetlands, surface water, or ground water. Such stormwater management systems shall employ Best Practical Measures. Any point-source discharge must be designed to discharge water at non-erosive velocities equal to 2 c.f.s (cubic feet per second) or less.*

There will be no new point-source discharge.

- (g) *Where stormwater detention basins (including any infiltration or recharge basins) are proposed within the Buffer Zone, these shall be designed to be maintenance-free, self-cleaning, and to deter acts of vandalism. The inlet and outlet shall be designed to avoid scour and erosion of the basin bottom and discharge channel. The basin must be designed to avoid or minimize direct flows between the inlet and outlet, and to maximize the stormwater residence times.*

There are no proposed stormwater detention basins.

- (h) *Where proposed work within the Buffer Zone will increase impervious surfaces and reduce groundwater recharge, infiltration measures must be designed to maintain said groundwater recharge.*

The total impervious area in the buffer zone is 176 s.f. Dedicated recharge has been provided over the clean roof runoff. 8 Cultec 330xlhd chambers have been installed. These chambers provide 672 cu.ft. of recharge volume, equivalent to approximately 2 inches over the 3,911 s.f. building area.

- (i) *Erosion and sedimentation controls must be utilized for any construction within the Buffer Zone that will result in exposed soils. An erosion and sedimentation control plan must be prepared which provides specifications for temporary and permanent soil stabilization, using Best Practical Measures. No silt or sediment may be permitted to enter wetland resource areas during or subsequent to construction.*

An erosion control line will be placed along the limit of work to ensure that surrounding resource areas are protected during construction of the project.

In summary the proposed project will have no adverse effects on the surrounding resource area. The project meets the performance standards for work within the 100' buffer zone. We look forward to meeting with you at your next scheduled meeting.

If you have any questions or desire additional information, please feel free to call the office at 781-843-4333.

Sincerely,

KELLY ENGINEERING GROUP, INC.

A handwritten signature in blue ink that reads "Brandon Li". The signature is written in a cursive, flowing style.

Brandon G. Li, P.E.
Principal

Copy: Massachusetts Department of Environmental Protection Northeast Region
William John Piersiak

KELLY ENGINEERING GROUP, INC.

0 Campanelli Drive-Braintree-MA 02184 Phone 781-843-4333

Attachment #1

Notice of Intent (WPA Form3)

Wetland Fee Transmittal Form

Application for a Permit Needham Article 6

Notice of Intent Application Checklist

Copies of the Checks



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

NEEDHAM

City/Town

Important:

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



Note:
Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

109 HEATHER LANE EXT

a. Street Address

NEEDHAM

b. City/Town

02492

c. Zip Code

Latitude and Longitude:

204

f. Assessors Map/Plat Number

42.261471

d. Latitude

-71.232916

e. Longitude

0051

g. Parcel /Lot Number

2. Applicant:

WILLIAM

a. First Name

PIERSIAK

b. Last Name

c. Organization

85 HEATHER LANE EXT

d. Street Address

NEEDHAM

e. City/Town

617-759-9820

h. Phone Number

i. Fax Number

MA

f. State

wpiersiak@comcast.net

j. Email Address

02492

g. Zip Code

3. Property owner (required if different from applicant):

☒ Check if more than one owner

CHAUHAN

a. First Name

ABHISHEK

b. Last Name

& SAHNI SAHEBA

c. Organization

109 HEATHER LANE EXT

d. Street Address

NEEDHAM

e. City/Town

MA

f. State

02492

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

BRANDON

a. First Name

LI

b. Last Name

KELLY ENGINEERING GROUP, INC.

c. Company

0 CAMPANELLI DRIVE

d. Street Address

BRAINTREE

e. City/Town

781-843-4333

h. Phone Number

i. Fax Number

MA

f. State

bli@kellyengineeringgroup.com

j. Email address

02184

g. Zip Code

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

\$110.00

a. Total Fee Paid

\$42.50

b. State Fee Paid

\$67.50

c. City/Town Fee Paid



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

NEEDHAM

City/Town

A. General Information (continued)

6. General Project Description:

Proposed retaining walls and associated grading within the Buffer Zone to bordering vegetated wetlands.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

- | | |
|---|---|
| 1. ☒ Single Family Home | 2. ☐ Residential Subdivision |
| 3. ☐ Commercial/Industrial | 4. ☐ Dock/Pier |
| 5. ☐ Utilities | 6. ☐ Coastal engineering Structure |
| 7. ☐ Agriculture (e.g., cranberries, forestry) | 8. ☐ Transportation |
| 9. ☐ Other | |

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. ☐ Yes ☒ No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR 10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

NORFOLK

a. County

40214

c. Book

b. Certificate # (if registered land)

457

d. Page Number

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

- ☒ Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
- ☐ Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

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City/Town

B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	1. linear feet	2. linear feet
b. ☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c. ☐ Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☐ Riverfront Area	1. Name of Waterway (if available) - specify coastal or inland	

2. Width of Riverfront Area (check one):

- ☐ 25 ft. - Designated Densely Developed Areas only
- ☐ 100 ft. - New agricultural projects only
- ☐ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: _____ square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet _____ b. square feet within 100 ft. _____ c. square feet between 100 ft. and 200 ft. _____

5. Has an alternatives analysis been done and is it attached to this NOI? ☐ Yes ☐ No

6. Was the lot where the activity is proposed created prior to August 1, 1996? ☐ Yes ☐ No

3. ☐ Coastal Resource Areas: (See 310 CMR 10.25-10.35)

Note: for coastal riverfront areas, please complete **Section B.2.f.** above.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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

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NEEDHAM

City/Town

B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users:
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet	
	2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment
	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet	
	2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged	
l. ☐ Land Subject to Coastal Storm Flowage	1. square feet	

4. ☐ Restoration/Enhancement

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.2.b or B.3.h above, please enter the additional amount here.

a. square feet of BVW

b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

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C. Other Applicable Standards and Requirements

- ☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

a. ☐ Yes ☒ No

If yes, include proof of mailing or hand delivery of NOI to:

**Natural Heritage and Endangered Species Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581**

b. Date of map _____

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

- c. Submit Supplemental Information for Endangered Species Review*

1. ☐ Percentage/acreage of property to be altered:

(a) within wetland Resource Area

percentage/acreage _____

(b) outside Resource Area

percentage/acreage _____

2. ☐ Assessor's Map or right-of-way plan of site

2. ☐ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

(a) ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

(b) ☐ Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <https://www.mass.gov/endangered-species-act-mesa-regulatory-review>).

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

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NEEDHAM

City/Town

C. Other Applicable Standards and Requirements (cont'd)

- (c) ☐ MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>).

Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

Projects altering 10 or more acres of land, also submit:

- (d) ☐ Vegetation cover type map of site

- (e) ☐ Project plans showing Priority & Estimated Habitat boundaries

- (f) OR Check One of the Following

1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, <https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat>; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing.

a. NHESP Tracking #

b. Date submitted to NHESP

3. ☐ Separate MESA review completed.

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

- a. ☒ Not applicable – project is in inland resource area only b. ☐ Yes ☐ No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Bourne to Rhode Island border, and the Cape & Islands:

North Shore - Plymouth to New Hampshire border:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

- c. ☐ Is this an aquaculture project?

- d. ☐ Yes ☒ No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

NEEDHAM

City/Town

C. Other Applicable Standards and Requirements (cont'd)

Online Users:

Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
 - a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
 - b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
 - a. ☐ Yes ☒ No
6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?
 - a. ☐ Yes ☒ No
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
 - a. ☐ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
 1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
 2. ☐ A portion of the site constitutes redevelopment
 3. ☐ Proprietary BMPs are included in the Stormwater Management System.
 - b. ☒ No. Check why the project is exempt:
 1. ☒ Single-family house
 2. ☐ Emergency road repair
 3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

- ☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

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NEEDHAM

City/Town

D. Additional Information (cont'd)

3. ☒ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. ☒ List the titles and dates for all plans and other materials submitted with this NOI.

SITE DEVELOPMENT PLANS

a. Plan Title

KELLY ENGINEERING GROUP, INC.

BRANDON LI

b. Prepared By

07/28/2025

c. Signed and Stamped by

1" = 20'

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.
6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
8. ☒ Attach NOI Wetland Fee Transmittal Form
9. ☐ Attach Stormwater Report, if needed.

E. Fees

1. ☐ Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

1781

08/12/2025

2. Municipal Check Number

3. Check date

1783

08/12/2025

4. State Check Number

5. Check date

PIERSIAK ENTERPRISES INC

6. Payor name on check: First Name

7. Payor name on check: Last Name


Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

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NEEDHAM

City/Town

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

1. Signature of Applicant

2. Date

3. Signature of Property Owner (if different)

5. Signature of Representative (if any)

4. Date

6. Date

For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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



A. Applicant Information

1. Location of Project:

109 HEATHER LANE EXT

a. Street Address

1783

c. Check number

NEEDHAM

b. City/Town

\$42.50

d. Fee amount

2. Applicant Mailing Address:

WILLIAM

a. First Name

PIERSAK

b. Last Name

c. Organization

85 HEATHER LANE EXT

d. Mailing Address

NEEDHAM

e. City/Town

617-759-9820

h. Phone Number

i. Fax Number

MA

f. State

02492

g. Zip Code

wpiersiak@comcast.net

j. Email Address

3. Property Owner (if different):

CHAUHAN

a. First Name

& SAHNI SAHEBA

c. Organization

109 HEATHER LANE EXT

d. Mailing Address

NEEDHAM

e. City/Town

MA

f. State

02492

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

B. Fees

Fee should be calculated using the following process & worksheet. **Please see Instructions before filling out worksheet.**

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 1, a) work on single family lot	1	\$110.00	\$110.00

Step 5/Total Project Fee: _____

Step 6/Fee Payments:

	\$110.00
Total Project Fee:	a. Total Fee from Step 5
	\$42.50
State share of filing Fee:	b. 1/2 Total Fee less \$12.50
	\$67.50
City/Town share of filing Fee:	c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

- a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
Box 4062
Boston, MA 02211

- b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

Conservation Department Use Only

WPA Town Filing Fee	\$
NGWP Town Filing Fee	\$
Waiver Fee	\$

**APPLICATION FOR A PERMIT
NEEDHAM GENERAL WETLANDS PROTECTION BYLAW
ARTICLE 6**

☒ **Notice of Intent**

☐ **Request for Determination of Applicability**

Description of Project

Proposed retaining walls and associated grading within the Buffer Zone to
bordering vegetated wetlands.

Project Location

Street: 109 HEATHER LANE EXT

Assessor's Map: 204

Parcel: 0051

Registry Information

Book: 40214

Page: 457

Applicant

Name: William John Piersiak

Address: 85 HEATHER LANE EXT

NEEDHAM, MA 02492

Owner (if different)

Name: CHAUHAN, ABHISHEK & SAHNI, SAHEBA

Address: 109 HEATHER LANE EXT

NEEDHAM, MA 02492

Date of Filing

**Resources within which
work is proposed:**

☐ **Bordering Vegetated Wetland**

☐ **Bank**

☐ **Bordering Land Subject to Flooding**

☐ **Isolated Land Subject to Flooding**

☒ **Buffer Zone**

This application ☒ **is** ☐ **is not** filed simultaneously with a NOI/RDA under the
Massachusetts Wetlands Protection Act.

Statement of Applicant: I hereby certify under the penalties of perjury that this application and all supporting
plans and documents are true and complete to the best of my knowledge, and that these have been prepared in
conformance with the requirements of the Needham General Wetlands Bylaw and supporting regulations. I further
certify that all abutters and other parties have been notified of this application as required by the Bylaw. I
understand I may be asked to pay for a consultant to review my application for the Commission.

Signature:

Brandon Zi

Date:

07/28/25

**NOTICE OF INTENT APPLICATION CHECKLIST
NEEDHAM CONSERVATION COMMISSION
NEEDHAM GENERAL WETLANDS BY-LAW – ARTICLE 6**

THIS CHECKLIST MUST BE COMPLETED, SIGNED AND SUBMITTED WITH ANY NOTICE OF INTENT PERMIT APPLICATION. ALL REQUIRED INFORMATION AND NOTIFICATIONS MUST BE INCLUDED IN ORDER FOR THE APPLICATION TO BE CONSIDERED COMPLETE. BYLAW SECTION 1.05(4) LISTS THE REGULATORY REQUIREMENTS FOR AN APPLICATION.

NINE (9) PAPER COPIES AND ONE (1) ELECTRONIC COPY OF ALL MATERIALS MUST BE SUBMITTED AND CHECK(S) MADE OUT TO TOWN OF NEEDHAM FOR APPLICATION FEE (SEE FEE SCHEDULE)

ABUTTER NOTIFICATION (by certified mail, return receipt or hand delivery)

- ☒ List of all abutters within 300 feet of the property line.
- ☒ Copy of the Assessor's Map or Subdivision Plan showing abutting and adjacent lots within 300 feet of the parcel on which work is proposed.
- ☒ Copy of draft notification made to abutters including date and specific time of public hearing. (See Sample online)
- ☒ Proof of notification to abutters and Board of Selectmen, Planning Board, Board of Health, and Building Inspector (SUBMIT AT OR PRIOR TO HEARING).

PLANS (shall include the following)

- ☒ An 8.5" x 11" section of the U.S. Geologic Survey quadrangle or other map of the area.
- ☒ TITLE block clearly stating the name of the project.
- ☒ Street address, map and parcel numbers.
- ☒ Date of plan (and most recent revision).
- ☒ Scale (1"=20' or 1"=40' or metric equivalent).
- ☒ Stamped and signed by a Professional Engineer or Registered Land Surveyor.
- ☒ Shows existing conditions (grades, structures, roads, treelines, and limits of existing lawn).
- ☒ Clearly shows the boundaries of all regulated resource areas (Vegetated Wetland, Bank, BLSF, ILSF, Riverfront Area, Vernal Pools), including the 100-foot and 50- or 25-foot Buffer Zone limits as defined under the Wetlands Protection Act and the Needham General Wetlands By-Law and Regulations.
- ☒ Clearly shows the location and numbers of all wetland flags and method of survey.
- ☒ Show proposed limit of work, including but not limited to proposed grades, locations of all structures, roads, paths, utilities, drainage structures, trees to be removed, changes in lawn edges, plantings (including replacement trees per Town Guidelines), and proposed tree line.
- ☒ Shows the minimum distance between the limit of proposed work (erosion controls) and the edge of wetland
- ☐ Details of any subsurface drainage structure.
- ☒ Detail of any erosion and sedimentation control measures.

DOCUMENTS

- ☒ WPA Form 3 – Notice of Intent.
- ☒ Application for a Permit (Needham General Wetlands Protection Bylaw Article 6).
- ☒ Written Description of the work proposed, including a description of any excavation, proposed structures, and erosion and sedimentation controls.
- ☐ Drainage calculations and plans, for any project other than a single family residence, that would alter the flow of runoff to a wetland or have a direct discharge of stormwater within the buffer zone.
- ☒ Quantitative documentation to support the delineation of the vegetated wetland, with certification from the wetland scientist responsible for the delineation, stating the basis for the delineation and the date on which the delineation was performed. DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Forms must document both upland and wetland plots.
- ☐ Wildlife habitat assessment, where alterations to a wetland resource area or naturally-vegetated buffer zone are proposed.
- ☐ Soil test results where infiltration measures are proposed.
- ☐ Request for a waiver from compliance with the regulation (including proposed basis for request) if regulatory performance standards cannot be met.

☐ **Signature:** Brandon Zi **Date:** 07/28/25

KELLY ENGINEERING GROUP, INC.

0 Campanelli Drive-Braintree-MA 02184 Phone 781-843-4333

Attachment #2

Abutter Notification Form
Affidavit of Service
Needham Abutters List

Notification to Abutters Under the Massachusetts Wetland Protection Act & the Needham Wetlands Protection Bylaw

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and Needham Wetlands Protection Bylaw (Article 6) you are hereby notified of the following:

The name of the applicant is William John Piersiak.

The applicant has filed a Notice of Intent with the Conservation Commission for the municipality of Needham, MA for Proposed retaining walls and associated grading within the Buffer Zone to bordering vegetated wetlands.

The address of the lot where the activity is proposed is 109 Heather Lane Extension, Needham, MA, 02492, USA
Assessor's Map 204 Parcels 0051.

The hearing will be on August at 7:00 PM.

Public Participation will be via Virtual Means Only - In light of the ongoing COVID-19 coronavirus outbreak, Governor Baker issued an emergency Order on March 12, 2020, allowing public bodies greater flexibility in utilizing technology in the conduct of meetings under the Open Meeting Law. The Needham Conservation Commission greatly values the participation of its citizens in the public meeting process, but given the current circumstances and recommendations at both the state and federal levels to limit or avoid public gatherings, including Governor Baker's ban on gatherings of more than 10 people, together with the present closure of Needham Town Hall, the Public Service Administration Building, and other public buildings, the Town has decided to implement the "remote participation" procedures allowed under Governor Baker's emergency Order for all boards, committees, and commissions. (More information about this order can be found on the back of this sheet).

The public may participate in this meeting via Remote Participation:

- From your computer, smart phone or tablet: <https://us02web.zoom.us/j/82316889821>
- Meeting ID: 823-1688-9821
- From your phone: Dial +1 646-558-8656; Meeting ID: 82316889821#

Copies of the application may be obtained digitally from the Conservation Commission Staff by emailing conservation@needhamma.gov. Alternatively, you may call our office at 781-455-7550 x222 and leave a message with your contact information and the project address and a Staff Member will return your call during regular business hours.

Notice of the public hearing, including its date, time and place, will be published at least five (5) days in advance in a newspaper of local distribution.

NOTE: You also may contact the nearest Department of Environmental Protection Regional Office for more information about this application or the MA Wetlands Protection Act. To contact the DEP, call the Northeast Region at 978-694-3200.

**COVID-19 Emergency Response:
Implementation of Governor's Order Suspending Certain Provisions of the Open Meeting Law**

In light of the ongoing COVID-19 coronavirus outbreak, Governor Baker issued an emergency Order on March 12, 2020, allowing public bodies greater flexibility in utilizing technology in the conduct of meetings under the Open Meeting Law. The Needham Conservation Commission greatly values the participation of its citizens in the public meeting process, but given the current circumstances and recommendations at both the state and federal levels to limit or avoid public gatherings, including Governor Baker's ban on gatherings of more than 25 people, together with the present closure of Needham Town Hall and other public buildings to the public, The Town of Needham has decided to implement the "remote participation" procedures allowed under Governor Baker's emergency Order for all boards, committees, and commissions. This means that:

1. All or any of the members of the public body may choose to participate in a public meeting via remote access. Meetings may be virtual, in their entirety.
2. The public will be provided with alternative access through which they can watch or listen to meetings "in real time," and meeting notices will specify the manner in which members of the public may access audio or video of the meeting as it is occurring.
3. If, despite our best efforts, our technological capabilities do not adequately support public access to virtual or remote meetings, the Needham Conservation Commission will ensure that an audio or video recording, transcript, or other comprehensive record of the proceedings at the meeting is posted on the Town's website as soon as possible after the meeting.
4. Notices for public hearings will contain additional information about how the public may participate via electronic/technological means.
5. Where individuals have a right, or are required, to attend a public meeting or hearing, they will be provided with information about how to participate in the meeting/hearing remotely.
6. Meeting notices will still be posted at least 48 hours in advance (not counting Saturdays, Sundays, or legal holidays), unless it is an emergency meeting as defined under the Open Meeting Law (in which event, the meeting notice will be posted with as much advanced notice as is possible in the circumstances). Minutes will still be taken.

Please check individual meeting agendas on the calendar on the Town's website, located at www.needhamma.gov for the latest information regarding meetings. Each meeting may experience unique circumstances that may require last minute changes in protocol, including cancellation or rescheduling. We appreciate your patience as we undergo this shift in a significant aspect of how the Town of Needham conducts business.

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, G.L. c. 30A, §18, and the Governor's March 15, 2020 Order imposing strict limitation on the number of people that may gather in one place, this meeting of the Needham Conservation Commission will be conducted via remote participation to the greatest extent possible. Specific information and the general guidelines for remote participation by members of the public and/or parties with a right and/or requirement to attend this meeting can be found on the Town of Needham website, at www.needhamma.gov. For this meeting, members of the public who wish to listen and/or watch the meeting may do so in the manner stated on the previous page by navigating to the Zoom Meeting via a web browser or by calling in by phone. No in-person attendance of members of the public will be permitted, but every effort will be made to ensure that the public can adequately access the proceedings in real time, via technological means. In the event that we are unable to do so, despite best efforts, we will post on the Needham Conservation Commission webpage an audio or video recording, transcript, or other comprehensive record of proceedings as soon as possible after the meeting.

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetland Protection Act
(To be submitted to the Massachusetts Department of Environmental Protection and the
Conservation Commission when filing a Notice of Intent)

I, Brandon Li, of Kelly Engineering Group, Inc. hereby certify under the pains and penalties of perjury that I will give notification to abutters in compliance with the second paragraph of Massachusetts General Laws, Chapter 131, Section 40, and the DEP Guide to Abutter Notification, and/or the Needham Wetlands Protection Bylaw in connection with the following matter:

A Notice of Intent, filed under Massachusetts Wetlands Protection Act and the Needham Wetlands Protection Bylaw by William John Piersiak with the Needham Conservation Commission on August 20, 2025 for the property located at 109 Heather Lane Extension, Needham, MA, 02492.

The form of the notification and a list of abutters to whom it was given and their addresses are attached to the Affidavit of Service.



Brandon Li

08/19/25

Date

Nancy Martin

From: Elisa Litchman
Sent: Thursday, July 17, 2025 9:01 AM
To: Nancy Martin; Tom Sarno
Cc: Deb Anderson
Subject: Certified Abutters List Request

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Nancy and Tom,

This email serves as an official request for a certified abutters' list regarding a Conservation Commission application filing for the following address:

109 Heather Lane **Extension**

Please contact Andrew Vincent at 508-326-1692 (cell) or Avincent@kellyengineeringgroup.com when it is ready.

If you have any questions regarding this request, please do not hesitate to call me.

Thank you,



Elisa Litchman

Administrative Specialist
Planning & Community Development
Public Services Administration Bldg.
500 Dedham Avenue
Needham, MA 02492

Office: (781) 455-7550 ext. 72222
(new extension)

<https://www.needhamma.gov/>



109 HEATHER LANE EXTENSION 300 FEET

PARCEL ID	OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	CITY	ST	ZIP
199/204.0-0-0005-0000.0	KENNEY, KEITH ALAN &	KENNEY, MARISA GREENWALD	945 GREAT PLAIN AVE, STE 18	NEEDHAM	MA	02492-
199/204.0-0-0043-0000.0	DESAL, BRIJAL M. &	MEHTA, ANUPAMA	98 RIVERBEND LN	NEEDHAM	MA	02492-
199/204.0-0-0052-0000.0	STEINKRAUSS, KURT R. &	STEINKRAUSS, JULIE C	116 HEATHER LN	NEEDHAM	MA	02492-
199/204.0-0-0054-0000.0	94 HEATHER LANE LLC		98 HEATHER LN EXT	NEEDHAM	MA	02492-
199/204.0-0-0047-0000.0	STEARNS, ROBERT W. TR.&	STEARNS, NAOMI M. TR	95 RIVERBEND LN	NEEDHAM	MA	02492-
199/204.0-0-0055-0000.0	CAYER, NICHOLAS R. &	CAYER, STACEY	143 FALCON ST	NEEDHAM	MA	02492-
199/204.0-0-0007-0000.0	HASLOTIS, GEORGE K		750 CHESTNUT ST	NEEDHAM	MA	02492-
199/204.0-0-0056-0000.0	PIERSIAK, WILLIAM J. TR	WILLIAM J PERSIAK TRUST	56 PERISHING RD	NEEDHAM	MA	02494-
199/204.0-0-0053-0000.0	LEVENTHAL, ELYSE &	LEVENTHAL, JAMES	272 CHARLES RIVER ST	NEEDHAM	MA	02492-
199/204.0-0-0042-0000.0	BASS, MICHAEL A. TR	CIRCLE ROSES TRUST	85 RIVERBEND LN	NEEDHAM	MA	02492-
199/204.0-0-0059-0000.0	LEVENTHAL, ELYSE &	LEVENTHAL, JAMES	279 CHESTNUT ST	NEEDHAM	MA	02465-
199/204.0-0-0050-0000.0	PIERSIAK, WILLIAM J. TR.	WILLIAM J. PERSIAK TRUST	764 CHESTNUT ST	NEEDHAM	MA	02492-
199/204.0-0-0051-0000.0	HEATHER LANE DEV LLC		109 HEATHER LN	NEEDHAM	MA	02492-
199/204.0-0-0013-0000.0	PALLADINO, PETER M. &	PALLADINO, CHRISTINE ANN	720 SOUTH ST	NEEDHAM	MA	02492-
199/204.0-0-0046-0000.0	RIVERBEND LANE ASSOC. TRUST	C/O PHILIP DORMAN	63 RIVERBEND LANE	NEEDHAM	MA	02492-
199/204.0-0-0049-0000.0	766 CHESTNUT LLC		292 NEWBURY ST.	BOSTON	MA	02115-

Certified as list of parties in interest under Mass. General Laws and Needham Zoning By-Law, to the Best of our knowledge
for the Needham Board of Assessors.



KELLY ENGINEERING GROUP, INC.

0 Campanelli Drive-Braintree-MA 02184 Phone 781-843-4333

Attachment #3

Wetland Resource Evaluation
DEP BVW Delineation Field Data Form
National Flood Hazard Layer FIRMette
USGS Topographic Map
Natural Heritage Atlas

EcoTec, Inc.
ENVIRONMENTAL CONSULTING SERVICES
102 Grove Street
Worcester, MA 01605-2629
508-752-9666 – Fax: 508-752-9494

September 24, 2015
Revised March 30, 2021

Mr. Bill Piersiak
768 Chestnut Street
Needham, MA 02494

Cc: David Kelly, P.E., Kelly Engineering Group, Inc.

RE: Revised Wetland Resource Evaluation, 768 Chestnut Street, Needham, Massachusetts

Dear Mr. Piersiak:

On July 31 and August 6 and 13, 2015, EcoTec inspected the property at 768 Chestnut Street for the presence of wetland resources as defined by: (1) the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, § 40; the “Act”) and its implementing regulations (310 CMR 10.00 *et seq.*; the “Regulations”); (2) the Town of Needham General Wetlands Bylaw (Article 6; the “Bylaw”) and the Town of Needham Wetlands Protection Regulations (the “Bylaw Regulations”); and (3) the U.S. Clean Water Act. **On January 22, 2021, EcoTec reviewed certain sections of resource area boundaries that are located within 100 feet or 200 feet of the proposed activities on Residential Compound RC-Lot3, 116 Heather Lane Extension. Specifically, flags B1 to B14, C1 to C11, and S1 to S3 were reviewed, refreshed if needed, and were found to accurately reflect the delineated resource area boundaries.** John P. Rockwood, Ph.D., SPWS conducted the above inspections.

The subject site consists of land located generally to the east of Chestnut Street and north and west of the Charles River in southeastern Needham, Massachusetts. The site is developed with several residential structures and outbuildings, in-ground swimming pool, paddock, ice skating rink, paved driveway and parking areas, various fences, and large areas of associated lawn and landscaping. Undeveloped portions of the site consist of upland forest and various wetland resources. Plant species observed in the upland forest include northern red oak (*Quercus rubra*), white oak (*Quercus alba*), eastern white pine (*Pinus strobus*), black cherry (*Prunus serotina*), red maple (*Acer rubrum*), Norway maple (*Acer platanoides*), shag-bark hickory (*Carya ovata*), American beech (*Fagus grandifolia*), white ash (*Fraxinus americana*), staghorn sumac (*Rhus typhina*), and American plum (*Prunus americana*) trees, saplings, and/or shrubs; poison ivy (*Toxicodendron radicans*), common greenbrier (*Smilax rotundifolia*), oriental bitter-sweet (*Celastrus orbiculata*), Virginia creeper (*Parthenocissus quinquefolia*), and grape (*Vitis sp.*) climbing woody vines and ground cover; highbush blueberry (*Vaccinium corymbosum*), American yew (*Taxus canadensis*), maple-leaf viburnum (*Viburnum acerifolium*), arrow-wood (*Viburnum dentatum*), eastern red cedar (*Juniperus virginiana*), winged euonymus (*Euonymus alata*), Japanese barberry (*Berberis thunbergii*), bramble (*Rubus sp.*), honeysuckle (*Lonicera sp.*), glossy buckthorn (*Rhamnus frangula*), common buckthorn (*Rhamnus cathartica*), and multiflora rose (*Rosa multiflora*) shrubs; and lowbush blueberry (*Vaccinium angustifolium*), wild sarsaparilla (*Aralia nudicaulis*), tree clubmoss (*Lycopodium obscurum*), trailing clubmoss (*Lycopodium complanatum*), bracken fern (*Pteridium aquilinum*), hayscented fern (*Dennstaedtia punctilobula*), teaberry (*Gaultheria procumbens*), partridge-berry (*Mitchella repens*), feather false-Solomon’s-seal (*Smilacina*

racemosa), wild-lily-of-the-valley (*Maianthemum canadense*), golden-rods (*Solidago sp.*), myrtle (*Vinca minor*), upland sedge (*Carex pensylvanica*), and grasses (*Gramineae sp.*) ground cover. A portion of the upland forest in the southern portion of the site has an understory consisting largely of maintained grasses. The wetland resources observed on and near the site are described below.

Methodology

The site was inspected, and areas suspected to qualify as wetland resources were identified. The boundary of Bordering Vegetated Wetlands or, in the absence of Bordering Vegetated Wetlands, Bank was delineated in the field in accordance with the definitions set forth in the regulations at 310 CMR 10.55(2)(c) and 310 CMR 10.54(2). Section 10.55(2)(c) states that "The boundary of Bordering Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist." Section 10.54(2)(c) states that "The upper boundary of Bank is the first observable break in the slope or the mean annual flood level, whichever is lower." The methodology used to delineate Bordering Vegetated Wetlands is further described in: (1) the BVW Policy "BVW: Bordering Vegetated Wetlands Delineation Criteria and Methodology," issued March 1, 1995; and (2) "Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act: A Handbook," produced by the Massachusetts Department of Environmental Protection, dated March 1995. Bylaw and federal wetlands were presumed to have boundaries conterminous with the delineated Bordering Vegetated Wetlands and Bank. Two sets of DEP Bordering Vegetated Wetland Delineation Field Data Forms completed for observation plots located in the wetlands and uplands near flags B4 and C11 are attached. The table below provides the Flag Numbers, Flag Type, and Wetland Types and Locations for the delineated wetland resources.

Flag Numbers	Flag Type	Wetland Types and Locations
Start B1 to B14 Stop Start B21 to B25 Stop	Pink Flags	Boundary of Bordering Vegetated Wetlands associated with off-site Pond located in the northeastern portion of the site.
Start C1 to C11 connect to C12 to C24 Stop	Pink Flags	Boundary of Bordering Vegetated Wetlands associated with Charles River located in the eastern portion of the site.
Start D1 to D92 Connect to Prior Flag A1 to A3	Pink Flags	Boundary of Bordering Vegetated Wetlands associated with Charles River located in the eastern and southern portions of the site.
GLM Flags placed in 2020 [20-204 to 20-206]	Pink Flags	Boundary of off-site Isolated Vegetated Wetland under Bylaw only located off-site to the north.
Start S1 to S51 Connect to Prior Flag R39 to R37	Orange Flags	MAHWL of the Charles River near the eastern and southern boundary of the site.
S1 to S3 were reviewed		

Note: Flag series/numbers in Bold in table above were reviewed, and refreshed as needed, by EcoTec on January 22, 2021 and were found to accurately reflect the associated resource area boundary.

Findings

Wetland C (i.e., Some A- and all C- and D-series flags) consists of a band of forested swamp with shrub swamp and wet meadow inclusions located in the eastern and southern portions of the site that are associated with the Charles River which is located along the eastern and southern site boundaries. Plant species observed in the forested swamp and shrub swamp inclusions include red maple (*Acer rubrum*),

swamp white oak (*Quercus bicolor*), gray birch (*Betula populifolia*), American elm (*Ulmus americana*), and willow (*Salix* sp.) trees, saplings, and/or shrubs; poison ivy (*Toxicodendron radicans*), common greenbrier (*Smilax rotundifolia*), and grape (*Vitis* sp.) climbing woody vines and ground cover; highbush blueberry (*Vaccinium corymbosum*), common winterberry (*Ilex verticillata*), arrow-wood (*Viburnum dentatum*), withe-rod (*Viburnum cassinoides*), speckled alder (*Alnus rugosa*), silky dogwood (*Cornus amomum*), glossy buckthorn (*Rhamnus frangula*), sweet pepper-bush (*Clethra alnifolia*), swamp azalea (*Rhododendron viscosum*), American elderberry (*Sambucus canadensis*), common buttonbush (*Cephalanthus occidentalis*), steeple-bush (*Spiraea tomentosa*), and broad-leaf meadow-sweet (*Spiraea latifolia*) shrubs; and bristly blackberry (*Rubus hispidus*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis*), sensitive fern (*Onoclea sensibilis*), New York fern (*Thelypteris noveboracensis*), spinulose woodfern (*Dryopteris spinulosa*), skunk-cabbage (*Symplocarpus foetidus*), swamp Jack-in-the-pulpit (*Arisaema triphyllum*), spotted touch-me-not (*Impatiens capensis*), and sphagnum moss (*Sphagnum* sp.) ground cover. Plant species observed in the meadow inclusions include grasses (Gramineae sp.), sedges (Cyperaceae sp.), rushes (Juncaceae sp.), broad-leaf cattail (*Typha latifolia*), purple loosestrife (*Lythrum salicaria*), spotted touch-me-not (*Impatiens capensis*), golden-rods (*Solidago* sp.), fragrant-golden-rods (*Euthamia* sp.), sensitive fern (*Onoclea sensibilis*), bedstraw (*Gallium* sp.), butter-cup (*Ranunculus* sp.), blue vervain (*Verbena hastata*), skunk-cabbage (*Symplocarpus foetidus*), and spotted Joe-pye-weed (*Eupatoriadelphus maculatus*) ground cover. Evidence of wetland hydrology, including hydric soils, saturated soils, pore linings, and drainage patterns, was observed within the delineated wetland. This vegetated wetland borders a perennial stream; accordingly, the vegetated wetlands would be regulated as Bordering Vegetated Wetlands and the Charles River would be regulated as Bank and Land Under Water Bodies and Waterways under the Regulations and Bylaw/Bylaw Regulations. A 100-foot Buffer Zone extends horizontally outward from the edge of Bordering Vegetated Wetlands and Bank under the Regulations and Bylaw/Bylaw Regulations.

Wetland B (i.e., B-series flags) consists of a band of forested swamp located in the northeastern portion of the site that is associated with an intermittent stream and pond located off-site to the northeast. Plant species observed include red maple (*Acer rubrum*) and American elm (*Ulmus americana*) trees, saplings, and/or shrubs; poison ivy (*Toxicodendron radicans*) and common greenbrier (*Smilax rotundifolia* sp.) climbing woody vines and ground cover; highbush blueberry (*Vaccinium corymbosum*), arrow-wood (*Viburnum dentatum*), silky dogwood (*Cornus amomum*), glossy buckthorn (*Rhamnus frangula*), and sweet pepper-bush (*Clethra alnifolia*), shrubs; and bristly blackberry (*Rubus hispidus*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis*), sensitive fern (*Onoclea sensibilis*), New York fern (*Thelypteris noveboracensis*), spinulose woodfern (*Dryopteris spinulosa*), skunk-cabbage (*Symplocarpus foetidus*), swamp Jack-in-the-pulpit (*Arisaema triphyllum*), spotted touch-me-not (*Impatiens capensis*), and sphagnum moss (*Sphagnum* sp.) ground cover. Evidence of wetland hydrology, including hydric soils, high groundwater, saturated soils, pore linings, evidence of flooding, and drainage patterns, was observed within the delineated wetland. This vegetated wetland borders an off-site intermittent stream; accordingly, the vegetated wetlands would be regulated as Bordering Vegetated Wetlands; the intermittent stream would be regulated as Bank; and the pond would be regulated as Bank and Land Under Water Bodies and Waterways under the Regulations and Bylaw/Bylaw Regulations. A 100-foot Buffer Zone extends horizontally outward from the edge of Bordering Vegetated Wetlands and Bank under the Regulations and Bylaw/Bylaw Regulations.

Wetland GLM (i.e., GLM flags placed in 2020) consists of a pocket of isolated forested swamp located off-site to the north. Plant species observed include poison ivy (*Toxicodendron radicans*) climbing woody vines

and ground cover; glossy buckthorn (*Rhamnus frangula*) shrubs; and royal fern (*Osmunda regalis*) and spotted touch-me-not (*Impatiens capensis*) ground cover. Evidence of wetland hydrology, including hydric soils, pore linings, and evidence of short-term flooding, was observed within the delineated wetland. This vegetated wetland does not border a lake, pond, river, stream, or creek and would not be regulated as Bordering Vegetated Wetlands under the Regulations. This area is too small to be regulated as Isolated Land Subject to Flooding under the Regulations. This area would be regulated as an isolated Freshwater Wetland under the Bylaw/Bylaw Regulations and would have a 100-foot Buffer Zone that extends horizontally outward from the edge of the Freshwater Wetland under the Bylaw/Bylaw Regulations.

Bordering Land Subject to Flooding is an area that floods due to a rise in floodwaters from a bordering waterway or water body. Where flood studies have been completed, the boundary of Bordering Land Subject to Flooding is based upon flood profile data prepared by the National Flood Insurance Program. Section 10.57(2)(a)3. states that "The boundary of Bordering Land Subject to Flooding is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm." Based upon a review of the Flood Insurance Rate Map, Norfolk County, Massachusetts, Map Number 25021C0038E, Effective Date July 17, 2012 (attached), there is a mapped Zone AE (i.e., 100-year floodplain) with a 100-year flood elevation of approximately 96 feet (NAVD 1988) located in the eastern and southern portions of the site. There is a band mapped as Other Flood Areas: Zone X, which is defined as areas located within the 0.2% annual chance flood (i.e., 500-year floodplain), located to the north and west of the 100-year floodplain. The 500-year floodplain does not have regulatory significance. The balance of the site is mapped as Other Areas: Zone X, which is defined as areas located outside of the 0.2% annual chance flood (i.e., outside of 500-year floodplain). The project engineer should determine the extent of the 100-year flood elevation and the presence and extent of Bordering Land Subject to Flooding on the site based upon site specific topography at the proper datum with interpolation of the flood elevations as necessary from the Flood Profile. When present, Bordering Land Subject to Flooding would occur in areas where the 100-year floodplain is located outside of or upgradient of the delineated Bordering Vegetated Wetlands boundary. Bordering Land Subject to Flooding does not have a 100-foot Buffer Zone under the Regulations and Bylaw/Bylaw Regulations.

The Massachusetts Rivers Protection Act amended the Act to establish an additional wetland resource area: Riverfront Area. Based upon a review of the current USGS Map (i.e., Boston South Quadrangle, dated 1987, attached), the Charles River is located along the eastern and southern boundaries of the site. The entire length and the width to the mean annual high-water line of the twenty-three major rivers, including the Charles River, are considered part of the river under the Regulations. Riverfront Area would extend 200 feet horizontally upgradient from the mean annual high-water line of the river. Section 10.58(2)(a)2. states that the "Mean annual high-water line of a river is the line that is apparent from visible markings or changes in the character of soils or vegetation due to prolonged presence of water and that distinguishes between predominantly aquatic and predominantly terrestrial land. Field indicators of bankfull conditions shall be used to determine the mean annual high-water line. Bankfull field indicators include but are not limited to: changes in slope, changes in vegetation, stain lines, top of pointbars, changes in bank materials, or bank undercuts." Section 10.58(2)(a)2.a. states that "In most rivers, the first observable break in slope is coincident with bankfull conditions and the mean annual high-water line." The mean annual high-water line of the stream was delineated in the field with R- and S-series flags based upon the above-referenced regulation. Furthermore, based upon a review of the current USGS Map and observations made during the site inspection, there are no other mapped or significant unmapped streams with a watershed area of 0.5 square miles or greater located on or within 200 feet of the site. Riverfront Area does not have a Buffer

Mr. Bill Piersiak
September 24, 2015
Revised March 30, 2021
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Zone under the Act/Regulations but may overlap other wetland resources and their Buffer Zones. Riverfront Area is not a resource area specifically regulated under the Bylaw/Bylaw Regulations.

The Regulations require that no project may be permitted that will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures set forth at 310 CMR 10.59. Based upon a review of the *Massachusetts Natural Heritage Atlas*, 14th edition, Priority Habitats and Estimated Habitats from the NHESP Interactive Viewer, valid from August 1, 2017, and Certified and Potential Vernal Pools from MassGIS (attached), there are no Estimated Habitats [for use with the Act and Regulations (310 CMR 10.00 *et seq.*)] or Priority Habitats [for use with Massachusetts Endangered Species Act (M.G.L. Ch. 131A; "MESA") and MESA Regulations (321 CMR 10.00 *et seq.*)] on or in the immediate vicinity of the site. There are no mapped Certified Vernal Pools located on or near the site and one mapped Potential Vernal Pool is located within Wetland D in the southeastern portion of the site. The site no longer contains mapped Estimated Habitat or mapped Priority Habitat associated with the Charles River as it did under the 13th edition of the NHESP Atlas. As such, there are presently no filing requirements with NHESP under either the Act or the Massachusetts Endangered Species Act: a copy of the complete Notice of Intent is not required to be submitted to the NHESP.

The reader should be aware that the regulatory authority for determining wetland jurisdiction rests with local, state, and federal authorities. A brief description of my experience and qualifications is attached. If you have any questions, please feel free to contact me at any time.

Cordially,
ECOTEC, INC.



John P. Rockwood, Ph.D., SPWS
Chief Environmental Scientist

Attachments (5, 12 pages)

18/wr/NEEDHAM768CHESTNUTWRE2021

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant:

Prepared by: EcoTec, Inc.

Project location: 768 Chestnut Street, Needham

DEP File #:

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
☒ Vegetation and other indications of hydrology used to delineate BVW boundary: fill out Sections I and II
☐ Method other than dominance test used (attach additional information)

Section I. Vegetation		Observation Plot Number: B4	Transect Number: Up		Date of Delineation: 7/31/2015	
A. Sample Layer and Plant Species # (by common/scientific name)			B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category * #
Tree	Red Maple	<i>Acer rubrum</i>	40	44	Yes	FAC*
	Eastern White Pine	<i>Pinus strobus</i>	50	56	Yes	FACU
Sapling	Northern Red Oak	<i>Quercus rubra</i>	10	50	Yes	FACU-
	Eastern White Pine	<i>Pinus strobus</i>	10	50	Yes	FACU
Shrub	Northern Red Oak	<i>Quercus rubra</i>	10	22	Yes	FACU-
	Eastern White Pine	<i>Pinus strobus</i>	20	44	Yes	FACU
	Glossy Buckthorn	<i>Rhamnus frangula</i>	15	33	Yes	FAC*
Ground Cover	Lowbush Blueberry	<i>Vaccinium angustifolium</i>	15	27	Yes	FACU-
	Wild-lily-of-the-valley	<i>Maianthemum canadense</i>	30	55	Yes	FAC-
	Glossy Buckthorn	<i>Rhamnus frangula</i>	10	18	No	FAC*

Plant Taxonomy and Wetland Indicator Category from "National List of Plant Species that Occur in Wetlands: Massachusetts" (Fish & Wildlife Service, U.S. Department of the Interior, 1988) as required by 310 CMR 10.55(2)(c).

*Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c. 131, s. 40), plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusions:

Number of dominant wetland indicator plants: 2 Number of dominant non-wetland indicator plants: 7
 Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? No

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

TRANSECT B4 UP (CONT.)

Section II. Indicators of Hydrology

1. Soil Survey

Is there a published soil survey for this site? -

title/date: -
map number: -
soil type mapped: -
hydic soil inclusions: -

Are field observations consistent with soil survey? -

Remarks: -

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottle Color
A	0-2	10 YR 3/3 Loam	-
B1	2-6	10 YR 5/4 Loam	-
B2	6-16	10 YR 5/6 Sandy Loam	-

Other Indications of Hydrology: (check all that apply and describe)

- ☐ Site inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment deposits: _____
- ☐ Drainage patterns in BW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other): —

- ☐ Other: _____

Vegetation and Hydrology Conclusion		yes	no
Number of wetland indicator plants			☒
≥ number of non-wetland indicator plants		☐	☒
Wetland hydrology present:			
hydic soil present		☐	☒
other indicators of hydrology present		☐	☒
Sample location is in a BWV		☐	☒

Submit this form with the Request for Determination of Applicability or Notice of Intent.

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant:

Prepared by: EcoTec, Inc.

Project location: 768 Chestnut Street, Needham

DEP File #:

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
☒ Vegetation and other indications of hydrology used to delineate BVW boundary: fill out Sections I and II
☐ Method other than dominance test used (attach additional information)

Section I. Vegetation		Observation Plot Number: B4	Transect Number:	Wet	Date of Delineation: 7/31/2015	
A. Sample Layer and Plant Species # (by common/scientific name)		B. Percent Cover (or basal area)		C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category * #
Tree	Red Maple	<i>Acer rubrum</i>	80	100	Yes	FAC*
Climbing Woody Vine	Poison Ivy	<i>Toxicodendron radicans</i>	10	100	Yes	FAC*
Sapling	Shag-bark Hickory	<i>Carya ovata</i>	10	33	Yes	FACU-
	American Plum	<i>Prunus americana</i>	10	33	Yes	FACU-
	Red Maple	<i>Acer rubrum</i>	10	33	Yes	FAC*
Shrub	Glossy Buckthorn	<i>Rhamnus frangula</i>	50	83	Yes	FAC*
	Eastern White Pine	<i>Pinus strobus</i>	10	17	No	FACU-
Ground Cover	Wild-lily-of-the-valley	<i>Maianthemum canadense</i>	30	27	Yes	FAC-
	Skunk-cabbage	<i>Symplocarpus foetidus</i>	40	36	Yes	OBL*
	Spotted Touch-me-not	<i>Impatiens capensis</i>	10	9	No	FACW*
	Woodfern	<i>Dryopteris</i> sp.	10	9	No	-
	Poison Ivy	<i>Toxicodendron radicans</i>	10	9	No	FAC*
	Sensitive Fern	<i>Onoclea sensibilis</i>	10	9	No	FACW*

Plant Taxonomy and Wetland Indicator Category from "National List of Plant Species that Occur in Wetlands: Massachusetts" (Fish & Wildlife Service, U.S. Department of the Interior, 1988) as required by 310 CMR 10.55(2)(c).

*Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c. 131, s. 40), plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusions:

Number of dominant wetland indicator plants: 5 Number of dominant non-wetland indicator plants: 3
 Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

TRANSECT B4 WET (CONT.)

Section II. Indicators of Hydrology

1. Soil Survey

Is there a published soil survey for this site? -

title/date: -
map number: -
soil type mapped: -
hydric soil inclusions: -

Are field observations consistent with soil survey? -

Remarks: -

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottle Color
A	0-16	10 YR 2/1 Mucky Loam	-
B	16-20	10 YR 6/1 Sand	-

Remarks: Terminated at 20 inches.

3. Other: -

Conclusion: Is soil Hydric? Yes

Other Indications of Hydrology: (check all that apply and describe)

- ☐ Site inundated: _____
- ☒ Depth to free water in observation hole: 12 inches
- ☒ Depth to soil saturation in observation hole: 8 inches
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment deposits: _____
- ☐ Drainage patterns in BW: _____
- ☐ Oxidized rhizospheres: _____
- ☒ Water-stained leaves: _____
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other): —

- ☐ Other: _____

Vegetation and Hydrology Conclusion		yes	no
Number of wetland indicator plants			
≥ number of non-wetland indicator plants		☒	☐
Wetland hydrology present:			
hydric soil present		☒	☐
other indicators of hydrology present		☒	☐
Sample location is in a BWV		☒	☐

Submit this form with the Request for Determination of Applicability or Notice of Intent.

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant:

Prepared by: EcoTec, Inc.

Project location: 768 Chestnut Street, Needham

DEP File #:

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
☒ Vegetation and other indications of hydrology used to delineate BVW boundary: fill out Sections I and II
☐ Method other than dominance test used (attach additional information)

Section I. Vegetation		Observation Plot Number: C11	Transect Number: Up		Date of Delineation: 7/31/2015	
A. Sample Layer and Plant Species # (by common/scientific name)			B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category * #
Tree	Red Maple	<i>Acer rubrum</i>	20	22	Yes	FAC*
	Eastern White Pine	<i>Pinus strobus</i>	40	44	Yes	FACU
	Black Cherry	<i>Prunus serotina</i>	10	11	No	FACU
	Northern Red Oak	<i>Quercus rubra</i>	20	22	Yes	FACU-
Sapling	Eastern White Pine	<i>Pinus strobus</i>	10	100	Yes	FACU
Shrub	Eastern White Pine	<i>Pinus strobus</i>	30	50	Yes	FACU
	Glossy Buckthorn	<i>Rhamnus frangula</i>	20	33	Yes	FAC*
	Highbush Blueberry	<i>Vaccinium corymbosum</i>	10	17	No	FACW-*
Ground Cover	Poison Ivy	<i>Toxicodendron radicans</i>	5	33	Yes	FAC*
	Glossy Buckthorn	<i>Rhamnus frangula</i>	5	33	Yes	FAC*
	Eastern White Pine	<i>Pinus strobus</i>	5	33	Yes	FACU

Plant Taxonomy and Wetland Indicator Category from "National List of Plant Species that Occur in Wetlands: Massachusetts" (Fish & Wildlife Service, U.S. Department of the Interior, 1988) as required by 310 CMR 10.55(2)(c).

*Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c. 131, s. 40), plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusions:

Number of dominant wetland indicator plants: 4 Number of dominant non-wetland indicator plants: 5
 Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? No

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

TRANSECT C11 UP (CONT.)

Section II. Indicators of Hydrology

1. Soil Survey

Is there a published soil survey for this site? -

title/date: -
map number: -
soil type mapped: -
hydric soil inclusions: -

Are field observations consistent with soil survey? -

Remarks: -

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottle Color
A	0-2	10 YR 3/2 Loam	-
B1	2-8	10 YR 5/4 Loam	-
B2	8-16	10 YR 5/6 Sandy Loam	-

Remarks: Terminated at 16 inches; groundwater not encountered.

3. Other: -

Conclusion: Is soil Hydric? No

Other Indications of Hydrology: (check all that apply and describe)

- ☐ Site inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment deposits: _____
- ☐ Drainage patterns in BW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- ☐ Other: _____

Vegetation and Hydrology Conclusion		yes	no
Number of wetland indicator plants			
≥ number of non-wetland indicator plants		☐	☒
Wetland hydrology present:			
hydric soil present		☐	☒
other indicators of hydrology present		☐	☒
Sample location is in a BWV		☐	☒

Submit this form with the Request for Determination of Applicability or Notice of Intent.

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant:

Prepared by: EcoTec, Inc.

Project location: 768 Chestnut Street, Needham

DEP File #:

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
☒ Vegetation and other indications of hydrology used to delineate BVW boundary: fill out Sections I and II
☐ Method other than dominance test used (attach additional information)

Section I. Vegetation		Observation Plot Number: C11	Transect Number: Wet		Date of Delineation: 7/31/2015	
A. Sample Layer and Plant Species # (by common/scientific name)			B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category * #
Tree	Red Maple	<i>Acer rubrum</i>	20	67	Yes	FAC*
	Swamp White Oak	<i>Quercus bicolor</i>	10	33	Yes	FACW+*
Climbing Woody Vine	Poison Ivy	<i>Toxicodendron radicans</i>	20	67	Yes	FAC*
	Fox Grape	<i>Vitis labrusca</i>	10	33	Yes	FACU
Shrub	Glossy Buckthorn	<i>Rhamnus frangula</i>	60	86	Yes	FAC*
	American Elder	<i>Sambucus canadensis</i>	10	14	No	FACW-*
Ground Cover	Sensitive Fern	<i>Onoclea sensibilis</i>	40	47	Yes	FACW*
	Spotted Touch-me-not	<i>Impatiens capensis</i>	15	18	Yes	FACW*
	Poison Ivy	<i>Toxicodendron radicans</i>	15	18	Yes	FAC*
	Glossy Buckthorn	<i>Rhamnus frangula</i>	15	18	Yes	FAC*

Plant Taxonomy and Wetland Indicator Category from "National List of Plant Species that Occur in Wetlands: Massachusetts" (Fish & Wildlife Service, U.S. Department of the Interior, 1988) as required by 310 CMR 10.55(2)(c).

*Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c. 131, s. 40), plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusions:

Number of dominant wetland indicator plants: 8 Number of dominant non-wetland indicator plants: 1
 Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

TRANSECT C11 WET (CONT.)

Section II. Indicators of Hydrology

1. Soil Survey

Is there a published soil survey for this site? -

title/date: -
map number: -
soil type mapped: -
hydric soil inclusions: -

Are field observations consistent with soil survey? -

Remarks: -

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottle Color
A	0-4	10 YR 2/1 Loam	-
B	4-8	10 YR 5/4 Loam	-
Ob/A	8-16	10 YR 2/1 Muck/Mucky Loam	-
B	16-20	10 YR 5/2 Sandy Loam	10 YR 6/1 and 7.5 YR 5/6

Remarks: Terminated at 20 inches.

3. Other: -

Conclusion: Is soil Hydric? Yes

Other Indications of Hydrology: (check all that apply and describe)

- ☐ Site inundated: _____
- ☒ Depth to free water in observation hole: 12 inches
- ☒ Depth to soil saturation in observation hole: 8 inches
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment deposits: _____
- ☐ Drainage patterns in BW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other): —

- ☐ Other: _____

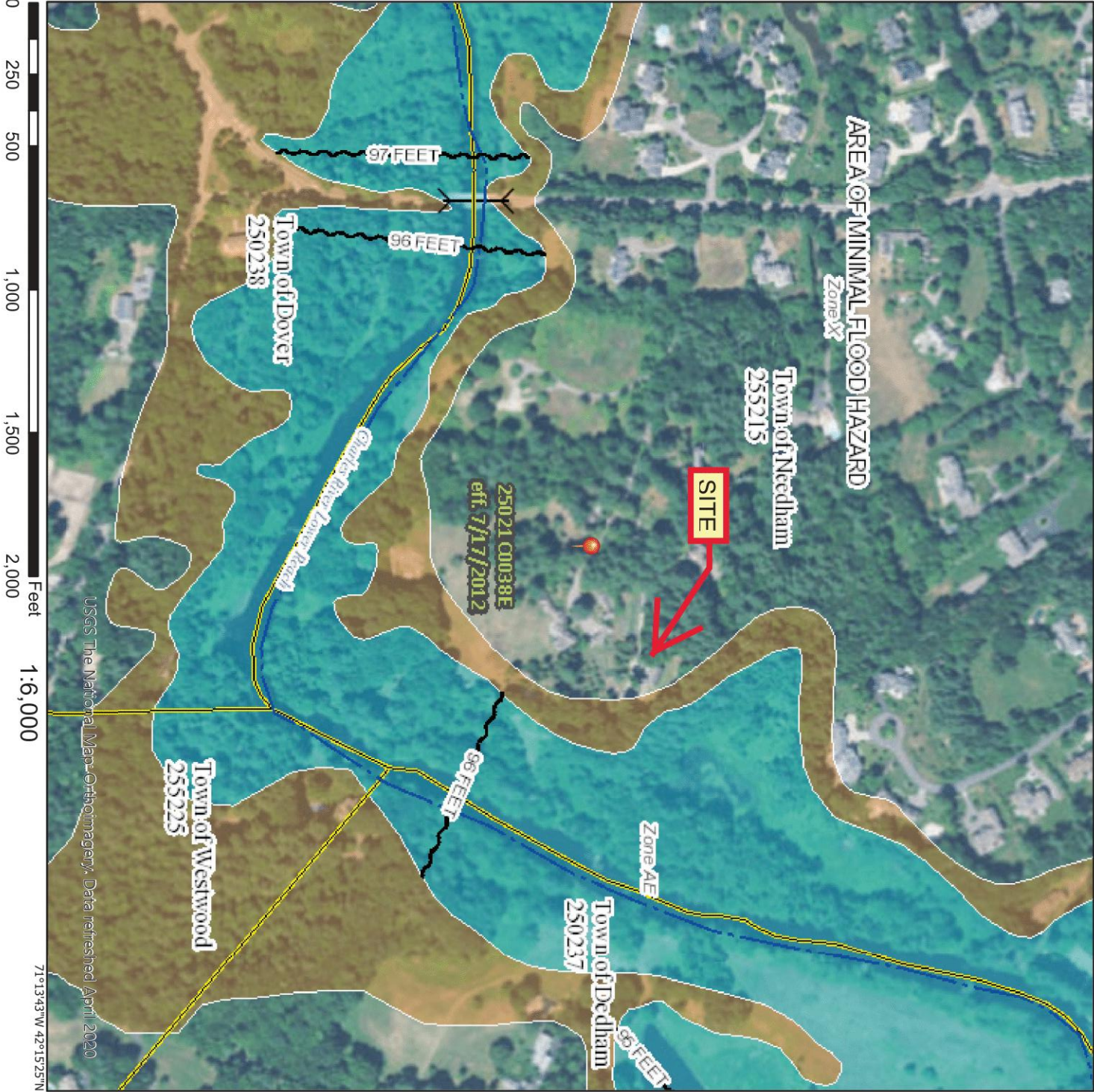
Vegetation and Hydrology Conclusion		yes	no
Number of wetland indicator plants			
≥ number of non-wetland indicator plants		☒	☐
Wetland hydrology present:			
hydric soil present		☒	☐
other indicators of hydrology present		☒	☐
Sample location is in a BWV		☒	☐

Submit this form with the Request for Determination of Applicability or Notice of Intent.

National Flood Hazard Layer FIRMette



71°14'21"W 42°15'51"N



Legend

SEE THIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, A99 With BFE or Depth Zone AE, AO, AH, VE, AR Regulatory Floodway
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OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X Future Conditions 1% Annual Chance Flood Hazard Zone X Area with Reduced Flood Risk due to Levee, See Notes, Zone X Area with Flood Risk due to Levee Zone D
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OTHER AREAS	NO SCREEN Effective LOMRs Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall

OTHER FEATURES	20.2 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation Coastal Transect Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary Coastal Transect Baseline Profile Baseline Hydrographic Feature
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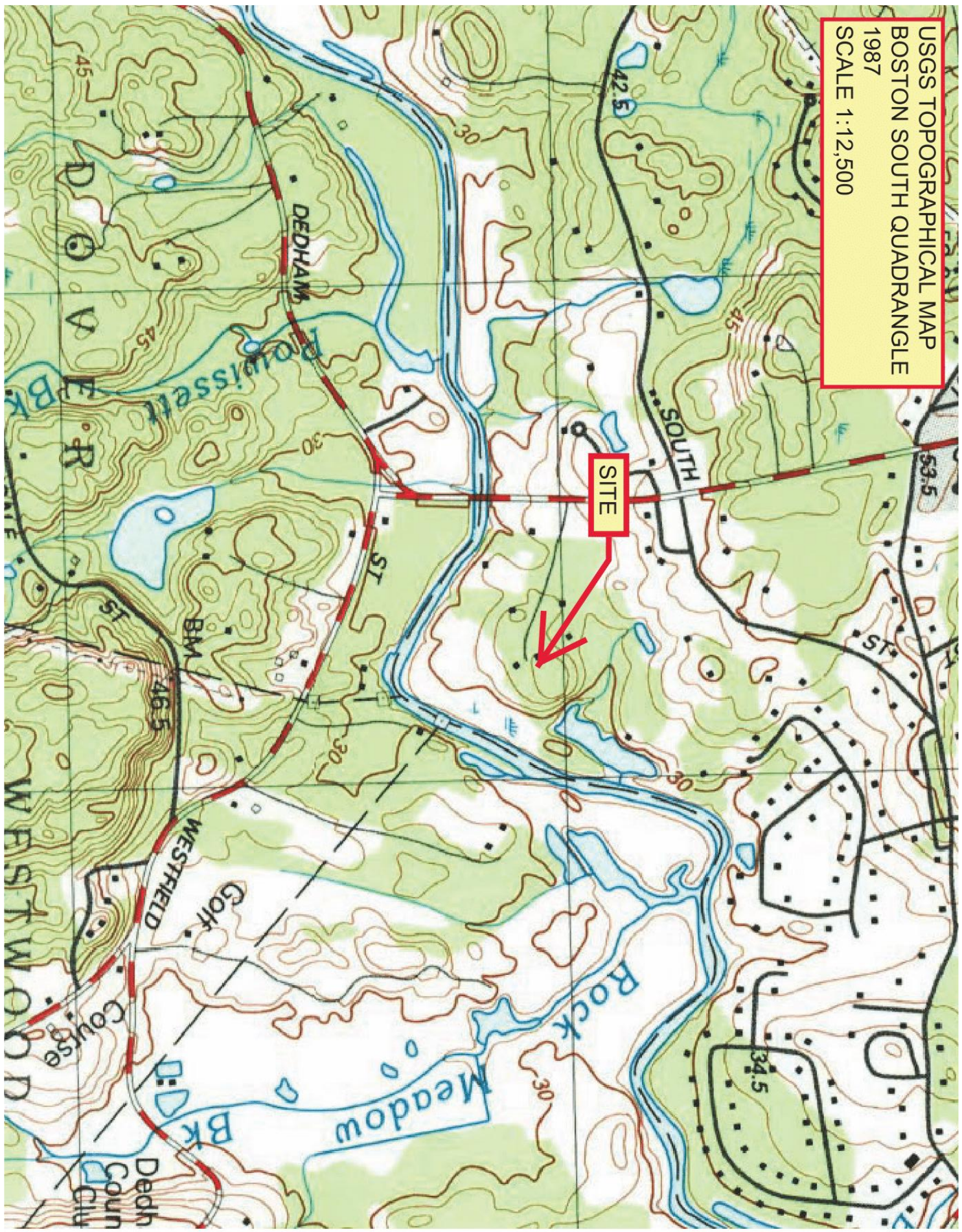
MAP PANELS	Digital Data Available No Digital Data Available Unmapped
	The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/12/2020 at 10:30 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and nonmodernized areas cannot be used for regulatory purposes.

USGS TOPOGRAPHICAL MAP
BOSTON SOUTH QUADRANGLE
1987
SCALE 1:12,500



NATURAL HERITAGE ATLAS, 14TH EDITION, AUGUST 1, 2017
PRIORITY HABITAT, ESTIMATED HABITAT, AND CERTIFIED
AND POTENTIAL VERNAL POOLS
SCALE 1:36,112
CREATED AUGUST 12, 2020

PH 1160

SITE

217.811.60m 893.432.52m

Scale = 1:36,112

500 m
1000 ft

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John P. Rockwood, Ph.D., SPWS
Chief Environmental Scientist

Dr. John P. Rockwood has been a Staff Scientist with EcoTec, Inc. since October 1999. He was previously a Chief Environmental Scientist at Sanford Ecological Services, Inc. of Southborough, Massachusetts from September 1990 to October 1999. Dr. Rockwood was certified in August 2002 and recertified in March 2008, January 2013, and June 2018 as a Professional Wetland Scientist (PWS) by the Society of Wetland Scientists Professional Certification Program (SWSPCP), and in April 2020, he was made a Senior Professional Wetland Scientist (SPWS) by the SWSPCP. His project experience includes wetland resource evaluation, delineation, and permitting at the local, state, and federal levels; wildlife habitat evaluation; pond and stream evaluation; vernal pool evaluation, certification, construction/replication, and monitoring; rare species habitat and impact assessment; wetland replacement, replication, and restoration area design, construction, and monitoring; invasive species removal and treatment protocols and monitoring; and expert testimony preparation. He has served as a consultant to municipalities, conservation commissions, the development community, engineering and survey firms, industry, and citizen's groups. He has managed and participated in a wide variety of wetlands-related projects ranging in scope from single-family house lots to subdivisions, commercial developments, mixed use developments, golf courses, a water park, MBTA commuter train station, and a regional mall. He has assessed the potential impacts of stormwater runoff, landfill leachate, and/or hazardous waste disposal sites on rare vertebrate and/or invertebrate species, and has conducted and/or directed surveys, delineated actual habitat, conducted habitat evaluations, and/or developed mitigation strategies necessary to protect rare vertebrate, invertebrate, and plant species and their habitats from proposed development-related impacts. He has designed and conducted drift fence studies for rare vertebrates. He has conducted and led preconstruction sweeps for the spotted turtle, wood turtle, and eastern box turtle. He has filed MESA Project Review Checklists and has prepared applications for Conservation and Management Permits and Amendments under MESA. He has submitted rare animal and plant observation forms to NHESP for several vertebrate, invertebrate, and plant species. He has conducted environmental impact assessments and has prepared MEPA documentation related to an office park, an MBTA commuter train station, water park, residential subdivisions, skating rink facility, landfill, and regional mall. Dr. Rockwood also has extensive experience in environmental site assessment related to possible oil and/or hazardous material contamination. He has conducted numerous environmental assessments, several including subsurface investigations, for sites located in Massachusetts, and has conducted preliminary environmental assessments for properties located in New York, New Hampshire, and Rhode Island. He has conducted ecological risk assessments (i.e., Stage I Environmental Screenings and Stage II Environmental Risk Characterizations) for a number of disposal sites in Massachusetts, including several disposal sites that had the potential to affect state-listed vertebrate and invertebrate species, and has utilized the EPA Rapid Bioassessment Protocol for macroinvertebrates to assess potential impacts of disposal sites and hazardous material releases on streams and rivers in Massachusetts and New York. He has served as the environmental contractor to the Franklin Consolidated Office of the Federal Deposit Insurance Corporation (FDIC-FCO) for 16 months, where he reviewed environmental reports, prepared scopes-of-work for site assessments, and provided technical advice to FDIC employees related to environmentally compromised assets. Dr. Rockwood has designed, conducted, and evaluated numerous surface water and groundwater monitoring programs. His prior research includes laboratory studies of the effects of low pH and aluminum on dragonfly nymphs and a field survey of the impact of chlorinated sewerage effluent on algal periphyton community dynamics. Dr. Rockwood is the co-author of a textbook on aquatic biology and is the principal author of three peer-reviewed research publications in the field of aquatic toxicology that address the effect of low pH and aluminum on nymphs of the dragonfly *Libellula julia*. Dr. Rockwood served as the as the Editor of the AMWS Newsletter from November 2004 to October 2010 and as Assistant Editor from May 2003 to November 2004 and October 2010 to January 2012. He served as President of the Association of Massachusetts Wetland Scientists from November 2013 to December 2015 and as Immediate Past President from December 2015 to December 2017. He was twice awarded by AMWS with their President's Award.

Education: Doctor of Philosophy (Ph.D.): Aquatic Pollution Biology – Plant and Soil Sciences
University of Massachusetts at Amherst, 1989
Bachelor of Science (B.S.): Environmental Sciences, *Summa Cum Laude*
University of Massachusetts at Amherst, 1984

Professional Affiliations: Society for Freshwater Science
Sigma Xi, Full Member
Association of Massachusetts Wetland Scientists, Voting Member
Society of Wetland Scientists
Massachusetts Association of Conservation Commissions

Certifications: Society of Wetlands Scientists Senior Professional Wetland Scientist, Certification Number 1349
OSHA Health and Safety Training, 40-Hour Training, 29 CFR 1910.120
OSHA Health and Safety Training, 8-Hour Supervisor Training
OSHA Health and Safety Training, 8-Hour Refresher Training