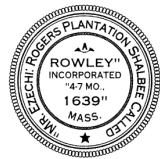

Notice of Intent

Bridge Replacement: Glen Street over the Mill River (R-11-002)

Rowley, Massachusetts

PREPARED FOR



Town of Rowley
139 Main St
Rowley, MA 01969
978.948.2330

PREPARED BY



101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

April 2024



April 8, 2024

Ref: 15884.04

Daniel Shinnick, Chairman
Rowley Conservation Commission
139 Main Street
Rowley, MA 01969

Re: Bridge Replacement: Glen Street over Mill River (R-11-002)
Notice of Intent

Dear Chairman Shinnick,

On behalf of the Applicant, the Town of Rowley, Vanasse Hangen Brustlin, Inc. is submitting the enclosed Notice of Intent (NOI) for work to replace an existing bridge on Glen Street over the Mill River (Bridge # R-11-002) (the Project) in Rowley, Massachusetts (the Project Site). The Project design is being undertaken as a part of the Massachusetts Department of Transportation (MassDOT) Municipal Small Bridge Program. The bridge is in critical condition and needs replacement. The Project will replace the majority of the existing bridge structure and provide associated improvements to the adjacent approaches along Glen Street, including installation of crash tested barriers and approach guardrails. The Project will widen the hydraulic opening of the bridge and also provide streambed restoration within the Mill River. A full scope of work is included in the attached NOI narrative. This NOI is being filed pursuant to the Massachusetts Wetlands Protection Act (WPA) and the Rowley Wetlands Protection Bylaw (the Bylaw).

Portions of land on or near the Project Site contain resource areas subject to the jurisdiction of the WPA, including Bank, Land Under Waterbodies and Waterways (LUWW), Bordering Land Subject to Flooding (BLSF), and Riverfront Area (RA). The WPA also establishes a 100-foot buffer zone to Bank. All resource areas are associated with the Mill River. Proposed work will result in temporary impacts to Bank, LUWW, BLSF, and RA, permanent impacts to LUWW, BLSF, and RA, and temporary and permanent alterations within the 100-foot buffer zone. Wetland resource areas will be protected from impacts during construction through the implementation of an erosion and sedimentation control program.

No checks have included with this submission, as the Applicant is exempt from filing fees under the WPA.

In compliance with the WPA, notification to abutters within 100 feet of the Project Site has been made by certified, return-receipt mail. A copy of the abutter notification form and a certified list of abutters are enclosed as part of the NOI.

Ref: 15884.04
April 8, 2024
Page 2



Please advertise this matter for public hearing at the Commission's next scheduled meeting. If you have any questions concerning this submittal or need any additional information, please contact me at 617-607-6310 or tdonovan@vhb.com.

Regards,

Taylor Donovan

Taylor Donovan
Environmental Scientist

CC: DEP Northeast Regional Office
Town of Rowley

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- NOI Wetland Fee Transmittal Form

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- Figure 3 – NHESP Map
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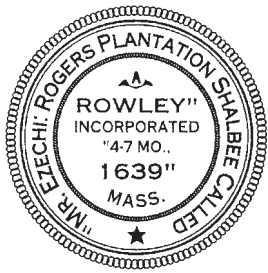
Attachment E - Stormwater Memorandum

Attachment F- Project Plans



Notice of Intent Forms

- › Rowley NOI Filing Checklist
- › WPA Form 3A
- › NOI Wetland Fee Transmittal Form



Town of Rowley

Conservation Commission

Phone: (978) 948-2330 Fax: (978) 948-7196

Conservation@townofrowley.org

NOTICE OF INTENT PERMIT FILING CHECKLIST

Send the following by certified mail, return receipt requested, or hand deliver to:

Rowley Conservation Commission, PO Box 24, OR 39 Central Street, Room #4, Rowley MA 01969

Two copies of the Submittal Package appropriately collated including:

Completed WPA Form 3, 4, & 4A (one set with original signatures)

N/A - fee exempt Copy of the check made out to the Commonwealth of Massachusetts

N/A - fee exempt Copy of the check made out to the Town of Rowley

Section of U.S. Geologic Survey (USGS) quadrangle locating site

Copy of the Certified Abutters List with parcel map from the Rowley Assessors Office

Copy of the Abutter Notification letter

Stamped, signed and dated site plan prepared by professional engineer or land surveyor

Check made out to the Town of Rowley (may include Bylaw fee amount) N/A - fee exempt

One copy of Wetland Bylaw Fee Calculation Form N/A - fee exempt

One copy of NOI Wetland Fee Transmittal Form, pages 1 & 2

One electronic submission in "PDF" form of all application documents and plans.

Send the following by certified mail, return receipt requested or hand deliver to:

DEP NERO, Wetlands Div. 150 Presidential Way, Woburn, MA 01801

Submitted via eDEP

One copy of the Completed Application WPA Form 3, 4, & 4A including:

Attached site plan prepared by professional engineer or land surveyor

Section of U.S. Geologic Survey (USGS) quadrangle locating site

N/A - fee exempt Copy of the check made out to the Town of Rowley

N/A - fee exempt Copy of the check made out to the Commonwealth of Massachusetts

Copy of the Certified Abutters List with parcel map from the Rowley Assessors Office

Copy of the Abutter Notification letter

Copy of NOI Wetland Fee Transmittal Form, pages 1 & 2.

Send the following by certified mail, return receipt requested to:

Department of Environmental Protection, Box 4062, Boston, MA 02211

Check made out to the Commonwealth of Massachusetts N/A - fee exempt

NOI Wetland Fee Transmittal Form, pages 1 & 2.

If more than 75 cubic yards of earth will be removed, an Earth Removal Application must be filed with the Board of Selectmen.

Revised 2/22/23

Town Hall Annex • Room 4 • 39 Central Street • P O Box 24 • Rowley, MA 01969



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 #:
eDEP Transaction #:1666638
City/Town:ROWLEY

A.General Information

1. Project Location:

a. Street Address	GLEN STREET	c. Zip Code	01969
b. City/Town	ROWLEY	e. Longitude	70.89984W
d. Latitude	42.73928N	g.Parcel/Lot #	N/A
f. Map/Plat #	N/A		

2. Applicant:

Individual Organization

a. First Name	DEBBIE	b.Last Name	EAGAN
c. Organization	TOWN OF ROWLEY		
d. Mailing Address	139 MAIN STREET		
e. City/Town	ROWLEY	f. State	MA
g. Zip Code	01969		
h. Phone Number	978-948-2705	i. Fax	
j. Email	debbie@townofrowley.org		

3.Property Owner:

more than one owner

a. First Name		b. Last Name	
c. Organization	TOWN OF ROWLEY		
d. Mailing Address	139 MAIN STREET		
e. City/Town	ROWLEY	f.State	MA
g. Zip Code	01969		
h. Phone Number	978-948-2705	i. Fax	
j.Email			

4.Representative:

a. First Name	TAYLOR	b. Last Name	DONOVAN
c. Organization	VHB		
d. Mailing Address	101 WALNUT STREET		
e. City/Town	WATERTOWN	f. State	MA
g. Zip Code	02472		
h.Phone Number	617-607-6310	i.Fax	
j.Email	tdonovan@vhb.com		

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

a.Total Fee Paid	0.00	b.State Fee Paid	0.00	c.City/Town Fee Paid	0.00
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6.General Project Description:

THE TOWN OF ROWLEY IS PROPOSING TO REPLACE THE EXISTING GLEN STREET BRIDGE OVER THE MILL RIVER (BRIDGE # R-11-002). THE PROJECT DESIGN IS BEING UNDERTAKEN AS A PART OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT) MUNICIPAL SMALL BRIDGE PROGRAM. THE BRIDGE IS IN CRITICAL CONDITION AND NEEDS REPLACEMENT. THE PROJECT WILL REPLACE THE MAJORITY OF THE EXISTING BRIDGE STRUCTURE AND PROVIDE ASSOCIATED IMPROVEMENTS TO THE ADJACENT APPROACHES ALONG GLEN STREET, INCLUDING INSTALLATION OF CRASH TESTED BARRIERS AND APPROACH GUARDRAILS. THE PROJECT WILL WIDEN THE HYDRAULIC OPENING OF THE BRIDGE AND ALSO PROVIDE STREAMBED RESTORATION WITHIN THE MILL RIVER.

7a.Project Type:

1. Single Family Home 2. Residential Subdivision



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 #:
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 City/Town:ROWLEY

- | | |
|---|--|
| 3. <input type="checkbox"/> Limited Project Driveway Crossing | 4. <input type="checkbox"/> Commercial/Industrial |
| 5. <input type="checkbox"/> Dock/Pier | 6. <input type="checkbox"/> Utilities |
| 7. <input type="checkbox"/> Coastal Engineering Structure | 8. <input type="checkbox"/> Agriculture (eg., cranberries, forestry) |
| 9. <input checked="" type="checkbox"/> Transportation | 10. <input type="checkbox"/> Other |

7b. Is any portion of the proposed activity eligible to be treated as a 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:

2. Limited 310 CMR 10.53(3)(I), FOR THE MAINTENANCE, REPAIR AND IMPROVEMENT (BUT NOT PROJECT SUBSTANTIAL ENLARGEMENT EXCEPT WHEN NECESSARY TO MEET THE MASSACHUSETTS STREAM CROSSING STANDARDS) OF STRUCTURES, INCLUDING BRIDGES AND CULVERTS WHICH EXISTED ON THE EFFECTIVE DATE OF 310 CMR 10.51 THROUGH 10.60 (APRIL 1, 1983).

8. Property recorded at the Registry of Deeds for:

a.County:	b.Certificate:	c.Book:	d.Page:
	N/A	N/A	N/A

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

1. Buffer Zone & Resource Area Impacts (temporary & permanent):

This is a Buffer Zone only project - 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)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input checked="" type="checkbox"/> Bank	134 1. linear feet	134 2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input checked="" type="checkbox"/> Land under Waterbodies and Waterways	975 1. Square feet	1353 2. square feet
	93 3. cubic yards dredged	
d. <input checked="" type="checkbox"/> Bordering Land Subject to Flooding	416 1. square feet 0 3. cubic feet of flood storage lost	276 2. square feet 0 4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced
f. <input checked="" type="checkbox"/> Riverfront Area	Mill River 1. Name of Waterway (if any)	
2. Width of Riverfront Area (check one)	<input type="checkbox"/> 25 ft. - Designated Densely Developed Areas only	



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

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100 ft. - New agricultural projects only

200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project 2709 square feet

4. Proposed Alteration of the Riverfront Area:

2709 2709 0
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)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
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 Beaches	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
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, crea.
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 checked="" type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	93	
	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	1. square feet	

4.Restoration/Enhancement



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

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Provided by MassDEP:
MassDEP File #:
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City/Town:ROWLEY

Restoration/Replacement

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 entered the additional amount here.

a. square feet of BVW

b. square feet of Salt Marsh

5. Projects Involves Stream Crossings

Project Involves Streams Crossings

If the project involves Stream Crossings, please enter the number of new stream crossings/number of replacement stream crossings.

1

a. number of new stream crossings

b. number of replacement stream crossings

C. Other Applicable Standards and Requirements

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 of Endangered Species program (NHESP)?

a. Yes No

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

Natural Heritage and Endangered Species

Program

Division of Fisheries and Wildlife

1 Rabbit Hill Road

Westborough, MA 01581

b. Date of map: FROM MAP VIEWER

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18)...

c. Submit Supplemental Information for Endangered Species Review * (Check boxes as they apply)

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

3. Project plans for entire project site, including wetland resource areas and areas outside of wetland 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

c. MESA filing fee (fee information available at: <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/esa-fee-schedule.html>)

Make check payable to "Natural Heritage & Endangered Species Fund" 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



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

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

Provided by MassDEP:
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d. 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, <http://www.mass.gov/eea/agencies/dfg/dfw/laws-regulations/cmr/321-cmr-1000-massachusetts-endangered-species-act.html#10.14>; 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 Number

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.

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review...

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

a. Not applicable - project is in inland resource area only

b. Yes No

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

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

North Shore - Hull to New Hampshire:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 S. Rodney French Blvd
New Bedford, MA 02744

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930

If yes, it 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.

3. 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 DEP Website for ACEC locations). **Note:** electronic filers click on Website.

b. ACEC Name

4. 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

5. 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

6. 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)



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 #:
eDEP Transaction #:1666638
City/Town:ROWLEY

- 2. A portion of the site constitutes redevelopment
- 3. Proprietary BMPs are included in the Stormwater Management System

b. No, Explain why the project is exempt:

- 1. Single Family Home
- 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

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 by regular mail delivery.

- 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.
- 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.

a. Plan Title: b. Plan Prepared By: c. Plan Signed/Stamped By: c. Revised Final Date: e. Scale:

PLAN AND PROFILE OF GLEN STREET IN THE TOWN OF ROWLEY - NOTICE OF INTENT	STEFEN NGUYEN	JOSHUA TREARCHIS	3/27/24	1" = 20'
--	---------------	------------------	---------	----------

- 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.



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 #:

eDEP Transaction #:1666638

City/Town:ROWLEY

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:

<u>N/A - fee exempt</u>	
2. Municipal Check Number <u>N/A - fee exempt</u>	3. Check date _____
4. State Check Number _____	5. Check date _____
6. Payer name on check: First Name _____	7. Payer name on check: Last Name _____

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.

<u>Deborah Eagan</u> 1. Signature of Applicant	<u>4/8/24</u> 2. Date
_____ 3. Signature of Property Owner(if different)	_____ 4. Date
<u>Taylor Donovan</u> 5. Signature of Representative (if any)	<u>4/8/2024</u> 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 Section C, Items 1-3, 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
WPA Form 3 - Notice of Wetland Fee Transmittal
Form

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

Provided by MassDEP:
 MassDEP File #:
 eDEP Transaction #:1666638
 City/Town:ROWLEY

A. Applicant Information

1. Applicant:

a. First Name	DEBBIE	b. Last Name	EAGAN
c. Organization	TOWN OF ROWLEY		
d. Mailing Address	139 MAIN STREET		
e. City/Town	ROWLEY	f. State	MA
		g. Zip Code	01969
h. Phone Number	9789482705	i. Fax	
		j. Email	debbie@townofrowley.org

2. Property Owner:(if different)

a. First Name		b. Last Name	
c. Organization	TOWN OF ROWLEY		
d. Mailing Address	139 MAIN STREET		
e. City/Town	ROWLEY	f. State	MA
		g. Zip Code	01969
h. Phone Number	9789482705	i. Fax	
		j. Email	

3. Project Location:

a. Street Address	GLEN STREET	b. City/Town	ROWLEY
-------------------	-------------	--------------	--------

Are you exempted from Fee? (YOU HAVE SELECTED 'YES')

Note: Fee will be exempted if you are one of the following:

- City/Town/County/District
- Municipal Housing Authority
- Indian Tribe Housing Authority
- MBTA

State agencies are only exempt if the fee is less than \$100

B. Fees

Activity Type	Activity Number	Activity Fee	RF Multiplier	Sub Total
	City/Town share of filling fee	\$0.00	State share of filing fee	\$0.00
			Total Project Fee	\$0.00

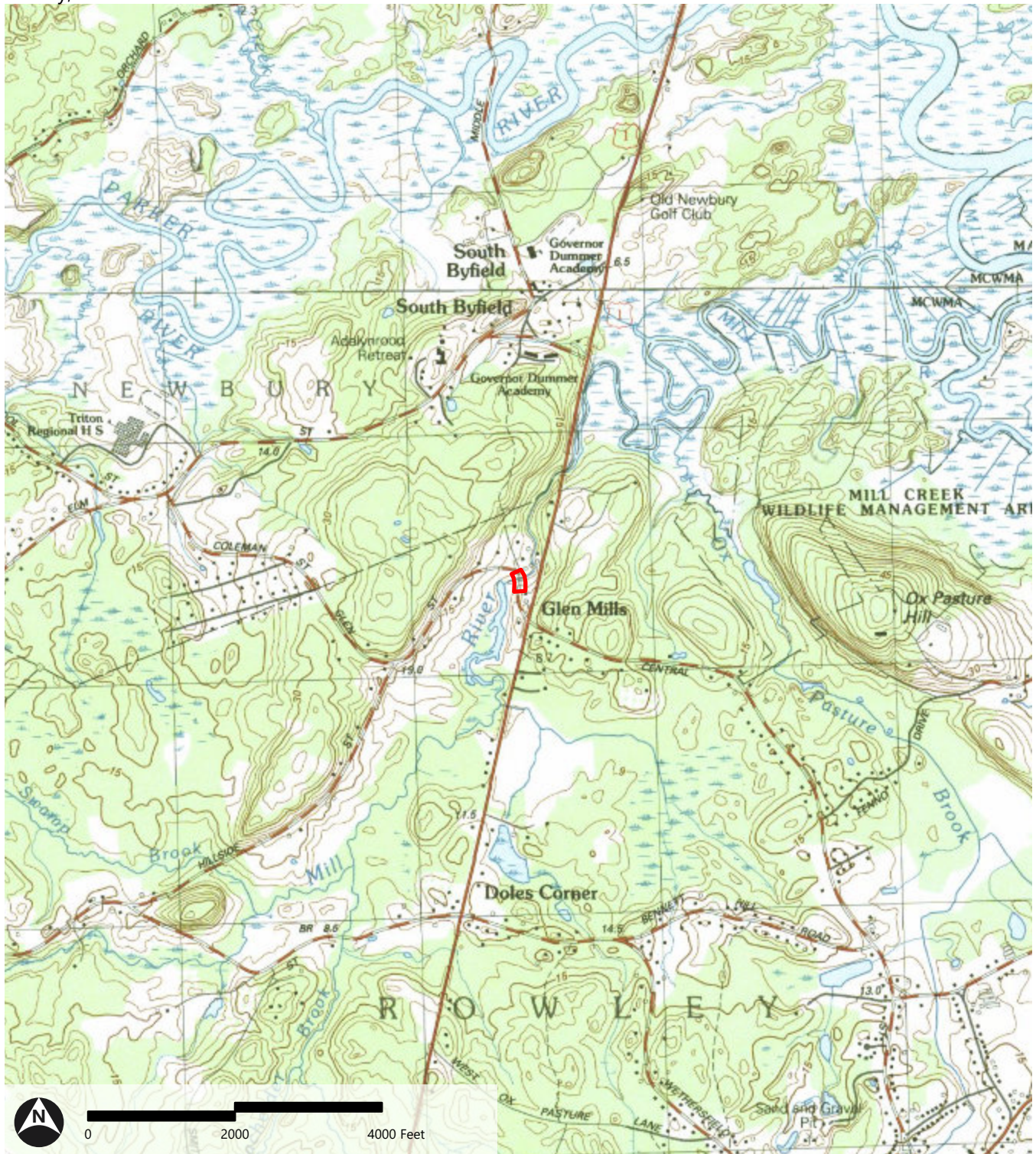


Notice of Intent Figures

- › Figure 1 – USGS Map
- › Figure 2 – Aerial Map
- › Figure 3 – NHESP Map
- › Figure 4 – FEMA Map

Figure 1: USGS Site Location

Small Bridge Replacement - Glen Street over Mill River
Rowley, MA



 Project Area

Sources: VHB, MassGIS

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Figure 2: Aerial Overview

Small Bridge Replacement - Glen Street over Mill River
Rowley, MA

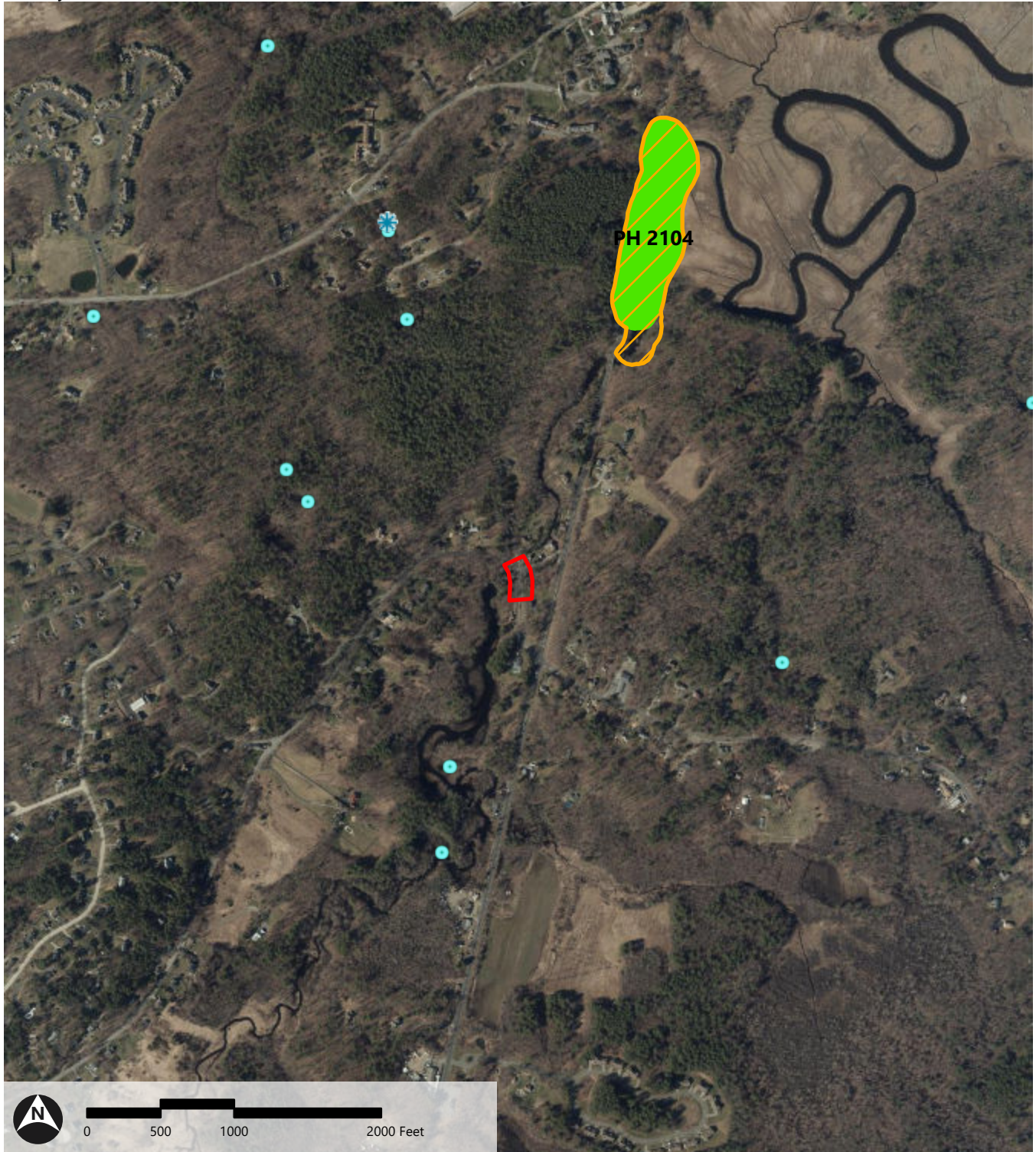


 Project Area

Path: \\azrgisds\gisshare\gis3\arcgissystem\arcgisinput\NOIFigures\NOI\ExportMap.GP\Server\extracted\p30\noi_template\NOI_Template.aprx (gmsaGIS\$, 1/18/2024)

Figure 3: Priority Habitat

Small Bridge Replacement - Glen Street over Mill River
Rowley, MA



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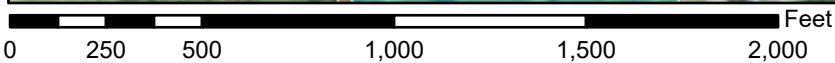
-  Project Area
-  NHESP Certified Vernal Pools
-  NHESP Potential Vernal Pools
-  NHESP Estimated Habitats of Rare Wildlife
-  NHESP Priority Habitats of Rare Species

Project Comments: figure 3 comments

National Flood Hazard Layer FIRMMette



70°54'18"W 42°44'35"N



1:6,000

70°53'41"W 42°44'8"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
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		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
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 **1/24/2024 at 2:27 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.



Attachment A

Notice of Intent Narrative

- › Introduction
- › Site Description
- › Work Description
- › Mitigation Measures
- › Regulatory Compliance
- › Summary

Attachment A - Notice of Intent Narrative

This Notice of Intent (NOI) is filed pursuant to the Massachusetts Wetlands Protection Act (MGL Chapter 131, Section 40) and its implementing regulations (310 CMR 10.00), as well as the Rowley Wetlands Protection Bylaw (the Bylaw) and its implementing regulations. This narrative describes wetland resource areas associated with the Project Site, the proposed work, impacts to wetland resource areas, mitigation measures, and how the Project meets the performance standards of the WPA. Refer to the accompanying Project plans included as Attachment F (bound separately) for a layout and details of the Project components.

Introduction

The Town of Rowley (the Applicant) is proposing to replace the existing concrete arch municipal bridge (Bridge No. R-11-002; the Project) that carries Glen Street over the Mill River in Rowley, Massachusetts (the Project Site). The Project is being undertaken as a part of the Massachusetts Department of Transportation (MassDOT) Municipal Small Bridge Program. The bridge has had a history of scour issues and is in need of replacement. The existing arch bridge has an opening width of approximately 15'-3". The proposed work consists of replacing the existing concrete arch bridge with a concrete 3-sided culvert that has an opening width of 26'-0". In addition, as a part of the bridge replacement, the Project will provide crash-tested bridge railing and approach guardrail. The work will not include impacts to the adjacent granite stacked culvert just north of the bridge that leads water to the adjacent historic mill.

The proposed work will occur within jurisdictional wetland resource areas on the Project Site subject to protection under both the WPA and the Bylaw. Regulated areas within the Project Site include Bank, Bordering Vegetated Wetlands (BVW), Land Under Waterbodies and Waterways (LUWW), Bordering Land Subject to Flooding (BLSF), and Riverfront Area (RA). The WPA also establishes a 100-foot buffer zone to Bank and BVW. All resource areas are associated with the Mill River. Proposed work will result in temporary impacts to Bank, LUWW, BLSF, and RA, permanent impacts to LUWW and RA, and temporary and permanent alterations within the 100-foot buffer zone.

Additionally, the Applicant is requesting that the Project be approved as a Limited Project under 310 CMR 10.53(3)(i), for the *"maintenance, repair and improvement (but not substantial enlargement except when necessary to meet the Massachusetts Stream Crossing Standards) of structures, including ... bridges, and culverts which existed on the effective date of 310 CMR 10.51 through 10.60 (April 1, 1983)."* As such, the Project will adhere to the conditions for a Limited Project as stated under 310 CMR 10.53. As

required under CMR 10.53(3), the below narrative serves to demonstrate that the impacts of the bridge replacement have been avoided where possible, and when not possible have been minimized and that mitigation measures have been provided to contribute to the protection of the interests identified in M.G.L. c.131, §40. An alternatives analysis is included in the sections below.

Wetland resource areas will be protected from secondary impacts during construction through the implementation of an erosion and sedimentation control program. This program includes provisions to minimize areas of disturbance through phasing and sequencing, limit erosion through stabilization, and prevent sediment from leaving the site by installing structural controls. Runoff generated from the Project will be collected and treated in accordance with design guidelines¹ developed by Department of Environmental Protection (DEP) and standards contained in the WPA Regulations.

Site Description

The Project Site is an approximately 150-foot long section of Glen Street which includes the existing bridge and portions of its northern and southern approaches, as well as portions of the Mill River immediately upgradient and downgradient of the bridge. Glen Street is a mile-long Urban Local Street which connects to the Newburyport Turnpike (Route 1) and Mill Road to the east, and Coleman Road to the west – crossing Bridge R-11-002 within the limits of the Project Site. The area around the bridge is primarily wooded with residential properties located north and south of the Project Site (See Figure 1 - USGS Map and Figure 2 - Aerial Map).

Bridge R-11-002 is owned by the Town of Rowley and is an approximately 15-foot wide single-span bridge consisting of a concrete deck arch. The bridge was built in approximately 1900, and the existing bridge structure is currently in poor condition. At the Glen Street crossing, The Mill River flows west to east beneath the bridge and the channel is well defined on both sides of the road. The Glen Street bridge structure also supports an 18" utility line that runs along the west side of Glen Street. Just north of the bridge, a small tributary from the Mill River crosses beneath Glen Street through an undersized culvert and empties into an old mill pond located east of the Project Site. Under normal conditions, no flow passes through this culvert as the upstream end of the channel is blocked with stoplogs set at an elevation higher than the dam weir height.

According to the most recently available data provided by the Massachusetts Natural Heritage and Endangered Species Program (NHESP)², the Project is not located within any Priority Habitat of Rare Species or Estimated Habitat of Rare Wildlife, nor are there any Certified or Potential Vernal Pools on the Project Site (Figure 3). The portion of the Mill River which runs beneath the Project Site is mapped as Diadromous Fish Migratory Habitat as well as Diadromous Fish Rainbow Smelt Spawning Habitat³.

¹ DEP, 2008. Massachusetts Stormwater Handbook.

² NHESP, 2021. *Massachusetts Natural Heritage Atlas, 15th Edition*

³ MassDEP, 2023. Diadromous Fish.

The Project Site does not lie within any Area of Critical Environmental Concern⁴ (ACEC). However, since the Mill River is tributary to the Great Marsh ACEC located northeast of the Project Site, the portion of the Mill River which is conveyed beneath the Glen Street Bridge is mapped as an Outstanding Resource Water⁵ (ORW). According to the most recent information provided by MassDEP, no portion of the Project Site is located within a Zone II Interim Wellhead Protection Area⁶.

The most recently issued Flood Insurance Rate Maps⁷ (FIRM) for the area produced by the Federal Emergency Management Agency (FEMA) indicate that the Mill River is a mapped Regulatory Floodway, and portions of the Project Site are within mapped Zone AE floodplain – elevation 14.8 feet NAVD88 east of the bridge, and 17.5 feet NAVD88 west of the bridge (Figure 4). According to the regional Natural Resources Conservation Service (NRCS) soil survey⁸, majority of the soils mapped at the Project Site are primarily Buxton silt loam, 3 to 8 percent slopes. Wetland resource areas on and near the site are described below.

Wetland Resource Areas

Wetlands within the Project Site were delineated on May 30, 2023 by environmental scientists with VHB in accordance with methods developed by the DEP⁹ and the U.S. Army Corps of Engineers¹⁰. The following sections of this narrative describe the wetlands and identify resource areas that are regulated under the WPA Regulations (310 CMR 10.00). The resource areas and their buffer zones are depicted on the attached Project Plans (Attachment F).

The state-regulated wetland resource areas identified in the vicinity of the Project Site include Bank, BVW, LUWW, BLSF, and RA. These resource areas are defined under the WPA Regulations (310 CMR 10.00) as follows:

- › **Bank:** As defined at 310 CMR 10.54 (2), *“a Bank is the portion of the land surface which normally abuts and confines a water body ... The upper boundary of Bank is the first observable break in slope or the mean annual flood level, whichever is lower.”*
- › **BVW:** As defined at 310 CMR 10.55 (2), *Bordering Vegetated Wetlands are “freshwater wetlands which border on creeks, rivers, streams, ponds, and lakes ... Bordering Vegetated Wetlands are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants.”*
- › **LUWW:** As defined at 310 CMR 10.56 (2), *LUWW is “land beneath any creek, river, stream, pond or lake. Said land may be composed of organic muck or peat, fine*

⁴ Massachusetts Executive Office of Energy and Environmental Affairs, 2009.

⁵ MassDEP, 2010. Designated Outstanding Resource Waters of Massachusetts.

⁶ MassDEP, 2012. Approved Wellhead Protection Areas (Zone II).

⁷ Federal Emergency Management Agency, National Flood Hazard Layer, Digital Flood Insurance Rate Map (DFIRM).

⁸ Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey.

⁹ DEP, 2022. *Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands.*

¹⁰ USACE, 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0.*

sediments, rocks or bedrock ... The boundary of LUWW is the mean annual low water level."

- › **BLSF:** As defined at 310 CMR 10.57(2)(a), BLSF is "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 ... The boundary of BLSF is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm."
- › **RA:** As defined by 310 CMR 10.58 (2)(a)(3), Riverfront Area is "the area of land between a river's mean annual high-water line measured horizontally outward from the river and a parallel line located 200 feet away"

Wetlands and their buffer zones on/adjacent to the property are described in more detail in the following sections of this attachment.

Table 1 Wetland Resource Areas

Wetland	Flag Numbers	Resource Type	Description
Mill River	BF1-100 to BF1-106	Bank, BVW, LUWW, BLSF, RA	R3UBH perennial stream with fringe BVW
	BF1-300 to BF1-307		
	BF1-400 to BF1-405		
	WF1-200 to WF1-202		

R: Riverine; 3: Upper Perennial; UB: Unconsolidated Bottom; H: Permanently Flooded
 Source: VHB, 2023; National Wetlands Inventory

Mill River

The Mill River is a perennial stream which flows west to east under Bridge R-11-002. A dam is located 170 ft upstream of the crossing, originally constructed to operate the historic mill located northeast of the crossing. The river has a stony bottom and is fairly wide at an average bankfull width of 26 feet, with the upstream side of the river much wider than the downstream end due to the presence of the dam. The hydraulic opening of the current crossing is just greater than 15 feet across. Typical wetland vegetation adjacent to the Mill River includes poison ivy (*Toxicodendron radicans*), multiflora rose (*Rosa multiflora*), spicebush (*Lindera benzoin*), basswood (*Tilia americana*), eastern hemlock (*Tsuga canadensis*), and red maple (*Acer rubrum*).

The Mill River supports Bank, BVW, LUWW, BLSF, and the associated 100-foot buffer zone and 200-foot Riverfront Area under the WPA.

Bank

West of the bridge, the northern bank of the Mill River is generally comprised of a steep, eroding embankment which leads up to a narrow berm. West of the Project limits, an

area of fringe BVW is located at the toe of slope along a portion of the embankment. The Banks on the south side of the river are characterized by more gradual slopes. The Banks through the bridge are comprised of the existing concrete abutments, and do not currently provide any wildlife habitat functions.

A tributary from the Mill River branches off from the main channel northwest of the bridge and is conveyed beneath Glen Street into an old mill pond through a granite culvert. This smaller channel is separated from the main channel of the Mill River by the narrow berm. An existing footpath along the top of the berm leads from Glen Street to the dam upstream. Dominant vegetation west of the bridge includes dense growths of poison ivy and multiflora rose, bracken fern (*Pteridium aquilinum*), slippery elm (*Ulmus rubra*), shagbark hickory (*Carya ovata*), black cherry (*Prunus serotina*), eastern hemlock, red maple, and Norway maple (*Acer platanoides*). Vegetation present along the Banks of the smaller channel includes royal fern (*Osmunda regalis*), bracken fern, cinnamon fern (*Osmundastrum cinnamomeum*), sensitive fern (*Onoclea sensibilis*), poison ivy, speckled alder (*Alnus incana*), sweet-pepperbush (*Clethra alnifolia*), red-osier dogwood (*Swida sericea*), and Virginia-creeper (*Parthenocissus quinquefolia*). East of the bridge, dominant vegetation along the Mill River includes dense growths of poison ivy and multiflora rose, along with basswood, Asian bittersweet (*Celastrus orbiculatus*), eastern white pine (*Pinus strobus*), red maple, and shagbark hickory.

Riverfront Area

A 200-foot RA extends from the limits of Mean Annual High Water (MAHW) associated with the Mill River. The RA within the Project limits is previously developed and degraded, consisting primarily of the existing Glen Street roadway layout. The sloped areas above the Banks of the Mill River are vegetated as described above.

Bordering Land Subject to Flooding

The 100-year floodplain associated with the Mill River is located within Project limits and is regulated as BLSF. Within the Project limits, the base flood elevation (BFE) as indicated in the effective National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) for Rowley, Massachusetts, is 14.8 ft NAVD88 east of the bridge and 17.5 ft NAVD88 west of the bridge (FIRMette 25009C0257G). According to the FIRM, the Mill River is also mapped as a Regulatory Floodway in this area.

BLSF within and adjacent to the Project limits consists primarily of the vegetated slopes located upgradient of the Mill River, as well as the smaller channel located north of the river.

Buffer Zone

The WPA regulations (310 CMR 10.02(2)(b)) establish a 100-foot buffer zone from the limits of Bank of the Mill River and BVW described above. Within the limits of the Project Site, the buffer zone consists primarily of the existing paved roadway and the adjacent mowed grassy shoulders along the corridor. Beyond the limits of the roadway, the buffer

zone consists of residential properties to the north and south, and undeveloped forested area to the west.

Work Description

The Project will replace the majority of the existing concrete arch bridge and provide associated improvements to the adjacent approaches along Glen Street. The bridge superstructure and north abutment will be replaced in full, and the south abutment will be rehabilitated in place to avoid impacts to adjacent properties. The proposed structure will be a 26-foot clear single span bridge with precast prestressed concrete deck beams, concrete abutments, three new wingwalls, and an open bottom. The bridge deck will be increased from an out-to-out width of approximately 23.3-feet to approximately 25.3-feet, and the low chord of the bridge will be unchanged or increase from existing conditions. Along Glen Street, the existing pavement will be sawcut to conduct the bridge replacement work and will be restored with full depth pavement after the bridge work is completed.

The work will disturb portions of the stream channel and Banks of the Mill River within the Project Site to replace the structure and provide stabilization measures to the eroding Bank. A sheet pile cofferdam or other means of Control of Water will be installed around each of the bridge abutment areas during construction of the new abutments and will allow continuous flow of the river throughout the course of construction. Additionally, the north abutment will be installed approximately seven feet behind the existing abutment to be removed, which will allow the installation work to occur in the dry and outside of the Mill River. The stream channel will be excavated to the bottom elevation of the existing and proposed footings within the limit of work, which results in approximately 4 feet of excavation in order to install the abutments and complete the streambed restoration work.

The stream channel through the bridge will be reconstructed with a mix of natural channel bed and rock fill consistent with the surrounding stream geomorphology. To protect against streambed degradation exposing the structure foundation, the proposed design incorporates rock fill into the streambed material. The channel grade will be maintained through the bridge to maintain a consistent longitudinal profile for aquatic organism passage, and the thalweg has been designed to support low-flow conditions for fish passage. Both Banks will be reinforced with boulders to mitigate for the existing scour and erosion along the Bank, and will also include a narrow-raised shelf along the top of the Bank through the bridge to provide passage for small terrestrial animals. This approximately 2-foot shelf will extend along the top of Bank to the upstream and downstream limits of work and will match the horizontal profile of the existing Banks at those locations (See Sheet 6 - Stream Restoration Plan of the Project Plans, Attachment F).

The proposed design improves hydraulic performance as compared to existing conditions by increasing the effective hydraulic opening of the bridge, lowering flood elevations at the bridge, increasing freeboard, reducing flow velocities through the bridge, and moving bridge abutments further back from high velocities in the center

channel. These improvements will reduce susceptibility to scour compared to existing conditions.

Other work generally required to complete the Project includes installing erosion controls, selective vegetation clearing, grading, and loaming and seeding with an appropriate native seed mix after the completion of work. Additional details on the work proposed as part of the Project is described below and shown on the Project plans.

Work in Wetland Resource Areas

Work in wetland resource areas and the 100-foot buffer zone is described below. Permanent and temporary impacts to resource areas are summarized in Table 2 below.

Table 2 Work in Wetland Resource Areas

Resource Area	Temporary Impact	Permanent Impact	Total Alteration	Established Area	Work in Resource Area
Bank	134 linear feet (lf)	0 lf	134 lf	-	Remove bridge abutments and wingwalls, construct riprap-stabilized Banks
LUWW	374 sf 93 CY	601 sf	975 sf 93 CY	378 sf	Install control of water, remove & install bridge abutments, restore thalweg, reconstruct streambed
BLSF	276 sf	140 sf	416 sf	-	Regrade slopes, construct riprap-stabilized slopes, remove and replace wingwalls
Riverfront Area (0-100')	728 sf	1,981 sf	2,709 sf	-	Remove and replace wingwalls, regrade and construct riprap-stabilized slopes, install wildlife crossing shelves, full depth pavement, mill & overlay, install guardrail

Source: VHB, 2024.

Work on Bank

The Project will require work along the Banks of the Mill River to excavate and remove the existing abutment bridge abutments and wingwalls, construct the riprap-stabilized slopes, and install temporary erosion and sedimentation controls and elements of the Project's water control plan. Additional work includes construction of the narrow, raised shelf along the top of the Bank to provide passage for small terrestrial animals. All of these proposed activities will result in 134 linear feet of temporary work on the Banks of the Mill River.

Because the Project exceeds the impact threshold for Bank, an Appendix A Wildlife Habitat Evaluation is included as Attachment D, which indicates few important habitat features (gravel stream bottoms) are present. However, no adverse impact to Bank is anticipated as a result of the proposed work. Within the Project Site, 65 lf of Bank are comprised of the concrete bridge abutments, which currently provide no wildlife habitat

functions in the existing conditions. The proposed work will create a wildlife crossing shelf on each side of the river through the Project limits, which will provide an improvement to the capacity of the Bank to provide wildlife habitat functions on the Project Site.

Work in Land Under Waterbodies and Waterways

Work will be required in LUWW within the Project Site to excavate and remove the existing bridge abutments, reconstruct the existing streambed, and to allow for control of water during construction. As described above, modification to the channel will consist of excavating to the bottom of the existing and proposed abutment footings and then reconstructing the channel bottom with a mix of a natural channel bed and rock fill consistent with the surrounding stream geomorphology. The thalweg will also be reconstructed to support low-flow conditions which will ensure fish passage. This excavation will temporarily result in 93 cubic yards (CY) of dredging. The channel bottom will be backfilled with natural streambed material removed from the Mill River during excavation activities, as well as additional stones and boulders which will be used to construct the slope up toward the Bank. The channel grade will be maintained at its pre-construction height. The proposed work will result in streambed enhancement throughout the limits of the Project Site by using the backfilled streambed material as a scour countermeasure.

Additional details about the stream restoration can be found on the attached Stream Restoration Plan, which is included as Sheet 6 of the Project Plans (Attachment F). Details on the proposed control of water are described in the Mitigation Measures section below. This work will result in 975 sf and 93 CY of total impacts throughout the construction and final phase.

As a result of the proposed bridge deck (and resulting Bank) widening, the work described above will also establish an additional 378 sf of LUWW beneath the bridge deck.

Work in Bordering Land Subject to Flooding

Work within BLSF includes removing and replacing wingwalls, regrading the slopes above the Bank, and constructing the riprap-stabilized slopes. This work will result in 276 sf of temporary impact to BLSF during construction, and 140 sf of permanent impact. As a result of the proposed bridge widening (and subsequent establishment of LUWW), the Project will lower the 100-year floodplain elevation at the upstream end of the crossing from 17.5 feet NAVD88 to 16.1 feet NAVD88, effectively reducing the square footage of BLSF on the Project Site by 140 sf. This reduction/conversion of BLSF area is considered as permanent impact to BLSF. There will be no reduction in flood storage volume on the Project Site, so no compensatory flood storage is proposed.

Work in Riverfront Area

All work associated with the Project that is not within the stream channel will take place within the inner 100-foot RA to the Mill River. All work will be directly related to the

proposed improvements to Bridge R-11-002 and the existing stream crossing. Work near the river includes installing erosion controls, removing and replacing the existing abutments and wingwalls, grading areas above the Bank, and constructing the riprap-stabilized slopes and wildlife crossing shelves along the top of Bank. Work in the inner 100-foot RA associated with Glen Street improvements includes sawcutting the existing roadway, installing full-depth pavement (including mill and overlay), installing guardrails, and loaming and seeding disturbed areas after the completion of work.

In total, the Project will temporarily impact 728 sf and permanently impact 1,981 sf of land located within degraded Riverfront Area directly adjacent to the bridge structure on Glen Street.

Work in Buffer Zone

All work in buffer zone consists of work described above in the inner 100-foot RA.

Mitigation Measures

A suite of mitigation measures is proposed to prevent short- and long-term impacts to wetland resource areas and compensate for direct disturbances. Mitigation measures proposed for this Project include an erosion and sedimentation control program, which is described below. Per the Massachusetts Division of Marine Fisheries' (DMF) Technical Report 47¹¹, there is a suggested "time of year" restriction (TOY) for in-water work for the Mill River from February 15th to November 15th. The TOY is applicable to the following species: alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), American shad (*Alosa sapidissima*), rainbow smelt (*Osmerus mordax*), and American eel (*Anguilla rostrata*).

The proposed control of water will allow for continuous fish passage through the Project Site during the construction-period and will allow for work to occur in the dry, effectively minimizing potential impact to fish species which inhabit this portion of the Mill River. If requested, installation of the control of water features and restoration of the streambed may be completed between November 16th and February 14th in accordance with the TOY. The Project will provide an overall net benefit to the species listed above by increasing the hydraulic opening of the bridge while maintaining streambed elevations and the natural streambed material – therefore increasing the ability for anadromous fish passage within the Mill River.

Erosion and Sediment Control

An erosion and sedimentation control program will also be implemented to minimize temporary impacts to wetland resource areas during the construction phase of the Project. The program incorporates Best Management Practices (BMPs) specified in

¹¹ DMF, 2015. *Recommended Time of Year Restrictions (TOYs) for Coastal Alteration Projects to Protect Marine Fisheries Resources in Massachusetts*.

guidelines developed by the DEP¹² and the U.S. Environmental Protection Agency (EPA)¹³.

Proper implementation of the erosion and sedimentation control program will:

- › minimize exposed soil areas through sequencing and temporary stabilization;
- › place structures to manage stormwater runoff and erosion; and
- › establish a permanent vegetative cover or other forms of stabilization as soon as practicable.

The following sections describe the controls that will be used and practices that will be followed during construction. These practices comply with criteria contained in the NPDES General Permit for Discharges from Large and Small Construction Activities issued by the EPA.

Erosion Control Barriers

Prior to any ground disturbance, an approved erosion control barrier such as compost filter tubes will be installed at the downgradient limit of work. As construction progresses, additional barriers will be installed around the base of stockpiles and other erosion prone areas. The barriers will be entrenched into the substrate to prevent underflow.

If sediment has accumulated to a depth which impairs proper functioning of the barrier, it will be removed by hand or by machinery operating upslope of the barriers. This material will be either reused at the Site or disposed of at a suitable offsite location. Any damaged sections of the barrier will be repaired or replaced immediately upon discovery.

Water Control Measures

Control of water will be established prior to any additional in-water work to prevent sedimentation of the downstream areas of the Mill River. Final design of the control of water will be proposed by the contractor and shall be approved by an engineer as well as the Conservation Commission prior to the start of work, but is anticipated to generally include a sheetpile cofferdam around each existing abutment, with sufficient room between to allow continuous flow of the river. Any groundwater or stormwater present within the cofferdams will be pumped to a sediment basin downstream as shown on Sheet 9 of the Project plans.

Stormwater Management

The Project will not change any drainage patterns or flow of stormwater off the Project Site and has been designed to comply with the MassDEP Stormwater Management

¹² DEP, 1997. *Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas: A Guide for Planners, Designers, and Municipal Officials*.

¹³ EPA, 2007. *Interim Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites*. Office of Water. Report EPA 833-R-060-04.

Standards to the maximum extent practicable as a redevelopment project. Additional details on the existing system as well as compliance with the 10 Stormwater Management Standards cited in Section 310 CMR 10.05(6)(k) of the WPA Regulations are included in the accompanying Stormwater Memorandum (Attachment E).

Regulatory Compliance

The Project qualifies for approval as a Limited Project under 310 CMR 10.53(3)(i), for the *“maintenance, repair and improvement (but not substantial enlargement except when necessary to meet the Massachusetts Stream Crossing Standards) of structures, including ... bridges, and culverts which existed on the effective date of 310 CMR 10.51 through 10.60 (April 1, 1983).”* Although the Project qualifies as a Limited Project, the following sections describe how the Project also meets applicable performance standards under the WPA for the resource areas impacted.

Alternatives Analysis

As a Limited Project and in accordance with 310 CMR 10.53(3), the Applicant has reviewed potential alternatives to the proposed Project. The alternatives included:

- Alternative 1 – improve an alternate location
- Alternative 2 – the no-build alternative
- Alternative 3 – proposed bridge replacement (preferred alternative)

Alternative 1, improving an alternate location, would not improve the existing conditions at the Glen Street Bridge crossing and would therefore not meet the purpose and need of the proposed Project. Therefore, Alternative 1 was not considered a viable option for the Project’s design.

Similarly, the no-build alternative (Alternative 2) would not result in any improvements to the existing Glen Street bridge and would therefore not meet the purpose and need of the proposed Project. Alternative 2 was therefore not considered a viable alternative.

The preferred alternative, Alternative 3, has been designed to minimize impacts to resource areas while also improving the roadway and hydraulic conditions at the Project Site. Many of the anticipated impacts associated with the Project will be temporary in nature, and permanent impacts will be mitigated for onsite to the extent practicable. The preferred alternative will provide crash-tested bridge railing and approach guardrails at the bridge, mitigate for existing scour, and improve the hydraulic opening of the existing bridge over the Mill River.

Work on Bank

The Project will result in 134 linear feet of temporary impact to Bank along the Mill River. This work is required to excavate the existing bridge abutments and wingwalls, install new abutments and wingwalls, reconstruct the stream channel, and construct the riprap-stabilized Banks and upgradient slopes. The general performance standards for Bank are

promulgated in 310 CMR 10.54(4)(a). These standards require that any proposed work on a Bank shall not impair the following:

1. the physical stability of the bank;

The proposed work will improve the physical stability of the Bank by installing stabilized guide banks and also reduce the risk of potential erosion from scouring.

2. the water carrying capacity of the existing channel within the Bank;

The proposed work will increase the water carrying capacity of the existing channel within the Bank by widening the channel at the crossing.

3. ground water and surface water quality;

The proposed work will have no impact on existing groundwater and surface water quality. Erosion and sedimentation controls are proposed during construction activities to prevent any incidental discharges to the waterway.

4. The capacity of the Bank to provide breeding habitat, escape cover and food for fisheries;

The Project will not alter the Bank's capacity to provide important fisheries habitat functions.

5. the capacity of the Bank to provide important wildlife habitat functions.

Within the Project Site, 65 lf of Bank are comprised of the concrete bridge abutments, which currently provide no wildlife habitat functions in the existing conditions. As a result of the proposed work to construct the raised shelf along the top of the Bank and through the bridge structure to provide passage for small terrestrial animals within the Mill River, the Project will actually improve the capacity of the Bank to provide important wildlife habitat functions. Because the Project exceeds the impact threshold for Bank, an Appendix A Wildlife Habitat Evaluation is included as Attachment D.

Work in Land Under Waterbodies and Waterways

The proposed Project will require unavoidable work within LUWW associated with the Mill River. The work within the Project Site will fully comply with all performance standards for this resource area. The regulations for LUWW (310 CMR 10.56(4)) list general performance standards which require that work within LUWW not impair any of the following:

(a) The water carrying capacity within the defined channel, which is provided by said land in conjunction with the banks;

The proposed work will increase the effective hydraulic opening of the bridge and reduce flow velocities through the bridge.

(b) Ground and surface water quality;

The Project will not alter water chemistry or groundwater or surface water quality. Erosion and sedimentation controls will be in place during all construction activities to protect groundwater and surface water quality.

(c) The capacity of said land to provide breeding habitat, escape cover and food for fisheries;

The proposed work will not impair the capacity of the river to provide breeding habitat, escape cover, or food for fisheries. The channel grade will be maintained at its preconstruction height, and the installation of the riffle crest and other stone features within the river have the potential to serve as beneficial habitat features for aquatic organisms.

(d) The capacity of said land to provide important wildlife habitat functions.

The Project will not impair the capacity of the land to provide important wildlife habitat functions. The proposed impact to LUWW is less than 5,000 square feet (975 square feet) and is limited to areas just outside the footprint of the existing bridge structure. The modified channel bottom will be backfilled with natural streambed material removed from the Mill River during excavation activities, as well as additional stones and boulders which will be used to construct the slope up toward the Bank. In addition, 378 sf of new LUWW will be established as a result of the proposed widening of the bridge.

Work in BLSF

The Project will temporarily alter approximately 276 sf of BLSF as a result of removing and replacing wingwalls, regrading the slopes above the Bank, and constructing the riprap-stabilized slopes, and permanently impact 140 sf of BLSF as a result of the proposed bridge widening. Widening the bridge's hydraulic opening will result in lower 100-year floodplain elevations at the crossing without reducing any flood storage, effectively resulting in a loss of BLSF area, but not volume. The general performance standards for BLSF are promulgated in 310 CMR 10.57(4)(a) and are discussed below.

(1) Compensatory storage shall be provided for all flood storage volume that will be lost as the result of a proposed project within BLSF, 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.

Compensatory storage shall mean a volume not previously used for flood storage and shall be incrementally equal to the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation, which will be displaced by the proposed project. Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or water body. Further, with respect to waterways, such compensatory volume shall be provided within the same reach of the river, stream or creek.

Flood storage capacity at the crossing will not be lost as a result of the Project. VHB completed a hydrologic and hydraulic (H&H) evaluation for both the existing crossing and the proposed replacement crossing to assess impacts on the water surface profiles of the Mill River (and is available upon request). The analysis predicts that the proposed 100-year water surface elevations will be the same or lower throughout the model domain, and meets the National Flood Insurance Program requirements for work in a federally regulated floodway. Because the water surface elevations will be lowered as a result of the Project, a Conditional Letter of Map Revision (LOMR) to FEMA may be

required after construction is completed. This need will be decided based on the final as-built plans prepared for the Project.

(2) Work within BLSF, 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.

Work within BLSF will not restrict flows so as to cause an increase in flood stage or velocity. During the construction period, use of the sheet pile cofferdams will allow for continuous flow to be provided, and the contractor will be directed to monitor potential flood events and time construction to avoid periods of high flow if possible.

(3) Work in those portions of BLSF found to be significant to the protection of wildlife habitat shall not impair its capacity to provide important wildlife habitat functions.

Work in areas of BLSF will not impair its capacity to provide important wildlife habitat functions. The Project will create more gradual slopes which lead down to the river and provide protection against scour through the creation of the riprap-stabilized slopes upgradient of the Bank. Areas along the embankments not receiving riprap will be loamed and seeded with an appropriate native seed mix where applicable after the completion of work.

Work in Riverfront Area

The majority of RA within the limits of the Project Site is currently developed and degraded by the existing paved Glen Street roadway layout. Work will primarily be conducted within the channel of the Mill River; however, some work will be required within the inner 100 feet of the RA to allow for excavation of the existing abutments and wingwalls, regrading, installation of the new abutments and wingwalls, and establishment of the wildlife crossing shelf. As proposed, the Project will not result in any loss or reduction in the function of the Riverfront Area. As demonstrated below, work proposed in the Riverfront Area complies with the requirements contained in 310 CMR 10.58(5):

Notwithstanding the provisions of 310 CMR 10.58(4)(c) and (d), the issuing authority may allow work to redevelop a previously developed riverfront area, provided the proposed work improves existing conditions ... Work to redevelop previously developed riverfront areas shall conform to the following criteria:

(a) At a minimum, proposed work shall result in an improvement over existing conditions of the capacity of the riverfront area to protect the interests identified in M.G.L. c. 131 § 40. When a lot is previously developed but no portion of the riverfront area is degraded, the requirements of 310 CMR 10.58(4) shall be met.

Work proposed in the RA will improve existing conditions of the capacity of the RA on the Project Site to protect the interests described in the WPA by creating more gradual slopes which lead down to the river, by providing protection against scour through the creation of the riprap-stabilized slopes upgradient of the Bank, and by creating the wildlife crossing shelves throughout the limits of the Project Site. Areas along the

embankments not receiving riprap will be loamed and seeded where practical with an appropriate native seed mix after the completion of work.

(b) Stormwater management is provided according to standards established by the Department.

Stormwater management measures on the Project Site meet or exceed the standards established by the DEP. Refer to the attached Stormwater Memorandum for more details.

(c) Within 200-foot riverfront areas, proposed work shall not be located closer to the river than existing conditions or 100 feet, whichever is less, or not closer than existing conditions within 25-foot riverfront areas, except in accordance with 310 CMR 10.58(5)(f) or (g).

Proposed work within the RA is not located closer to the Mill River than the existing conditions.

(d) Proposed work, including expansion of existing structures, shall be located outside the riverfront area or toward the riverfront area boundary and away from the river, except in accordance with 310 CMR 10.58(5)(f) or (g).

Proposed work is unavoidable within the RA because the work consists of replacing structural components of an existing bridge over the Mill River.

(e) The area of proposed work shall not exceed the amount of degraded area, provided that the proposed work may alter up to 10% if the degraded area is less than 10% of the riverfront area, except in accordance with 310 CMR 10.58(5)(f) or (g).

The area of proposed work will not exceed the amount of degraded area which exists on the Project Site.

(f) When an applicant proposes restoration on-site of degraded riverfront area, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), and (e) at a ratio in square feet of at least 1:1 of restored area to area of alteration not conforming to the criteria. Areas immediately along the river shall be selected for restoration. Alteration not conforming to the criteria shall begin at the riverfront area boundary.

Portions of the RA disturbed during construction will be restored after the completion of work. In addition, a wildlife crossing shelf will be constructed along the top of Bank on each side of the Mill River, and will provide an improvement over existing conditions to the ability of the RA to provide wildlife habitat function. Areas of RA not consisting of riprap-stabilization within the limit of work will be loamed and seeded with an appropriate native seed mix after construction of the bridge and restoration of the riverbed are complete.

(g) When an applicant proposes mitigation either on-site or in the riverfront area within the same general area of the river basin, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), or (e) at a ratio in square feet of at least 2:1 of mitigation area to area of alteration not conforming to the criteria or an equivalent level of environmental protection where square footage is not a relevant measure. Alteration not conforming to the criteria shall begin at the riverfront area boundary. ...

The Project does not propose on- or offsite RA mitigation.

Work in Buffer Zone

As identified in 310 CMR 10.53(1) of the WPA regulations, *"the issuing authority should 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. 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 the Act."*

The proposed Project has been designed to address these requirements. As identified in the Mitigation Measures section of this attachment, an erosion and sedimentation control program will be implemented to prevent adverse impacts during construction. Additionally, the majority of the work is proposed within the river itself, and control of water will be established to protect sedimentation within the resource area. Upon the completion of work, portions of the buffer zone which are not stabilized by riprap will be loamed and seeded with an appropriate native seed mix.

Stream Crossing General Standards

The proposed crossing consists of repairs to an existing bridge, and therefore has been designed to meet the "Design Standards for New Crossings" to the maximum extent practicable presented in the *Massachusetts River and Stream Crossing Standards* (Reference 6.1.4). A point-by-point review of the proposed design as it applies to these design standards is presented below:

1. Bridges are generally preferred, but well-designed culverts and open-bottom arches may be appropriate.

The proposed structure will be an open-bottom, 3-sided precast concrete culvert.

2. If a culvert, then it should be embedded- >2 feet for box culverts and other culverts with smooth internal walls

The proposed structure will be open-bottom; this standard does not apply.

3. Spans channel width (a minimum of 1.2 times the bankfull width)

The proposed structure will have a clear span of 26 feet which does not meet the 1.2 times bankfull width requirement due to site constraints, but it does widen the existing span by 11 feet and meets applicable freeboard requirements. The proposed design will also include stabilized guide banks through the structure, transitioning to match existing natural channel banks at the limits of work.

4. Natural bottom substrate within the structure.

The stream channel through the bridge will be reconstructed with a mix of natural channel bed and rock fill consistent with the surrounding stream geomorphology. To

protect against streambed degradation exposing the structure foundation, the proposed design incorporates rock fill into the streambed material.

5. Designed with appropriate bed forms and streambed characteristics so that water depths and velocities are comparable to those found in a natural channel at a variety of flows.

The proposed simulated streambed will maintain the existing stream channel longitudinal profile upstream and downstream of the crossing. The channel grade will be maintained through the bridge to maintain a consistent longitudinal profile for aquatic organism passage. The proposed design improves hydraulic performance as compared to existing conditions: increasing the effective hydraulic opening of the bridge, lowering flood elevations at the bridge, increasing freeboard, reducing flow velocities through the bridge, and moving bridge abutments further back from high velocities in the center channel. These improvements will reduce susceptibility to scour compared to existing conditions.

6. Openness ratio > 0.25 meters

The proposed structure will have an open area of 140 square feet, a vertical height of 7.3 feet, and a length of approximately 23 feet – resulting in an openness ratio of 6. This exceeds the 1.64-foot optimal openness requirement.

7. Banks should be present on each side of the stream matching the horizontal profile of the existing stream and banks

The proposed design will include riprap-stabilized guide Banks through the structure, transitioning to match existing natural channel banks at the limits of work. Both Banks will include a narrow, raised shelf along the top of the Bank through the bridge to provide passage for small terrestrial animals. This shelf will extend along the top of Bank to the upstream and downstream limits of work and will match the horizontal profile of the existing banks at those locations.

Summary

The Town of Rowley is proposing the replacement of the existing bridge on Glen Street over the Mill River (Bridge # R-11-002) in Rowley, MA. The Project will replace the majority of the existing bridge structure and provide associated improvements to the adjacent approaches along Glen Street, including installation of crash tested barriers and approach guardrails. The proposed structure will be a 26-foot clear single span bridge with precast prestressed concrete deck beams, concrete abutments, and three new wingwalls. The proposed design will increase the effective hydraulic opening of the bridge, lower flood elevations at the bridge, increase freeboard, reduce flow velocities through the bridge, and move bridge abutments further back from high velocities in the center channel.

As proposed, the Project will result in temporary and permanent impacts to Bank, LUWW, BLSF and RA, and temporary and permanent alterations within the 100-foot buffer zone. All of the work will occur within previously developed areas. A suite of

mitigation measures is proposed to prevent short- and long-term impacts to resource area buffer zones. Mitigation measures proposed include an erosion and sedimentation control program which will include structural and non-structural practices, as well as construction-period control of water for work in the Mill River.

The Applicant respectfully requests that the Rowley Conservation Commission find these measures adequately protective of the interests identified in the WPA and issue an Order of Conditions approving the work described in this NOI and shown on the accompanying plans.

Attachment B

Abutter Information

- › Notice to Abutters
- › List of Abutters

Notification to Abutters

By Hand Delivery, Certified Mail (return receipt requested), or Certificate of Mailing

This is a notification required by law. You are receiving this notification because you have been identified as the owner of land abutting another parcel of land for which certain activities are proposed. Those activities require a permit under the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40) and/or the Town of Rowley Wetlands Protection Bylaw.

In accordance with the second paragraph of the Massachusetts Wetlands Protection Act, and 310 CMR 10.05(4)(a) of the Wetlands Regulations as well as the Town of Rowley Wetlands Protection Bylaw, you are hereby notified that:

- A. A Notice of Intent was filed with the Rowley Conservation Commission on 3/18/2024 seeking permission to remove, fill, dredge, or alter an area subject to protection under M.G.L. c. 131 §40 and/or the Town of Rowley Wetlands Protection Bylaw. The following is a description of the proposed activity/activities:

The Town of Rowley is proposing to replace the existing Glen Street bridge over the Mill River (Bridge # R-11-002). The Project design is being undertaken as a part of the Massachusetts Department of Transportation (MassDOT) Municipal Small Bridge Program. The bridge is in critical condition and needs replacement. The Project will replace the majority of the existing bridge structure and provide associated improvements to the adjacent approaches along Glen Street, including installation of crash tested barriers and approach guardrails. The Project will widen the hydraulic opening of the bridge and also provide streambed restoration within the Mill River.

- B. The name of the applicant is: the Town of Rowley.
- C. The address of the land where the activity is proposed is: Glen Street over the Mill River.
- D. Copies of the Notice of Intent may be examined or obtained at the office of the Rowley Conservation Commission located at 39 Central Street, Rowley. The regular office hours of the Commission are Monday-Thursday from 9 AM to 12:30 PM and the Commission may be reached at 978-948-2330.
- E. Copies of the Notice of Intent may be obtained from the applicant or their representative by calling Taylor Donovan at 617-607-6310 or by emailing tdonovan@vhb.com. An administrative fee may be applied for providing copies of the NOI and plans.
- F. Information regarding the date, time, and location of the public hearing regarding the may be obtained from the Rowley Conservation Commission. Notice of the public hearing will be published at least five business days in advance in a paper of general circulation and on the Town's website at www.townofrowley.net.

Notification provided pursuant to the above requirement does not automatically confer standing to the recipient to request Departmental Action for the underlying matter. See 310 CMR 10.05(7)(a)4.

CERTIFIED ABUTTERS' LIST

Parcel ID	Location	Owner Name/Address
021-003	2 GLEN ST	RAVAGNO JOHN C JR NOONAN DAWN A 2 GLEN ST ROWLEY, MA 01969

A B U T T E R S

021-004	8 GLEN ST	DALPHIN JOHN R DALPHIN DENISE S 8 GLEN ST ROWLEY, MA 01969
021-005-01	28 GLEN ST	TOWN OF ROWLEY CONSERVATION COMMISSION PO BOX 24 ROWLEY, MA 01969
021-018	39 GLEN ST	BRAY JAMIE T BRAY DERMOT D 39 GLEN ST ROWLEY, MA 01969
021-019	29 GLEN ST	MCCARTHY JOHN P MCCARTHY DAWN M 29 GLEN ST ROWLEY, MA 01969
021-020	27 GLEN ST	SMITH RICHARD SMITH JOY 27 GLEN ST ROWLEY, MA 01969
021-021	676 NEWBURYPORT TNP	FORSTER-CAHILL CHERYL A CAHILL BARRY R 676 NEWBURYPORT TNP ROWLEY, MA 01969
021-023	15 GLEN ST	DOWNNS WAYNE R 15 GLEN ST ROWLEY, MA 01969
021-029	NEWBURYPORT TNP	COMMONWEALTH OF MASSACHUSETTS DIVISION OF FISHERIES & WILDLIFE ROUTE 135 NORTH DR WESTBOROUGH, MA 01581
021-031	689 NEWBURYPORT TNP	HAMILTON KERI LEE RIBEIRO ELCIO 689 NEWBURYPORT TNP ROWLEY, MA 01969

Date: 01/22/2024
txaabut

Town of Rowley

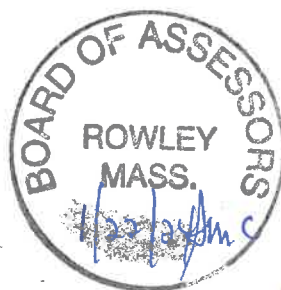
CERTIFIED ABUTTERS' LIST

Page 2

Parcel ID	Location	Owner Name/Address
021-003	2 GLEN ST	RAVAGNO JOHN C JR NOONAN DAWN A 2 GLEN ST ROWLEY, MA 01969

ABUTTERS

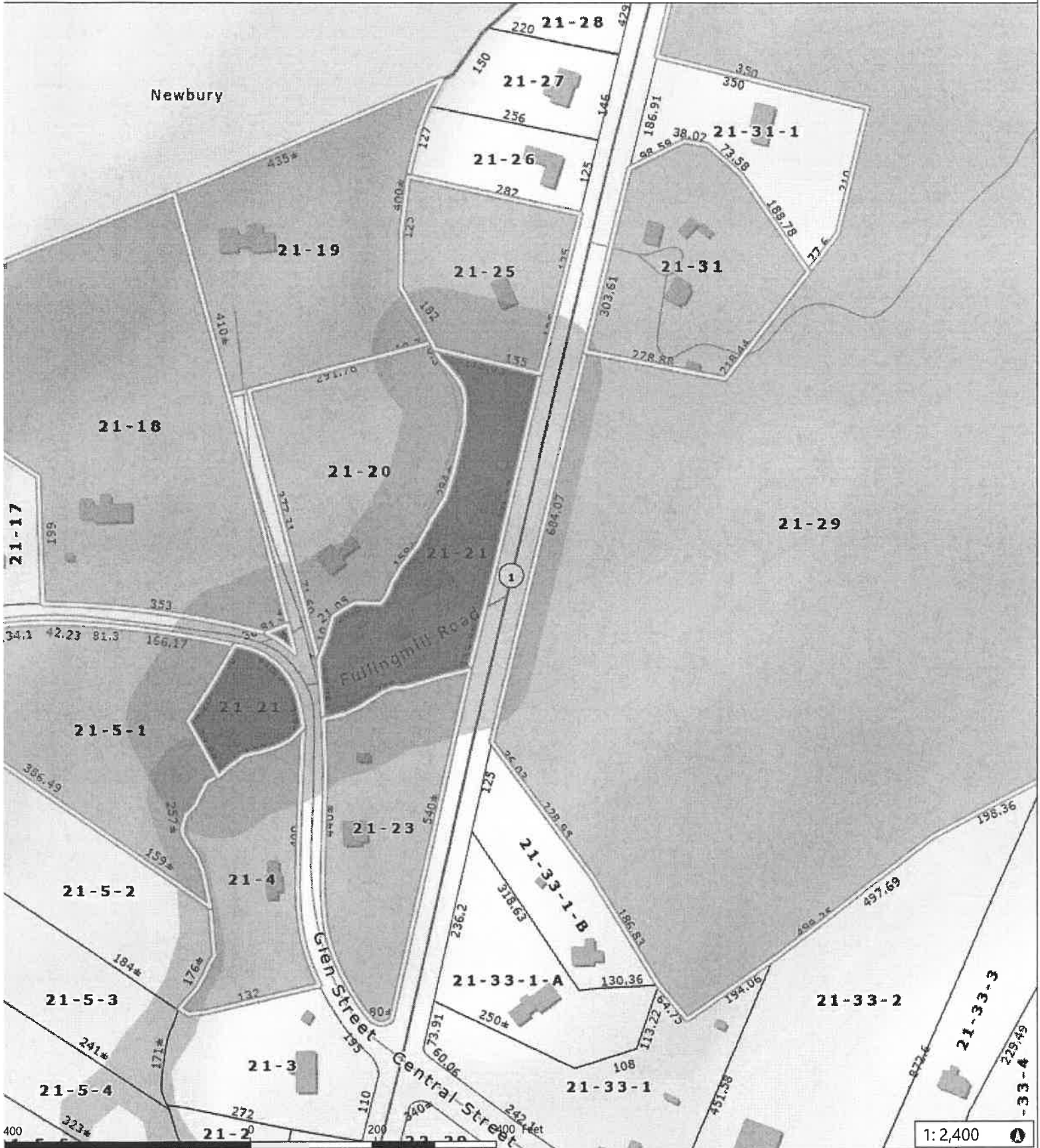
9 parcels listed



Sean M McFadden
Principal Assessor

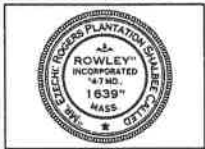
Town of Rowley

01/22/2024



Data Sources: Produced by Merrimack Valley Planning Commission (MVPC) using data provided by the Town of Rowley & MassTI/MassGIS.

MVPC AND THE TOWN OF ROWLEY MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF THESE DATA. THE TOWN OF ROWLEY AND MVPC DOES NOT ASSUME ANY LIABILITY ASSOCIATED WITH THE USE OR MISUSE OF THIS INFORMATION



Legend		

Attachment C

Photographic Log



NO. 1 / 9.9.2022 10:06 AM

DESCRIPTION

Looking west at the Glen Street Bridge over the Mill River.



NO. 2 / 2.2.2024 9:31 AM

DESCRIPTION

Looking west/upstream the Mill River, from the western side of the Glen Street Bridge.



NO. 3 / 2.2.2024 9:32 AM

DESCRIPTION

Looking south at the southwest Bank of the Mill River.



NO. 4 / 2.2.2024 9:38 AM

DESCRIPTION

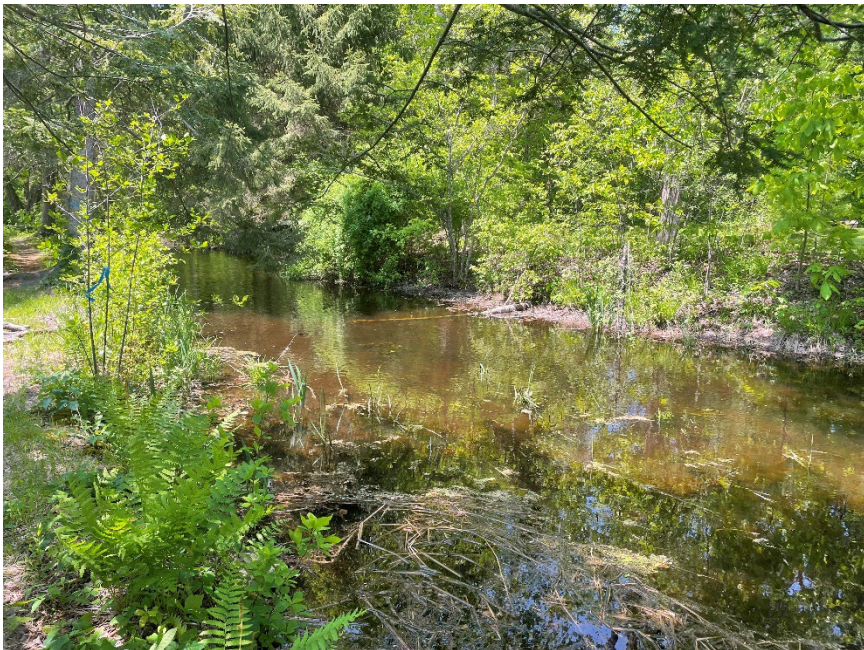
Looking west at the berm which separates the Mill River (left) from the intermittent stream (right) west of Glen Street.



NO. 5 / 10.26.2023 11:19 AM

DESCRIPTION

Looking at the Mill River dam located upstream of the Project Site.



NO. 6 / 5.22.2023 12:34 PM

DESCRIPTION

Looking west at the intermittent stream channel located west of Glen Street.



NO. 7 / 2.2.2024 9:31 AM

DESCRIPTION

Looking beneath the western side of the Glen Street Bridge. The unknown utility is present in the photo.



NO. 8 / 5.22.2023 12:44 PM

DESCRIPTION

Looking east at the old mill pond located east of Glen Street, which connects to the intermittent stream via a culvert beneath Glen Street.

Attachment D

Wildlife Habitat Evaluation

> Appendix A Form



Wildlife Habitat Protection Guidance

Appendix A: Simplified Wildlife Habitat Evaluation

Project Information

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

Glen Street over the Mill River, Rowley, MA

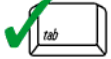
Project Location (from NOI)

Taylor Donovan, Environmental Scientist- VHB

Name of Person Completing Form

3/13/2024

Date



Important Habitat Features

Direct alterations to the following important habitat features in resource areas may be permitted only if they will have no adverse effect (refer to Section V).

- Habitat for state-listed animal species (receipt of a positive opinion or permit from MNHESP shall be presumed to be correct. Do not refer to Section V).
- Sphagnum hummocks and pools suitable to serve as nesting habitat for four-toed salamanders
- Trees with large cavities (≥ 18 " tree diameter at cavity entrance)
- Existing beaver, mink or otter dens
- Areas within 100 feet of existing beaver, mink or otter dens (if significant disturbance)
- Existing nest trees for birds that traditionally reuse nests (bald eagle, osprey, great blue heron)
- Land containing freshwater mussel beds
- Wetlands and waterbodies known to contain open water in winter with the capacity to serve as waterfowl winter habitat
- Turtle nesting areas
- Vertical sandy banks (bank swallows, rough-winged swallows or kingfishers)

The following habitat characteristics when not commonly encountered in the surrounding area:

- Stream bed riffle zones (e.g. in eastern MA)
- Springs
- Gravel stream bottoms (trout and salmon nesting substrate)
- Plunge pools (deep holes) in rivers or streams
- Medium to large, flat rock substrates in streams



Wildlife Habitat Protection Guidance

Appendix A: Simplified Wildlife Habitat Evaluation

Activities

When any one of the following activities is proposed within resource areas, applicants should complete a Detailed Wildlife Habitat Evaluation (refer to Appendix B).

- Activities located in mapped “Habitat of Potential Regional or Statewide Importance”
- Activities affecting certified or documented vernal pool habitat, including habitat within 100’ of a certified or documented vernal pool when within a resource area
- Activities in bank, land under water, bordering land subject to flooding (presumed significant) where alterations are more than twice the size of thresholds
- Activities affecting vegetated wetlands >5000 sq. ft. occurring in resource areas other than Bordering Vegetated Wetland
- Activities affecting the sole connector between habitats >50 acres in size
- Installation of structures that prevent animal movement
- Activities for the purpose of bank stabilization using hard structure solutions that significantly affect ability of stream channel to shift and meander, or disrupt continuity in cover that would inhibit animal passage
- Dredging (greater than 5,000 sf)



Attachment E

Stormwater Memorandum



To: Deborah Eagan
Town Administrator
Town of Rowley
139 Main St
Rowley, MA 01969

Date: March 15, 2024

Memorandum

From: Vanasse Hangen Brustlin
101 Walnut St
Watertown, MA 02471

Re: Glen St Bridge Replacement

This Stormwater Management Memorandum has been prepared to show compliance with the Massachusetts Stormwater Management Standards in accordance with the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00).

Project Description

The Town of Rowley (the Applicant) is proposing to replace the existing concrete arch municipal bridge (Bridge No. R-11-002; the Project) that carries Glen Street over Mill River in Rowley, Massachusetts (the Project Site). The Project is being undertaken as a part of the Massachusetts Department of Transportation (MassDOT) Municipal Small Bridge Program. The bridge has had a history of scour issues and is in need of replacement. The existing arch bridge has an opening width of approximately 15'-3". The proposed work consists of replacing the existing concrete arch bridge with a concrete 3-sided culvert that has an opening width of 26'-0". In addition, as a part of the bridge replacement, the Project will provide crash-tested bridge railing and approach guardrail. The work will not include impacts to the adjacent granite stacked culvert just north of the bridge that leads water to the adjacent mill.

The Project will not change any drainage patterns or flow of stormwater off the Project Site and has been designed to comply with the MassDEP Stormwater Management Standards to the maximum extent practicable as a redevelopment project.

Site Description

The Project Site does not lie within any Area of Critical Environmental Concern^[1] (ACEC). However, since the Mill River is tributary to the Great Marsh ACEC located northeast of the Project Site, the portion of the Mill River which is conveyed beneath the Glen Street Bridge is mapped as an Outstanding Resource Water^[2] (ORW). No portion of the Project Site is located within a Zone II Interim Wellhead Protection Area¹.

Glen Street is a mile long Urban Local Street which connects to the Newburyport Turnpike (Route 1) and Mill Road to the east and Coleman Road to the west, crossing Bridge R-11-002 within the Project Site. The area around the bridge

^[1] Massachusetts Executive Office of Energy and Environmental Affairs, 2009.

^[2] MassDEP, 2010. Designated Outstanding Resource Waters of Massachusetts.

¹ MassDEP, 2012. Approved Wellhead Protection Areas (Zone II).

is primarily wooded with residential properties located north and south of the Project Site (See Figure 1 - USGS Map and Figure 2 - Aerial Map).

Bridge R-11-002 is an approximately 15-foot wide single-span bridge consisting of a concrete deck arch. The existing bridge structure is currently in poor condition. The bridge is owned by the Town of Rowley and was built in approximately 1900. According to the regional Natural Resources Conservation Service (NRCS) soil survey², the majority of the soils mapped at the Site are primarily Buxton silt loam, 3 to 8 percent slopes. Wetland resource areas on and near the site are described below.

Existing Drainage Conditions

Under existing conditions, stormwater runoff from Glen St sheet flows off the road and into vegetated areas on the side of the road, generally flowing in the direction of the Mill River near the bridge.

Proposed Drainage Conditions

The drainage patterns are not being altered as part of the Project and the new impervious area proposed is a result of a slight widening of the bridge. Stormwater runoff will continue to sheet flow off the roadway to vegetated areas. Under the Stormwater Management Standards, the project is considered a redevelopment project because it involves maintenance and improvement of an existing roadway, including widening less than a single lane, and correcting substandard intersections and drainage.

Additionally, no changes to the bridge's watershed are being made.

Massachusetts Department of Environmental Protection (MassDEP) Stormwater Management Standards

As demonstrated below, the proposed Project complies with the MassDEP Stormwater Management Standards as a redevelopment project, and therefore has been designed to meet the standards to the maximum extent practicable. Due to the Project's close proximity to the Mill River, the installation of new stormwater BMPs are not proposed as they would result in increased impacts to wetland resource areas and reduce the natural woodland buffer protecting those areas. As a result of the project, post-construction conditions will not differ significantly from preconstruction conditions and therefore no calculations pertaining to stormwater have been prepared.

Standard 1: No New Untreated Discharges

The Project has been designed to fully comply with Standard 1. No new untreated discharges are proposed as part of the Project.

² Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey.

Standard 2: Peak Rate Attenuation

The Project has been designed to comply with Standard 2 to the maximum extent practicable as a redevelopment project. A minor increase of 225 sf (0.05 acres) of new impervious area is proposed as part of the Project due to reconstruction of the bridge and roadway around the crossing. The post construction peak runoff rates are anticipated to be only slightly elevated from existing conditions due to the increased impervious area.

Standard 3: Stormwater Recharge

The Project has been designed to comply with Standard 3 to the maximum extent practicable as a redevelopment project. A minor increase of 225 sf (0.05 acres) of new impervious area is proposed as part of the Project due to reconstruction of the bridge and roadway around the crossing. The limited right-of-way and surrounding resource areas limit the potential for infiltration facilities within the project limits.

Standard 4: Water Quality

The Project has been designed to comply with Standard 4 to the maximum extent practicable as a redevelopment project. Existing treatment of the roadway runoff includes sheet flow to vegetated areas. The proposed project will not increase runoff from the roadway surface or alter the existing stormwater collection system. The limited right-of-way and surrounding resource areas limit the potential to provide new stormwater treatment best management practices.

Standard 5: Land Uses with Higher Potential Pollutant Loads (LUHPPLs)

The Project use is not listed as a land use with higher potential pollutant loads.

Standard 6: Critical Areas

The project does discharge to an Outstanding Resource Water (ORW), Coldwater Fisheries or an Area of Critical Environmental Concern (ACEC), but the discharge will not increase or change in type from the sheet flow in the existing conditions.

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the Maximum Extent Practicable

The Project qualifies a redevelopment project and has been designed to comply with Stormwater Management Standards 2-3 to the maximum extent practicable. Standards 1 & 5-10 have been met completely.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Controls

The project plans illustrate the approximate erosion control measures that will be installed during construction. The stormwater portion of the project will disturb less than 1 acre of land and is therefore not required to obtain coverage under the Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit.

Standard 9: Operation and Maintenance Plan

The Town of Rowley DPW has a long-term operations and maintenance plan for the roadway facilities it owns and operates. Glen St is a public way that is owned by the Town of Rowley and will be maintained per the Town of Rowley DPW operation and maintenance plan.

Standard 10: Prohibition of Illicit Discharges

There are no known existing illicit connections within the plotting area. During construction, the Project contractor will be required to verify there are no illicit connections to the drainage system within the project limits. If an illicit connection is discovered, the Town of Rowley will be notified to take appropriate action.



Checklist for Stormwater Report

A. Introduction

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



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the [Massachusetts Stormwater Handbook](#). The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.¹ This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8²
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

¹ The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

² For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.



Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



Christian Hund

3-14-24

Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

- New development
- Redevelopment
- Mix of New Development and Redevelopment



Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- No disturbance to any Wetland Resource Areas
- Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- Reduced Impervious Area (Redevelopment Only)
- Minimizing disturbance to existing trees and shrubs
- LID Site Design Credit Requested:
 - Credit 1
 - Credit 2
 - Credit 3
- Use of “country drainage” versus curb and gutter conveyance and pipe
- Bioretention Cells (includes Rain Gardens)
- Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- Treebox Filter
- Water Quality Swale
- Grass Channel
- Green Roof
- Other (describe): _____

Standard 1: No New Untreated Discharges

- No new untreated discharges
- Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.



Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

- Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
- Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.
- Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

- Soil Analysis provided.
- Required Recharge Volume calculation provided.
- Required Recharge volume reduced through use of the LID site Design Credits.
- Sizing the infiltration, BMPs is based on the following method: Check the method used.
 - Static
 - Simple Dynamic
 - Dynamic Field¹
- Runoff from all impervious areas at the site discharging to the infiltration BMP.
- Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
 - Site is comprised solely of C and D soils and/or bedrock at the land surface
 - M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
 - Solid Waste Landfill pursuant to 310 CMR 19.000
 - Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

¹ 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.



Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

- The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
- Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
 - Provisions for storing materials and waste products inside or under cover;
 - Vehicle washing controls;
 - Requirements for routine inspections and maintenance of stormwater BMPs;
 - Spill prevention and response plans;
 - Provisions for maintenance of lawns, gardens, and other landscaped areas;
 - Requirements for storage and use of fertilizers, herbicides, and pesticides;
 - Pet waste management provisions;
 - Provisions for operation and management of septic systems;
 - Provisions for solid waste management;
 - Snow disposal and plowing plans relative to Wetland Resource Areas;
 - Winter Road Salt and/or Sand Use and Storage restrictions;
 - Street sweeping schedules;
 - Provisions for prevention of illicit discharges to the stormwater management system;
 - Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
 - Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
 - List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
 - Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:
 - is within the Zone II or Interim Wellhead Protection Area
 - is near or to other critical areas
 - is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
 - involves runoff from land uses with higher potential pollutant loads.
 - The Required Water Quality Volume is reduced through use of the LID site Design Credits.
 - Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

- The BMP is sized (and calculations provided) based on:
 - The ½" or 1" Water Quality Volume or
 - The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

- The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted **prior to** the discharge of stormwater to the post-construction stormwater BMPs.
- The NPDES Multi-Sector General Permit does **not** cover the land use.
- LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
- All exposure has been eliminated.
- All exposure has **not** been eliminated and all BMPs selected are on MassDEP LUHPPL list.
- The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

- The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.
- Critical areas and BMPs are identified in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

- The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:
 - Limited Project
 - Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
 - Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
 - Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
 - Bike Path and/or Foot Path
- Redevelopment Project
- Redevelopment portion of mix of new and redevelopment.
- Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.
- The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
 - Construction Period Operation and Maintenance Plan;
 - Names of Persons or Entity Responsible for Plan Compliance;
 - Construction Period Pollution Prevention Measures;
 - Erosion and Sedimentation Control Plan Drawings;
 - Detail drawings and specifications for erosion control BMPs, including sizing calculations;
 - Vegetation Planning;
 - Site Development Plan;
 - Construction Sequencing Plan;
 - Sequencing of Erosion and Sedimentation Controls;
 - Operation and Maintenance of Erosion and Sedimentation Controls;
 - Inspection Schedule;
 - Maintenance Schedule;
 - Inspection and Maintenance Log Form.
- A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

- The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has **not** been included in the Stormwater Report but will be submitted **before** land disturbance begins.
- The project is **not** covered by a NPDES Construction General Permit.
- The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
- The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

- The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:
 - Name of the stormwater management system owners;
 - Party responsible for operation and maintenance;
 - Schedule for implementation of routine and non-routine maintenance tasks;
 - Plan showing the location of all stormwater BMPs maintenance access areas;
 - Description and delineation of public safety features;
 - Estimated operation and maintenance budget; and
 - Operation and Maintenance Log Form.
- The responsible party is **not** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
 - A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
 - A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

- The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
- An Illicit Discharge Compliance Statement is **included in the stormwater memo**.
- NO Illicit Discharge Compliance Statement is attached but will be submitted **prior to** the discharge of any stormwater to post-construction BMPs.