NOTICE OF INTENT

FILED UNDER:
MASSACHUSETTS WETLANDS PROTECTION ACT MGL C131 §40
AND IMPLEMENTING REGULATIONS AT 310 CMR 10.00

PROJECT:
PEDESTRIAN TRAIL BRIDGE REPLACEMENT
COLD SPRING BROOK - ASHLAND STATE PARK
STATE PARK RD,
ASHLAND, MASSACHUSETTS

PREPARED FOR:
DEPARTMENT OF CONSERVATION AND RECREATION
136 DAMON ROAD
NORTHAMPTON, MASSACHUSETTS 01060

PREPARED BY:

CONECO
Engineers & Scientists

238 Littleton Rd • Westford, Massachusetts 01886

Phone: 978-656-8684

August 22, 2023

Coneco Project No. 11896.0

CONECO
Engineers & Scientists

ENVIRONMENTAL
ECOLOGICAL
ENERGY
SURVEY
CIVIL

August 22, 2023

Town of Ashland
Ashland Conservation Commission
Attn: Becca Solomon, Conservation Agent
101 Main Street
Ashland, MA 01721

Re: NOTICE OF INTENT for the PEDESTRIAN TRAIL BRIDGE REPLACEMENT on COLD SPRING BROOK - ASHLAND STATE PARK
STATE PARK RD, ASHLAND, MASSACHUSETTS (Coneco File # 11896.0)

Dear Ms. Solomon and Conservation Commissioners:

In accordance with the Massachusetts Wetland Protection Act (WPA) (M.G.L., c. 131, s 40) and its implementing Regulations (310 CMR 10.00 et seq.), Coneco Engineers and Scientists Inc. (Coneco), on behalf of the Massachusetts Department of Conservation and Recreation (DCR) is submitting this Notice of Intent (NOI) for the proposed Pedestrian Trail Bridge Replacement on Cold Spring Brook in Ashland State Park (Map 24, Parcel 0240-0001) in Ashland, Massachusetts.

The project involves the replacement of an existing trail bridge over Cold Spring Brook, a tributary of the Sudbury River, with a new trail bridge. Additional work includes the modification of the existing trail extensions from the existing pedestrian path to the new bridge.

Enclosed are two (2) copies of the Notice of Intent application and supporting information, two (2) full size sets of plans along with the check for $387.50 to cover the Town of Ashland's portion of the filing fee under the Wetlands Protection Act.

While the Massachusetts Department of Conservation and Recreation does not necessarily argue that it is "exempt" from all local bylaw provisions, the doctrine of essential governmental functions "prohibits municipalities from regulating entities or agencies created by the Legislature in a manner that interferes with their legislatively mandated purpose. To the extent the Department may be subject to a local regulation, the regulation cannot interfere with the Department's ability to fulfill its essential governmental functions, such as those the Department pursues here, and can have only a "negligible effect on its operations." The DCR feels that the Ashland Bylaw does have more than a negligible effect on its operations and therefore will not comply with all provisions of the bylaw. Specifically the DCR feels that the Town's Bylaw Filing Fee has more than a negligible financial impact on its operations. We are requesting that the Town Waive the additional filing fee listed in the bylaw and regulations.

According to Section 49 of the revised Wetlands Protection Act (Chapter 238 of the Acts of 2012), lots that are 50 acres or more in size are only required to notify abutters within 100 feet of the project site. The lot containing the project is approximately 168 acres. The appropriate abutters within 100 feet of the proposed work were notified. A copy of the NOI has been forwarded to the MassDEP Northeast Regional Office.

On behalf of the DCR, we request that this NOI be heard at your next available public hearing. Please don't hesitate to contact me at 978-656-8684 x201 should you have any questions and/or comments.

Sincerely,

Michael J. Toohill, PWS, CE, CERP
Sr. Environmental Scientist

cc: MA DEP NERO
Ellen Huffman and Paul Jahnige - DCR
Kevin McHugh, PE – Coneco

WPA FORM 3 AND FILING FEE CHECKS

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WPA FORM 3 AND FILING FEE CHECKS

PEDESTRIAN TRAIL BRIDGE REPLACEMENT
Cold Spring Brook - Ashland State Park
State Park Road
Ashland, Massachusetts
NOI

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Ashland
City/Town

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

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

A. General Information

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

State Park Road — a. Street Address
Ashland — b. City/Town
01721 — c. Zip Code

Latitude and Longitude:
42.246587 — d. Latitude
-71.458823 — e. Longitude

Map 24 — f. Assessors Map/Plat Number
0240-0001 — g. Parcel /Lot Number

2. Applicant:

Paul — a. First Name
Jahnige — b. Last Name
Department of Conservation & Recreation — c. Organization
136 Damon Road — d. Street Address
Northampton — e. City/Town
MA — f. State
01060 — g. Zip Code
617-626-1250 — h. Phone Number
i. Fax Number
mass.parks@mass.gov — j. Email Address

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

Priscilla — a. First Name
Geigis — b. Last Name
Commonwealth of Massachusetts — c. Organization
10 Park Plaza Suite 6620 — d. Street Address
Boston — e. City/Town
MA — f. State
02116 — g. Zip Code
h. Phone Number
i. Fax Number
PRISCILLA.GEIGIS@STATE.MA.US — j. Email address

4. Representative (if any):

Michael — a. First Name
Toohill — b. Last Name
Coneco Engineers & Scientists Inc. — c. Company
238 Littleton Road, Suite 105 — d. Street Address
Westford — e. City/Town
MA — f. State
01886 — g. Zip Code
978-656-8684 x201 — h. Phone Number
i. Fax Number
mtoohill@coneco.com — j. Email address

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

$750 — a. Total Fee Paid
$362.50 — b. State Fee Paid
$387.50 — c. City/Town Fee Paid

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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

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A. General Information (continued)

6. General Project Description:

The existing trail bridge will be removed and an new trail bridge is to constructed at the same location.

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

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

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

1. ☒ Yes ☐ No

If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

10.53(6): Construction, rehabilitation, & maintenance of footpaths; & 10.53(3.)(j): catwalks, footbridges, etc.

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

a. County	b. Certificate # (if registered land)
Middlesex County	
c. Book	d. Page Number
10954	300

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

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

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

Massachusetts Department of Environmental Protection
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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

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

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

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

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☒ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: 688,330 square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.
195 Temp., 25 Perm.	195 Temp., 25 Perm.	0

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

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

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

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

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above 1. cubic yards dredged	
l. ☐ Land Subject to Coastal Storm Flowage	1. square feet	

4. ☐ Restoration/Enhancement

If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.

a. square feet of BVW

b. square feet of Salt Marsh

5. ☒ Project Involves Stream Crossings

0
a. number of new stream crossings

1
b. number of replacement stream crossings

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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

   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

   08/2021
   b. Date of map

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

   c. Submit Supplemental Information for Endangered Species Review*

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

         (a) within wetland Resource Area _____ percentage/acreage

         (b) outside Resource Area _____ percentage/acreage

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

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

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

   (b) ☐ Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see https://www.mass.gov/ma-endangered-species-act-mesa-regulatory-review).
Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

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

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

(c) ☐ MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review).
Make check payable to "Commonwealth of Massachusetts - NHESP" and ***mail to NHESP*** at above address

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

(d) ☐ Vegetation cover type map of site

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

(f) OR Check One of the Following

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

2. ☐ Separate MESA review ongoing. a. NHESP Tracking # b. Date submitted to NHESP

3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

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

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

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

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

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

North Shore - Hull to New Hampshire border:

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

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

c. ☐ Is this an aquaculture project? d. ☐ Yes ☐ No

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

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

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

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

   a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

   b. ACEC

5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

   a. ☐ Yes ☒ No

6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

   a. ☐ Yes ☒ No

7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

   a. ☒ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

      1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
      2. ☐ A portion of the site constitutes redevelopment
      3. ☐ Proprietary BMPs are included in the Stormwater Management System.

   b. ☐ No. Check why the project is exempt:

      1. ☐ Single-family house
      2. ☐ Emergency road repair
      3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

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

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

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

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)

2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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Provided by MassDEP:

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D. Additional Information (cont'd)

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

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

Ashland State Park Bridge Design
a. Plan Title

Coneco Engineers & Scientists, Inc.
b. Prepared By

Kevin McHugh
c. Signed and Stamped by

8/4/13
d. Final Revision Date

varies
e. Scale

f. Additional Plan or Document Title

g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ☒ Attach NOI Wetland Fee Transmittal Form

9. ☒ Attach Stormwater Report, if needed.

E. Fees

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

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

6239
2. Municipal Check Number

8/16/23
3. Check date

6240
4. State Check Number

8/16/23
5. Check date

Coneco Engineers and Scientists Inc.
6. Payor name on check: First Name

7. Payor name on check: Last Name

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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F. Signatures and Submittal Requirements

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

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

1. Signature of Applicant	2. Date 8/2/23
3. Signature of Property Owner (if different)	4. Date 8/16/23
5. Signature of Representative (if any)	6. Date

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

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

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

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

Massachusetts Department of Environmental Protection
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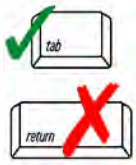
NOI Wetland Fee Transmittal Form

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

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



A. Applicant Information

1. Location of Project:

State Park Road	Ashland
a. Street Address	b. City/Town
6240	362.50
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Paul	Jahnige	
a. First Name	b. Last Name	
Department of Conservation & Recreation		
c. Organization		
136 Damon Road		
d. Mailing Address		
Northampton	MA	01060
e. City/Town	f. State	g. Zip Code
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

Priscilla	Geigis	
a. First Name	b. Last Name	
Commonwealth of Massachusetts		
c. Organization		
10 Park Plaza Suite 6620		
d. Mailing Address		
Boston	MA	02116
e. City/Town	f. State	g. Zip Code
h. Phone Number	i. Fax Number	PRISCILLA.GEIGIS@STATE.MA.US
		j. Email Address

B. Fees

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

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

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

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

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

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

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Cat 2(j.) Any other activity not described in Categories 1, 3, 4, 5 or 6 for boardwalk crossing	1	500	500
Riverfront Area additional amount	0.5	500	250

Step 5/Total Project Fee:

Step 6/Fee Payments:

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

C. Submittal Requirements

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

Department of Environmental Protection
Box 4062
Boston, MA 02211

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

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

006239

CONECO
Engineers & Scientists
4 First Street, Bridgewater, MA 02324

Civil Engineering
Surveying
Ecological Services
Environmental Consulting

CHECK DATE 8/16/23

Norwood Bank
53-7128/2113

PAY Three hundred eighty-seven and 50/100 —

AMOUNT 387.50

TO Town of Ashland

11896.0

CONECO
Engineers & Scientists
4 First Street, Bridgewater, MA 02324
006239

11896.0 003.3.6
WPA Filing Fee – Town
Town of Ashland
$387.50

006240

CONECO
Engineers & Scientists
4 First Street, Bridgewater, MA 02324

Civil Engineering
Surveying
Ecological Services
Environmental Consulting

CHECK DATE 8/16/23

Norwood Bank
53-7128/2113

PAY Three hundred Sixty-two and 50/100

AMOUNT 362.50

TO Commonwealth of Massachusetts

11896.0 003 3.6

MP
AUTHORIZED SIGNATURE

CONECO
Engineers & Scientists
4 First Street, Bridgewater, MA 02324
006240

11896.0 003 3.6
WPA Filing Fee – State
Comm of Mass
$362.50

ATTACHMENT A

NARRATIVE

PEDESTRIAN TRAIL BRIDGE REPLACEMENT
Cold Spring Brook - Ashland State Park
State Park Road
Ashland, Massachusetts
NOI

NARRATIVE

In accordance with the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40) and its associated regulations (310 CMR 10.00), Coneco Engineers & Scientists, Inc. (Coneco) on behalf of the Massachusetts Department of Conservation and Recreation is submitting this Notice of Intent (NOI) for the Pedestrian Trail Bridge Replacement that crosses over Cold Spring Brook (Lat: 42.246587°, Lon: -71.458823°) at the Ashland State Park, State Park Road (Map 24, Lot 1), Ashland, Massachusetts. The project involves the replacement of the existing trail bridge over Cold Spring Brook, a tributary of the Sudbury River, with a new trail bridge. Additional work includes the modification of the existing trail extensions from the existing pedestrian path to the new bridge.

EXISTING SITE CONDITIONS

Project Area Setting

The Massachusetts Department of Conservation and Recreation (DCR) is planning to install a replacement pedestrian trail bridge that will carry the existing trail over Cold Spring Brook, a tributary of the Sudbury River at the dam of the Ashland Reservoir. The original pedestrian trail bridge will be removed and reconstructed in the same location with new materials.

The span of the new bridge will be the same as the original bridge but will require new concrete abutments on site as it is wider than the original bridge. Both the trails and bridge will be wider than the existing features to allow for ADA compliance. The bottom of the bridge is approximately 6.45 feet higher than the channel bottom. As denoted on the engineered plans, Cold Spring Brook coming out of the reservoir is approximately 30 feet wide. The existing bridge is approximately 4 feet in width and spans the stream then terminates into the gravel path. The trail to the west of the stream crossing is approximately 6 to 8 feet wide and runs on top of the existing dam. The trail east of the stream crossing runs through a mature wooded area.

Massachusetts Wetlands Protection Act Resource Areas

A Professional Wetland Scientist from Coneco delineated resource areas along Cold Spring Brook, a tributary of the Sudbury River, on August 24, 2022.

Coneco performed the delineation using a multiple parameter method approach following the guidelines as set forth by the Massachusetts Wetlands Protection Act (WPA), the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987) and its supplement, the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0 (U.S. Army Corps of Engineers [USACE] 2012).

Bank/Land Under Water and Waterways (LUWW)

Bank is the portion of the land surface which abuts and confines a water body. It occurs between a water body and a vegetated bordering wetland and adjacent flood plain, or, in the absence of these, it occurs between a water body and an upland (310 CMR 10.54(2)(a)). The upper limit of Bank is defined as the first observable break in slope or the Mean Annual High-Water (MAHW) line, whichever was lower in accordance with 310 CMR 10.54(2)(c). LUWW is present in perennial streams and is defined in 301 CMR 10.56(2) as that area beneath a creek, river, stream, pond, or lake below the mean annual low water level.

The perennial stream, Cold Spring Brook, flows north out of Ashland Reservoir through a manmade channel that is approximately 30 feet wide. Bank and Land under Waterbodies and Waterways are associated with this river section and with the reservoir.

Coneco surveyed a few points around the existing bridge including elevations of the bank and stream bottom. The banks of the river channel are a manmade structure composed of stone and concrete; therefore, the jurisdictional top of Bank would be the edge of the manmade structure which starts at the edge of the spillway. There is no vegetation within the stream and the bank features a managed turf. The LUWW component of the channel is composed of what appears to be pavers/stone that were placed by hand creating the manmade channel bottom.

Bordering Vegetated Wetlands

As set forth in 310 CMR 10.55(2)(a-c), BVW is defined as areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants and the BVW boundary is determined as “the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist.”

Coneco wetland scientists field reviewed the subject site and did not locate any Bordering Vegetated Wetlands (BVW) within 100 feet of the project area.

Riverfront Area

According to 310 CMR 10.58 (a) “a Riverfront Area is the area of land between a river's mean annual highwater line and a parallel line measured horizontally. The riverfront area may include or overlap with other resource areas or their buffer zones. The riverfront area does not have a buffer zone.”

A river is defined as “any natural flowing body of water that empties to any ocean, lake, pond, or other rivers which flow throughout the year. Rivers include streams (see 310 CMR 10.04: Stream) that are perennial because surface water flows within them throughout the year. Intermittent streams are not rivers as defined herein because surface water does not flow within them throughout the year.”

According to 310 CMR 10.58 (2.)(a.)1.a., a river is considered perennial if the waterway is shown perennial on the most USGS Quadrangle. Within the project limits, Cold Spring Brook is shown as a perennial stream on the most recent USGS Quadrangle.

Within the project limits, the Riverfront Area (RFA) of the tributary extends from the Inland Bank, perpendicular for 200 feet. The upper limits of the 200-foot RFA are beyond the project area and are therefore not shown.

Per 310 CMR 10.58(2)h "Where rivers flow through lakes or ponds, the Riverfront Area stops at the inlet and begins again at the outlet. A water body identified as a lake, pond, or reservoir on the current USGS map or more recent map provided by the Department, is a lake or pond, unless the issuing authority determines that the water body has primarily riverine characteristics. In this area the start of the RFA on site is at the edge of the spillway and the limit of RFA line is parallel to the spillway.

100-foot Buffer Zone

The WPA takes jurisdiction over the 100-foot Buffer Zone associated with BVW and Bank. There are no BVW located within the project area, but there is a 100'buffer to Bank associated with the reservoir within the project area.

Bordering Land Subject to Flooding (FEMA 100-Year Floodplain or Regulatory Floodway)

The project area is within the 100-year floodplain or regulatory floodway according to the Federal Emergency Management Agency's Flood Insurance Rate Map (FEMA FIRM), Community Panel Number 25017C0626F, Effective Date: July 7, 2014 (Attachment C: Figure 5). The area denoted on the map contains the reservoir and the stream. The abutments and any grading are located outside the area.

Rare Species Habitat and Vernal Pools

According to the MassGIS's datalayer of the Natural Heritage and Endangered Species Program's (NHESP) Massachusetts Natural Heritage Atlas (15th Edition, August 1, 2021), the project area is not located within a mapped Priority Habitat of Rare Species or an Estimated Habitat of Rare Wildlife and there are no vernal pools located within 300 feet of the proposed work (Attachment C: Figure 6).

Other Sensitive Resources

The project is not located within a Wellhead Protection Area or an area of surface water protection (Attachment C: Figure 8). This project will not involve the installation of any stormwater improvements. The project involves replacing an existing pedestrian bridge and improvements to pedestrian paths associated with the new bridge. According to 310 CMR 10.05(6)(m)6, the Stormwater Management Standards shall apply to footpaths bike paths and other paths for pedestrian and/or nonmotorized vehicle access to the maximum extent practicable.

The project is not located within an Area of Critical Environmental Concern (ACEC) or other Critical Areas such including Outstanding Resource Waters (ORW), Special Resource Waters, Zone A Surface Waters, a Zone I of Zone II of a Groundwater resource, Bathing Beaches, or a Coldwater Fishery (Attachment C: Figure 7).

PROJECT ACTIVITIES

Project Description and Design

The DCR is proposing to install a new pedestrian trail bridge to replace the current bridge spanning Cold Spring Brook. The new bridge will be constructed in the same location and will utilize some of the existing features on site. No adverse impacts will occur as a result of this project.

In summary, the project involves the:

- Replacement of the original pedestrian trail bridge with a new pedestrian trail bridge;
- Regrading of existing pedestrian trail extensions from the existing paths to the new pedestrian trail bridge crossing.

The proposed new pedestrian trail bridge will be a 40-feet-long, 10-feet-wide, fiber-reinforced polymer bridge with prefabricated truss bridge. The bridge will have an anti-skid and slots wood deck and 4-feet 7 ¼ inch-high post railings.

The proposed low chord elevation of the bridge will be set at approximately elevation 225 feet, approximately 6.54 feet above the bottom of the channel. The bankfull width for the new bridge will be approximately 30 feet at both the upstream and downstream side of the bridge.

The new bridge deck will be founded on top of new concrete abutment and secured in place with 3/4-inch diameter anchor bolts. The path on either side of the bridge will be graded, leveled, and brought to the height of the new bridge using stone dust. The proposed bridge and paths will be wide enough to accommodate ADA compliance.

The replacement bridge will be trucked to the new bridge location from the west, using the existing pedestrian pathways. The bridge will be installed using a long-reach excavator. The construction staging area will be located in the road area on top of the dam.

	Existing Conditions	**Proposed Conditions**
Bridge Length	65 feet	40 feet
Bridge Width	4 feet	10 feet
Low Chord Elevation of the Bridge	225 feet	225 feet
Bank to Bank Width at Bridge	30 feet (center line)	30 feet (average)

Compacted gravel bridge transitions will be constructed to the east and west of the bridge to connect the bridge with the new and existing pedestrian paths. The existing pathways appear to be in adequate condition and will not require the clearing of any vegetation. Grading will need to

be completed after the structure has been assembled.

Construction Schedule and Procedure

Work is proposed to occur in the summer to early fall of 2023.

In general, the construction of the project will procedure as follows:

1. Install siltation and erosion controls.
2. Clear vegetation (if any) along the pedestrian path extensions to the new bridge abutment locations.
3. Construct pedestrian path extensions from the existing path up to the new bridge abutment locations.
4. Install the new bridge abutments.
5. Install new bridge deck.
6. Final grade and stabilize new pedestrian path extensions.
7. Remove siltation and erosion controls after site is stabilized and final approval has been obtained by the Conservation Commission.

Best Management Practices

Both Construction and Design Best Management Practices have been incorporated into the project to avoid and minimize impacts to resource areas.

Design Best Management Practices

The proposed new bridge design and location were selected to avoid and minimize impacts to resource areas. The new bridge location will be in the approximate same area. The new bridge has been designed to meet the Massachusetts Stream Crossing Standards. The new bridge deck will span the river and the bridge abutments will be installed upslope from Inland Bank and Land Under Water.

Adverse impacts to RFA have been minimized by using footings that have minimal impact to resource areas. The proposed footings require minimal excavation and disturbance to the embankment's footprint and do not require extensive excavation in the embankments. In addition, the work can be completed from the existing pedestrian path which avoids additional RFA impacts.

Construction equipment and materials will access the work area from the west, along the existing pedestrian path. This will minimize the any extra clearing and grubbing of vegetation with RFA and Buffer Zone.

Construction Best Management Practices

Construction best management practices will be used to avoid and minimize impacts to resource areas and buffer zones. The contractor will be required to adhere to the Order of Conditions issued

by the Ashland Conservation Commission.

Construction BMPs will include:

- Prior to the start of construction, sedimentation and erosion controls including but not limited to compost filter socks will be installed along the work limits to avoid impacting resource areas.
- The contractor and/or owner will actively maintain erosion and sedimentation controls until disturbed areas are stabilized.
- All exposed areas will be stabilized and vegetated with native species. Seed mixes will consist of all Native species to Essex County. The use of Introduced species will be minimized.
- The fueling or washing of construction vehicles will not be allowed on site.
- All fertilizer, herbicides, and pesticides will be stored at least 100 feet away from the inland bank of the river and BVW. If stored on site, these materials will be kept in a wrapped or sealed container and kept under cover out of the rain and snow.
- Solid waste will be disposed of offsite in a legal manner, at a state licensed recycling center or landfill.
- Spill controls will be located on site in a visible easily accessible area.
- Fueling of equipment will not occur within any resource areas.
- Oils, greases, gas, and other hazardous materials will be stored in a secondary container more than 100 feet from any resource areas. All containers will be labeled.
- Haul trucks leaving the site will be covered.
- Soil piles will be covered at the end of the day.
- The contractor will be responsible for ensuring that all excavated material and soils are handled, transported, and disposed of in accordance with all applicable regulations. In the unlikely event that contaminated soils (or other material) are encountered during excavation or any construction activity, the contractor will be required to have an LSP characterize the soil (and/or other material) to determine appropriate handling and treatment/disposal. Any hazardous waste produced would be managed by MassDEP-permitted haulers and disposal sites.
- Contractors should minimize work in close proximity to trees (within the drip line if possible) to avoid root damage and should provide tree protection where required.

PROJECT IMPACTS

Riverfront Area

A total of approximately 688,330 square feet of Riverfront Area (RFA) exists within the property limits. Within the project area, there is approximately 4,400 square feet of RFA.

- Approximately 25 square feet of RFA will be impacted to accommodate the new bridge. This work includes the construction of the new bridge abutments for the installation of the trusses and new bridge deck.

- A total of approximately 195 square feet of RFA will be temporarily impacted from grading and adding stone dust bridge transitions connecting the bridge to the western path.

- It is not anticipated that cutting of vegetation will be required to complete this project.

100ft Buffer Zone to Bank

A total of approximately 1,901,186 square feet of Buffer Zone to Bank exists within the property limits. Within the project area, there is approximately 20,000 square feet of Buffer Zone.

- Approximately 57 square feet of Buffer Zone will be impacted to accommodate the new bridge. This work includes the construction of the new bridge abutments for the installation of the trusses and new bridge deck.

- A total of approximately 381 square feet of Buffer Zone will be temporarily impacted from grading and adding stone dust bridge transitions connecting the bridge to the western path.

PROPOSED MITIGATION/RESTORATION

The project consists of replacing the pedestrian footbridge with a new bridge in the same location. The area in which the new bridge is to be built has previously been impacted and disturbed.

Riverfront Area Restoration

The installation of this new pedestrian bridge will have no adverse impacts to the Riverfront Area and does not require restoration.

Inland Bank Restoration

The installation of this new pedestrian bridge will have no adverse impacts to the Buffer Zone to Bank and does not require restoration.

Bordering Vegetated Wetland Restoration

The existing pedestrian path within the project area does not cross or come within 100 feet of any Bordering Vegetated Wetland (BVW). No BVW restoration is necessary for this project.

COMPLIANCE WITH STREAM CROSSING STANDARDS

The new bridge was designed to be in conformance with the Massachusetts Stream Crossing Standards. The stream crossing standards and an explanation as to how the project complies with the standards follows:

1. ***Type of Crossing - General: Spans (bridges, 3-sided box culverts, open-bottom culverts, or arches) are strongly preferred. Optimum: Use a bridge.***

   The original bridge will be replaced by a 40-foot-long by 10-foot-wide clear span bridge with a 10-foot-wide wooden plank deck. The natural bottom of the river will not be impacted. The new structure meets the Optimum Crossing Type Standard.

2. ***Embedment - All culverts should be embedded (sunk into the stream) at least 2 feet; round pipe culverts at least 25%. If pipe culverts cannot be embedded this deep, then they should not be used. When embedment material includes elements >15 inches in diameter, embedment depths must be deeper.***

   A bridge is proposed for this project; therefore, culvert embedment criteria do not apply.

3. ***Crossing Span - General: Spans channel width (at least 1.2 times the bankfull width of the stream). Optimum: Spans the streambed and banks (at least 1.2 times the bankfull width) with sufficient headroom to provide dry passage for wildlife.***

   The 40-foot-long clear span structure will accommodate the riverbed, banks, and overbanks under the structure. The average bank full width at the new crossing location is 29.82 feet. The optimum span is therefore exceeded at 40 feet (at a ratio of 1.2). The proposed bridge span is approximately 30 feet, resulting in a bankfull width ratio of 1.3. Clearance under the bridge during times of Mean High Water is approximately 6.54 feet as measured from the stream bed to the bridge low chord elevation which is sufficient for most wildlife. The proposed structure meets the General Crossing Span Standard.

4. ***Openness - General: Openness ratio (cross-sectional area/crossing length) of at least 0.82 feet. The crossing should be wide and high relative to its length. Optimum: Openness ratio of at least 1.64 feet and minimum height of 6 feet. If nearby conditions significantly reduce wildlife passage near a crossing, a higher openness ratio and minimum height are necessary.***

   The proposed openness ratio is 19.5 feet. The maximum height under the bridge is 6.54 feet which is 0.54 feet above the optimum of 6 feet. The proposed structure meets the General Openness Ratio Standard.

   Cross-sectional Area Measured along centerline of bridge (Height is Low chord elevation to Average Stream Bed x Bankfull Width) = 6.54 FT x 29.83 FT = ***195.1 SF***
   Crossing Length (Measured from upstream to downstream side of the bridge structure) = ***10 FT***
   Openness Ratio = 195.1/10 = ***19.51 FT***

5. ***Substrate - Natural bottom substrate should be used within the crossing and should match upriver and downriver substrates. The substrate and design should resist displacement during floods and maintain an appropriate bottom during normal flows.***

   Not applicable. There will be no impacts to the river bottom during the installation of the new bridge. All work will be completed from above the MHWM of the river.

6. ***Water Depth and Velocity - Water depths and velocities are comparable to those found in the natural channel at a variety of flows.***

Not applicable. There will be no impacts to the river bottom during the installation of the new bridge. The new bridge will span the river.

LIMITED PROJECT STATUS

Under ***310 CMR 10.53 (3.) (j) of the WPA Regulations***, the pedestrian path bridge qualifies as a "Limited Project".

(j) The construction and maintenance of catwalks, footbridges, wharves, docks, piers, boathouses, boat shelters, duck blinds, skeet and trap shooting decks and observation decks; provided, however, that such structures are constructed on pilings or posts so as to permit the reasonably unobstructed flowage of water and adequate light to maintain vegetation.

Regardless of the provisions of 310 CMR 10.54 through 10.58 and 10.60, the Conservation Commission may issue an Order of Conditions for the construction of the new pedestrian path bridge. The new bridge will span the existing river. No piles or posts will be constructed in the water. The new bridge meets all Stream Crossing Standards. No RFA vegetation exists on the embankments at the new bridge location. The new bridge is oriented east to west. The stream bottom is manmade and does not support the growth of vegetation.

CONFORMANCE WITH WPA PERFORMANCE STANDARDS

Inland Bank

Bank is defined under 310 CMR 10.54(2)(c) as "the first observable break in the slope or the mean annual flood level, whichever is lower. The lower boundary of a Bank is the mean annual low flow level."

There will be no impacts to Inland Bank within the limits of the project, therefore, the general performance standards detailed in 310 CMR 10.54(4) of the WPA Regulations do not apply to this project.

Riverfront Area

According to ***310 CMR 10.53(6) of the WPA regulations***, the provision of the Riverfront Area section **(310 CMR 10.58) of the WPA may be waived for the pedestrian path extensions**:

310 CMR 10.53 (6) Notwithstanding the provisions of 310 CMR 10.58, the Issuing Authority may issue an Order of Conditions permitting as a limited project the construction, rehabilitation, and maintenance of

footpaths, bikepaths, and other pedestrian or nonmotorized vehicle access to or along riverfront areas but outside other resource areas, provided that adverse impacts from the work are minimized and that the design specifications are commensurate with the projected use and are compatible with the character of the riverfront area. Generally, the width of the access shall not exceed ten feet of pavement, except within an area that is already altered (e.g., railroad beds within rights of way). Access shall not be located in vernal pools or fenced in a manner which would impede the movement of wildlife.

The proposed new 10-foot-wide pedestrian trail bridge with wood bridge deck meets the definition of a limited project under 310 CMR 10.53 (6). Impacts associated with the new pedestrian trail bridge are within RFA only.

The width of the existing and proposed access to the trail bridge is no more than 9.5 feet wide. The access is not located in a vernal pool and no fencing is proposed. The pedestrian trail bridge will be used for recreational purposes only. The new prefabricated trail bridge was selected to blend in with the environment. The bridge decking will be a natural wood deck.

Impact to the RFA will be minimized by stationing equipment on the existing pedestrian paths to the maximum extent possible

SUMMARY

In accordance with the Massachusetts Wetlands Protection Act and its associated regulations (310 CMR 10.00), Coneco Engineers & Scientists, Inc. (Coneco) on behalf of the Massachusetts Department of Conservation and Recreation is requesting an Order of Conditions for the Pedestrian Trail Bridge Replacement that crosses over Cold Spring Brook in Ashland State Park, State Park Road, Ashland, Massachusetts. The project involves the replacement of the original bridge with a new trail bridge in the original location. Additional work includes the construction of new trail extensions from the existing pedestrian path up to the new bridge abutments. The proposed project will impact 25 square feet of RFA and 57 square feet of Buffer zone to Bank.

- Under 310 CMR 10.53 (3.) (j) of the WPA Regulations, the pedestrian path bridge qualifies as a “Limited Project”. Regardless of the provisions of 310 CMR 10.54 through 10.58 and 10.60, the Conservation Commission may issue an Order of Conditions for the construction of the new pedestrian path bridge.

- According to 310 CMR 10.53(6) of the WPA regulations, the provision of the RFA Section 310 CMR 10.58 of the WPA may be waived for pedestrian paths.

- In addition, this project complies with the Massachusetts Stream Crossing Standards.

REFERENCES

Massachusetts Department of Environmental Protection (MassDEP). 1995. *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act, A Handbook.* March

1995.

Massachusetts Department of Fish and Game (MassDFG). 2018. M*assachusetts River Crossings Handbook.* 2nd Edition, June 2012. Reprinted May 2018.

U.S. Army Corps of Engineers. 1987. *Corps of Engineers Wetlands Delineation Manual.* Technical Report Y-87-1. Vicksburg, Mississippi: U.S. Army Engineers Waterways Experiment Station Environmental Laboratory.

U.S. Army Corps of Engineers. 2006. *Invasive Species Control / Management Plan (ISCP) Guidance.* New England District.

U.S. Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*, ed. J. S. Wakeley, R. W. Lichvar, C. V. Noble, and J. F. Berkowitz. ERDC/EL TR-12. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

ATTACHMENT B

NOTICE TO ABUTTERS

PEDESTRIAN TRAIL BRIDGE REPLACEMENT
Cold Spring Brook - Ashland State Park
State Park Road
Ashland, Massachusetts
NOI

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act

I, Michael Toohill hereby certify under the pains

and penalties of perjury that on 8/22/23 I gave notification to abutters in
date

compliance with the second paragraph of the Massachusetts General Laws Ch. 131 § 40, and the DEP Guide to Abutter Notification in connection with the following matter:

A(n) Notice of Intent application was filed under the Massachusetts Wetlands Protection Act

by Coneco Engineers and Scientists
(name)

with the Ashland Conservation Commission on 8/22/23 for a property located at

the Ashland State Park, State Park Rd (Map 24 Parcel 0240-0001).

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

signature

8/22/23
date

Notification to Abutters

By Hand Delivery, Certified Mail (return receipt requested), or Certificates 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).

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

A. A Notice of Intent was filed with the Ashland Conservation Commission on August 22, 2023 seeking permission to remove, fill, dredge, or alter an area subject to protection under M.G.L. c. 131 §40. The following is a description of the proposed activity/activities:

The project involves the replacement of an existing pedestrian trail bridge with a new pedestrian trail bridge in the same location. The new bridge will meet the Massachusetts Stream Crossing Standards and have no adverse impact to wetland resources.

B. The name of the applicant is: Department of Conservation and Recreation.

C. The address of the land where the activity is proposed is: Ashland State Park, State Park Rd, Ashland, MA (Map 24, Parcel 0240-0001).

D. Copies of the Notice of Intent may be examined or obtained at the office of the Ashland Town Managers' Office, located at 101 Main Street, Ashland, MA 01721. Their regular business hours are 8:00 am – 3:30pm on Monday, Tuesday, and Thursday, or 8:00am – 7:00 pm on Wednesday. The Ashland Conservation Commission may be reached at (508) 881-0100 x 7924.

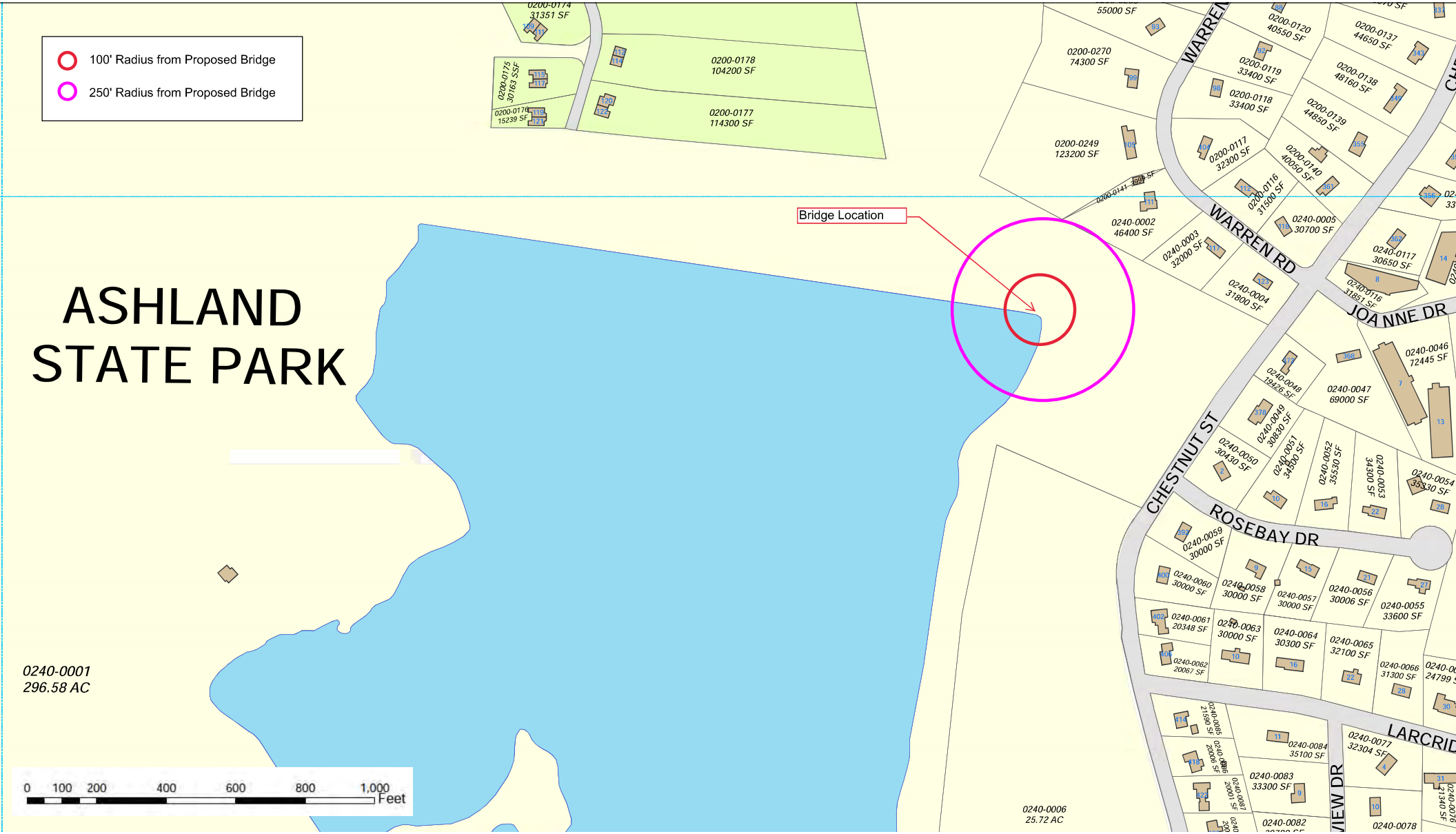
E. Copies of the Notice of Intent may be obtained from the applicant's representative, Coneco Engineers and Scientist, Inc., by calling Michael Toohill, Sr. Environmental Scientist at 978-656-8684 x201 or via email at mtoohill@coneco.com. An administrative fee may be applied for providing copies of the NOI and plans.

F. Information regarding the date, time, and location of the public hearing regarding the Notice of Intent may be obtained from the Ashland Conservation Commission. Notice of the public hearing will be published at least five business days in advance, in the MetroWest Daily News.

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.

Notice to Abutters
Trail Bridge over Cold Spring Brook
Ashland State Park

According to Section 49 of the revised Wetlands Protection Act (Chapter 238 of the Acts of 2012), lots that are 50 acres or more in size are only required to notify abutters within 100 feet of the project site. The lot is 50 acres of more and there are no abutters within 100 feet of the proposed work so abutters were not notified.


100' Radius from Proposed Bridge
250' Radius from Proposed Bridge
Bridge Location
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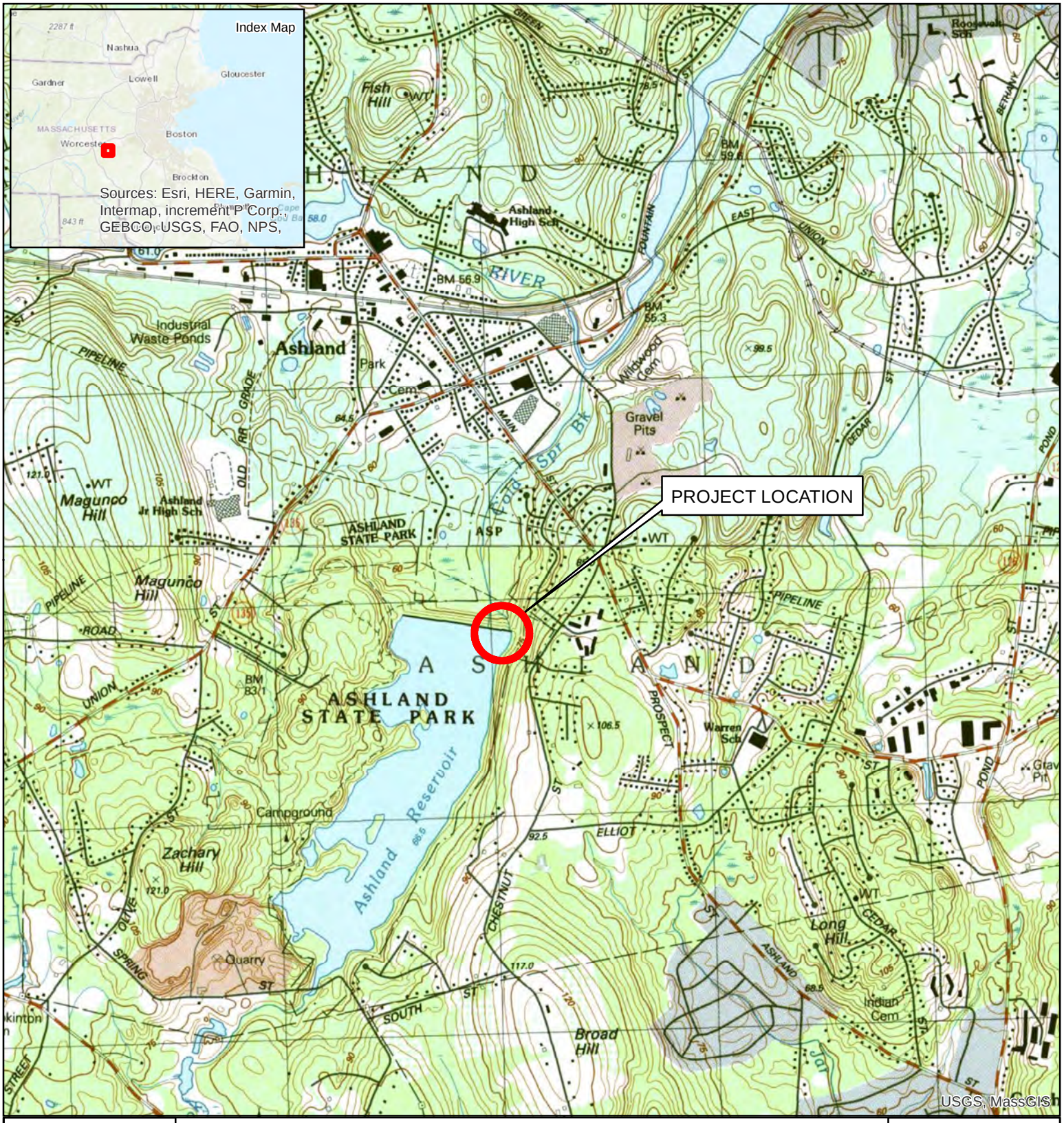
STATE PARK
0240-0001
296.58 AC
0240-0006
25.72 AC
WARREN RD
CHESTNUT ST
ROSEBAY DR
JOANNE DR
LARCRID
VIEW DR
0 100 200 400 600 800 1,000
Feet

ATTACHMENT C

FIGURES

PEDESTRIAN TRAIL BRIDGE REPLACEMENT
Cold Spring Brook - Ashland State Park
State Park Road
Ashland, Massachusetts
NOI



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Feet

FIGURE 1: USGS TOPOGRAPHIC MAP

ASHLAND SP DAM

Cold Spring Brook Dam
Ashland, Massachusetts
Lat: 42.246607° Lon: -71.458986°

Source: Massachusetts 2019 USGS Color Ortho Imagery and other data from the Bureau of Geographic Information (MassGIS), Commonwealth of Mass., Executive Office of Technology and Security

CONECO Engineers & Scientists

THIS DOCUMENT IS INTENDED FOR GENERAL PLANNING & INFORMATION PURPOSES ONLY. ALL MEASUREMENTS & LOCATIONS ARE APPROXIMATE.

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Feet

FIGURE 2: AERIAL MAP

ASHLAND SP DAM

Cold Spring Brook Dam
Ashland, Massachusetts
Lat: 42.246607° Lon: -71.458986°

Source: Massachusetts 2019 USGS Color Ortho Imagery and other data from the Bureau of Geographic Information (MassGIS), Commonwealth of Mass., Executive Office of Technology and Security Services.

CONECO Engineers & Scientists

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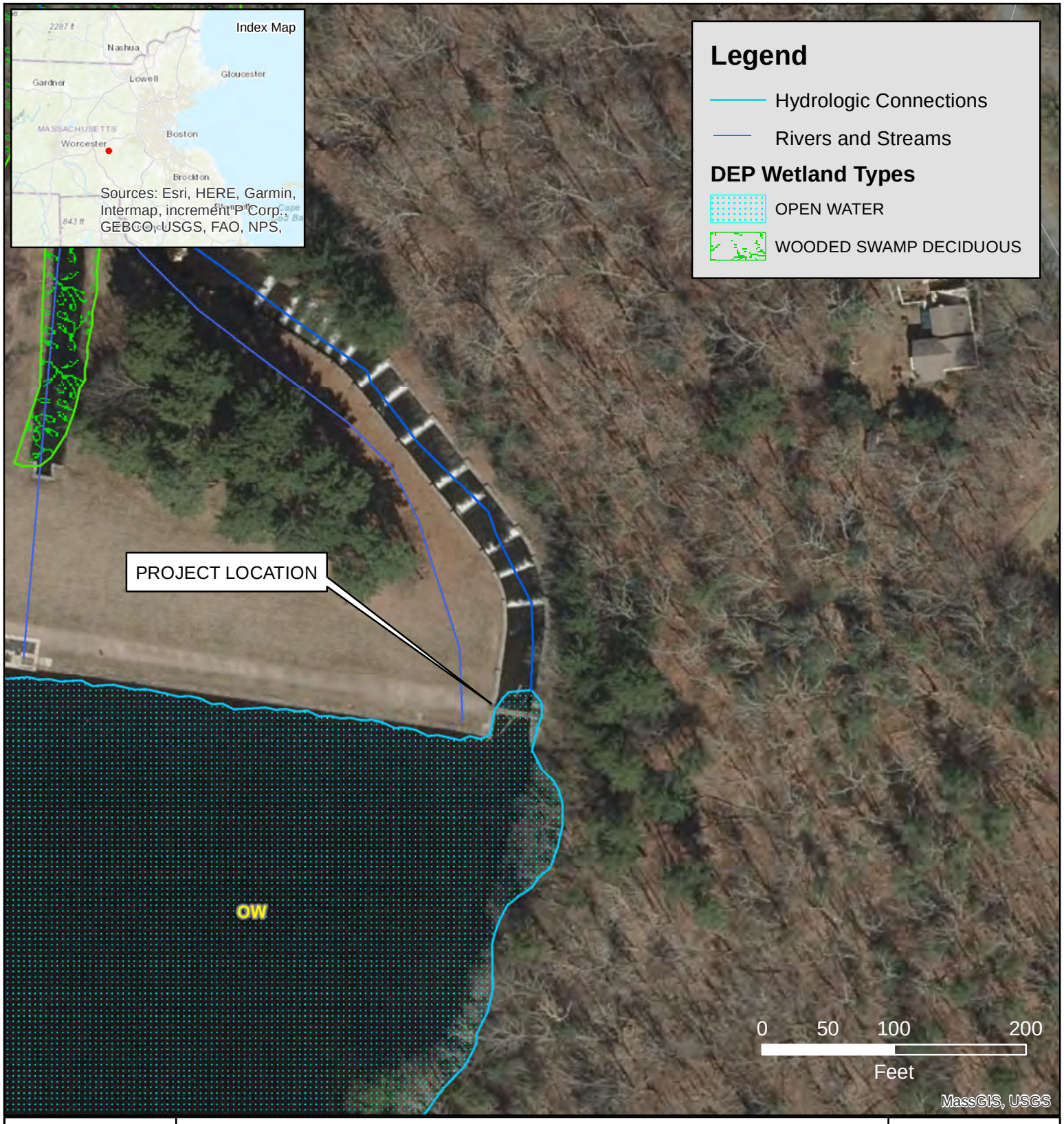

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1:1,200

1 inch = 100 feet

FIGURE 3: DEP WETLANDS

ASHLAND SP DAM

Cold Spring Brook Dam
Ashland, Massachusetts
Lat: 42.246607° Lon: -71.458986°

Source: Massachusetts 2019 USGS Color Ortho Imagery and other data from the Bureau of Geographic Information (MassGIS), Commonwealth of Mass., Executive Office of Technology and Security Services

CONECO Engineers & Scientists

File Location: W:\DCR\11896.0 - DCR Forest Bridges\Field Notes\maps\Ashland SP- Dam\FIG 4 NRCS SOILS.mxd
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1 inch = 100 feet

FIGURE 4: NRCS SOILS MAP

ASHLAND SP DAM

Cold Spring Brook Dam
Ashland, Massachusetts
Lat: 42.246607° Lon: -71.458986°

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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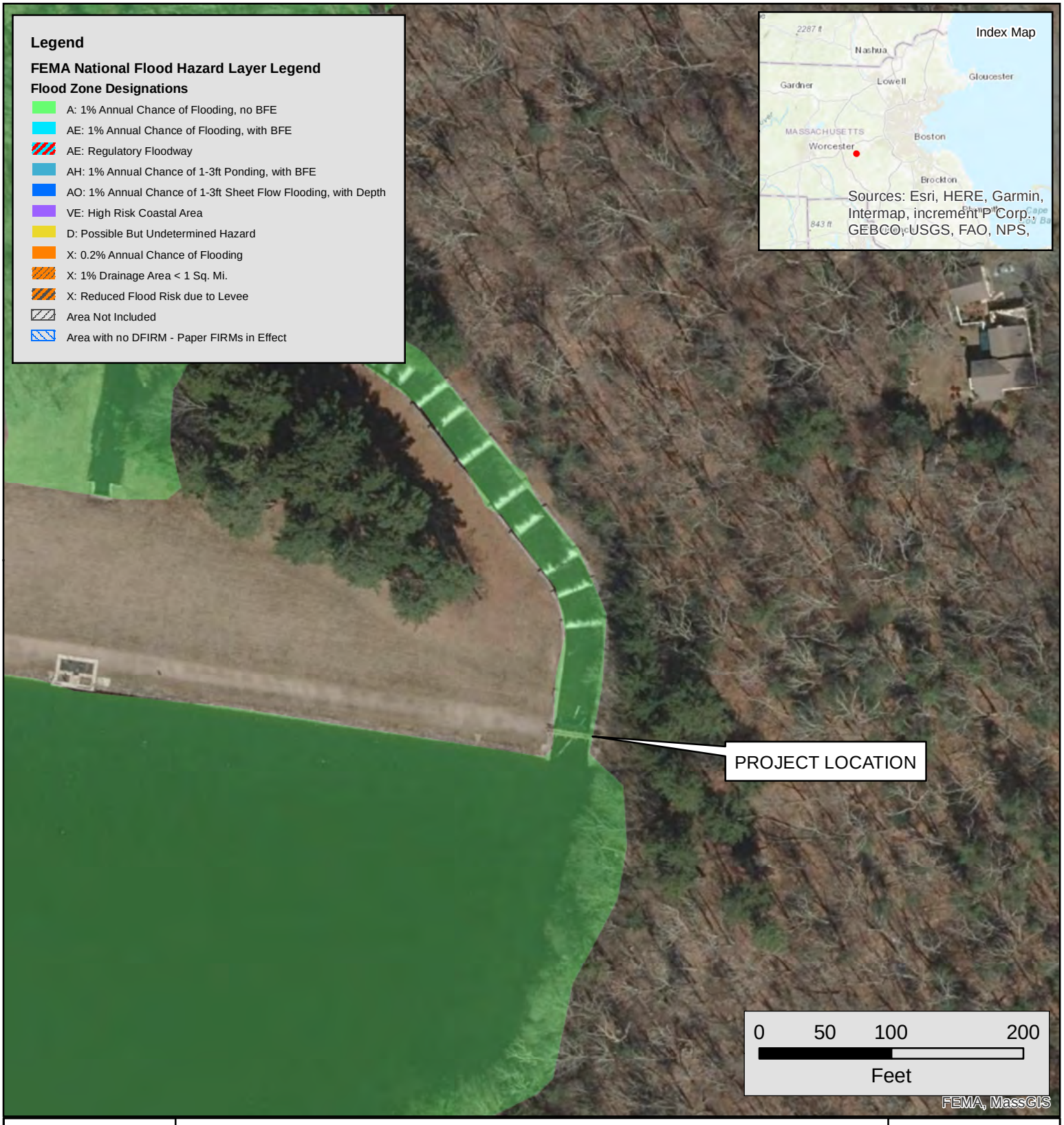

N

1:1,200

1 inch = 100 feet

FIGURE 5: FEMA FIRMette

ASHLAND SP DAM

Cold Spring Brook Dam
Ashland, Massachusetts
Lat: 42.246607° Lon: -71.458986°

Source: Massachusetts 2019 USGS Color Ortho Imagery

CONECO Engineers & Scientists

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N

1:1,200

0 50 100

Feet

FIGURE 6: NATURAL HERITAGE MAP

ASHLAND SP DAM

Cold Spring Brook Dam
Ashland, Massachusetts
Lat: 42.246607° Lon: -71.458986°

Source: Massachusetts 2019 USGS Color Ortho Imagery and other data from the Bureau of Geographic Information (MassGIS), Commonwealth of Mass., Executive Office of Technology and Security Services.

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File Location: W:\DCR\11896.0 - DCR Forest Bridges\Field Notes\maps\Ashland SP- Dam\FIG 7 CRITICAL AREAS.mxd
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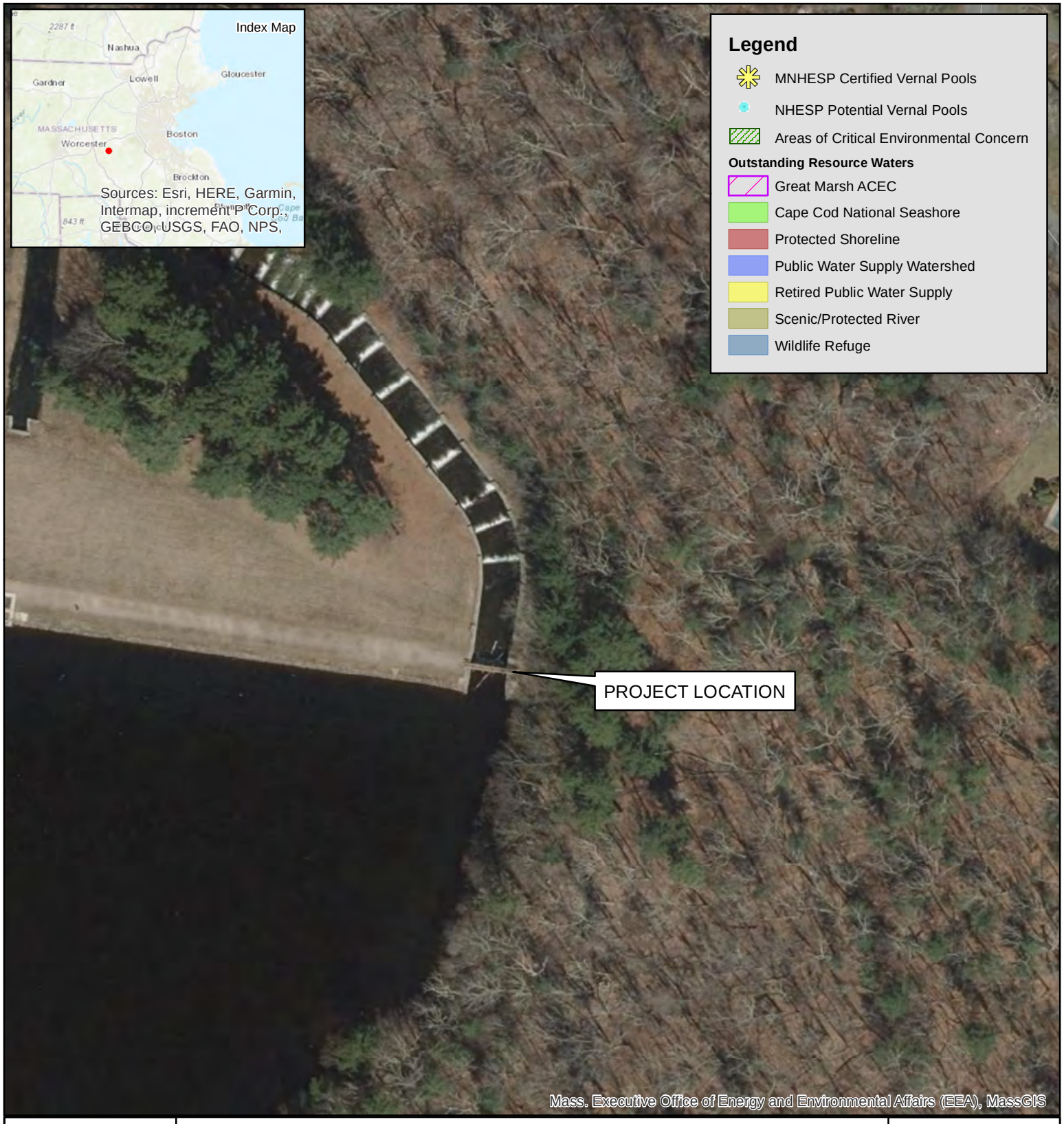

N

1:1,200

0 50 100

Feet

FIGURE 7 - OTHER CRITICAL AREAS (VP, ACECs, ORWs)

ASHLAND SP DAM

Cold Spring Brook Dam
Ashland, Massachusetts
Lat: 42.246607° Lon: -71.458986°

Source: Massachusetts 2019 USGS Color Ortho Imagery and other data from the Bureau of Geographic Information (MassGIS), Commonwealth of Mass., Executive Office of Technology and Security Services

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ATTACHMENT D

PHOTOGRAPHS

PEDESTRIAN TRAIL BRIDGE REPLACEMENT
Cold Spring Brook - Ashland State Park
State Park Road
Ashland, Massachusetts
NOI

CONECO
Engineers & Scientists
238 Littleton Road, Suite 105, Westford, MA 01886
Telephone: 978-656-8684 x202

Photo 1 – View of reservoir side of pedestrian trail bridge. Standing on bridge viewing southwest.

Photo 2 – View of reservoir side of pedestrian trail bridge. Standing on bridge viewing southeast

Photo 3 – View of the start of Cold Spring Brook on the north side of the pedestrian trail bridge (viewing west).

Photo 4 – *View of the start of Cold Spring Brook on the north side of the pedestrian trail bridge (viewing east).*

Photo 5 – *View of pedestrian trail bridge span and where reservoir empties into Cold Spring Brook. Viewing south to southwest from the north side of the bridge.*

ATTACHMENT E

STORMWATER CHECKLIST

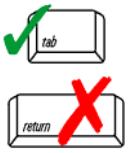
PEDESTRIAN TRAIL BRIDGE REPLACEMENT
Cold Spring Brook - Ashland State Park
State Park Road
Ashland, Massachusetts
NOI

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

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 8[2]
- 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.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

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

8/16/2023
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): _____

Not Applicable - The project does not include changes to drainage patterns or the introduction of impervious surfaces that would increase stormwater runoff. Opportunities for the inclusion of LID measures do not exist.

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)

Not Applicable - The project does not change drainage patterns or add impervious surfaces that would increase runoff volumes.

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.

Not Applicable - The project does not alter the groundwater recharge rates.

- ☐ 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 Field[1]
- ☐ 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

Since material storage, potential for spills or illicit discharges, etc. do not exist, the development of a Pollution Prevention Plan or the inclusion of BMPs are not applicable.

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)

Not Applicable

☐ 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

Not Applicable

☐ 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:

Not Applicable - The project does not require long term operation and maintenance.

- ☐ 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.

Not Applicable - There are no point source discharges associated with the project.

Standard 10: Prohibition of Illicit Discharges

☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☐ An Illicit Discharge Compliance Statement is attached;

☐ NO Illicit Discharge Compliance Statement is attached but will be submitted ***prior to*** the discharge of any stormwater to post-construction BMPs.

ATTACHMENT F
PROJECT PLANS

PEDESTRIAN TRAIL BRIDGE REPLACEMENT
Cold Spring Brook - Ashland State Park
State Park Road
Ashland, Massachusetts
NOI

ATTACHMENT G

INVASIVE SPECIES MANAGEMENT

PEDESTRIAN TRAIL BRIDGE REPLACEMENT
Cold Spring Brook - Ashland State Park
State Park Road
Ashland, Massachusetts
NOI

Invasive Plant Management
Bridge Replacement Projects

DCR proposes to manage the non-native invasive plants in the vicinity of this project site, within and adjacent to the areas of work, both prior to and after construction. Non-chemical control methods, such as hand pulling and manual removal are preferred by DCR, where feasible and appropriate, to reduce unintended impacts to others, including wildlife, soils, water, and native plants.

DCR will have an approved botanist on site during treatments to identify and ensure avoidance of any rare and watch listed species. Invasive plant management treatments are proposed to conserve and restore WPA resource areas and should in fact improve habitat functions and values.

Following are the methods proposed, if needed, for this project location.

Hand pulling is proposed for all hardy kiwi, garlic mustard, spotted knapweed, celandine, and wild chervil populations at low to medium densities. Invasive woody plants and Asiatic bittersweet that are small enough will also be pulled.

Cut Stem treatment (CST): Proposed for all invasive woody shrubs with a diameter ¾" or greater as well as for climbing Asiatic bittersweet. Plants will be treated by cutting at the base of the plant and applying a solution of Rodeo® at a 50% concentration immediately to the cambium (conductive tissue) of the stump. This application method is highly targeted and does not result in any off-target plant damage.

Bittersweet vines that have grown into trees will be left in place after cutting to avoid damaging the trees. Invasive woody debris will be piled, cut up into smaller pieces and left onsite outside of wetland resource areas to decompose. All other woody debris generated by CST can be chipped and removed from the site as needed or piled to enrich wildlife habitat.

Spot Foliar treatment: Where necessary, large patches or high densities of *Phragmites*, Japanese barberry, reed canary grass, multiflora rose, stiltgrass, spotted knapweed, Japanese knotweed, and patches of low growing bittersweet are most successfully treated using this method with backpack sprayers.

Applications to be performed with either the wetland approved glyphosate-based herbicide *Rodeo*® (EPA Reg. No. 62719-324) or a Triclopyr based herbicide such as *Vastlan* (EPA Reg. No. 62719-68)7, or *Garlon 3A* (EPA Reg. No. 62719-37) along with a non-ionic wetland surfactant and indicator dye depending on the target species. These herbicide formulations are considered nonvolatile.

Herbicide applications will not be conducted if rain is predicted during a 12-hour period after application or for several hours prior to the application. A wind meter should be used to measure wind speed and wind direction. Wind speeds should be less than 10 mph and ideally in the range of 2-5 mph to avoid non-target damage resulting from a temperature inversion. Air temperature should be less than 95 degrees Fahrenheit to avoid aerating the herbicide mix.

Hand wiping**:** Low-density and sensitive area populations of *Phragmites*, reed canary grass and Japanese knotweed will be treated by applying the herbicide Rodeo at 8% using Thinvert RTU as the carrier. A saturated cotton glove will be used to apply the herbicide directly to the foliage.

To hand wipe knotweed plants, an herbicide applicator wears a chemical resistant glove underneath an absorbent cotton glove. The applicator moistens a cotton glove with herbicide dispensed from a hand-pumped low-volume backpack sprayer equipped with specialized ultra-low-volume nozzles, then wipes the stem and leaves of the individual plants.

Figure 1, Hand wiping technique

Figure 2, Stem injection of Japanese knotweed

Stem injection: Using the JK Injection System®, the technician injects each individual knotweed cane with herbicide.

Only individuals appropriately licensed and certified by the MA Dept. of Agricultural Resources will be allowed to apply herbicides. Herbicide applications must comply with all applicable local, state, and federal regulations and label requirements.

Signs shall be posted (no more than 50 ft. apart) warning the public when herbicides are used within 25 ft. of a DCR trail or roadway. Signs shall remain posted until any danger of exposure for the public is past, and then removed.

Invasive plant treatment areas will be monitored annually by DCR staff to ensure restoration of a native plant community.

Nancy J. Putnam, Senior Ecologist

ATTACHMENT H

TRAIL MAINTENANCE AND OPERATIONS

PEDESTRIAN TRAIL BRIDGE REPLACEMENT
Cold Spring Brook - Ashland State Park
State Park Road
Ashland, Massachusetts
NOI

MA Department of Conservation and Recreation
Natural Surface Trails
Operation and Maintenance Provisions
To be included in Wetland Protection Act Filings, and Covered under Orders of Condition

dcr
Massachusetts

Table of Contents

1. Intent of this Operations and Management Plan

The purpose of this is to ensure that routine natural surface trail maintenance on lands under the care and control of the Massachusetts Department of Conservation and Recreation (DCR) can occur efficiently and in a timely manner, in a way that protects and enhances sensitive wetland and rare species resources.

This plan will allow the DCR and its partners and contractors to carry out activities associated with the ongoing maintenance of trail systems, including vegetation clearing, trail tread maintenance, and trail structure installation and maintenance within the trail corridor to protect adjacent sensitive resources.

DCR requests that in accordance with the provisions of 310 CMR 10.53(7) implementation of this operation and maintenance plan be approved by the Issuing Authority as a continuing condition that shall be set forth in the Determination or Order of Conditions and the Certificate of Compliance.

1.1 *The Interests of the Wetland Protection Act*

The Massachusetts Wetlands Protection Act (WPA, MGL, Chapter 131, Section 40) serve the following Public Interests:

To Protect:

- Public and Private Water Supply
- Groundwater Supply
- Fisheries
- Wildlife Habitat
- Land Containing Shellfish

To Prevent

- Pollution
- Storm Damage

Control

- Flooding

1.2 *Public and Natural Resources Benefits of Trails*

Trails provide public access to natural areas in order to promote public health, provide active recreation and non-motorized transportation, and build public appreciation for wetland and other natural resources.

As a species, we protect what we appreciate, and we appreciate what we experience and understand. Trails are critical for building enjoyment, appreciation and understanding of natural environments, and thus vital for the protection of wetlands, rare species habitats and other natural resources; and vital for the protection of the "Interests of the Massachusetts Wetland Protection Act."

1.3 *Trails Avoid and Minimize Impacts to Resources*.

As linear networks - like wetland resource networks - trails, by definition do, will and should intersect with wetland resources.

However, well designed and maintained trails protect the "Interests of the Act" by serving to **Avoid and Minimize** any impacts to wetland and habitat resources. Specifically, trails:

- Direct and concentrate use in land areas that **avoid** and if necessary **minimize** impacts to wetland resources.
- Include structures (i.e. drainage structures, bridges and bog-bridges) that **minimize**
    - erosion and sedimentation,
    - vegetation trampling,
    - soil disturbance and

    - habitat destruction.
- Maintaining trail corridor and trail structures good condition are critical for continuing to avoid and minimize impacts

The value of trails in protecting and building appreciation for wetland resources is recognized within the WPA Regulation, 310 CMR 10. Specifically, :

- 310 CMR 10.02(2)(b)2.a. identify trails (and maintenance of those trails) with a tread width of 36" or less on conservation land as a "minor activity in the buffer zone and riverfront area" not requiring a filing.
- 310 CMR 10.53(3)(j) allows for the approval of "the construction and maintenance of catwalks, footbridges, (…) and observation decks;" including trail bridges, bog bridges, and puncheons provided that "such structures are constructed on pilings or posts so as to permit the reasonably unobstructed flowage of water and adequate light to maintain vegetation."
- 310 CMR 10.53(6) allows for the approval t the construction, rehabilitation, and maintenance of footpaths, bikepaths, and other pedestrian or nonmotorized vehicle access to or along riverfront areas but outside other resource areas, provided that adverse impacts from the work are minimized and that the design specifications are commensurate with the projected use and are compatible with the character of the riverfront area. Generally, the width of the access shall not exceed ten feet of pavement, except within an area that is already altered (e.g., railroad beds within rights of way). Access shall not be located in vernal pools or fenced in a manner which would impede the movement of wildlife.

2. Identifying and Delineating Wetland Resources

Massachusetts is home to a variety of coastal and inland wetlands. Most inland wetlands are areas where groundwater is at or near the surface, or where surface water frequently collects or flows for a significant part of the growing season. In these areas a significant part of the vegetation is made up of plants adapted to life in saturated soil.

While working in the field, DCR and its partners and contractors, with experience in recognizing and delineating wetlands will identify and delineate with **Pink** flagging and bank, lands under water, areas subject to flooding, and bordering vegetated wetlands with wetland plant communities or hydric soils.

Crews will also mark with **Blue** flagging and stakes the exact location of any structures, particularly those portions of structures with ground contact (sleepers and posts).

Crews will observe drainage patterns, banks, hydric soil characteristics and the vegetation communities to determine, to the best of their abilities and training, potential wetland resources.

Specifically, evidence of saturated soils will include water marks on trees, water stained leaves, sediment deposits on plants, vegetation morphology and drainage patterns including larger changes in the landscape such as banks and channels may indicate long-term standing or flowing water.

Crews will also observe the plant community to help identify potential wetland resources along trails. Obligate wetland plants, species that occur >99% in wetland habitats, in Massachusetts include skunk cabbage (Symplocarpus foetidus), broadleaf cattail

(Typha latifolia), and buttonbush (Cephalanthus occidentalis). If these species are observed, it is reasonable to assume the area functions as a wetland. Facultative wetland plants usually occur in wetlands (67-99% of the time) but are occasionally found upland. Examples include silver maple (Acer saccharinum), speckled alder (Alnus rugosa), and sensitive fern (Onoclea sensibilis).

If the proposed project is not already approved under a “Minor Activity in the Buffer Zone” exemption (310 CRM 10.02 (2) (b) 2.), or a Negative Determination of Applicability or an Order of Conditions, then DCR / Proponent shall develop an appropriate permitting packet. This packet will include:

- WPA Form 1: https://www.mass.gov/how-to/wpa-form-1-request-for-determination-of-applicability
- Or WPA Form 3: https://www.mass.gov/how-to/wpa-form-3-wetlands-notice-of-intent
- Accompanying maps (see example below)
- Description of proposed work
- Sketch of proposed work
- Photographs depicting extent of proposed work and associated wetland flagging

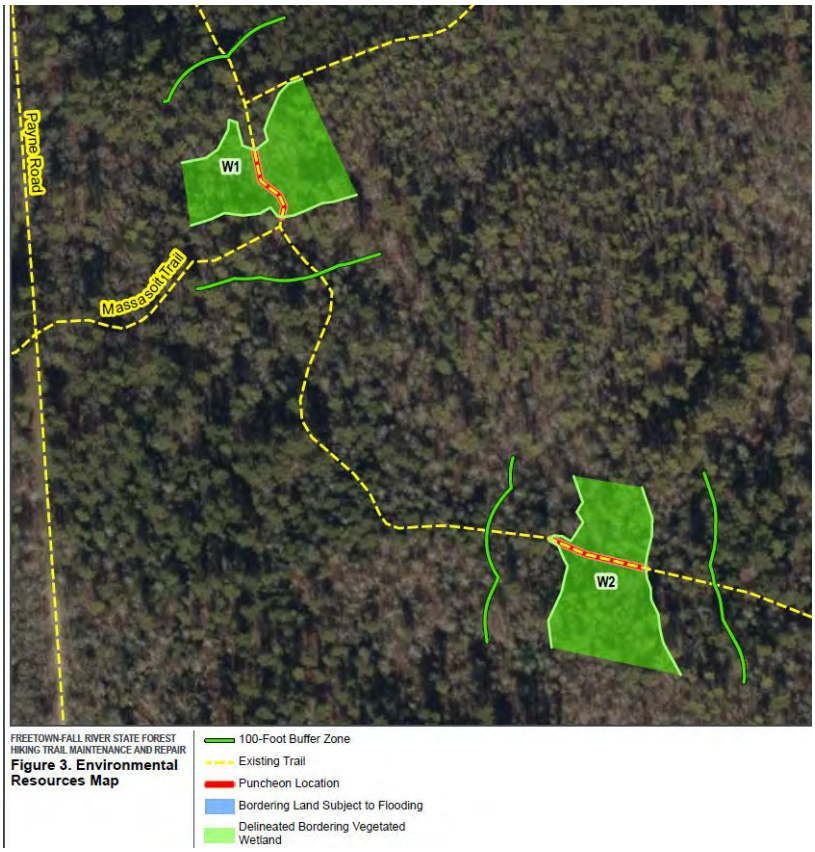
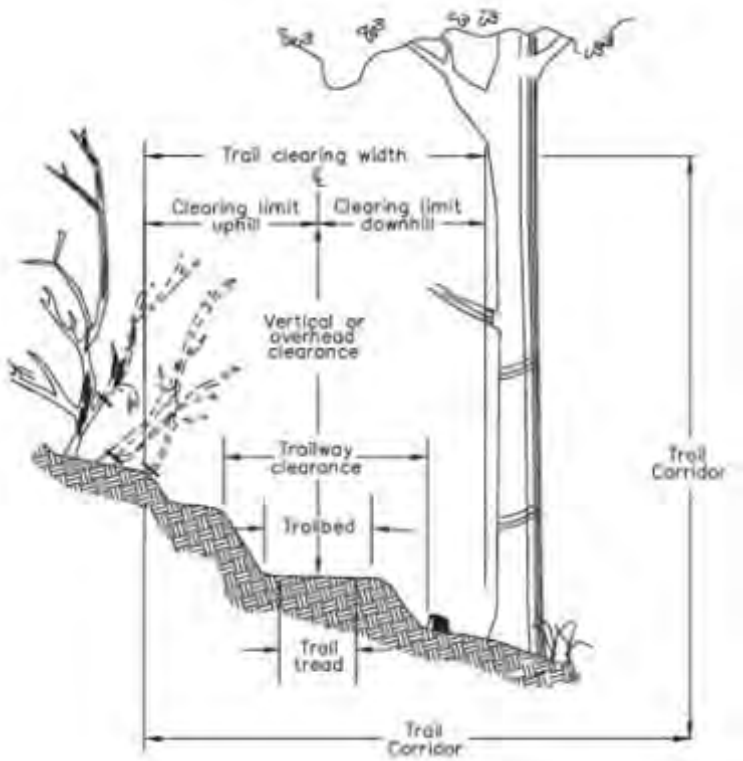


Photo #4 and 5: View of existing trail spanning through Wetland W3. There are no puncheons present through this section of wetland causing foot traffic directly in the wetland.

Photo #6: View of an example of a diamond pier wooden puncheon installed in a wetland.

3. Repair and Maintenance Activities

3.1 *Trail Cross Section and Terms*



3.2 *Trail maintenance activities on DCR's natural surface trails fall into the following nine categories*:

- Trail Corridor Vegetation Clearance
- Trail Tread Maintenance
- Simple Drainage Structure Installation and Maintenance
- Moderate Drainage Structure Installation
- Steep Slope Structure Installation
- Trail Closures
- Trail Reroutes
- Wet Area Crossings
- Minor Stream Crossings (<20')

3.2.1 Trail Corridor Vegetation Clearance

As vegetation falls or grows into the trail corridor, it must periodically be trimmed or removed to maintain a trail corridor clear of obstacles. This activity includes cutting, trimming and removal of vegetation within up to 18" if the existing trailbed width, and up to a vertical height of 6' to 9'. Tree branches that grow into the trail corridor are pruned back to the nearest larger branch or trunk. For trails 36" or less on DCR property, this regular maintenance activity meets the definition of minor activity in buffer zone and

riverfront area (310 CMR 10.02(2)(b)2.a.), in addition, under this plan DCR requests that this activity be confirmed for existing trails greater than 36” wide, and for trail segments that may go through wetland resource areas, and that this maintenance activities does not constitute an alternation.

3.2.2 Trail Tread Maintenance

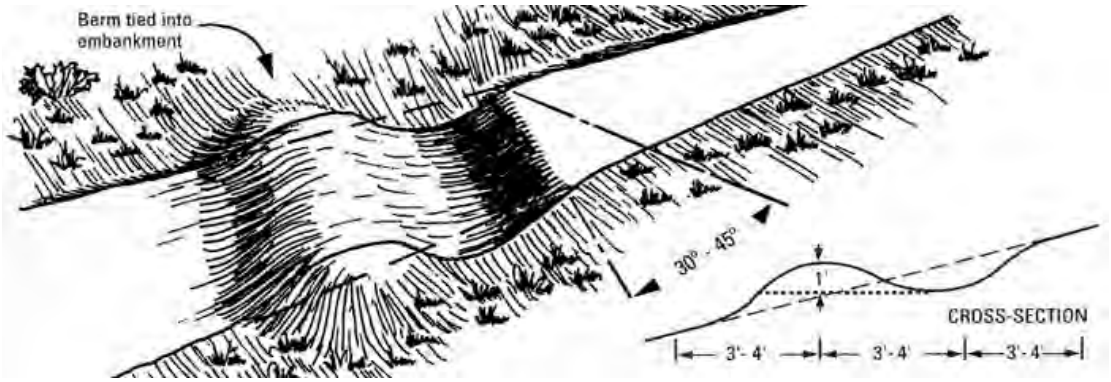
Occasionally, the existing trail tread requires maintenance to remove obstacles, regrade outslopes, and maintain proper drainage and drainage structures. This activity includes removal of obstacles such as stones, roots or small stumps in the existing tread, reshaping the existing tread with hand tools such as shovels and rakes, and bringing in fill to cover exposed roots and rocks and fill mud holes. It does not involve work outside of the existing trailbed.

Eroded trail bed with exposed roots in need of tread maintenance.

For trails 36” or less on DCR property, this regular maintenance activity meets the definition of minor activity in buffer zone and riverfront area (310 CMR 10.02(2)(b)2.a.), in addition, under this plan DCR requests that this activity be confirmed for existing trails greater than 36” wide, and for trail segments that may go through wetland resource areas, and that this maintenance activities does not constitute an alternation.

3.2.3 Simple Drainage Structures (drain dips and water bars)

This activity includes the maintenance of existing and installation of new simple drainage structures within existing trailbed. This may involve digging within the existing tread to a depth of no more than 12 inches to create a drainage dip, and / or the installation of logs, stones or other natural or imported materials to create a water bar. Most work is within the existing tread, but this activity may involve some digging and soil removal within 3' of the existing tread, particularly on the downslope side. Rock water bars may also involve the collection and moving of large stones from the immediate area. Native wood structures may include felling and utilizing local timber. Maintenance involves clearing debris from within the drainage structure and outlet; and reshaping the structure to its original grade and slope.



Trail drain dip

These structures are valuable and necessary to maintain good drainage, minimize and potential for erosion or sedimentation, and protect the Interests of the Act.

Provided that these structures are not constructed within wetland resources areas (other than Riverfront Area), for trails 36" or less on DCR property, this regular maintenance activity meets the definition of minor activity in buffer zone and riverfront area (310 CMR 10.02(2)(b)2.a.), in addition, under this plan DCR requests that this activity be confirmed for existing trails greater than 36" wide, and that this maintenance activities does not constitute an alternation.

3.2.4 Moderate Drainage Structures (Ditches culverts and turnpikes)

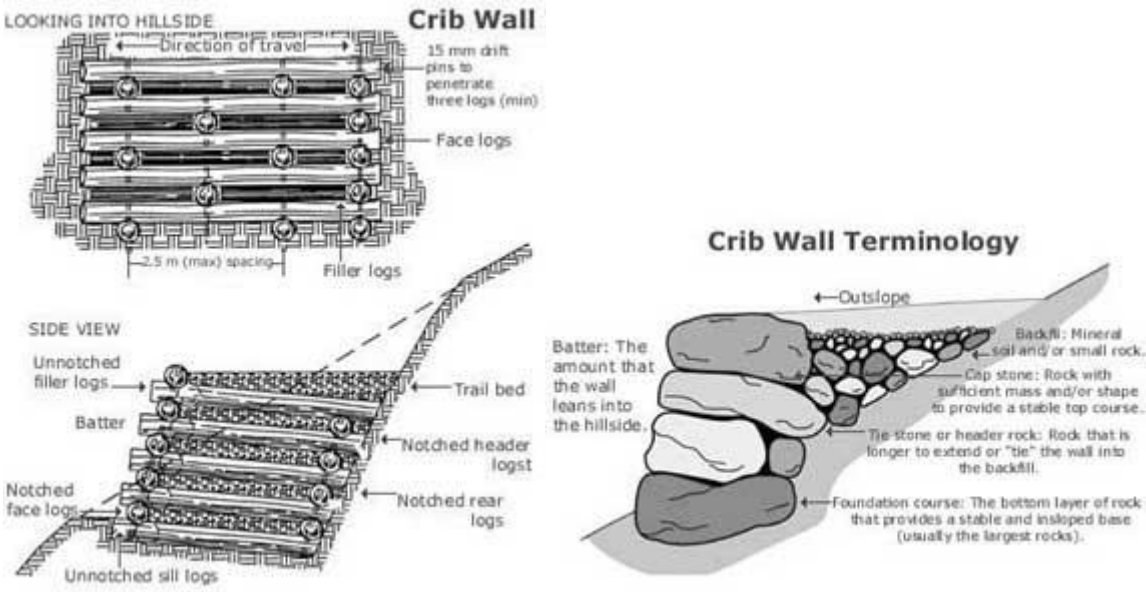
Ditches and culverts may be installed and maintained to move water from one side to another and keep water off the trail. Ditches may be dug to a depth of 12" within 2' of the trail tread. Open cross ditches may be dug across the existing tread and within 3' on either side. Culverts (typically 9" to 12") may be installed digging into the tread (up to 15") and digging and installing rock headers on either end within 3' of the existing tread. Turnpikes lift the trail tread above saturated soil. They are often combined with ditches and culverts to relieve a trail of water from seeps and streams, reduce erosion and provide dry footing. Building a turnpike involves digging a trench on either side of the trail (usually 24-48' apart) and setting stone or logs securely in each trench. Length of

turnpike depends on local conditions. After the parallel rows of rock or logs are in place, the area between is filled with small stones and crushed rock. A layer of mineral soil may be added to the top. Material to build turnpikes may be found from adjacent trail corridor or imported to site.

Provided that these structures are not constructed within wetland resources areas (other than Riverfront Area), for trails 36” or less on DCR property, these structures and their regular maintenance meet the definition of minor activity in buffer zone and riverfront area (310 CMR 10.02(2)(b)2.a.), in addition, under this plan DCR requests that this activity be confirmed for existing trails greater than 36” wide, and that this maintenance activities does not constitute an alternation.

3.2.5 Steep Slope Structures (crib or retaining walls, check dams and steps)

On steeps slopes, retaining walls, check dams and steps are occasionally required to stabilize the trail tread, keep users on the trail and reduce erosion. Retaining walls can help to support turning platforms on switchbacks, shore up trails across rough terrain and steep side slopes, and reinforce the outer edge of a partial bench. Retaining walls may be constructed of either wood or rock. Some excavation will be required establish a footing for the rock or wood. Depth of excavation depends on the slope and size of material used to build retaining wall. Excavated soil may be used for backfill. Rocks and peeled logs are then securely layered to the desired height to create wall. The back of the wall is filled with small stones or crushed rock and mineral soil. Check dams help to slow the flow of water in gullies, allowing silt to build up behind structures and prevent further erosion. They are effective tools for salvaging badly eroded tread and for restoring closed trails and damaged slopes. Check dams are built from large rocks or peeled logs securely installed perpendicular to the tread. Some excavation is necessary to secure rock or logs into the tread way. Filling behind the rock or logs with small stones or mineral soil will allow check dams to be used as steps. Large rocks (weighing from 40-100 lbs), timber and fill material may be obtained locally (see diagrams).



Stone staircase installed by SCA at Mohawk state forest

Provided that these structures are not constructed within wetland resources areas (other than Riverfront Area), for trails 36” or less on DCR property, these structures and their maintenance meet the definition of minor activity in buffer zone and riverfront area

(310 CMR 10.02(2)(b)2.a.), in addition, under this plan DCR requests that this activity be confirmed for existing trails greater than 36” wide, and that this maintenance activities does not constitute an alternation.

3.2.6 Trail Closures

Trails that are seriously eroded, difficult to maintain, and poorly located can impact natural resources values and the user experience. Best management practices may call for closing these trails. Closing an existing trail to prevent future use may involve blocking or disguising the trail with available fallen wood or the felling of nearby trees. Brushing in the closed trails helps to retain leaf litter and soil. Closing may also involve some regrading of the tread to a more natural grade or re-vegetation using local plant material. Closing a trail may even involve installation of check dams to restore damaged slopes.

This activity is ultimately protective of wetland resources. For trails 36” or less on DCR property, this regular maintenance activity meets the definition of minor activity in buffer zone and riverfront area (310 CMR 10.02(2)(b)2.a.). In addition, under this plan DCR requests that this activity be confirmed for existing trails greater than 36” wide, and that this maintenance activities does not constitute an alternation. For trail closures within wetland resource area, this activities constitutes restoration and mitigation.

3.2.7 Trail Re-Routes

Occasionally, trail reroutes are required to improve existing trail conditions that cannot be solved with the above maintenance techniques or to avoid environmentally sensitive areas. Trail reroutes may involve flagging a proposed route, trimming and removal of vegetation, and excavation of organic material and sometimes mineral soil on side slopes to a depth of not more than 12”. Excavated material may be broadcasted on the side of the trail or retained for use as fill. Constructing a re-route may also involve removal of obstacles such as rocks and roots, and installation of the above trail structures. The width of soils disturbance and vegetation clearing is dependent upon designed trail use, but ranges from 12’” to 48” (trail width) and up to 10’ and 18” outside of the trail tread width (vegetation clearance).

Provided that these re-routes are not constructed within wetland resources areas (other than Riverfront Area), for trails 36” or less on DCR property, these re-routes meet the definition of minor activity in buffer zone and riverfront area (310 CMR 10.02(2)(b)2.a.). In addition, under this plan DCR requests that any re-route that better protects adjacent resources be confirmed for existing trails greater than 36” wide, and that this maintenance activities does not constitute an alternation.

3.2.8 Wet Area Crossings (stepping stones, bog bridges, puncheons)

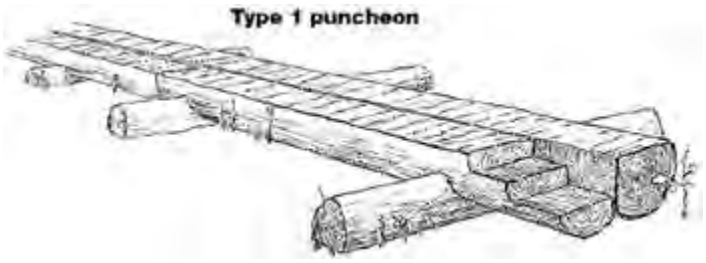
Trails occasionally cross areas that have seasonally saturated soils or wet areas. In order to minimize impacts to vegetation and soils, and minimize trail widening, a number

of different types of structures can be installed and maintained. Stepping stones are simple low-maintenance ways for trails to cross through wet areas. Installation of stepping stones includes excavation of 12’ of soil and setting of a large stone(s) for stepping. Large rocks will most likely be collected from along or nearby the trail corridor.

Puncheon, or bog bridges are simple wooden boardwalk structures. Stone or wooden sills are place on top of or dug into the soils to a depth of less than 6” and a width of 18-36”. Side by side planks, peeled logs or stringers with decking are laid on top of the sills within the existing tread width. These structures keep hikers elevated, effectively protecting wetland soils, minimizing vegetation trampling, allowing for unobstructed flowage of water, and providing adequate light to maintain vegetation. By keeping hikers above saturated soils bog bridges and puncheons minimize trail widening while still allowing users to traverse wetland habitats.

There are three types of puncheons readily used on the east coast.

Type 1 Puncheons are created from natural / native downed timber same as downed woody debris that naturally occur within the wetland. Cut logs are spiked or pinned to the sills on the ground.



Rustic Type 1 Puncheon

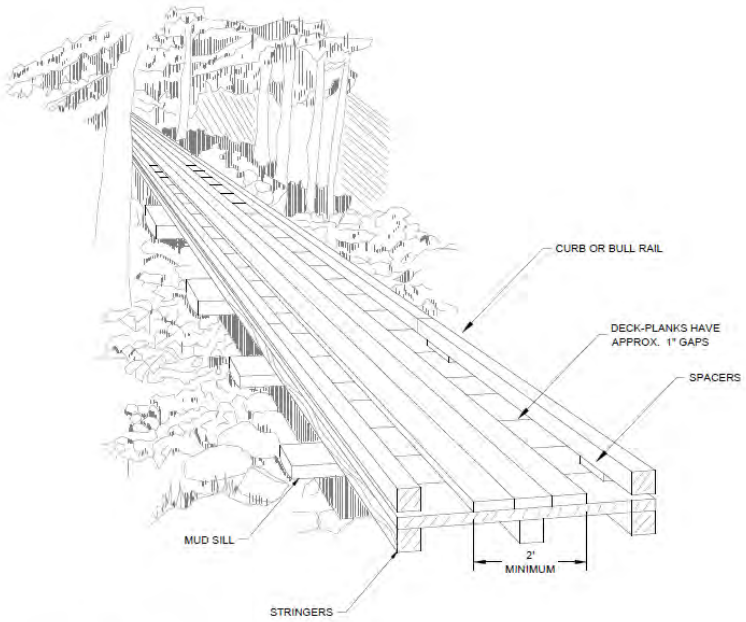
Type 2 Puncheons are made from dimensional lumber with 2.3 to 3 foot long, 6x6” pressure sills and two or three dimensional blanks (2”x10” or 2”x12”) running in the direction of the trail, on 8-foot sections. Sleepers are functionally similar to natural woody debris within the wetland. Each is “di minimus” at approximately 1 square foot.

Type 2 Puncheon Example

Type 3 Puncheons are minimum 36”-wide horizontal decked bog bridge with a curb and ramp up. These decked sections sit on:

- 6”x6” Sills
- Diamond concrete piers
- Helical piles

Type 2 Puncheon Example



3 TYPICAL PUNCHEON DETAIL

Scale: Not To Scale

NOTE: CONTRACTOR TO CONSULT WITH OWNER TO MODIFY PUNCHEON DETAIL BASED ON FIELD REQUIREMENTS FOR PUNCHEON TYPE 2 (PUNCHEONS 2 AND 5) AND PUNCHEON TYPE 3 (PUNCHEONS 1, 3, AND 4)

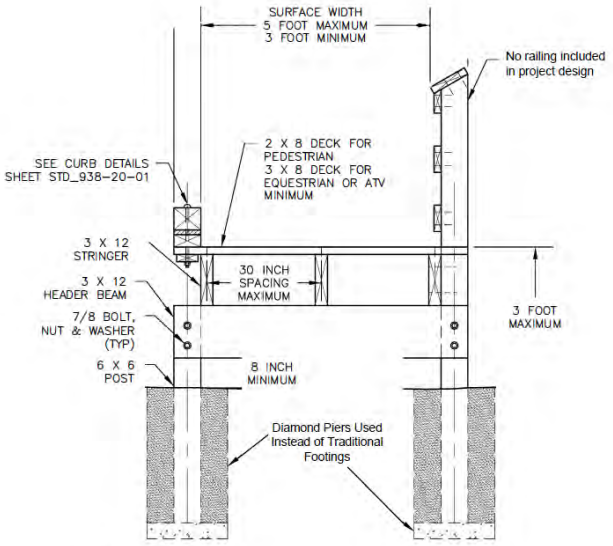
(Refer to DCR Trail Guidelines and Best Practices Guidelines for additional Puncheon notes)

PUNCHEON CONSTRUCTION NOTES (Construction notes based on National Park Design Recommendations):

Soil sediment erosion controls are to be installed as shown on plans. Straw wattle shall be used to demarcate the limit of work and act as sediment and erosion control. Straw netting shall be removed- straw may remain- once site is stable.

1. Puncheon :
   - The entire structure must extend to solid mineral soil in order to prevent soft spots to develop at either end of puncheon.
   - Approaches to be straight for at least 10-ft coming up to a puncheon.
   - Mud sills to be made of native logs (cedar, tamarack, locust, or other hard wood material), or short treated planks.
   - Lay mud sills in trenches at both ends of the area to be bridged at intervals of 6 to10-ft. Mud sills to be buried in firm ground approximately two-thirds embed depth. If firm footing is not available, use rock and fill to solidify the bottom of the trench, increase the length of the sill log to give it better flotation or use more sills for needed floatation.
   - Stringers to be made of 8-in peeled logs or treated timbers and are set on top of mud sills. Stringers should be at least 10-ft long and matched by length and diameter.
   - Stringers to be set level with each other so that the surface of the puncheon will be level when the decking is added. Three stringers are required. Notch the mud sills if necessary
   - To hold stringers in place use toenail spikes through the stringers to the mud sills or drive Number 4 rebar through holes in the stringers.
   - The decking should be 4 to 5-ft long and placed with the tree growth rings curving down. Leave at least a 3/4-in gap in between decking pieces to allow for water to run off.
   - Do not spike decking to the center stringer as center spikes may work themselves up over time and create obstacles.
   - Add running planks made of untreated lumber. Do not leave gaps between running planks as they can trap mountain bike or motorcycle wheels.
   - Bull rails should be placed along each side of the puncheon for the full length of the structure to keep traffic in the center. Nail spacers between the curb logs and the decking for drainage.
   - Add a bulkhead or backing plate at each end of the structure to keep the stringers from contacting the soil. If the plate stays in place, do not spike it to the ends of the stringers so as to avoid early rot.

Type 3 puncheon on sills at 5' spacing



2 Typical Elevated Boardwalk Detail
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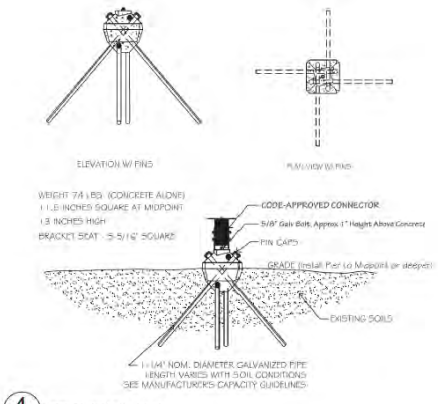


4 Diamond Pier DP-75 Design
Scale: Not To Scale

Type 3, Puncheon on Posts and Piers

All three types of puncheon are raised high enough above the ground to provide little interference with the movement of floodwater, and ideally raised one foot in height for each two-feet in width. Type 3 puncheon is the most likely of the three to meet accessibility guidelines. All puncheon maintenance typically involves replacement of rotted sections.

These structures are often constructed across linear projections of bordering vegetated wetland, and thus do NOT meet the definition of minor activity in buffer zone and riverfront area (310 CMR 10.02(2)(b)2.a.).

However, all of these structures are ultimately protective of wetland resources and are designed to have a very minor impact (between 1.5 and 3 square feet per section).

DCR believes that these structures are consistent with the provisions of 310 CMR 10.53(3)(j) “the construction and maintenance of catwalks, footbridges,…” and also that these, even when they constitute a minor alteration, meet the provisions of 310 CMR 10.55(4) under which the commission may permit the alteration of up to 500 square feet of bordering vegetated wetland without replication.

DCR asks the Commission to affirm that puncheon structures described above, meet these provisions and DCR may install and maintenance these structures to protect wetland resources without further replication under this Determination and/or Order.

3.2.9 Minor Stream Crossings (bridges(<25’))

Trails typically cross streams on fords, bridges or culverts. The size of such structures depends on the size of the stream and the surrounding terrain.

DCR occasionally needs to install or replace stream crossings to protect public safety and adjacent banks, streams, and bordering wetlands.

DCR will meet stream crossing standards, installing bridges that meeting the 1.2 times the width from bank to bank. Installation of bridges may include excavation of soils adjacent to the stream bank (but not within any wetland resources area other than Riverfront Area) to install stone, concrete or timber abutments. Bridge stringers are then securely attached to the abutments and then the top is decked. Erosion control will be installed as needed to protect the bank and adjacent resources. Stone and or timber may be collected from the immediate area. Approaches are then graded to provide a

smooth transition to the bridge. Maintenance includes cleaning debris, regrading approaches as needed, and replacement of rotted materials.

3.2.10 Other

Any other project not included in the above descriptions could be permitted under this Management Plan subject to the discretion of the Commission. DCR would review the proposed project with the Commission at a regularly scheduled public meeting to discuss options and design approaches for the project. At that time the Commission could direct the DCR regarding permitting requirements under the State and assess whether the project would require a separate filing or be allowed, with or without conditions, under this Management Plan.

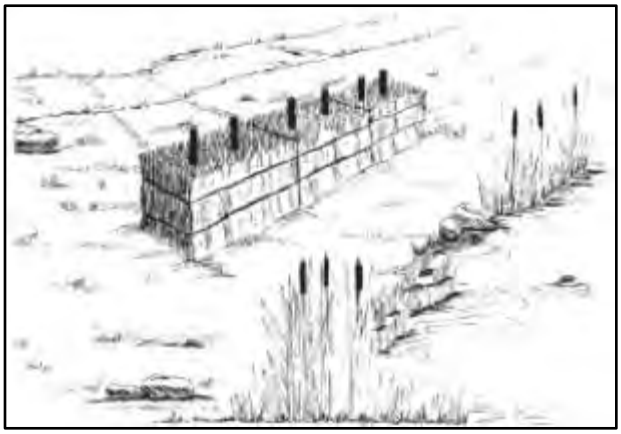
4. Erosion and Sedimentation Control Techniques

If deemed necessary by the Commision, erosion and sedimentation control can be implemented during trail projects to further protect wetland resources. Erosion control is appropriate when erosion will likely occur in the form of sheet or rill erosion or temporary sediment retention is necessary until permanent vegetation is firmly established. Erosion control devices are installed across and at the toe of a slope, usually consisting of straw bales or geo textile materials, to prevent sediment from entering wetlands or open water. Such precautions could include straw bales, straw wattles, or silt fences.

4.1 Straw Bales

Guidelines for bale installation

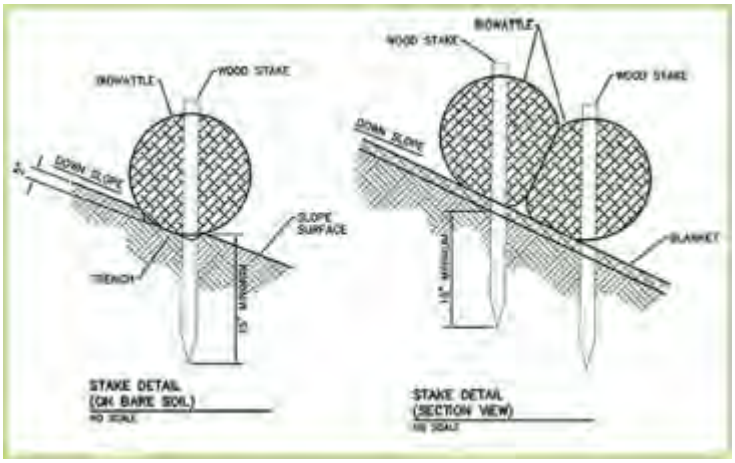
- Bales shall be placed in a single row on the contour with the ends tightly adjoining, not to exceed 600 feet in length.
- Turn up the ends and begin a new row, if needed.
- The bales should be embedded into the ground
  at least 4" deep.
- After placing bales, they should be anchored in place with two stakes per bale driven through the bale and into the ground.
- Bales should be used where the area below the barrier has exposed soils and would be impacted by water flowing through a barrier.



- Inspections should be frequent. Repair or replacement should be done promptly, as needed.

4.2 Straw Wattles

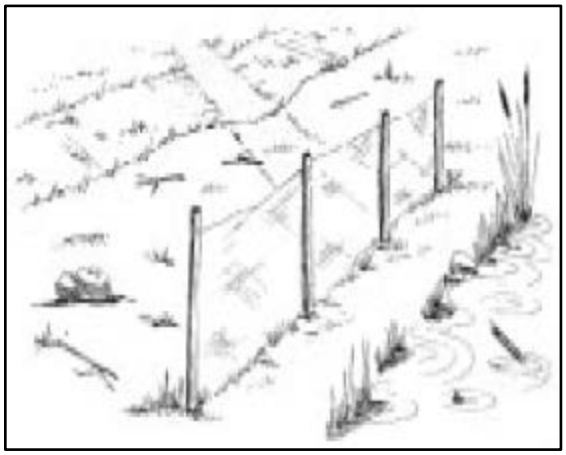
Straw Wattles, also known as straw worms, bio-logs, straw noodles, or straw tubes are man made cylinders of compressed, weed free straw, 8 to 12 inches in diameter and 20 to 25 feet long. They are encased in jute, nylon, or other photo degradable materials, and have an average weight of 35 pounds. They are installed in a shallow trench forming a continuous barrier along the contour (across the slope) to intercept water running down a slope.



Straw Wattles are used on exposed slopes that have less than 30% of the original ground cover remaining and are at risk for increased erosion. They can be installed on slopes up to 70 percent, however their effect diminishes greatly on slopes steeper than 50 percent. Soils can be shallow, but not less than about 8 inches. Straw Wattles increase infiltration, add roughness, reduce erosion, and help retain eroded soil on the slope. Straw Wattles should be effective for a period of one to two years, providing short term protection on slopes where permanent vegetation will be established to provide long term erosion control.

4.3 Silt Fencing

A silt fence is a temporary sediment barrier consisting of filter fabric attached to supporting posts and entrenched in the soil. Silt fence is a sediment control practice, and is intended to be installed where sediment-laden water can pond, thus allowing the sediment to fall out of suspension and separate from the runoff. It is not intended to be an erosion control practice. Improperly applied or installed silt fence will increase erosion. A silt fence detains sediment by ponding water behind it and allowing sediment to settle out.



Silt fence can be used where:

- The slope is gentle, allowing temporary ponding and deposition of sediment;
- Sheet runoff would occur
- The size of the drainage area is no more than 1/4 acre per 100 linear feet of silt fence;
- The maximum flow path length above the barrier is 100 feet (30.5 m);

Guidelines for silt fencing

- If wooden stakes are utilized for silt fence construction, they must have a diameter of 2" when oak is used and 4" when pine is used.
- The filter fabric should be purchased in a continuous roll and cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, filter cloth should be spliced together only at a support post, with a minimum of a six-inch overlap, and sealed.
- When wire support is used, a standard-strength filter cloth maybe used. When wire support is not being used, extra-strength cloth should be used.
- The fabric should be stapled or wired to the fence and a minimum of 4" of the fabric should be extended into the trench.
- The trench should be backfilled and the soil compacted over the filter fabric.

4.4 Additional considerations for erosion control

- Inspect bales and barriers after heavy rains.
- Sediment deposits should be removed when the level of deposits reaches one-half of the height of the bale or the silt fencing.
- Barriers should be removed when the area has revegetated and the barriers are no longer needed. The sediment should be removed or graded out before removal.
- Straw bale barriers require more maintenance than geotextiles due to the permeability of the bales being less than that of silt fencing.
- Silt fences should be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.
- For specific information regarding the different types of geotextile materials and their construction and maintenance guidelines, contact the Department of Environmental Services, county conservation district, or a local industrial supplier.

5. Emergency Issues

Any emergency related work determined to be associated with the maintenance of the trail system will follow existing protocol under the Massachusetts Wetlands Protection Act (MGL Ch. 131 Sec. 40) and Regulations at 310 CMR 10.06. In the rare recent that trail conditions pose a threat to public health and safety, such as may result from storm debris blocking trails or stream channels, the regulations require that the work be undertaken at the direction of public agency such as the Commission, carried out according to Soil Conservation BMPs, and completed within 30 days.