

Shannon Palmer, Conservation Officer  
Hingham Conservation Commission  
210 Central Street  
Hingham, MA 02043-2758

Date: April 29, 2025  
Our Ref: 30235180  
Subject: Notice of Intent  
Wompatuck Sewer Force Main Replacement  
Hingham, Massachusetts

Arcadis U.S., Inc.  
500 Edgewater Drive  
Suite 511  
Wakefield  
Massachusetts 01880  
Phone: 781 224 4488  
[www.arcadis.com](http://www.arcadis.com)

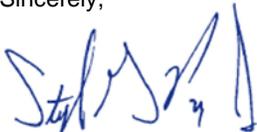
Dear Officer Palmer,

On behalf of the Massachusetts Department of Conservation & Recreation (DCR), Arcadis U.S., Inc (Arcadis) respectfully submits this Notice of Intent (NOI) for the proposed replacement of a deteriorated sewer force main located under Union Street in Hingham, Massachusetts (the site). The replacement of the force main is necessary to prevent sanitary sewer overflows that introduce wastewater into the Weir River, adjacent to the site. Project activities include installation of sediment and erosion controls, replacement pipe installation, connection to existing network, and site demobilization. The proposed project will include unavoidable temporary impacts to wetland resource areas (i.e., bordering vegetated wetlands, bordering land subject to flooding, riverfront area), as described in the attached permit.

Enclosed with the NOI is a check made payable to the Town of Hingham for \$387.50 for the Town's share of the filing fee. An additional check made payable to the Town of Hingham for \$250 is also enclosed pursuant to the Hingham Wetland Regulations. A third check for the State of Massachusetts filing fee in the amount of \$362.50 has been sent to MassDEP in Boston, MA.

We kindly request a place on the agenda for the Conservation Commission meeting on 5/19, and to advertise this application as necessary to support the regulatory review process. Thank you for your continued assistance with this project, and we look forward to meeting with the Conservation Commission to discuss the project at that time. If you have any further questions or need additional information to support your review, please do not hesitate to contact me at 781-213-4950 or [stephen.g.perry@arcadis.com](mailto:stephen.g.perry@arcadis.com).

Sincerely,



Stephen Perry, LEED GA, ENV SP  
Project Manager  
Arcadis U.S., Inc.

Email: [stephen.g.perry@arcadis.com](mailto:stephen.g.perry@arcadis.com)  
Direct Line: +1 781 213-4950

CC. Tom Valton, DCR  
MassDEP – Southeast Regional Office

Enclosures:

Notice of Intent: Wompatuck Sewer Force Main Replacement, Hingham, Massachusetts

Notice of Intent Package

# Wompatuck Sewer Force Main Replacement

April 2025

**Prepared By:**

Arcadis U.S., Inc.  
500 Edgewater Drive, Suite 511  
Wakefield, MA 01880  
United States  
Phone: 781 224 4488

**Prepared For:**

Massachusetts Department of Conservation &  
Recreation (DCR)  
6 Edwin H. Land Boulevard  
Cambridge, MA 02141

**Our Ref:**

30235180

*This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.*

## Attachments

1. Notice of Intent
2. Supplemental Narrative
3. Figures
4. Hingham Conservation Commission Letter
5. Drawings
6. Delineation Report
7. Stormwater Report
8. Photolog
9. Abutter Notification Package

# Attachment 1

## Notice of Intent



**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

1891962

Document Transaction Number

Hingham

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):

0 Union Street

a. Street Address

Hingham

b. City/Town

02043

c. Zip Code

Latitude and Longitude:

42.222194

d. Latitude

-70.873028

e. Longitude

101

f. Assessors Map/Plat Number

1311010000000090; 1311010000000080; Right-of-Way (Union Street)

g. Parcel /Lot Number

2. Applicant:

Thomas

a. First Name

Valton

b. Last Name

Massachusetts Department of Conservation and Recreation

c. Organization

6 Edwin H. Land Boulevard

d. Street Address

Cambridge

e. City/Town

MA

f. State

02141

g. Zip Code

339-368-2930

h. Phone Number

i. Fax Number

thomas.valton@mass.gov

j. Email Address

3. Property owner (required if different from applicant):  Check if more than one owner

Priscilla

a. First Name

Geigis

b. Last Name

Massachusetts Department of Conservation and Recreation

c. Organization

10 Park Plaza, Suite 6620

d. Street Address

Boston

e. City/Town

MA

f. State

02116

g. Zip Code

617-626-4986

h. Phone Number

i. Fax Number

priscilla.geigis@mass.gov

j. Email address

4. Representative (if any):

Stephen

a. First Name

Perry

b. Last Name

Arcadis U.S., Inc.

c. Company

500 Edgewater Drive, Suite 511

d. Street Address

Wakefield

e. City/Town

MA

f. State

01880

g. Zip Code

781-213-4950

h. Phone Number

i. Fax Number

stephen.g.perry@arcadis.com

j. Email address

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

\$750

a. Total Fee Paid

\$362.50

b. State Fee Paid

\$387.50

c. City/Town Fee Paid



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 \_\_\_\_\_  
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**A. General Information** (continued)

6. General Project Description:

See Attachment 2 (Supplemental Narrative).

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 CMR10.24(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:

Plymouth	
a. County	b. Certificate # (if registered land)
3641	294
c. Book	d. Page Number

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

- 1.  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.
- 2.  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.



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 Bureau of Resource Protection - Wetlands  
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**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. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet	2. square feet
	3. cubic yards dredged	

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input checked="" type="checkbox"/> Bordering Land Subject to Flooding	5660 (temporary)	
	1. square feet	2. square feet
	0	0
e. <input type="checkbox"/> Isolated Land Subject to Flooding	3. cubic feet of flood storage lost	4. cubic feet replaced
	1. square feet	
f. <input checked="" type="checkbox"/> Riverfront Area	2. cubic feet of flood storage lost	3. cubic feet replaced
	Weir River (inland)	

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: 4285 square feet
4. Proposed alteration of the Riverfront Area:
- |                      |                               |  |
|----------------------|-------------------------------|--|
| <u>4285</u>          | <u>2807</u>                   | <u>1477</u>                                |
| 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.



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**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. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	_____	
	1. square feet	
	_____	
	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	_____	_____
	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	_____	_____
	1. square feet	2. cubic yards dune nourishment

	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input type="checkbox"/> Coastal Banks	_____	
	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	_____	
	1. square feet	
h. <input type="checkbox"/> Salt Marshes	_____	_____
	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	_____	
	1. square feet	
	_____	
	2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	_____	
	1. square feet	
k. <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	
	_____	
	1. cubic yards dredged	
l. <input type="checkbox"/> 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



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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](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**

August 1, 2021

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

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### 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:

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](mailto:dmf.envreview-south@mass.gov)

North Shore - Plymouth to New Hampshire border:

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

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

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.

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



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**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.  

Wompatuck Sewer Force Main Replacement - 100% Design FOR PERMITTING USE ONLY	
a. Plan Title	Sean P. Mitchell
b. Prepared By	c. Signed and Stamped by
April 2025	As shown on drawings
d. Final Revision Date	e. Scale
See Attachment 2 (Supplemental Narrative) for full drawing list.	April 2025
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:

0494	4/29/2025
2. Municipal Check Number	3. Check date
0493	4/29/2025
4. State Check Number	5. Check date
Stephen	Perry
6. Payor name on check: First Name	7. Payor name on check: Last Name



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

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## 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	4/29/2025
3. Signature of Property Owner (if different)	4/29/25
5. Signature of Representative (if any)	4/29/2025
	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:

0 Union Street	Hingham
a. Street Address	b. City/Town
0493 (state); 0494 (town)	\$750
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Thomas	Valton	
a. First Name	b. Last Name	
Massachusetts Department of Conservation and Recreation		
c. Organization		
6 Edwin H. Land Boulevard		
d. Mailing Address		
Cambridge	MA	02141
e. City/Town	f. State	g. Zip Code
339-368-2930	thomas.valton@mass.gov	
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

Priscilla	Geigis	
a. First Name	b. Last Name	
Massachusetts Department of Conservation and Recreation		
c. Organization		
10 Park Plaza, Suite 6620		
d. Mailing Address		
Boston	MA	02116
e. City/Town	f. State	g. Zip Code
617-626-4986	priscilla.geigis@mass.gov	
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).



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**B. Fees** (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
2(e)	1	\$500.00	\$500.00 x 1.5
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
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**Step 5/Total Project Fee:** \_\_\_\_\_

**Step 6/Fee Payments:**

Total Project Fee:	\$750
State share of filing Fee:	\$362.50
City/Town share of filing Fee:	\$387.50
	a. Total Fee from Step 5
	b. 1/2 Total Fee <b>less</b> \$12.50
	c. 1/2 Total Fee <b>plus</b> \$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.)

# Attachment 2

## Supplemental Narrative

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## Acronyms and Abbreviations

AC	asbestos cement
ACEC	Area of Critical Environmental Concern
BFE	base flood elevation
BLSF	Bordering Land Subject to Flooding
BMP	best management practice
BVW	Bordering Vegetated Wetland
CGP	Construction General Permit
CCTV	Closed-Circuit Television
CIPPL	Cured-In-Place Pipe Lining
the Commission	Hingham Conservation Commission
DCR	Department of Conservation and Recreation
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
ft	feet
HDD	Horizontal Directional Drilling
HDPE	High-Density Polyethylene
H <sub>2</sub> S	Hydrogen Sulfide
H <sub>2</sub> SO <sub>4</sub>	Sulfuric Acid
HWR	Hingham Wetland Regulations
land under water	Land under Water Bodies and Waterways
LEC	LEC Environmental Consultants, Inc.
LF	Linear Feet
MA	Massachusetts
MEPA	Massachusetts Environmental Policy Act
NAVD88	North American vertical datum of 1988
NHESP	National Heritage & Endangered Species Program
NOI	Notice of Intent
Park	Wompatuck State Park
Project	proposed project work

SF	square feet
SSO	Sanitary Sewer Overflow
town	Town of Hingham, Massachusetts

# 1 Introduction

Wompatuck State Park (hereafter Park) is located off of Union Street in Hingham, Massachusetts (MA). The coordinates for the center of the Park are 42.203861 latitude and -70.847389 longitude. The Park is managed by the applicant – Massachusetts Department of Conservation and Recreation (DCR) – and offers a wide array of recreational opportunities and amenities for the public across its expansive 3,500-acre landscape. The Park is bordered by Route 3A to the north, the Weir River and Main Street to the west, Grove Street to the south, and Beechwood Street and Summer Street to the east (**Figure 1 of Attachment 3**). Access to the Park is provided by a variety of local roads, including Union Street, a paved, two-lane road running north to south from the center of the Town of Hingham into the Park. It is noted that although the applicant is DCR, the part of Union Street included in the project area is owned by the Town of Hingham.

Sanitary sewage from the Park is pumped through an existing sewer force main pipe below Union Street to its connection point with the Town of Hingham's gravity sewer system, near Hingham High School. The Weir River, which crosses under Union Street to the west of the Park boundary, flows from Accord Pond, located south of Hingham, to Hingham Bay, to the north of Hingham. DCR is proposing to replace an existing sewer force main pipe that runs along Union Street, with the goal of preventing sanitary sewer overflows into the Weir River. As discussed further in **Section 3.1** of this report, the project will focus on the replacement of a ~600 linear feet (LF) portion of the existing sewer force main, offset approximately 10 feet from its current location (**Figure 2 of Attachment 3**). The proposed design maintains the existing diameter of the force main and has been developed specifically to avoid permanent alterations to jurisdictional resource areas, thereby minimizing environmental impact. The replacement pipe will protect downgradient stream and wetland resources from any pollution associated with the existing aging pipe.

This narrative is intended to support the Notice of Intent Permit Package to address proposed activities within the State of Massachusetts. The purpose of this narrative is to provide additional information about the proposed project to support the required regulatory reviews and document minimization and avoidance of environmental resources that may occur on or proximate to the proposed project. To support the regulatory review of this NOI Package, this supplemental narrative includes a description of the following:

- Site characterization of existing conditions and land uses;
- Description of proposed project activities and anticipated impacts.
- Evaluation of project alternatives; and
- Summary of required regulatory compliance with federal, state and/or local regulations.

## 1.1 Statement of Need

The existing force main pipe is approximately 50 years old and is nearing the end of its functional lifespan. On April 9<sup>th</sup>, 2024, a force main break occurred near 0 Union Street at the Weir River and resulted in a sanitary sewer overflow (SSO) that introduced wastewater into the river. The site was inspected by a Conservation Commission Officer for the town and a member of the town's Sewer Department. Following that inspection, repairs were made by DCR to the force main which temporarily addressed the issue.

On April 29<sup>th</sup>, 2024, a second force main break occurred near 0 Union Street at the Weir River, resulting in another SSO discharge to the river. A third force main break occurred in a similar location on March 29<sup>th</sup>, 2025.

The pipe network has no air release valves and is at its highest elevation near the Weir River. It is suspected that this created an air pocket in the pipe network that has resulted in the pooling of Hydrogen Sulfide (H<sub>2</sub>S) gas produced as a byproduct from anaerobic conditions in the wastewater. H<sub>2</sub>S gas oxidizes into sulfuric acid (H<sub>2</sub>SO<sub>4</sub>), which is highly corrosive to iron and cement. This reaction likely accelerated the deterioration of the existing ductile iron (DI) and asbestos cement (AC) pipes, resulting in the aforementioned main breaks. There is an ongoing environmental risk to the nearby river and wetlands associated with a potential future SSO as a result of another break.

Due to the high risk of failure associated with the sewer force main pipe, in June 2024, The Commission respectfully requested DCR, in collaboration with other pertinent town departments and commissions, to develop a course of action to permanently address the condition of the sewer force main and prevent any further SSOs into the Weir River (see **Attachment 4**).

The proposed project aims to restore the integrity of the sewer force main pipe in order to protect the ecological resources associated with the Weir River. The project includes the replacement and relocation of approximately 600 LF of the existing DI and AC force main pipe with a High-Density Polyethylene (HDPE) pipe. The new HDPE pipe will connect to the historical repair made by DCR in 2024 at the existing valve box located east of the Weir River, just north of Union Street, within a gravel parking area. The pipe will then continue southeast below Union Street for ~550 LF, parallel to and roughly 10 feet north of the existing pipe. The southeastern end of the new HDPE pipe will be connected to the existing AC portion of the force main with a restrained harness coupling, as detailed in **Drawing C-03 of Attachment 5**. To mitigate the collection of H<sub>2</sub>S gas in the improved pipe network, an air release valve within a new manhole will be installed, as shown in **Drawing C-03 and C-07 of Attachment 5**.

Disturbances will be limited to the existing gravel parking area, paved roadway (Union Street), and the strip of maintained lawn to the north of Union Street. All disturbances will be temporary.

Additional project details are presented in **Drawings C-06 and C-07 of Attachment 5** and are described in **Section 3.2**.

## 2 Site Characterization

Wompatuck State Park, located in Hingham, Massachusetts, is owned and operated by Massachusetts DCR. Wompatuck State Park spans 3,526 acres of forest, streams and ponds, and includes over 250 campground sites, 12 miles of non-motorized roads, and 40 miles of forest trails. The campground sites have restroom facilities, which then convey the collected wastewater to a pump station in the State Park. The wastewater is pumped from the State Park pump station through the sewer force main pipe, which runs underneath Union Street, crosses east-to-west under the bed of the Weir River, and continues along Union Street until it discharges to the municipal gravity sewer system of the Town of Hingham in the vicinity of the High School.

### 2.1 Hydrology

The Park is located within the Weir River Watershed, which is approximately 215 square miles and flows into Massachusetts Bay. The Weir River, which runs through the project, runs south to north from the confluence of

Crooked Meadow River and Flushing Mill Brook (approximately 0.5 miles upstream of the project area) to the Weir River Area of Critical Environmental Concern (ACEC) located in Hingham Bay, approximately 2.5 miles downstream of the project area.

According to the July 16, 2014, Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) for Town of Hingham (FIRM Panel 25023C0101L), the Weir River itself is mapped as a regulatory floodway. Additionally, all areas in the vicinity of the Weir River, including the river itself, are mapped within Zone AE—1% Annual Chance Flood Hazard. Areas located directly upgradient of Zone AE are mapped within Zone X (shaded) – 0.2% Annual Chance Flood Hazard. The remainder of the project is located within Zone X (unshaded) – Areas of Minimal Flood Hazard.

## 2.2 Soils

According to the Natural Resource Conservation Service Soil Survey (Web Soil Survey and Plymouth County, Massachusetts, Version 15, September 9, 2022), most of the project area is mapped for Saco mucky silt loam, 0 to 3 percent slopes. This soil series is associated with the Weir River and floodplain. The remainder of the project area is a combination of Windsor loamy sand (3 to 8 percent slopes), Udipsammments (0 to 8 percent slopes), and Quonset sandy loam (3 to 8 percent slopes), which are associated with the nearby forested uplands and golf driving range.

## 2.3 Vegetation

As described in **Sections 1.1 and 3.1**, the project will occur within the footprint of the existing gravel parking area, paved roadway, and maintained lawn footprint. The project will not include any clearing of vegetation. Disturbances to the maintained lawn area will be limited to the installation of sediment and erosion control measures described in **Section 3.2.3**. Any disturbances to this area will be restored in-kind as described in **Section 3**.

Vegetation observed in the vicinity of Site is a mix of upland and wetland vegetation. At higher elevations, vegetation is consistent with that typically found in fragmented, forested uplands such as those present along Union Street. At lower elevations and closer to the Weir River, vegetation is consistent with that typically found in forested and scrub-shrub wetlands. A further description of vegetation onsite is provided in the wetland delineation report included as **Attachment 6**.

## 2.4 Massachusetts Endangered Species

According to the 15th Edition of the Massachusetts Natural Heritage Atlas (effective August 1, 2021) published by the Natural Heritage & Endangered Species Program (NHESP), the project area is not located within Estimated Habitat of Rare Wildlife and/or Priority Habitat of Rare Species. No Certified Vernal Pools or Potential Vernal Pools are mapped on or within the immediate vicinity of the project area.

## 2.5 Area of Critical Environmental Concern

The project is not located within an ACEC. However, it is noted that the Weir River discharges into an ACEC located approximately 2.5 miles downstream of the Site. As such, precautions will be taken throughout project

work to prevent any harmful discharges to the Weir River ACEC downstream, as described in **Section 3.2.2**. It is further noted that the project will ultimately benefit the ACEC, as it will prevent additional accidental discharges of sewer flow by updating the damaged pipe.

## 2.6 Resource Area and Buffer Zones

As recognized above, the project will only occur within the footprint of the existing gravel parking area, paved roadway, and maintained lawn strip. However, the project's proximity to the Weir River necessitates a review of Massachusetts Wetland Resource Areas that may occur within the project site as protected under the Massachusetts Wetlands Protection Act. Specifically, 310 CMR 10.54 through 10.58 and 10.60 address regulatory compliance specific to inland resources. The relevant resources are identified below.

### 2.6.1 Bank

Banks are important with respect to flood control and groundwater recharge and are defined as the area between a water body and the land features surrounding it. The upper boundary of the bank is defined as the first observable break or the mean annual flood level.

Banks were delineated within the project area by LEC Environmental Consultants, Inc. (LEC) on October 8, 2024 (**Attachment 6**). Banks were located on either side of the Weir River. No project work will occur within the banks.

However, the Town of Hingham regulates a 100-foot buffer extending horizontally from the top of bank, as described in **Section 5.2.3**. This buffer is within the project area, as demonstrated in **Table 1** and **Drawing G-03 of Attachment 5**.

### 2.6.2 Bordering Vegetated Wetlands

Bordering vegetated wetlands (BVWs) are important with respect to wildlife habitat and flood control. BVWs are defined as the limit within which 50% or more of the vegetational community consists of wetland indicator plants, saturated conditions exist, and additionally indications of these conditions sufficient to support these plants exist.

BVWs were delineated within the project area by LEC on October 8, 2024 (**Attachment 6**). As shown in **Drawing G-03 of Attachment 5**, the project area does not occur within any BVWs. It is recognized that a 100-foot buffer upland around a BVW is regulated to protect the function of the wetland. Almost the entirety of the project area exists within the 100-ft buffer to the delineated BVWs, as shown in **Drawing G-03 of Attachment 5**. However, as noted previously, the project is a replacement of existing infrastructure that will remain within the existing footprint of the gravel parking area, paved roadway, and maintained lawn. Furthermore, the project is necessary to prevent additional SSOs into the Weir River and associated wetlands. Nevertheless, impacts to the proximate BVWs will be minimized through the use of erosion and sedimentation controls as described in **Section 3.2.2**.

### 2.6.3 Land under Water Bodies and Waterways

Land under Water Bodies and Waterways (hereafter land under water) is important with respect to water supply, flood control, and aquatic wildlife, and is defined as the area below the mean annual low water level. For the purposes of this project, the extent of land under water was assumed at the mean annual high water level. This habitat is not mapped within the project area.

However, the Town of Hingham regulates a 100-foot buffer extending horizontally from the land under water limit. This buffer is mapped within the project area, as demonstrated in **Table 1** and **Drawing G-03 of Attachment 5**.

## 2.6.4 Land Subject to Flooding

### 2.6.4.1 Bordering Land Subject to Flooding

Bordering Land Subject to Flooding (BLSF) is important with respect to flood control and storm damage prevention and is defined as the estimated lateral extent of floodwater which will theoretically result from the statistical 100-year frequency storm.

BLSF was delineated by LEC on October 8, 2024 using a base flood elevation (BFE) of 27.2 feet NAVD88 [North American vertical datum of 1988], consistent with the BFE provided by FEMA on the corresponding FIRM (see **Attachment A of Attachment 6** for more information).

The Town of Hingham additionally regulates a 100-foot buffer extending horizontally from BLSF, as described in **Section 5.2.2**. This buffer is within the project area, as demonstrated in **Table 1** and **Drawing G-03 of Attachment 5**.

Work will occur within both the BLSF and the 100-foot buffer as shown in **Drawing G-03 of Attachment 5**. However, the project is a replacement of a sewer force main pipe in failing condition. Project work will be limited to the existing footprint of the gravel parking area, paved roadway, and maintained lawn. All impacts to BLSF and the associated buffer will be temporary.

## 2.6.5 Riverfront Area

Riverfront area is important with respect to groundwater protection, flood control, and wildlife habitat preservation. In Hingham, this area includes the area between a river's mean annual high water line and a parallel line 200 feet away, as shown on **Drawing G-03 of Attachment 5**. A portion of the project area is located within the riverfront area associated with the Weir River, as shown in the Drawings.

It is noted that a distinction is made by the Town of Hingham between the 0-100 foot riverfront area and the 100-200 foot riverfront area as measured from the mean annual high water line. As such, both are presented in **Table 1** and in the Drawings (**Attachment 5**).

## 2.6.6 Vernal Pools

As described in **Section 2.4**, a review of the MassGIS data layer for vernal pools indicates that there are no Certified or Potential Vernal Pools within the project site. Field delineation did not identify any vernal pools proximate to or within the project area.

### 2.6.7 Fish Runs

Fish runs are important with respect to the conservation of diadromous fish species<sup>1</sup>, and are defined to include any banks of and land under the ocean, ponds, streams, rivers, lakes or creeks that underlie a diadromous fish run.

It is noted that according to an April 2025 review of the Diadromous Fish Migratory Habitat layer available via MassMapper, the portion of the Weir River located immediately northwest of the project area is categorized as Diadromous Fish Migratory Habitat. However, as described in **Section 2.6.1**, no work will be performed within the top of bank limit or within the Weir River itself. Therefore, this habitat does not occur within the project area.

The Town of Hingham additionally regulates a 100-foot buffer extending horizontally from fish runs, as described in **Section 5.2.6**. This buffer is within the project area, as demonstrated in **Table 1** and **Drawing G-03 of Attachment 5**.

## 3 Proposed Project Description

### 3.1 Project Area

The project area is located on an approximately 650-foot-long, linear segment of Union Street between the Weir River and Thistle Patch Way in Hingham, Massachusetts (**Figure 2 of Attachment 3**). Union Street extends in a northwest/southeast orientation in the project area and includes a two-lane paved roadway and a paved sidewalk on the southwest side within a municipal right-of-way. The northerly terminus of the project area is adjacent to a bridge over the Weir River, which flows south to north through a large diameter culvert beneath Union Street. A small gravel parking area is located northeast of the bridge, as shown in **Drawing C-01 of Attachment 5**. A small strip of maintained lawn running parallel to Union Street on the north side is included in the project area, although disturbance to this area will be limited to the installation and maintenance of engineering controls, as described in **Section 3.3**. The southern project terminus is located at an existing manhole in Union Street, near a small parking area and municipal golf driving range located on the north side of the road. It is noted that this parking area may be used for temporary parking of vehicles associated with the project, but there will be no storage or staging of materials or project work occurring in this area, and it is not included in the project area boundary.

It is noted that an electric easement with overhead wires extends adjacent, and roughly parallel, to the Weir River in the vicinity of Union Street. These features are presented in **Drawing C-01 of Attachment 5**. The total project area is approximately 11,120 square feet (SF; 0.26 acres). Topography within the project area is generally flat with moderately steep slopes extending downgradient from the roadway towards the adjacent wetlands.

### 3.2 Proposed Project Action

The proposed project will include the replacement of the existing 6" DI and AC sewer force main pipe. Anticipated construction sequence includes the following actions:

- Site mobilization, and general site activities
- Prepare and install erosion/sediment and stormwater controls

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<sup>1</sup> Including both anadromous and catadromous species.

- Installation of replacement pipe
- Removal of erosion/sediment and stormwater controls

Equipment and site staging will occur alongside Union Street.

### 3.2.1 Site Mobilization and General Site Activities

The selected contractor will be required to mobilize temporary facilities and enact measures to control the impact of the project on the environment and neighboring residents. Traffic control measures will be necessary during construction, as much of the project area is within the footprint of Union Street. Temporary controls may include the following measures:

- Temporary closures of one lane of Union Street (consistent with detail shown in **Drawing C-08 of Attachment 5**)
- Use of signs to advise of construction occurring ahead
- Use of uniformed officers / traffic directors as needed
- Use of temporary barriers, such as cones, safety fences, and safety tape, as needed

The selected contractor will coordinate directly with DCR throughout the construction to provide adequate traffic control around the project area.

### 3.2.2 Stormwater Protection and Erosion and Sediment Controls

Stormwater control is necessary to minimize, to the maximum extent practicable, the flow of runoff and minimize the quantity of water to be treated prior to discharge. The anticipated erosion and sediment control includes the following best management practices (BMPs):

- Compost filter socks or similar BMP as needed to prevent erosion and sediment runoff into the Weir River (see **Drawings C-01 and C-05 of Attachment 5**)
- Catch basin inserts as shown in **Drawing C-01 of Attachment 5** and detailed in **Drawing C-05 of Attachment 5**

Erosion controls will be maintained around the downgradient limits of work throughout the duration of construction activities as described below. Erosion controls will be modified, cleaned, reinforced, replaced, and maintained as necessary to provide appropriate stormwater management and erosion control.

### 3.2.3 Replacement Pipe Installation

The selected contractor will be responsible for the installation of the replacement sewer force main pipe, which will be achieved through open-cut pipe replacement. The expected sequence is as follows:

- Test pits to determine elevation of other utility crossings
- Trenching for replacement pipe
- Supporting trench walls
- Installation of trench dewatering system
- Constructing bedding for new pipe
- Installing air release valve and manhole
- Placing and connecting the new 6" HDPE pipe

- Pipeline pressure testing
- Backfilling and compacting of trench

The size of the trench necessary for pipe installation will be approximately 600 feet long, 10 feet wide, and 10 feet deep, as shown in **Drawings C-01 and C-06 of Attachment 5**. Low ground impact equipment including small backhoes or excavators and utility vehicles will be utilized during trenching and backfilling. It is noted that the trench will be closed with steel plates at the end of each workday to allow the flow of traffic to resume.

Additional detail on air release valve and manhole are provided in **Drawing C-07 of Attachment 5**. The trench dewatering system is described in **Drawing C-04 of Attachment 5**. Details on the connection of the replacement pipe to the existing pipe network is provided in **Section 3.2.3.1**, below.

Ancillary work associated with the pipe installation may include: handling soils, removing rock, trench dewatering, protecting trees/roots, and safeguarding adjacent or crossing utilities. Additional details on these steps is provided in the Drawings (**Attachment 5**).

The installation of the replacement pipe is expected to take approximately 3 weeks, with another week for asphalt paving, 4 weeks total. Following pipe installation, the project area will be restored to existing grades. No fill will be placed in any regulated areas.

### **3.2.3.1 Connection of Replacement Pipe to Existing Network**

As shown in **Drawing C-01 of Attachment 5**, the replacement sewer force main pipe will be located approximately 10 feet north of the existing sewer force main pipe. The replacement pipe will be connected to the existing pipe network at the northern and southern limits of the project area.

At the northern limit of the project area, proximate to east bank of the Weir River, the new HDPE pipe will be connected to the existing 6" gate valve and valve box, as detailed in **Drawing C-02 of Attachment 5**. At the southern limit of the project area, a 6" AC x 6" HDPE restrained harness coupling will be used to tie the new pipe into the exist AC pipe network. Additional detail on the restrained harness coupling is provided in **Drawing C-03 of Attachment 5**.

### **3.2.4 Site Demobilization**

Following pipe replacement, site restoration and demobilization to be completed as follows:

- Restoration of maintained lawn areas with seed as necessary as detailed in **Drawing C-05 of Attachment 5**
- Restoration of existing roadway using backfilling and asphalt paving as detailed in **Drawing C-06 of Attachment 5**
- Restoration of gravel parking area to existing conditions as described in **Drawing C-06 of Attachment 5**

The restoration will not create any additional impervious area and will restore the surface conditions to the same as before excavation.

## **3.3 Proposed Project Impact**

The maintenance of existing infrastructure will only have temporary and short-lived impacts on public access to the Park and surrounding areas. The project has been selected as it only focuses on existing infrastructure in

need of replacement and will be limited to the existing footprints of the gravel parking area, paved roadway, and maintained lawn. The project does not increase impervious surfaces or increase long-term management of this infrastructure. The project will not include any vegetation clearing. Disturbance to the lawn area will be limited to the installation and maintenance of sediment and erosion controls described in **Section 3.2.2**. Disturbed areas of lawn will be restored in kind as detailed in the drawings (**Attachment 5**). The long-term management of this infrastructure will continue to be managed by DCR under available budgets and funding. No cumulative impacts are identified that would result from this project.

Consistent with **Section 2.6**, it is recognized that the project will occur within wetland resource areas. A summary of these temporary impacts as it relates to identified wetland resource areas is summarized in **Table 1**.

**Table 1. Temporary Impacts to Wetland Resource Areas.**

Wetland Resource Areas	Resource Area		Buffer Zone		
	SF	Acres	Width of Buffer (feet)	SF	Acres
Bordering Vegetated Wetland	0	0	100	10,677	0.25
Bordering Land Subject to Flooding	5660	0.13	100	1927	0.04
Riverfront Area (0-100 feet)	2807	0.06	--	--	--
Riverfront Area (0-200 feet)	4285	0.10	--	--	--
Banks	0	0	100	2807	0.06
Land Under Water	0	0	100	2807	0.06

*Cells filled in grey are not regulated by MassDEP pursuant to 310 CMR 10.00. Areas included in compliance with Town of Hingham regulations.*

## 4 Project Alternatives

DCR considered several alternatives before selecting the preferred project approach as detailed in **Section 3**. While addressing structural concerns of the aging force main pipe was the primary goal of this project, the applicant understands the critical importance of natural resources on site. Therefore, the applicant has considered several alternatives, as described below.

Alternative analysis guidelines require the following determinations:

- The project is the least environmentally damaging practicable alternative;
- The project will not cause or contribute to the violation of applicable federal, state and local regulations, such as water quality standards or the Endangered Species Act;
- The project will not result in significant degradation of federal and/or state regulated waters and wetlands; and

- Any appropriate and practicable steps have been taken to minimize the adverse impacts of the project on wetlands and other waters.

An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics considering the overall project purposes. It is also recognized that the project must consider the public interest. The following describes an evaluation of the four alternatives.

## **4.1 Alternative No. 1 (No Change)**

Under Alternative No. 1, the existing pipe network would remain in its current condition with no improvements or upgrades. The pipe network, which is approximately 50 years old, is nearing the end of its functional lifespan. Over the past several years, multiple force main breaks have occurred, resulting in SSO into the Weir River, as described in **Section 1.1**. These overflows pose an environmental risk to the Weir River, surrounding wetlands, and associated wildlife.

If no action is taken beyond reactive point repairs following pipe breaks, it is anticipated that the aging pipe network may fail again in the future, leading to further environmental impacts and increased maintenance costs.

Given the potential for continued pipe failures and associated environmental risks, this alternative was not considered a viable solution and was excluded from further consideration.

## **4.2 Alternative No. 2 (Open Cut Pipe Replacement)**

Open-cut pipe replacement is a conventional and widely used method for installing new sewer force mains and replacing severely defective or damaged force mains. This method involves trenching along the alignment of the force main, supporting trench walls, constructing pipe bedding, installing the air release valve manhole, placing and connecting the new pipe, pipeline pressure testing, backfilling/compacting the trench, and restoring the site. Ancillary work includes protecting the project site, handling soils, removing rock, trench dewatering, protecting trees/roots, and safeguarding adjacent or crossing utilities.

While open-cut pipe replacement can be more expensive than trenchless rehabilitation techniques, it is considered the most reliable option for the design, construction, and long-term operation of a force main. This approach allows the new pipe to match the alignment and profile of the existing force main, minimizing utility conflicts and reducing additional head losses that could affect the overall performance of the system. Open-cut replacement is often the fastest solution, as it provides contractors with greater control over the installation process and materials. Additionally, it is less complex compared to other alternatives, ensuring a wider pool of qualified contractors is available to perform the work efficiently.

Design and construction complexities associated with open-cut replacement have been carefully addressed to minimize impacts and disruptions. These include obtaining environmental permits, managing logistics for bypass pumping as needed, mitigating impacts on pedestrians and vehicles on Union Street, and establishing a staging area for materials and equipment. Special attention has been given to erosion control measures to prevent environmental impacts, particularly for construction activities near the Weir River and existing stormwater structures along Union Street.

### **4.3 Alternative No. 3 (Cured-In-Place Pipe Lining)**

Cured-in-place pipe lining (CIPPL) is a trenchless rehabilitation technology widely used to restore gravity sewers and force mains. This method involves installing a soft, flexible felt or fiberglass tube impregnated with a thermosetting resin into an existing force main through an excavation access pit. The tube is inverted into the pipe and cured using heat (steam or hot water) or ultraviolet light, forming a new pipe within the host pipe.

CIPPL is an attractive, cost-effective rehabilitation technology, particularly in areas with high vehicular or pedestrian activity, as it requires minimal excavation and a smaller staging area. Up to 1,000 LF can be installed in a single inversion; however, this technology has limitations. Bends in the pipe, variations in pipe diameter, or other obstructions can cause wrinkling or damage to the liner, potentially affecting the hydraulic capacity and structural integrity of the rehabilitated force main. Proper cleaning, measurement, and inspection of the host pipe are critical to ensure a uniform pipe diameter for accurate liner design. Cleaning methods, such as the use of a "chain knocker" or circular saw, are aggressive and high-risk. If the host pipe is already compromised, these cleaning methods can cause further damage or pipe breaks.

Obstructions or damage to the host pipe caused during the cleaning process are generally addressed through excavation point repairs. However, if the existing force main is found to be in too poor a condition for proper CIPPL installation or if the quantity of point repairs becomes economically unfeasible, full replacement of the force main using open-cut pipe replacement may be required. Since the condition of the pipe and the severity of defects cannot be fully assessed until the pipe is cleaned and inspected using closed-circuit television (CCTV), contingency plans are essential to account for unknown conditions that could significantly increase construction costs.

The existing force main along Union Street presents several challenges for effective cleaning and liner installation. The pipe system has a documented history of breaks, and bends in the existing pipe alignment—particularly in the section leading from Union Street to the Weir River crossing—would make CIPPL installation difficult. Additionally, the path for the replacement pipe is relatively short at only 600 LF, with no complicated crossings, which further reduces the advantages of CIPPL for this project. Given these factors, the CIPPL alternative was not considered further.

### **4.4 Alternative No. 4 (Horizontal Directional Drilling)**

Horizontal directional drilling (HDD) is a trenchless technology used to install underground piping by drilling a horizontal, arced pilot hole through bedrock at a predetermined depth below ground surface. This method is often used for new pipe installations, especially in areas where crossing rivers, wetlands, highways, or railroads is required, minimizing environmental impacts and disruptions to pedestrian and vehicular traffic. Once the pilot hole drilling head reaches the downstream access pit, a reamer is attached to the drilling stem to enlarge the borehole to approximately one and a half times the outside diameter of the new pipe. This process may require multiple passes with progressively larger reamers until the borehole is sized correctly for pipe installation. After the borehole is prepared, the new pipe is pulled through, pressure tested and connected to the existing force main.

HDD methods have been successfully used to install sewer force mains up to 10,000 LF in a single drill, making it an attractive option for certain applications. However, HDD typically requires a large staging area to accommodate the drill rig, pipe laydown, fusing, and installation operations.

While HDD can be a cost-competitive and reliable method for pipe installation, challenges related to soil and bedrock conditions can significantly increase construction duration, costs, and environmental impacts. If the soil contains substantial amounts of boulders and cobble, and the bedrock is to be classified as “hard bedrock,” this would make drilling particularly slow and difficult. Additionally, the potential for inconsistent depth to bedrock along the pipe alignment increases the risk of inadvertent release of drilling fluid during the pilot hole drilling or reaming process. Such releases could contaminate surrounding soil, groundwater, and the nearby Weir River. To overcome these challenges, a larger drill rig would likely be required, further complicating logistics and increasing costs.

For this project, the new force main involves a relatively short alignment of only 600 LF, with no complicated crossings, and limited space available for staging, particularly near the Weir River. Furthermore, this system does not require large bypasses or other features that would make trenchless installation preferable. Given these constraints and the associated risks, the HDD alternative was not considered further.

## 4.5 Summary

Alternative No. 2 (open-cut pipe replacement) has been selected as the preferred alternative. The other alternatives were determined to be impractical based on a variety of factors, including the condition of the existing pipe, proximity to the Weir River, and overall constructability. The existing force main has a documented history of recent failures, leading to SSOs into the Weir River. As such, Alternative No. 1, the no-action alternative, was mentioned herein but never seriously evaluated as a viable path forward due to its inability to address these critical issues effectively.

Alternatives No. 3 and No. 4, while primarily trenchless technologies, require large staging areas and extended bypass operations that make the open-cut alternative (Alternative No. 2) more favorable for all stakeholders. Alternative No. 2 ensures that the location and alignment of the proposed force main minimize disruptions to vehicular traffic and allow maintained access to the single driveway along the project route.

Additionally, special attention was given to erosion control measures to mitigate potential environmental impacts, particularly for construction activities near the Weir River and existing stormwater structures along Union Street. This approach balances environmental protection with constructability, making Alternative No. 2 the most practical and effective solution.

## 5 Regulatory Compliance

### 5.1 Massachusetts Wetlands Protection Act

This narrative is intended to support the completed MassDEP NOI included as **Attachment 1** and includes an evaluation of only regulated resources that occur within the defined project boundaries. As presented in **Table 1**, the project will not have permanent impacts on any resource areas. The impacts on resource areas will be temporary. As described in **Section 3.2**, this project is a replacement of a deteriorated existing force main.

**Sections 5.1.1** through **5.1.3** highlight the project’s compliance with performance standards associated with impacted resource areas pursuant to 310 CMR 10.54 through 10.58 and 10.60.

### 5.1.1 **Bordering Vegetated Wetlands**

As described in **Section 2.6.2**, the project does not include any BVWs, though most of the project area is located within the 100-ft buffer associated with delineated wetlands on either side of Union Street. According to 310 CMR 10.53(1),

*For work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area. The potential for adverse impacts to Resource Areas from work in the Buffer Zone may increase with the extent of the work and the proximity to the Resource Area.*

DCR has designed the project to be protective of BVW surrounding the project site.

*The Issuing Authority may consider the characteristics of the Buffer Zone, such as the presence of steep slopes, that may increase the potential for adverse impacts on Resource Areas...*

It is noted that, as shown in **Drawing G-03 of Attachment 5**, there are steep slopes between Union Street and adjacent BVWs. As described in **Section 3.2.2**, compost filter socks will be used around the downgradient perimeter of the work area to prevent any disturbance of the BVWs.

*Conditions may include limitations on the scope and location of work in the Buffer Zone as necessary to avoid alteration of Resource Areas. The Issuing Authority may require erosion and sedimentation controls during construction, a clear limit of work, and the preservation of natural vegetation adjacent to the Resource Area and/or other measures commensurate with the scope and location of the work within the Buffer Zone to protect the interests of M.G.L. c. 131, § 40.*

As described in **Section 3.2.2** and above and illustrated in **Drawing C-05 of Attachment 5**, erosion and sediment controls will be established and maintained throughout the project to avoid impacts to surrounding resource areas. The contractor will be made aware of the boundary to Steven's Swamp, and all work will be limited to the buffer zone. The project will not include any vegetation clearing. Any disturbances to the maintained lawn area will be restored as described in **Section 3.2.2**.

*Where a Buffer Zone has already been developed, the Issuing Authority may consider the extent of existing development in its review of subsequent proposed work and, where prior development is extensive, may consider measures such as the restoration of natural vegetation adjacent to a Resource Area to protect the interest of M.G.L. c. 131, § 40. The purpose of preconstruction review of work in the Buffer Zone is to ensure that adjacent Resource Areas are not adversely affected during or after completion of the work.*

The project consists of a necessary replacement of a deteriorated force main pipe that will protect downgradient waters and wetlands from future SSOs. There will be no increase in impervious area as a result of the project.

DCR acknowledges that the buffer zone is important to protecting the interests served by BVWs. It is also noted that all reasonable precautions and BMPs will be exercised, as described in **Section 3.2.2**, throughout project work, to reduce the impacts of the project on surrounding resource areas. It is additionally noted that all disturbances and impacts to resource areas will be temporary.

It is noted that the Hingham Conservation Commission (hereafter "the Commission") has explicitly requested for DCR to update the pipe in question due to multiple past ruptures (**Attachment 4**).

## 5.1.2 Bordering Land Subject to Flooding

As described in **Section 2.6.4.1**, the project is located within BLSF. As such, consistency with performance standards applicable to BLSF is described below.

- 310 CMR 10.57(4)(a)(1): *Compensatory storage shall be provided for all flood storage volume that will be lost as the result of a proposed project within Bordering Land Subject to Flooding, when in the judgment of the issuing authority said loss will cause an increase or will contribute incrementally to an increase in the horizontal extent and level of flood waters during peak flows.*

All impacts to BLSF will be temporary. The project will not impact long-term flood storage. There will be no increases in impervious surfaces associated with the project.

- 310 CMR 10.57(4)(a)(2): *Work within Bordering Land Subject to Flooding, including that work required to provide the above-specified compensatory storage, shall not restrict flows so as to cause an increase in flood stage or velocity.*

As described above, all impacts to BLSF will be temporary. The project will not restrict flows within the floodway or surrounding flood zone, nor will it alter the flood stage or velocity of water during large storm events. The existing conditions will be restored following installation of the replacement pipe.

- 310 CMR 10.57(4)(a)(3): *Work in those portions of bordering land subject to flooding found to be significant to the protection of wildlife habitat shall not impair its capacity to provide important wildlife habitat functions. Except for work which would adversely affect vernal pool habitat, a project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold, or altering vernal pool habitat, may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310 CMR 10.60.*

As described in **Section 2.6.6**, no vernal pools were identified within the project area. Additionally, the project work will be limited to the footprint of the existing gravel parking area, paved roadway, and maintained lawn. Following pipe replacement, any disturbed pervious area will be restored using seed. Therefore, the project will have no adverse effects on BLSF critical to wildlife function.

## 5.1.3 Riverfront Area

As described in **Section 2.6.5**, a portion of the project is located within the riverfront area. As such, consistency with the performance standards is described below.

- 310 CMR 10.58(4)(a): *Protection of Other Resource Areas. The work shall meet the performance standards for all other resource areas within the riverfront area, as identified in 310 CMR 10.30 (Coastal Bank), 10.32 (Salt Marsh), 10.55 (Bordering Vegetated Wetland), and 10.57 (Land Subject to Flooding). When work in the riverfront area is also within the buffer zone to another resource area, the performance standards for the riverfront area shall contribute to the protection of the interests of M.G.L. c. 131, § 40 in lieu of any additional requirements that might otherwise be imposed on work in the buffer zone within the riverfront area.*

The project's compliance with performance standards for BVW and land subject to flooding are demonstrated in **Sections 5.1.5** and **5.1.6**, respectively.

- 310 CMR 10.58(4)(b): *Protection of Rare Species. No project may be permitted within the riverfront area which will have any adverse effect on specified habitat sites of rare wetland or upland, vertebrate or invertebrate species, as identified by the procedures established under 310 CMR 10.59 or 10.37, or which will have any adverse effect on vernal pool habitat certified prior to the filing of the Notice of Intent.*

As discussed in **Section 2.4**, the project is not located in a Priority or Estimated Habitat for state-listed species. Additionally, no vernal pools were identified proximate to the project area.

- 310 CMR 10.58(4)(c): *Practicable and Substantially Equivalent Economic Alternatives. There must be no practicable and substantially equivalent economic alternative to the proposed project with less adverse effects on the interests identified in M.G.L. c. 131 § 40.*

As described in **Section 4**, there are no practicable and substantially equivalent economic alternatives to the proposed project with less adverse effects on the relevant interests.

- 310 CMR 10.58(4)(d): *No Significant Adverse Impact. The work, including proposed mitigation measures, must have no significant adverse impact on the riverfront area to protect the interests identified in M.G.L. c. 131, § 40.*
  - 1. *Within 200-foot riverfront areas, the issuing authority may allow the alteration of up to 5000 square feet or 10% of the riverfront area within the lot, whichever is greater...*

The project is a replacement of a deteriorated force main pipe with all work to occur within the existing footprint of the gravel parking area, paved roadway, and maintained lawn. All areas will be restored in-kind following pipe installation. All impacts to the riverfront area will be temporary. No part of the riverfront area will be permanently altered.

- 2. *Within 25-foot riverfront areas, any proposed work shall cause no significant adverse impact by...*

The project is located in a 200-foot riverfront area. This standard does not apply.

- 3. *Notwithstanding the provisions of 310 CMR 10.58(4)(d)1. or 2., the issuing authority shall allow the construction of a single family house, a septic system if no sewer is available, and a driveway, on a lot recorded before August 7, 1996...*

The project is not a single family house, septic system or driveway. This standard does not apply.

- 4. *Notwithstanding the provisions of 310 CMR 10.58(4)(d)1. or 2., the issuing authority may allow the construction of a commercial structure of minimum feasible dimension, on a lot recorded before August 7, 1996 where the size or shape of the lot within the riverfront area prevents the construction from meeting the requirements of 310 CMR 10.58(4)(d)1. or 2., only if: ... a. The lot can be developed for such purposes and cannot be developed for any other purposes under the applicable provisions of other municipal and state law.*

The project satisfies 310 CMR 10.58(4)(d)(1). This standard does not apply.

## 5.2 Hingham Wetland Regulations

It is recognized that the Hingham Conservation Commission (hereafter “the Commission”) administers the MWPA and related local regulations within the Town of Hingham. As such, the Commission has the authority to regulate activities within the areas outlined in **Table 1** and discussed in **Section 2.6**.

The Town of Hingham Wetland Regulations (HWR) include additional regulated resources that occur within the proposed project area. The project’s consistency with HWR performance is described below by resource area.

### 5.2.1 Land Under Inland Water Bodies and Waterways

As described in **Section 2.6.2**, a portion of the project is located within the 100 foot buffer to land under water regulated by the Commission. As such, consistency with the performance standards is described below:

- *HWR 17.3(d)(4) Performance standards for proposed work or activities within the buffer zone to Land Under an Inland Water Body are specified in HWR 22.0*
  - *HWR 22.0(d)(1) The intent of the Conservation Commission is to move all structures and activities as far away as possible from any Resource Area, in order to protect the wetland values of Resource Areas.*

DCR acknowledges the importance of the buffer zone to protecting the interests served by land under water. Sediment and erosion control BMPs will remain in place throughout construction as described in **Section 2.6.6**.

- *HWR 22.0(d)(2) Except as otherwise specified, Resource Area buffers shall be retained and maintained in a naturally vegetated condition. Where buffer disturbance has occurred during construction, revegetation with native vegetation may be required.*

All work is limited to the footprint of the existing gravel parking area, paved roadway, and a small portion of maintained lawn. Each cover type will be restored in-kind following disturbance, as described in **Section 3.2**.

- *HWR 22.0(d)(3) The Commission may require that already-altered buffer zone be restored in order to protect or improve Resource Area values. Restoration means planting native vegetation, grading, correcting site drainage, removing debris, or other measures which will improve, restore and protect the wetland values of the Resource Area.*

It is noted that the project in and of itself will greatly improve and protect the wetland values associated with land under water as it will reduce the risk of future SSOs into the Weir River. All grades will be restored to existing conditions following pipe installation.

- *HWR 22.0(d)(4) Notwithstanding the above provisions, no project may be permitted which will have any adverse effect on specified habitat of rare vertebrate or invertebrate and rare plant species, as identified by procedures established under 310 CMR 10.37 for Coastal Resource Areas or 310 CMR 10.59 for Inland Resource Areas.*

As discussed in **Section 2.4**, no priority or estimated habitat for state-listed species is mapped within the project area. Additionally, no vernal pools were identified proximate to or within the project area.

- *HWR 22.0(d)(5) The Commission may impose such additional requirements as are necessary to protect the wetland values protected under the Bylaw.*

It is noted that the Commission has specifically requested this project be completed to protect the interests associated with land under water and buffer zones, as demonstrated in **Attachment 4**.

## 5.2.2 Bordering Land Subject to Flooding

As described in **Section 2.6.4.1**, a portion of the project is located within BLSF as regulated by the Commission. As such, consistency with the performance standards is described below:

- *HWR 19.1(d)(1) A proposed project shall not cause any adverse effect or cumulative adverse effect on the wetland values of Land Subject to Flooding.*

All impacts to BLSF will be temporary. All disturbed areas will be restored in-kind following the completion of the pipe replacement.

- *HWR 19.1(d)(2) Projects on land subject to flooding shall be permitted only in connection with such procedures determined by the Commission as not having the effect of reducing the ability of the land to absorb and contain floodwaters*

All impacts to BLSF will be temporary. All disturbed areas will be restored in-kind following the completion of the pipe replacement. All grades will be restored to existing conditions following pipe installation. No new fill will be placed within BLSF.

- *HWR 19.1(d)(3) The Commission may require compensating or greater flood storage capacity in the same watershed if it permits any filling of land subject to flooding, and all filling of areas subject to flooding shall be strictly minimized. Except as stated in the preceding sentence, no proposed projects shall be permitted to displace or direct floodwaters, through fill or other means, to other areas.*

All impacts to BLSF will be temporary. No new fill or other permanent changes will be made to BLSF beyond the replacement of the existing pipe as described in **Section 3**.

- *HWR 19.1(d)(4) Projects shall not have any adverse effect on vernal pools, whether certified or uncertified, provided such wetlands meet the physical and biological requirements for certification as described in the Massachusetts Division of Fisheries and Wildlife 1988 Guidelines for Certification of Vernal Pools. The Commission may require more than the minimum protective undisturbed buffer strip. These performance standards are also applicable to vernal pools which are isolated vegetated wetlands (see HWR 19.3)*

As discussed in **Section 2.6.6**, there are no known vernal pools proximate to or within the project area.

- *HWR 19.1(d)(5) Notwithstanding the above provisions, no project may be permitted which will have any adverse effect on specified habitat of rare vertebrate or invertebrate and rare plant species, as identified by procedures established under 310 CMR 10.59.*

As described in **Section 2.4**, no priority or estimated habitat for state-listed species is mapped within the project area.

- *HWR 19.1(d)(6) Refer to HWR 23.0 et seq. for additional project-specific performance standards.*

There are no project-specific performance standards applicable to this project. This standard does not apply.

- *HWR 19.1(d)(8) The Commission may impose such additional requirements as are necessary to protect the wetland values protected under the Bylaw.*

It is noted that the Commission has specifically requested this project be completed to protect the interests associated with land under water and associated buffer zones, as demonstrated in **Attachment 4**.

### 5.2.3 Inland Banks

As discussed in **Section 2.6.1**, no work will occur within delineated banks. However, work will occur in the 100-foot buffer associated with the banks, which is regulated by the Commission. As such, consistency with the performance standards is described below:

- *HWR 19.2(d)(5) Performance standards for proposed work or activities within the buffer zone to an Inland Bank or Inland Beach are specified in HWR 22.0*
  - *HWR 22.0(d)(1) The intent of the Conservation Commission is to move all structures and activities as far away as possible from any Resource Area, in order to protect the wetland values of Resource Areas.*

DCR acknowledges the importance of the buffer zone to protecting the interests served by the banks. Sediment and erosion control BMPs will remain in place throughout construction as described in **Section 2.6.6**.

- *HWR 22.0(d)(2) Except as otherwise specified, Resource Area buffers shall be retained and maintained in a naturally vegetated condition. Where buffer disturbance has occurred during construction, revegetation with native vegetation may be required.*

All work is limited to the footprint of the existing gravel parking area, paved roadway, and a small portion of maintained lawn. Each cover type will be restored in-kind following disturbance, as described in **Section 3.2**.

- *HWR 22.0(d)(3) The Commission may require that already-altered buffer zone be restored in order to protect or improve Resource Area values. Restoration means planting native vegetation, grading, correcting site drainage, removing debris, or other measures which will improve, restore and protect the wetland values of the Resource Area.*

It is noted that the project in and of itself will greatly improve and protect the wetland values associated with the banks as it will reduce the risk of future SSOs into the Weir River. All grades will be restored to existing conditions following pipe installation.

- *HWR 22.0(d)(4) Notwithstanding the above provisions, no project may be permitted which will have any adverse effect on specified habitat of rare vertebrate or invertebrate and rare plant species, as identified by procedures established under 310 CMR 10.37 for Coastal Resource Areas or 310 CMR 10.59 for Inland Resource Areas.*

As discussed in **Section 2.4**, no priority or estimated habitat for state-listed species is mapped within the project area. Additionally, no vernal pools were identified proximate to or within the project area.

- *HWR 22.0(d)(5) The Commission may impose such additional requirements as are necessary to protect the wetland values protected under the Bylaw.*

It is noted that the Commission has specifically requested this project be completed to protect the interests associated with the banks and buffer zones, as demonstrated in **Attachment 4**.

## 5.2.4 Bordering Vegetated Wetlands

As described in **Section 2.6.2**, no work will occur within BVWs. However, much of the project area is located within the 100-foot buffer to BVWs regulated by the Commission. As such, consistency with the performance standards is described below:

- *HWR 19.3(d)(5) Performance standards for proposed work or activities within the buffer zone to a Vegetated Wetland are specified in HWR 22.0*
  - *HWR 22.0(d)(1) The intent of the Conservation Commission is to move all structures and activities as far away as possible from any Resource Area, in order to protect the wetland values of Resource Areas.*

DCR acknowledges the importance of the buffer zone to protecting the interests served by the BVWs. Sediment and erosion control BMPs will remain in place throughout construction as described in **Section 2.6.6**.

- *HWR 22.0(d)(2) Except as otherwise specified, Resource Area buffers shall be retained and maintained in a naturally vegetated condition. Where buffer disturbance has occurred during construction, revegetation with native vegetation may be required.*

All work is limited to the footprint of the existing gravel parking area, paved roadway, and a small portion of maintained lawn. Each cover type will be restored in-kind following disturbance, as described in **Section 3.2**.

- *HWR 22.0(d)(3) The Commission may require that already-altered buffer zone be restored in order to protect or improve Resource Area values. Restoration means planting native vegetation, grading, correcting site drainage, removing debris, or other measures which will improve, restore and protect the wetland values of the Resource Area.*

It is noted that the project in and of itself will greatly improve and protect the wetland values associated with the BVWs as it will reduce the risk of future SSOs into the Weir River. All grades will be restored to existing conditions following pipe installation.

- *HWR 22.0(d)(4) Notwithstanding the above provisions, no project may be permitted which will have any adverse effect on specified habitat of rare vertebrate or invertebrate and rare plant species, as identified by procedures established under 310 CMR 10.37 for Coastal Resource Areas or 310 CMR 10.59 for Inland Resource Areas.*

As discussed in **Section 2.4**, no priority or estimated habitat for state-listed species is mapped within the project area. Additionally, no vernal pools were identified proximate to or within the project area.

- *HWR 22.0(d)(5) The Commission may impose such additional requirements as are necessary to protect the wetland values protected under the Bylaw.*

It is noted that the Commission has specifically requested this project be completed to protect the interests associated with the BVWs and buffer zones, as demonstrated in **Attachment 4**.

## 5.2.5 Riverfront Area

As described in **Section 2.6.1**, a portion of the project area is within the riverfront area regulated by the Commission. As such, consistency with the performance standards is described below:

- *HWR 21.0(d)(1) Except as stated below, the Commission hereby incorporates 310 CMR 10.58 in its regulations for all matters related to Bylaw jurisdiction in lands within 200 feet of rivers and streams.*

Compliance with 310 CMR 10.58 is documented in **Section 5.1.6**.

- *HWR 21.0(d)(2) Notwithstanding the above, a river is any natural flowing body of water that empties to any ocean, lake, pond, other river, stream or wetland and which flows throughout the year. Perennial rivers, streams and creeks are rivers; intermittent streams are not. Notwithstanding 310 CMR 10.58, the burden of proof shall be on any applicant to show that a river, stream or creek is not perennial (i.e., is intermittent).*

The Weir River is a perennial river. This standard does not apply.

- *HWR 21.0(d)(3) For any river or stream that is tidally influenced, the Commission shall use the DEP mouth of the river designation line.*

The project occurs approximately 2.5 miles upstream from the mouth of the Weir River as mapped by MassDEP. Therefore, the riverfront area associated with the Weir River within the project area is thus regulated.

- *HWR 21.0(d)(4) Notwithstanding any provisions of 310 CMR 10.58, the Commission shall presume that the mean annual high water line of a non-tidal river is coincident with the outer (landmost) boundary of any Bordering Vegetated Wetland (as defined in these regulations) that may be adjacent to the river. This presumption may be overcome upon a clear showing that the mean annual high water line is closer to the river. Such evidence may include hydrological measurements and calculations prepared by a registered professional engineer and/or hydrologist, and/or stream flow stage data from U.S. Geological Survey stream gauges and survey. For non-tidal rivers lacking any Bordering Vegetated Wetland, the inner boundary of the 200-foot Riverfront Area shall be the top of Inland Bank as determined by the first observable break in slope or the mean annual flood level, whichever is lower. For tidal rivers, the inner boundary of the 200-foot Riverfront Area shall be the mean annual high water line.*

There are no BVWs located on the banks of the Weir River proximate to the project area. BVWs were delineated only on either side of Union Street, landward from the east bank of the Weir River (see **Attachment 6**). The Weir River is assumed to extend to the mean annual high water line as shown on **Drawing G-03 of Attachment 5**.

- *HWR 21.0(d)(5) Notwithstanding any provisions of 310 CMR 10.58, the alternatives analysis shall include only lots adjacent to the lot(s) being proposed for development, or located in the near vicinity.*

The alternatives analysis provided in **Section 4** only includes the proposed project area. No additional lots are considered for alternatives.

- *HWR 21.0(d)(6) Notwithstanding the above provisions, no project may be permitted which will have any adverse effect on specified habitat of rare vertebrate or invertebrate and rare plant species, as identified by procedures established under 310 CMR 10.59.*

As discussed in **Section 2.4**, the project is not located in a Priority or Estimated Habitat for state-listed species. Additionally, no vernal pools were identified proximate to the project area.

- *(8) Refer to HWR 23.0 et seq. for additional project-specific performance standards.*

There are no project-specific performance standards applicable to this project. This standard does not apply.

## 5.2.6 Diadromous Fish Runs

As described in **Section 2.6.7**, no work will occur within diadromous fish runs. However, much of the project area is located within the 100-foot buffer to fish runs regulated by the Commission. As such, consistency with the performance standards is described below:

- *HWR 21.2(d)(5) Performance standards for proposed work or activities within the buffer zone to a Fish Run are specified in HWR 22.0.*
  - *HWR 22.0(d)(1) The intent of the Conservation Commission is to move all structures and activities as far away as possible from any Resource Area, in order to protect the wetland values of Resource Areas.*

DCR acknowledges the importance of the buffer zone to protecting the interests served by fish runs. Sediment and erosion control BMPs will remain in place throughout construction as described in **Section 2.6.6**.

- *HWR 22.0(d)(2) Except as otherwise specified, Resource Area buffers shall be retained and maintained in a naturally vegetated condition. Where buffer disturbance has occurred during construction, revegetation with native vegetation may be required.*

All work is limited to the footprint of the existing gravel parking area, paved roadway, and a small portion of maintained lawn. Each cover type will be restored in-kind following disturbance, as described in **Section 3.2**.

- *HWR 22.0(d)(3) The Commission may require that already-altered buffer zone be restored in order to protect or improve Resource Area values. Restoration means planting native vegetation, grading, correcting site drainage, removing debris, or other measures which will improve, restore and protect the wetland values of the Resource Area.*

It is noted that the project in and of itself will greatly improve and protect the wetland values associated with fish runs as it will reduce the risk of future SSOs into the Weir River. All grades will be restored to existing conditions following pipe installation.

- *HWR 22.0(d)(4) Notwithstanding the above provisions, no project may be permitted which will have any adverse effect on specified habitat of rare vertebrate or invertebrate and rare plant species, as identified by procedures established under 310 CMR 10.37 for Coastal Resource Areas or 310 CMR 10.59 for Inland Resource Areas.*

As discussed in **Section 2.4**, no priority or estimated habitat for state-listed species is mapped within the project area. Additionally, no vernal pools were identified proximate to or within the project area.

- *HWR 22.0(d)(5) The Commission may impose such additional requirements as are necessary to protect the wetland values protected under the Bylaw.*

It is noted that the Commission has specifically requested this project be completed to protect the interests associated with the fish runs and buffer zones, as demonstrated in **Attachment 4**.

## 5.3 Other Applicable Standards and Requirements

### 5.3.1 Massachusetts Endangered Species Act (MESA)

The project is not located within any Estimated Habitat of Rare Wildlife and/or Priority Habitat of Rare Species as confirmed by the 15<sup>th</sup> Edition of the *Massachusetts Natural Heritage Atlas* (effective August 1, 2021) published by the Natural Heritage & Endangered Species Program (NHESP). No Certified Vernal Pools or Potential Vernal Pools are mapped on or within the immediate vicinity of the project area.

Therefore, the project is not subject to Massachusetts Endangered Species Act (MESA) review pursuant to 321 CMR 10.18.

### 5.3.2 Area of Critical Environmental Concern

As described in **Section 2.5**, the project is not located within an ACEC. However, it is noted that the Weir River discharges into an ACEC approximately 2.5 miles downstream of the Site. As such, precautions will be taken throughout project work to prevent any harmful discharges to the Weir River ACEC downstream, as described in **Sections 3.2.2**. It is further noted that the project will ultimately benefit the ACEC, as it will reduce the risk of future SSOs into the Weir River.

### 5.3.3 Stormwater Management Standards

A portion of the project represents a redevelopment project as defined in the MassDEP Stormwater Management Standards. As such, a copy of a Stormwater Report is included as **Attachment 7** and provides additional detail for how the project complies with stormwater regulations.

DCR will implement temporary erosion and sediment controls throughout project work as described in **Section 3.2.2**.

## 5.4 Additional Supporting Information

Resources provided by MassDEP, FEMA, and the United States Geological Survey (USGS) all accessed via the MassGIS portal (<https://massgis.maps.arcgis.com/>). Resource areas were delineated consistent with descriptions in **Section 2**, as discussed in **Attachment 6**.

### 5.4.1 Maps and Figures

Figures are included as **Attachment 3**. Figures are as follows:

- Figure 1: USGS Site Map
- Figure 2: Existing Conditions Map

Drawings are attached as **Attachment 5**. Included plans are as follows:

- Drawing G-00: Cover Page
- Drawing G-01: Abbreviations, Legends, Notes and Drawing Index
- Drawing G-02: General Notes

- Drawing G-03: Overview Map
- Drawing C-01: Site Plan
- Drawing C-02: Plan and Profile 1
- Drawing C-03: Plan and Profile 2
- Drawing C-04: Specifications
- Drawing C-05: Erosion Control Details
- Drawing C-06: Construction Details 1
- Drawing C-07: Construction Details 2
- Drawing C-08: Traffic Control Details

Photographs representative of the project area are included as **Attachment 8**.

### 5.4.2 Fees

In accordance with 310 CMR 10.03(7), a fee of \$750 associated with this NOI will be paid in full. The fee per activity and fee payments can be found in **Attachment 1**. An additional \$250 fee will be submitted to the Commission via separate check in accordance with the HWR fee requirements.

DCR also acknowledges that a notice of the application must be placed in a local newspaper, and published at least five days prior to the hearing, at the applicant's expense. DCR will contact the Commission regarding procedure for newspaper notice.

### 5.4.3 Signatures and Submittal Requirements

In accordance with 310 CMR 10.05(4) and HWR, two copies of the completed NOI filing including all attachments will be sent by certified mail to the Commission. A third copy will be submitted to the Commission via email, pursuant to the HWR. A fourth copy will be sent concurrently by certified mail to MassDEP.

In accordance with 310 CMR 10.05 and HWR, property owners of abutting properties within 100 feet of any lot on which project work will take place will be notified concurrently to the filing of this NOI via certified mail. Information sent to abutters as well as the certified abutter list provided by the Town of Hingham are provided as **Attachment 9**. Proof of abutter notification in the form of certified mailing receipts will be provided to the Commission at a later date, prior to or at the public hearing, in compliance with the HWR.

## 5.5 Federal Regulations

It is recognized that the Weir River is potentially regulated as a federal waters of the U.S. due to hydrologic connectivity to larger navigable waters downstream. The project was reviewed for consistency with General Permit 2 for Maintenance activities. It was determined that the project met self-verification criteria as the project is less than 5,000 square feet of temporary impacts within a regulated waters and not located within a vegetated shallow or riffle and pool complex.

Arcadis U.S., Inc.

500 Edgewater Drive, Suite 511

Wakefield, MA 01880

United States

Phone: 781 224 4488

Fax:

[www.arcadis.com](http://www.arcadis.com)

TOWN OF HINGHAM  
BOARD OF ASSESSORS



CERTIFICATION SHEET

**Property Address: 0 Union Street**

**Parcel ID: 101-0-8, 101-0-9**

Pursuant to the provisions of Chapter 131 Section 40 of the MA General Laws and Article 22 of the Town of Hingham General Bylaws (Wetlands Protection By-law), we hereby certify that the list attached hereto is a true list of names and addresses of abutters concerning a matter to be heard by the Hingham Conservation Commission involving the above-referenced property.

As used herein the term "abutter" means:

Owners of adjoining land within 100 feet of the property line where the activity proposed;

Owners of adjoining land within 300 feet of the property line where the activity proposed for coastal projects; or

Owners of land directly opposite on any public or private street or way; or across a body of water.

All as they appear on the most recent applicable tax list.

BOARD OF ASSESSORS

CERTIFICATION DATE April 14, 2025



**TOWN OF HINGHAM  
CONSERVATION COMMISSION  
210 CENTRAL STREET  
HINGHAM, MA 02043  
(781) 741-1445**

Per MA DEP Regulations, Abutters must be notified via Hand  
Delivery, Certified Mail-Return Receipt Requested or  
Certificates of Mailing.

**REQUEST FOR A CERTIFIED LIST OF ABUTTERS**

**REQUIRED BY DEPARTMENT: CONSERVATION**

**REQUESTED BY:** \_\_\_\_\_

**EMAIL:** \_\_\_\_\_

**TELEPHONE:** \_\_\_\_\_

**PROPERTY LOCATION: MAP(S):** \_\_\_\_\_ **BLOCK(S):** \_\_\_\_\_ **LOT(S):** \_\_\_\_\_

**PROPERTY ADDRESS:** \_\_\_\_\_

**OWNER OF RECORD:** \_\_\_\_\_

**PURPOSE OF LIST:** \_\_\_\_\_

(Example: Notice of Intent, ANRAD, etc.)

**REQUIREMENT:** 100-FT. RADIUS \_\_\_\_\_ 300-FT. RADIUS (COASTAL PROJECTS) \_\_\_\_\_

Submit with this request, a list of abutters created from the GIS map program: [Hingham GIS maponline](http://HinghamGISmaponline)

- Select the blue tab on the left labeled “FIND”,
- Enter the street name and enter the street #. (clicking on the autopopulated choice as it appears)
- The parcel is then selected & highlighted
- At the far bottom, on the left, click on the gray tab ‘Find Abutters’
- The parcel will be automatically entered in ‘Find abutters to a single parcel section’; select the distance required.
- Press ‘Go’.
- Select the ‘envelope’ icon for printing mailing labels. Print or save the list generated and submit, with this Request form, to the Conservation office or [conservation@hingham-ma.gov](mailto:conservation@hingham-ma.gov)

For contiguous parcel selection, or other questions, contact the Conservation office for assistance.

Parcel ID: 101-0-8  
TOWN OF HINGHAM SCHOOL  
210 CENTRAL STREET  
HINGHAM, MA 02043

Parcel ID: 101-0-9  
TOWN OF HINGHAM  
SELECTMEN  
210 CENTRAL STREET  
HINGHAM, MA 02043

Parcel ID: 100-0-61  
TOWN OF HINGHAM SCHOOL  
210 CENTRAL STREET  
HINGHAM, MA 02043

Parcel ID: 101-0-10  
TOWN OF HINGHAM  
CONSERVATION  
210 CENTRAL STREET  
HINGHAM, MA 02043

Parcel ID: 101-0-18  
MASSACHUSETTS ELECTRIC  
%PROPERTY TAX DEPT  
40 SYLVAN ROAD  
WALTHAM, MA 02451

Parcel ID: 101-0-29  
JELLOWS HENRY D &  
%MARK JELLOWS  
2 NIGHT HERON ROAD  
EDGARTOWN, MA 02539

Parcel ID: 101-0-7  
ZARO BRUCE A  
58 UNION STREET  
HINGHAM, MA 02043

Parcel ID: 110-0-3  
BLAIR SUSAN H & DAVID T  
138 UNION STREET  
HINGHAM, MA 02043

Parcel ID: 110-1-1  
RUSS CRAIG P & RUSS  
CRAIG P RUSS TRUST  
10 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-10-1  
GARRITY CLARE C &  
CLARE GARRITY REVOCABLE  
28 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-11-1  
BLANCHARD DAVID W &  
30 FLORET CIR REALTY TR  
30 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-12-1  
STILLGER MONIQUE M TT  
MONIQUE M STILLGER  
32 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-13-1  
MANN HARRY T TT  
HARRY T MANN LIVING TRUST  
34 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-14-1  
HESS HERBERT P TT  
HERBERT P HESS TRUST OF  
36 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-15-1  
GIARDINA EDWARD J TT  
EDWARD J GIARDINA  
40 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-16-1  
COLLINS SUZANNE  
42 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-17-1  
O'REILLY ELIZABETH REED &  
44 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-18-1  
CAHILL MARK D & JANE D  
46 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-19-1  
MURRAY LISA TT  
BERRY FAMILY ASSET  
23 PORTLAND STREET  
YARMOUTH, ME 04096

Parcel ID: 110-2-1  
DONLAN FAMILY REALTY  
12 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-20-1  
CAROLAN KATHLEEN M  
50 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-21-1  
KLIER JOSEPH D & MARILYN  
KLIER REAL ESTATE TRUST  
52 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-22-1  
MACEDO JAMES L & EILEEN  
JAMES L MACEDO & EILEEN  
54 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-23-1  
SCHEIDER BARBARA D &  
BARBARA D SCHNEIDER  
56 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-24-1  
PLOTNER JANET FALLON &  
58 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-25-1  
CONWAY JOANNE TT  
JODECO LIVING TRUST THE  
60 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-26-1  
ROBERTS ELEANOR E TT  
ELEANOR E ROBERTS TRUST  
62 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-27-1  
ALICE F HORNER 2017 TRUST  
ALICE F HORNER & PRESTON  
64 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-28-1  
DOUCETTE KENNETH E TT  
KENNETH E DOUCETTE  
66 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-29-1  
GARRAN PETER L &  
68 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-3-1  
SCHRADER CAROLYN M &  
CAROLYN M SCHRADER  
14 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-30-1  
CATLIN AVERY & CLARK  
70 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-31-1  
HATFIELD STEPHEN F &  
72 THISTLE PATCH WY #7E4  
HINGHAM, MA 02043

Parcel ID: 110-32-1  
SHICKEL ROBERT J III &  
74 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-33-1  
HARTNETT CRAIG  
76 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-34-1  
TOMECEK CHRISTOPHER W &  
78 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-35-1  
JONES GERALD S & LINDA B  
80 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-36-1  
LACY ROBERT T  
MCCREADY JENNIFER S  
82 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-37-1  
SHERIDAN JAMES P &  
SHERIDAN REALTY TRUST  
84 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-38-1  
COMERFORD KATHLEEN M &  
86 THISTLE PATCH WAY  
49 PIONEER ROAD  
HINGHAM, MA 02043

Parcel ID: 110-39-1  
JENNINGS JUDITH & THOMAS  
88 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-4-1  
HANLON CECILIA M &  
16 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-40-1  
JOY CORNELL TT  
CORNELL FAMILY TRUST  
90 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-41-1  
HOLTSCHLAG N J JOHNSON R  
92 THISTLE PATCH WAY  
92 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-42-1  
MCCONE JAMES T &  
MCCONE FAMILY TRUST  
94 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-43-1  
CALLAHAN RICHARD J &  
THISTLE PATCH WAY  
96 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-44-1  
PENZA JAMES F & SANDRA  
98 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-45-1  
SCERBO FAMILY REALTY  
SCERBO SUSANA A TRUSTEE  
100 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-46-1  
ROBBINS E BROOKS &  
ROBBINS FAMILY NOMINEE  
102 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-47-1  
QUINLAN AMY S TT  
AMY QUINLAN 1996 TRUST  
104 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-48-1  
NOTTLESON FRANCES F TRUST  
NOTTLESON FRANCES F  
106 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-49-1  
MANNING THOMAS D JR &  
8 PAUL REVERE ROAD  
HINGHAM, MA 02043

Parcel ID: 110-5-1  
CARR JANE  
72 LINCOLN STREET  
HINGHAM, MA 02043

Parcel ID: 110-50-1  
STUDLEY MICHAEL H &  
110 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-51-1  
RUMSEY LEE W  
112 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-52-1  
GRIMM RICHARD & KATHERINE  
114 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-53-1  
ELWELL ANNE J &  
ANNE J ELWELL 2001 TRUST  
116 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-54-1  
METERS JOHN R &  
118 THISTLE PATCH WAY  
HINGHAM, MA 02043

Parcel ID: 110-6-1  
CALDWELL THOMAS A &  
CALDWELL LEXINGTON TRUST  
20 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 110-7-1  
BRIGGS K DOUGLAS TT  
K DOUGLAS BRIGGS TRUST  
C/O BRIGGS  
16 COLE ROAD  
HINGHAM, MA 02043

Parcel ID: 110-8-1  
NEELY MAURA A & KELLY P.  
24 FLORET CIRCLE  
HINGHAM, MA 02043

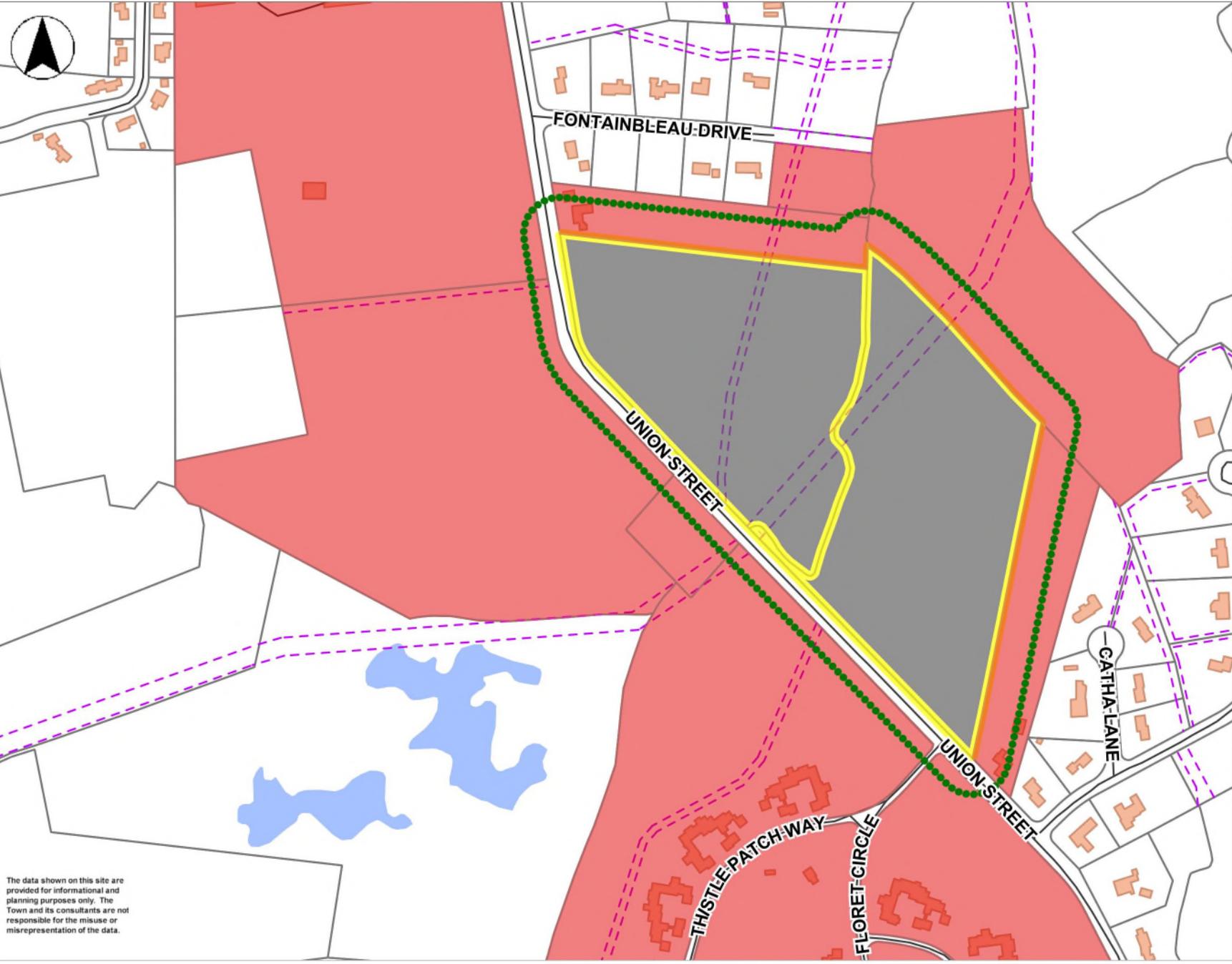
Parcel ID: 110-9-1  
STURTEVANT LINDA W  
26 FLORET CIRCLE  
HINGHAM, MA 02043

Parcel ID: 8517-CDM  
THE MEADOWS  
HINGHAM, MA 06385

Parcel ID: 90-0-112  
TOWN OF HINGHAM HIGH  
210 CENTRAL STREET  
HINGHAM, MA 02043



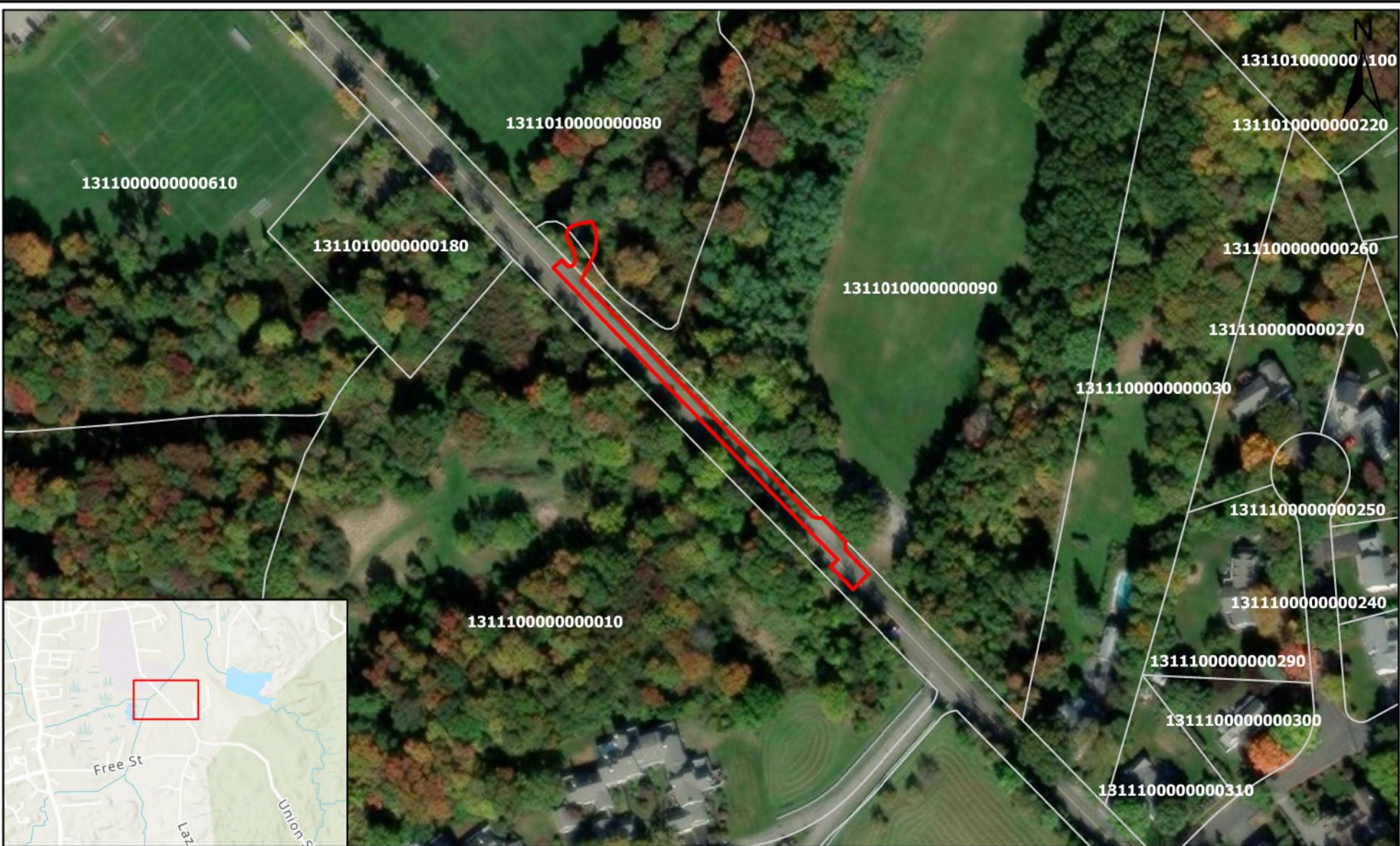
- Places
  - Fire Station
  - Police Station
  - Town Hall
  - Public Library
  - School
  - Golfing
  - Recycle
  - Public Works
  - Transportation
- Easements
  - Parcels for Identify - Public
- Parcels
  - Town Boundary
- MA Highways
  - Interstate
  - US Highway
  - Numbered Routes
- Abutting Towns Labels
- Abutting Towns
- Hingham Streets
- Bathymetry
  - 0-5 ft
  - 5-10 ft
  - 10-15 ft
  - 15-20 ft
  - 20-30 ft
  - 30-40 ft
  - 40-50 ft
  - 50-60 ft
  - 60-70 ft
  - 70+ ft



The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.



Printed on 04/10/2025 at 01:17 PM



**LEGEND**

- PROJECT AREA
- PARCELS

- NOTES:**
1. PROJECTION: NAD 1983 STATEPLANE MASSACHUSETTS MAINLAND FIPS 2001 FEET
  2. BASEMAP SOURCE: ESRI, ACCESSED 4/10/2025

MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION  
 WOMPATUCK SEWER FORCE MAIN REPLACEMENT  
 HINGHAM, MA 02043  
**NOTICE OF INTENT**

**EXISTING CONDITIONS MAP**



FIGURE  
**1**

## NOTIFICATION TO ABUTTERS

Under the MA Wetlands Protection Act and  
Hingham Wetlands Protection By-Law

In accordance with the second paragraph of the Massachusetts General Laws Chapter 131 §40, and Section 7.5 of the Hingham Wetland Regulations, you are hereby notified of the following:

\_\_\_\_\_ has filed a \_\_\_\_\_  
*Applicant Name* *Application Type*

with the Town of Hingham Conservation Commission seeking permission to remove, fill, dredge, or alter an Area Subject to Protection under the Wetlands Protection Act, M.G.L. 131 §40, and/or the Town of Hingham Wetlands Protection By-Law [Article 22].

The address of the property where work is proposed: \_\_\_\_\_

The proposed work includes: \_\_\_\_\_

Copies of the application may be examined at the Conservation Office located at Hingham Town Hall, 210 Central Street, Hingham, MA during the following business hours:

Monday, Wednesday, Thursday: 7:30AM- 4:30PM  
Tuesday: 7:30AM - 7:00PM  
Fridays: closed

For more information, to request copies of the application, or obtain information about the public hearing please contact the Conservation Office at (781)741-1445 or by emailing [Conservation@hingham-ma.gov](mailto:Conservation@hingham-ma.gov)

You may also request copies of the application from the  applicant or  applicant's representative by contacting \_\_\_\_\_ at (\_\_\_\_\_) \_\_\_\_\_ between the hours of \_\_\_\_\_ and \_\_\_\_\_ on the following days: \_\_\_\_\_.

*An Administrative fee may be applied for providing copies of the application or plans.*

Notice of the public hearing, including the date, time, and place will be published at least five (5) business days in advance of the hearing in the Patriot Ledger. Notice will also be posted on the town website at least forty-eight (48) hours in advance of the public hearing. To view the agenda, go to [Agenda Center • Hingham, MA • CivicEngage \(hingham-ma.gov\)](#)

The Department of Environmental Protection (DEP) Southeast Regional Office can also provide information about this application or the MA Wetlands Protection Act. DEP is located at 20 Riverside Drive, Lakeville, MA 02347 and can be reached by telephone at (508) 946-2700.

# Attachment 3

## Figures



**LEGEND**  
 PROJECT AREA

**NOTES:**  
 1. PROJECTION: NAD 1983 STATEPLANE MASSACHUSETTS MAINLAND FIPS 2001 FEET  
 2. BASEMAP SOURCE: USGS, ACCESSED 4/10/2025

MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION  
 WOMPATUCK SEWER FORCE MAIN REPLACEMENT  
 HINGHAM, MA 02043  
**NOTICE OF INTENT**

**USGS SITE MAP**

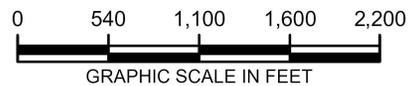
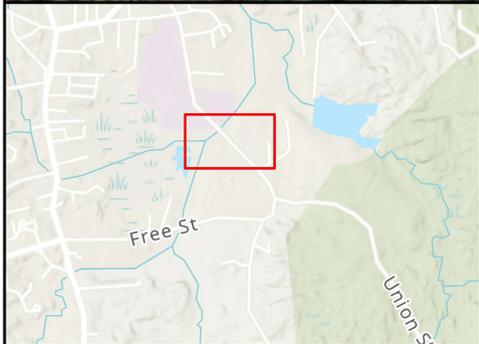


FIGURE  
**1**



**LEGEND**

 PROJECT AREA

**NOTES:**

- 1. PROJECTION: NAD 1983 STATEPLANE MASSACHUSETTS MAINLAND FIPS 2001 FEET
- 2. BASEMAP SOURCE: ESRI, ACCESSED 4/10/2025

MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION  
 WOMPATUCK SEWER FORCE MAIN REPLACEMENT  
 HINGHAM, MA 02043  
**NOTICE OF INTENT**

**EXISTING CONDITIONS MAP**

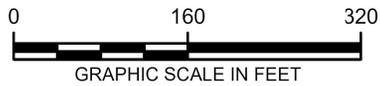


FIGURE  
**2**

# Attachment 4

## Hingham Conservation Commission Letter



Town of Hingham  
CONSERVATION COMMISSION

210 Central Street, Hingham, MA 02043-2758 ♦ (781) 741-1445  
[www.hingham-ma.gov/Conservation-Commission](http://www.hingham-ma.gov/Conservation-Commission)

June 18, 2024

MA Department of Conservation & Recreation  
Attn: Tom Valton, Director, Stormwater & Environmental Section  
State Transportation Building  
10 Park Plaza, Suite 6620  
Boston, MA 02116

RE: Wompatuck State Park Sewer System- Sanitary Sewer Overflows to Weir River

Dear Mr. Valton,

On April 9, 2024, the Conservation Department was notified by Stephen Dempsey, Sewer Supervisor, of a break of the DCR owned force-main that transports wastewater from the State Park to the municipal sewer system. The break occurred within close proximity to the Weir River and resulted in a sanitary sewer overflow that introduced wastewater into the river. The Conservation Officer, Shannon Palmer, inspected the site with Mr. Dempsey on April 9th, after the gate valve was closed. Subsequent to that inspection, repairs were made by DCR to the force-main which temporarily addressed the issue. On April 29, 2024, the department was again notified by Mr. Dempsey of another force-main break and discharge of sanitary sewer overflow to the Weir River, which was also repaired by DCR.

As you may be aware, the Conservation Commission is charged with protecting the town's waterways and wetland resources and the important values they provide including public water supply, protection of surface water, prevention of water pollution, protection of fisheries and wildlife habitat, recreation and aesthetics. It is our understanding that this force-main has had multiple breaks and the ductile iron pipe is over 50 years old and has likely reached the end of its functional lifespan. As such, the Commission has significant concerns regarding the condition of the pipe, likelihood of another force-main break, and potential ecological impacts on the Weir River, surrounding wetlands and associated wildlife. We also have concerns regarding the lack of communication from DCR regarding the force-main incidents as well as the failure to request an Emergency Order from the Commission for the repairs.

The Commission respectfully requests DCR, in collaboration with other pertinent town departments and commissions, develop a course of action to permanently address the condition of the force-main and prevent any further sanitary sewer overflows into the Weir River. We look forward to hearing from DCR and discussing the proposed course of action, as well as applicable permitting requirements, to better protect this vital and shared resource.

On Behalf of the Commission,

A handwritten signature in purple ink that reads "Shannon Palmer".

Shannon Palmer  
Conservation Officer

cc: *Via Email:*  
Tom Mayo, Town Administrator  
Stephen Dempsey, Sewer Supervisor  
Randy Sylvester, DPW Director  
Hingham Sewer Commission  
Hingham Board of Health

# Attachment 6

## Delineation Report

November 13, 2024

**Email** (Stephen.G.Perry@arcadis.com)

Mr. Stephen G. Perry  
 Arcadis U.S., Inc.  
 500 Edgewater Drive, Suite 511  
 Wakefield, MA 01880

**Re: Wetland Resource Area Analysis Report  
 DCR Force Main Replacement Project  
 Union Street  
 Hingham, Massachusetts**

[LEC File #: AUST\24-314.02]

Dear Mr. Perry:

LEC Environmental Consultants, Inc., (LEC) has prepared this *Wetland Resource Area Analysis Report* summarizing our site evaluation and delineation of Wetland Resource Areas along Union Street between a bridge over the Weir River and the Town of Hingham golf driving range. This segment of Union Street is slated for sewer infrastructure improvements by the Massachusetts Department of Conservation and Recreation (DCR). Existing conditions within the project area, including Wetland Resource Areas and Buffer Zones identified by LEC, are depicted on the *Massachusetts Department of Conservation and Recreation Plan of Topographic Survey of Union Street (Plan)*, prepared by Meridian Associates, Inc., dated October 2, 2024.

Wetland boundary determinations and the findings provided in this report are based on criteria enumerated in the *Massachusetts Wetlands Protection Act* (M.G.L., Ch. 131, s. 40) and its implementing Regulations (310 CMR 10.00), the *Town of Hingham Wetlands Protection Bylaw (Article 22)* and its implementing Regulations, and the *Federal Clean Water Act* (33 U.S.C. 1344, s.404, the CWA) and its implementing Regulations (33 CFR and 40 CFR, the CWA Regulations).

The following report provides a general site description, wetland delineation methodology, a description of the Wetland Resource Areas, and potential regulatory implications. Bordering Vegetated Wetland Determination Forms (Attachment B) and site photographs (Attachment C) are included with this report.

**General Site Description**

The project area is located on an approximately 650-foot-long, linear segment of Union Street between the Weir River and Thistle Patch Way in Hingham, Massachusetts (Attachment A, Figures 1 and 2). Union Street extends in a northwest/southeast orientation in the project area and includes a two-lane paved roadway and a paved sidewalk on the southwest side within a municipal right-of-way. The northerly terminus of the project area is adjacent to a bridge over the Weir River, a perennial stream,

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<b>PLYMOUTH, MA</b>	<b>WAKEFIELD, MA</b>	<b>WORCESTER, MA</b>	<b>RINDGE, NH</b>	<b>EAST PROVIDENCE, RI</b>	

which flows through a large diameter culvert beneath the roadway. A small gravel parking area is located southeast of the bridge adjacent to a small point of access to the river for small watercraft. An electric easement with overhead wires extends adjacent, and roughly parallel, to the Weir River in the vicinity of Union Street.

Further north beyond the bridge over the Weir River, Town of Hingham grass recreational fields are located on both sides of the road. The southern project terminus is located near a small parking area and municipal golf driving range located on the southeast side of the road. In between these features, the land adjacent to the project area is primarily forested Bordering Vegetated Wetlands (BVW) with fringing forested uplands and thicket conditions.

Topography within the project area is generally flat with moderately steep slopes extending downgradient from the roadway towards the adjacent wetlands.

Vegetation observed within the forested uplands and thicket areas include a canopy layer of red maple (*Acer rubrum*), Norway maple (*Acer platanoides*), black cherry (*Prunus serotina*), ash (*Fraxinus* spp.), and crabapple (*Malus* spp.). The upland understory includes glossy buckthorn (*Frangula alnus*), multiflora rose (*Rosa multiflora*), arrowwood (*Viburnum dentatum*), Japanese knotweed (*Fallopia japonica*), with entanglements of poison ivy (*Toxicodendron radicans*), Asiatic bittersweet (*Celastrus orbiculatus*), and grape (*Vitis* spp.).

According to the Natural Resource Conservation Service (NRCS) Soil Survey (Web Soil Survey and Plymouth County, Massachusetts, Version 15, September 9, 2022), most of the project area is mapped for Saco mucky silt loam, frequently ponded (Attachment A, Figure 3). This soil series is associated with the Weir River wetland system and floodplain. Windsor loamy sand and Udipsamments are mapped further south in the project area, in association with the forested uplands and golf driving range, respectively.

### **Natural Heritage and Endangered Species Program Designation**

According to the 15<sup>th</sup> Edition of the *Massachusetts Natural Heritage Atlas* (effective August 1, 2021) published by the Natural Heritage & Endangered Species Program (NHESP), the project area is not located within *Estimated Habitat of Rare Wildlife* and/or *Priority Habitat of Rare Species*. No Certified Vernal Pools (CVP) or Potential Vernal Pools (PVP) are mapped on or within the immediate vicinity of the project area (Attachment A, Figure 2).

### **Floodplain Designation**

According to the July 16, 2014, FEMA Flood Insurance Rate Maps (FEMA FIRM) for Town of Hingham (*Community Panel 25009C0434G*), areas within the vicinity of Weir River are mapped within a Zone AE - *Areas subject to inundation by the 1% annual chance flood determined by detailed methods (Elevation 27.2 NAVD 88)*. Areas located upgradient from the Zone AE are mapped within a Zone X (unshaded) - *Areas determined to be outside the 0.2% annual chance floodplain* (Attachment A, Figure 4). The portions of the project located below elevation 27.2 have been identified on the Plan and are regulated as Bordering Land Subject to Flooding (BLSF), as further described below.



## Wetland Boundary Determination Methodology

On October 8, 2024, LEC conducted a site evaluation to identify and characterize existing protectable Wetland Resource Areas located on or adjacent to the project area. The BVW boundary was determined through observations of the existing plant communities, using the "fifty percent criteria" to determine dominance of wetland/upland vegetation, the interpretation of soil characteristics, and other indicators of wetland hydrology in accordance with the Massachusetts Department of Environmental Protection (MassDEP) handbook, *Delineating Bordering Vegetated Wetlands under the Massachusetts Wetlands Protection Act* (September 2022), the *Field Indicators for Identifying Hydric Soils in New England* (Version 4, June 2020), and the criteria set forth in 310 CMR 10.55.

The boundary of the BVW was demarcated in the field with blaze orange surveyor's flagging tape, embossed with the words "LEC Resource Area Boundary" in bold, black print. The BVW flags are numbered 1A-20A and 1B-9B. Bordering Vegetated Wetland Determination Forms are included with this report (Attachment B). The Bank/Mean Annual High Water (MAHW) boundary associated with Weir River was delineated in accordance with the criteria set forth in 310 CMR 10.54 and 10.58, and demarcated in the field with blue surveyor's tape numbered 1A-5A and 1B-5B.

## Wetland Resource Areas

The Wetland Resource Areas associated with the project area include BVW, Bank/MAHW, Riverfront Area and Bordering Land Subject to Flooding (BLSF). A brief description of the Wetland Resource Areas is provided below.

### Bordering Vegetated Wetland (BVW)

*BVW is defined at 310 CMR 10.55(2) as freshwater wetlands which border on creeks, rivers, streams, ponds, and lakes. In these areas soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The boundary of BVW is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist.*

BVW is associated with the Weir River and is generally characterized as forested/scrub-shrub wetland with some areas displaying thicket characteristics. Vegetation includes a moderately dense canopy layer of red maple with a dense understory consisting of glossy buckthorn, arrowwood, spicebush (*Lindera benzoin*), dogwood (*Cornus* spp.), multiflora rose, willow (*Salix* spp.), and winterberry (*Ilex verticillata*). The groundcover layer consists of seedlings from the overstory, buckthorn seedlings, sensitive fern (*Onoclea sensibilis*), and entanglements of poison ivy and Asiatic bittersweet.

LEC inspected soil conditions using a hand-held, Dutch-style soil auger within wetland areas and observed a layer of historic fill material (C<sup>^</sup>-Horizon) of various depths, but typically around six inches. The fill layer is underlain by a buried mucky topsoil layer (A<sub>b</sub>-Horizon) with a soil matrix color of 10YR 2/1 and high organic content. The buried soil appears to be a histic epipedon indicative of saturated conditions within 12 inches of the surface and thus, a hydric soil.

## Bank/MAHW

According to the *Act Regulations*, Bank is the *first observable break in slope or the mean annual flood level, whichever is lower. The lower boundary of a Bank is the mean annual low flow level* [310 CMR 10.54 (2) (c)].

According to 310 CMR 10.58 (2), *the Mean Annual High Water (MAHW) Line of a river is the line that is apparent from visible markings or changes in the character of soils or vegetation due to the 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 point bars, changes in bank materials, or bank undercuts* [310 CMR 10.58 (2) (a) 2].

Bank/MAHW is associated with the Weir River flowing perpendicular to Union Street and passing beneath the roadway through a large diameter culvert at the northwestern limit of the project area. The Bank/MAHW was field delineated in the vicinity of the bridge with flagging numbered 1A-5A and 1B-5B, as shown on the Plan. The Bank/MAHW line in the vicinity of the project area is well-defined along two to four foot high, steeply sloping embankments. The embankment on the northeast side is lined with rip-rap in the vicinity of the bridge. Field indicators of bankfull conditions include staining on the embankments, changes in slope, and scouring.

## Riverfront Area

According to the *Act Regulations* [310 CMR 10.58 2(a)], Riverfront Area is defined as *the area of land between a river's mean annual high-water line and a parallel line measured horizontally 200 feet away.*

Riverfront Area extends 200 feet horizontally from the Bank/MAHW line associated with the above-referenced off-site perennial stream. The Riverfront Area extends into the project area as delineated on the Plan.

## Bordering Land Subject to Flooding

According to the *Act Regulations* [310 CMR 10.57 2 (a)], BLSF is defined as *an area with low, flat topography adjacent to and inundated by flood waters rising from creeks, rivers, streams, ponds or lakes. It extends from the banks of these waterways and water bodies; where a bordering vegetated wetland occurs, it extends from said wetland.*

As noted above, the FEMA FIRM depicts areas within the vicinity of Weir River mapped within a Zone AE - *Areas subject to inundation by the 1% annual chance flood determined by detailed methods* (Elevation 27.2 NAVD 88). The portion of the project area located below elevation 27.2 is protected as BLSF, as depicted on the Plan.

## **Summary**

LEC identified and delineated the boundaries of BVW and Bank/MAHW in the vicinity of a DCR sewer improvement project on Union Street in Hingham, Massachusetts. In addition to BVW and



Bank/MAHW, the project area contains Riverfront Area and Bordering Land Subject to Flooding. The Wetland Resource Areas are protected under the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40) and its implementing Regulations (310 CMR 10.00) and the *Hingham Wetlands Protection Bylaw (Article 22)* and its implementing *Regulations*. The BVW and Weir River are also jurisdictional “Waters of the United States” under the *Federal Clean Water Act* (33 U.S.C. 1344, s.404). If the project involves disturbances in Wetland Resource Areas and/or the Buffer Zone, a Notice of Intent (NOI) filing with the Hingham Conservation Commission and the Massachusetts Department of Environmental Protection (MassDEP) may be required. Direct impacts to vegetated wetlands or the river may require additional state and federal permitting.

We appreciate the opportunity to assist with this project. If you have any questions or require additional information, please do not hesitate to contact us at 508-746-9491.

Sincerely,

**LEC Environmental Consultants, Inc.**

A handwritten signature in black ink that reads 'Mark L. Manganello'.

Mark Manganello

Assistant Director of Ecological Services

Attachments

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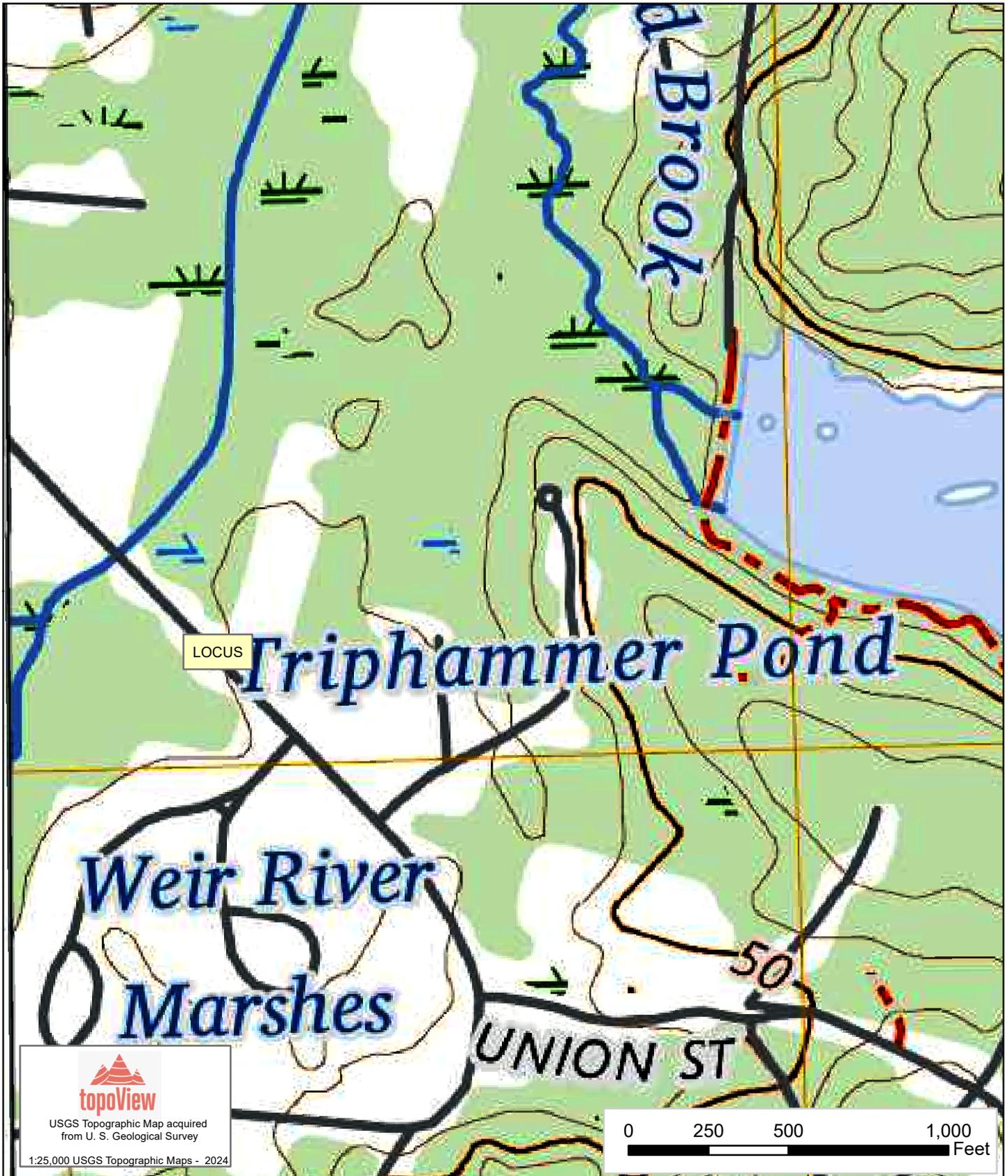
## **Attachment A**

Figure 1: USGS Topographic Map

Figure 2: Aerial Map

Figure 3: NRCS Soil Map

Figure 4: FEMA Flood Insurance Rate Map



  
USGS Topographic Map acquired  
from U. S. Geological Survey  
1:25,000 USGS Topographic Maps - 2024

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USGS Topographic Map  
Union Street  
Hingham, Massachusetts

  
November 13, 2024



2023 Aerial Orthophoto acquired from the Office of Geographic Information (MassGIS) website.



LEC Environmental Consultants, Inc.

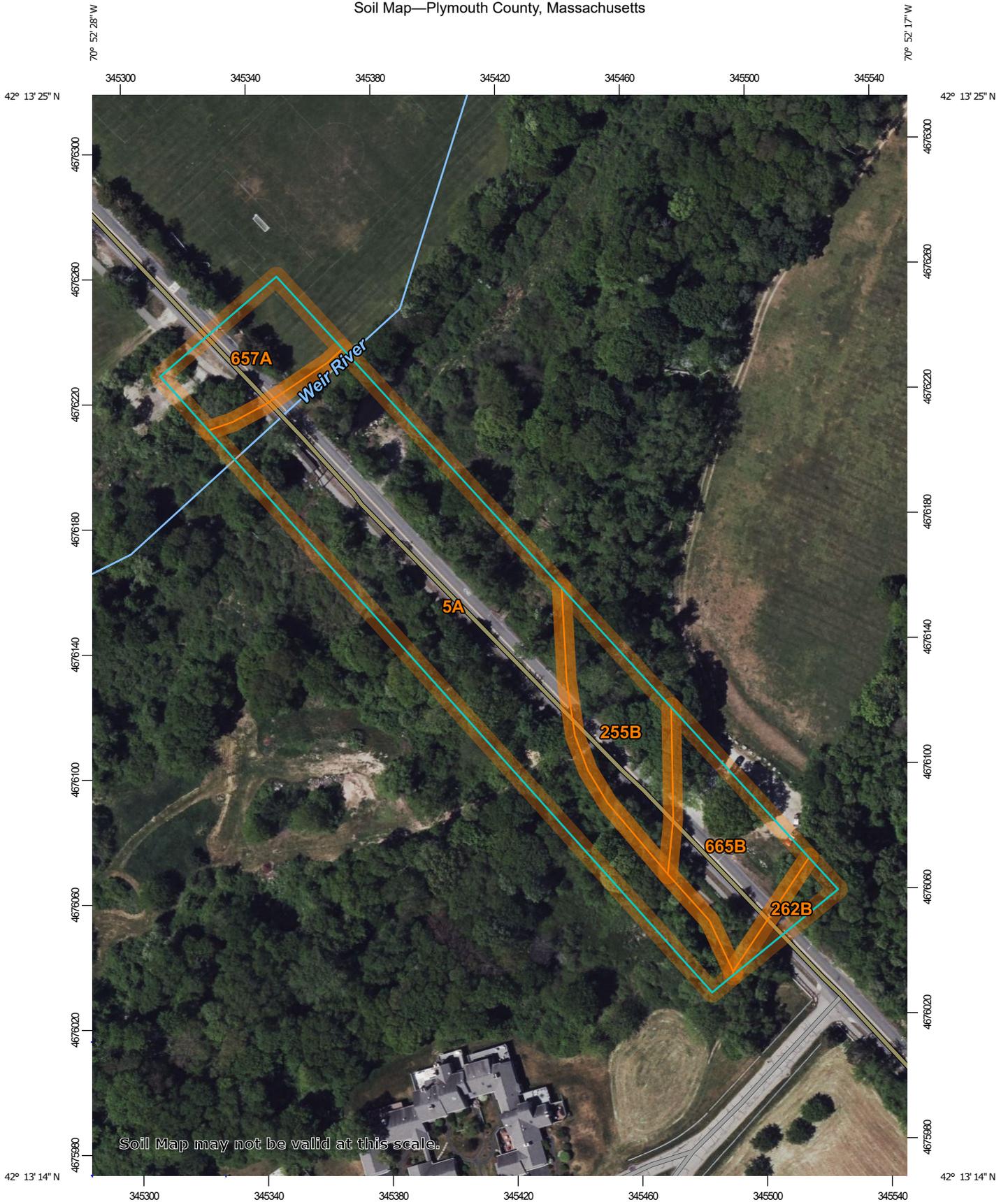
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# Aerial Orthophoto Map Union Street Hingham, Massachusetts



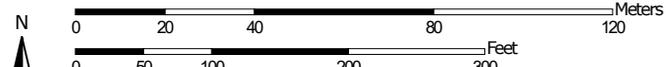
November 13, 2024

Soil Map—Plymouth County, Massachusetts



Soil Map may not be valid at this scale.

Map Scale: 1:1,680 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 19N WGS84



Natural Resources Conservation Service

Web Soil Survey National Cooperative Soil Survey

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## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Plymouth County, Massachusetts

Survey Area Data: Version 17, Aug 27, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 22, 2022—Jun 5, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
5A	Saco mucky silt loam, frequently ponded, 0 to 3 percent slopes, frequently flooded	2.0	60.2%
255B	Windsor loamy sand, 3 to 8 percent slopes	0.4	12.9%
262B	Quonset sandy loam, 3 to 8 percent slopes	0.1	2.3%
657A	Aquepts, 0 to 3 percent slopes	0.4	10.6%
665B	Udipsamments, 0 to 8 percent slopes	0.5	14.0%
<b>Totals for Area of Interest</b>		<b>3.3</b>	<b>100.0%</b>

# National Flood Hazard Layer FIRMMette



70°52'44"W 42°13'34"N



1:6,000

70°52'7"W 42°13'7"N

Basemap Imagery Source: USGS National Map 2023

## Legend

SEE FIS 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

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

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
	Hydrographic Feature	

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 **11/13/2024 at 8:31 PM** 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 unmodernized areas cannot be used for regulatory purposes.