Town of North Hampton, NH Philbrick's Pond Culvert Inlet Improvement

NEW HAMPSHIRE WETLANDS BUREAU EXPEDITED MINIMUM IMPACT WETLANDS PERMIT APPLICATION

June 2021

Prepared for:

Town of North Hampton 233 Atlantic Avenue North Hampton, NH 03862

Prepared by:



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PHILBRICK'S POND CULVERT INLET IMPROVEMENT

NEW HAMPSHIRE WETLANDS BUREAU EXPEDITED MINIMUM IMPACT WETLANDS PERMIT APPLICATION

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A. Application

- 1. Application Form
- 2. Application Fee (attached)
- 3. EXP Minimum Permit Regulations



A-1 Application Form





EXPEDITED (EXP) MINIMUM IMPACT WETLANDS PERMIT APPLICATION



File No.:

Water Division/Land Resources Management Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/Env-Wt 100-900

APPLICANT'S NAME: Michael Tully TOWN NAME: North Hampton

| Administrative Use | Administrative Use | Administrative Use | Check No.: | |
|---|---|--|-----------------------------------|--|
| Only | Only | Only | Amount: | |
| | | | Initials: | |
| | | | | |
| Please use the Wetland Permit Resource Mapper, or other sou | Planning Tool (WPPT), the Naturces to assist in identifying key fas, designated rivers, or designated | ral Heritage Bureau (NHB) <u>Da</u> eatures such as: <u>priority resc</u> | ataCheck Tool, the <u>Aquatic</u> | |
| Does the property contain a PRA? Yes No. If yes, provide the following information: Does the project qualify for an Impact Classification Adjustment or a Project-Type Exception (See Env-Wt 407.02 and Env-Wt 407.04)? Yes No. Protected species or habitat? Yes No. If yes, species or habitat name(s): NHB Project ID #: 20-1661 Bog? Yes No Floodplain wetland contiguous to a tier 3 or higher watercourse? Yes No Designated Prime Wetland or duly-established 100-foot buffer? Yes No Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone? Yes No | | | | |
| Is the property within a Designated River corridor? Yes No. If yes, provide the following information: Name of Local River Management Advisory Committee (LAC): A copy of the application was sent to the LAC on Month: Day: Year: | | | | |
| For stream crossing projects, provide watershed size: Not Applicable | | | | |
| For dredging projects, is the subject property contaminated? Yes No If yes, list contaminant: There are no known sources of contamination. | | | | |
| Is there potential to impact impaired waters, class A waters, or outstanding resource waters? 🔀 Yes 🗌 No | | | | |

SECTION 2 - ELIGIBILITY (Env-Wt 306.03; 310.01; 310.03)

You must confirm that your project meets ALL of the following statements to qualify for the EXP process:

- The project qualifies as minimum impact project (See Env-Wt 306.03).
- The project does not include activities that are prohibited under RSA 482-A (See Env-Wt 306.03(a)).
- The project does not include any work in a jurisdictional area that was started without first obtaining the applicable approval (See Env-Wt 306.03(b)).
- No work has been done on the subject property pursuant to another EXP or a statutory permit-by-notification (SPN) within 12 months of the date this EXP will be issued. Alternatively, if any work has been done on the subject property pursuant to another EXP or a statutory permit-by-notification (SPN) within 12 months of the date this EXP will be issued, then you are submitting information, including a plan, with this application demonstrating that:
 - The work proposed in this EXP application is wholly unrelated to and separate from the work already done under the EXP or SPN; and
 - The work proposed in this EXP application, when combined with work that has been done under previously issued EXPs or SPNs within the last 12 months, does not constitute a project for which a standard permit is required (See Env-Wt 310.03(a)).
- If the project is located in a PRA, it also qualifies for an impact classification adjustment under Env-Wt 407.02 or a project-type exception (PTE) under Env-Wt 407.04 (See Env-Wt 310.01(d)(6)).

| My project meets all statements above. (Proceed to Section 3.) | |
|--|----------|
| My project does not meet all of the statements above. (Your project does not qualify for the EXP procest project either is not permittable or requires a Standard Permit.) | ss. Your |

SECTION 3 - INFORMATION ON THE PROPOSED PROJECT (Env-Wt 310.01(c))

Provide the following information on the proposed project.

Identification of the applicable minimum impact provision(s) in Env-Wt 500, Env-Wt 600, or Env-Wt 900 and the project-specific information required by those provision(s):

Env-Wt 525.03 - The intent of the proposed project is to remove the stone weir that is inhibiting the daily tidal range in the saltmarsh upstream of the Chapel Brook crossing of Route 1A. This will be accomplished by replacing the stone weir with a concrete slab set to the culvert's inlet elevation. An intensive study of the Philbrick's Pond salt marsh determined the tidal range will increase by about 11-inches in the salt marsh that will be a significant benefit to the salt marsh.

See Section A-3 for the applicable provisions in Env-Wt 500, Env-Wt 600, and Env-Wt 900.

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| stone weir at the inlet of the 4-ft by 4-ft box culvert of the Additionally, there's an abandoned trolley berm approxim Brook flows under the trolley berm through a 30-in CMP culvert is higher than the trolley berm culvert, and becaus been created between the two culverts. The intent of the with a concrete slab, and regrade the stream channel to concrete slab, and regrade the stream channel to concrete slab. | pply "See attached" in the space provided below. Fond and the surrounding salt marsh. For years, the salt ined this is due, in part, to reduced tidal range because of the Chapel Brook culvert crossing at Route 1A at elevation 2.1 ft. sately 100 feet upstream of the Route 1A culvert, and Chapel culvert at invert elevation 1.14 ft. Because the Route 1A see of the stone weir, a high spot in the stream channel has a project is to remove the stone weir, replace the stone weir reate a consistent stream bed elevation. The project will in the culverts that are required to isolate the stream between |
|---|---|
| Identification of the type of wetland to be affected and the | a amount of watland impacts (in square fact /linear fact). |
| The wetland scientist classified the wetlands as follows: Highest observable tide line (HOTL) and salt marsh depicted | ed were delineated by Marc Jacobs, Certified Wetland It marsh was delineated as per ENV-Wt 602.22 based upon etation, excluding potential eelgrass beds. HOTL was |
| (Not applicable) | |
| The number of linear feet of shoreline frontage for project 176 linear feet (Not applicable) | s located on water bodies: |
| (Not applicable) | |
| SECTION 4 - PROJECT LOCATION (Env-Wt 310.01(b)) | |
| ADDRESS: 88 Ocean Boulevard | |
| TOWN/CITY: North Hampton | |
| TAX MAP/LOT NUMBER: Map 5, Lot 10 | |
| US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY N/A | NAME: Chapel Brook |
| (Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places): | 42.96603° North 70.77222° West |

Irm@des.nh.gov or (603) 271-2147
NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095
www.des.nh.gov

| | · | HOLDER) INFORMATION (Env-Wt 310.0 en the name of the trust or company sho | ` '' | the applicant's |
|---|--|--|-------------------|----------------------|
| NAME: Mic | hael Tully, Town of North Hamp | oton | | |
| MAILING A | DDRESS: 236 Atlantic Avenue | | | |
| TOWN/CITY | : North Hampton | | STATE: NH | ZIP CODE: 03862 |
| PHONE: 603 | 3-964-8087 | EMAIL ADDRESS (OPTIONAL): mtully@n | orthhampton-nh | .gov |
| | C COMMUNICATION: By initialing the communication of | ng here: <u>MT</u> , I hereby authorize | NHDES to comn | nunicate all matters |
| | AUTHORIZED AGENT INFORM | • | | |
| _ | | of the company should be written as the | agent's name. | |
| | Bouchard, CMA Engineers, Inc | | | |
| MAILING A | DDRESS: 35 Bow Street | | T | I |
| TOWN/CITY | : Portsmouth | | STATE: NH | ZIP CODE: 03801 |
| PHONE: 603 | 3-431-6196 | EMAIL ADDRESS (OPTIONAL): jbouchard | l@cmaengineers | .com |
| | C COMMUNICATION: By initialing the substitution of the community of the co | ng here: <u>JWB</u> , I hereby authorize | NHDES to comm | nunicate all matters |
| | | TION (IF DIFFERENT FROM APPLICANT) the name of the trust or company should | • | |
| NAME: | | | | |
| MAILING A | DDRESS: | | | |
| TOWN/CITY | ' : | | STATE: | ZIP CODE: |
| PHONE: | | EMAIL ADDRESS (OPTIONAL): | | |
| | C COMMUNICATION: By initialing this application electronically. | ng here:, I hereby authorize N | NHDES to commu | nicate all matters |
| SECTION 8 | APPLICATION FEE (RSA 482-A | :3, 1) | | |
| ⊠ \$400 fo | r minimum impact projects. Ple | ease make your check or money order pa | yable to: "Treasu | rer - State of NH". |
| SECTION 9 - REQUIRED CERTIFICATIONS (Env-Wt 310.01(d)) | | | | |
| Initial each | box below to certify: | | | |
| Initials: JWB | The proposed project meets the | e conditions and limits of the applicable mi | nimum impact pro | pject rule. |
| Initials: | All abutters have been notified. | | | |

| Initials: JWB | If the project is to repair or replace a docking structure, the docking structure is an existing legal structure. $(\boxed{\mathbb{N}} \ \mathbb{N}/\mathbb{A})$ |
|------------------|---|
| JVVB | (M/A) |
| Initials: | The proposal is the alternative with the least advance impact to invited at an exact according to the |
| JWB | The proposal is the alternative with the least adverse impact to jurisdictional areas, as required by Env-Wt 310.01(d)(4). |
| Initials: | |
| JWB | The project is not an after-the-fact application. |
| Initials: | The project is: |
| JWB | Not located in a PRA; or Is located in a PRA but is subject to a classification adjustment under Env-Wt 407.02 or a project-type exception (PTE) under Env-Wt 407.04. |
| Initials: | |
| JWB | The applicant is aware of the limits of the EXP and understands and will comply with all conditions in the EXP and all applicable conditions in Env-Wt 307. |
| Initials: | |
| JWB | To the best of the signer's knowledge and belief, all required notifications have been provided. |
| Initials: | The information submitted on or with the application is true complete, and not misleading to the best of the |
| JWB | The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief. |
| | The signer understands that: |
| | The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: Deny the application. |
| laitiala. | 2. Revoke any approval that is granted based on the information. |
| Initials: | If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1. |
| JWB | • The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, |
| | currently RSA 641. The signature shall constitute authorization for the municipal conservation commission and the |
| | The signature shall constitute authorization for the municipal conservation commission and the Department to inspect the site of the proposed project, except for minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II. |
| Initials: | |
| JWB | If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing. |
| | 1 |

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| SECTION 10 - REQUIRED SIGNATURES (Env-Wt 310.01(d)) | | | | |
|---|---------------------------------------|--|--------------------------------------|----------------------------------|
| SIGNATURE (OWNER)*: | PRINT NAME LEG | GIBLY: | | DATE: |
| *Note: if the applicant is not the owner of the proper provided that property owner signatures shall not be way where an easement will be obtained prior to the is your project meets this exception: | e required for tra | nsportation project | ts adjacent to exi | sting rights-of- |
| SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER) | PRINT NAME LEC | GIBLY: | | DATE: S/13/21 |
| SIGNATURE (AGENT JF APPLICABLE): | PRINT NAME LEG Joshua Bouchard | | | DATE: 4/21/21 |
| SECTION 11 - CONSERVATION COMMISSION SIGNA | ATURE (Env-Wt 3 | 10.01(h))** | | |
| The signature below certifies that the municipal Cothhelocal governing body, has reviewed this application | nservation Comm tion and waives it | ission or, if there is s right to intervene | no conservation per RSA 482-A:1 | commission, |
| AUTHORIZED COMMISSION SIGNATURE: | PRINT NAME LI | EGIBLY: T.Wilson, Ch | | ATE: 5. 12,2021 |
| SECTION 12 - LOCAL RIVER MANAGEMENT ADVISO | RY COMMITTEE | SIGNATURE (Env-W | /t 310.01(i))** | |
| The signature below certifies that the LAC waives it within a Designated River Corridor) | s right to interver | ne per RSA 482-A:1: | 1. (N/A This | project is not |
| AUTHORIZED LAC REPRESENTATIVE SIGNATURE: | PRINT NAME L | EGIBLY: | D. N. | ATE: /A |
| **Note: If the application is complete, except for the waiving their right to intervene on the project, the agestablished in RSA 482-A:3, XIV (Env-Wt 310.02(h)). | signed statemen | t from the Conserv processed under th | ation Commissic e application pro | on and/or LAC, ocessing times |
| SECTION 13 - COUNTY CONSERVATION DISTRICT O ONLY for projects under Env-Wt 522.06, please pro- certified wetland scientist (CWS) certifying complian | vide a signed state | ement by the coun | ty conservation of | district or |
| By signing below, the county conservation district or certified wetland scientist certifies compliance with all conditions of that rule. | | | | |
| AUTHORIZED COUNTY CONSERVATION DISTRICT OF CWS SIGNATURE: | STRICT OR PRINT NAME LEGIBLY: DATE: | | | ATE: |
| SECTION 14 - TOWN / CITY CLERK SIGNATURE (Env-Wt 310.01(f)) | | | | |
| As required by RSA 482-A:3, I(a)(1), I hereby certify | | lity has received 4 o | copies of the app | lication |
| including all attachments. TOWN/ETTY CLERK SIGNATURE: PRINT NAME LEGIBLY: Was Divined and and all attachments. | | | | an an |
| TOWN/CITY: North Hampton DATE: 5/14/21 | | | | 10-11 |

DIRECTIONS FOR TOWN/CITY CLERK:

Per RSA 482-A:3, I(a)(1)

- 1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
- 2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
- 3. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board.
- 4. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:

Submit the single, original permit application form bearing the signature of the Town/City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery at the address at the bottom of this page.

Keep this checklist for your reference; do not submit with your application.

| APPLICATION CHECKLIST |
|---|
| The completed, dated, signed and certified application (Env-Wt 310.01). |
| Application fee of \$400, as determined in RSA 482-A:3, I (Env-Wt 310.01(e)). |
| A copy of the town tax map(s) showing the location of the proposed project in relation to abutters (Env-Wt 310.01(b)(2)) |
| A list of abutters' names and mailing addresses to cross-reference with the tax map (Env-Wt 310.01(b)(3)). |
| A copy of the appropriate US Geological Survey map with the property and project clearly marked (Env-Wt 310.01(b)(4)). |
| Photos that: |
| Clearly show the area to be impacted; |
| \square Are mounted or printed no more than 2 per sheet on 8.5 inches x 11 inches paper; and |
| Are annotated to explain impact (Env-Wt 310.01(b)(6)). |
| The results and identification number of the NHB DataCheck (Env-Wt 310.01(b)(8)). See Wetlands Permitting: Protected Species and Habitat Fact Sheet. |
| An accurate drawing showing the precise location, with detailed dimensions clearly annotated to document existing site conditions and to show the proposed impacts to the jurisdictional areas (Env-Wt 310.01(c)(4)). |
| An accurate drawing to show the impact of the proposed activity on jurisdictional areas, including the following (Env-Wt 310.01(c)(5)): |
| An overview of the property and proposed impact areas in relation to property lines; |
| The scale, if any, used on the drawing; |
| If the drawing is not to scale, the dimensions of all existing and proposed structures and all other relevant |
| features necessary to clearly define the project; |
| A labeled north-pointing arrow to indicate orientation; |
| A legend that clearly indicates all symbols, line types, and shading used on the plan; |
| The location of the jurisdictional areas delineated in accordance with Env-Wt 400; |
| Proposed sequence of construction including pre-construction through post-construction activities and the |
| relative timing and progression of all work; The location and type of siltation and turbidity controls indicated graphically and labeled or annotated as necessary; |
| For any project using a temporary coffer dam and for any repair of a tier 3 stream crossing, the date, signature, and seal of the licensed professional engineer who prepared or had responsibility for the plan(s); |
| For restoration/enhancement projects, the information required to be shown on a map by Env-Wt 525; |
| For tidal minimum impact projects, the information required to be shown on a map by Env-Wt 600; and |
| For minimum impact stream crossing projects, the information required to be shown on a map by Env-Wt 900. |
| The linear distance of the project from abutting property boundaries (Env-Wt 310.01(c)(7)). |
| The type of dock construction (Env-Wt 310.01(c)(8)); \boxtimes N/A. |
| The diameter of culvert(s) to be used for road or driveway crossings (Env-Wt 310.01(c)(8)); N/A. |
| ☐ The additional information specified in Env-Wt 522 for minimum impact agricultural applications (Env-Wt 310.01(c)(8));☐ N/A. |
| Plans for maintenance of retaining walls, as specified in Env-Wt 514 (if applicable; Env-Wt 310.01(c)(8)); 🔲 N/A. |
| Specifications and plans for maintenance of rip-rap, as required by Env-Wt 514 (Env-Wt 310.01(c)(8)). |
| Any other project-specific plan or information required under Env-Wt 500 and as described in the project-specific worksheet (Env-Wt 310.01(c)(8)); N/A. |
| Information required on the Coastal Resource Worksheet for coastal projects under Env-Wt 600; N/A. |
| Prime Wetlands information required under Env-Wt 700; 🔀 N/A. |
| ☐ Information requested on the <u>Stream Crossing Worksheet</u> required by Env-Wt 900; ☐ N/A. |

Irm@des.nh.gov or (603) 271-2147
NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095
www.des.nh.gov



EXPEDITED (EXP) MINIMUM IMPACT WETLANDS PERMIT APPLICATION REVIEW PROCESS



Water Division/Land Resources Management Wetlands Bureau

(Keep this sheet for your reference; do not submit it with your application)

In accordance with Env-Wt 310.02, the department must review an application for an expedited permit (EXP) for completeness and compliance with applicable department rules within 30 calendar days of receipt if the application has been signed by:

- The municipal conservation commission or, if there is no conservation commission, the local governing body, certifying that the municipality waives its right to intervene on the project; and
- The LAC, if the project is within LAC jurisdiction, certifying that the LAC waives its right to intervene on the project. "LAC jurisdiction" means the authority conferred by RSA 483:8-a, III upon a local river management advisory committee relative to activities within a designated river or river corridor, provided that for purpose of routine roadway maintenance activities conducted under an EXP, LAC jurisdiction is limited to activities in or within 250 feet of a Tier 2 or Tier 3 designated river that have a direct surface water connection to the designated river (Env-Wt 103.27).

If the application is complete, complies with applicable requirements, and has the signed statements mentioned above, the department will issue an EXP and post the information on OneStop within one working day of determining that the application was complete and in compliance with all applicable requirements.

If the application is lacking anything other than the signed statements mentioned above and the project qualifies for an EXP, the department will send a written request for more information to the applicant that:

- · Identifies each item that is missing; and
- Informs the applicant that in order to proceed under the EXP, the applicant must submit all necessary information within 20 days of the date of the notice or the application will be denied.

If the applicant receives a request for more information and wishes to proceed under an EXP, the applicant must submit a revised application for an EXP that provides all of the required information within 20 days of the date of the request for more information. If the applicant does not submit all necessary information to the department within 20 days, the department will deny the EXP.

If the project proposed in the EXP application does not comply with applicable requirements, the department will deny the application and notify the applicant in writing of the reason(s) for the denial.

If the application was complete except for one or both of the signed statements required above, the department will send a written notice to the applicant that the application will be processed under the application processing times established in RSA 482-A:3, XIV.

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A-2 Application Fee



A-3 EXP Minimum Permit Regulations

Below is a listing of the applicable Wetlands Bureau Expedited Minimum Permit regulations, and our responses to them.

<u>Env-Wt 300 Permits and Other Authorizations; Conditions Applicable to all Work in Jurisdictional Areas</u>

The following sections are applicable to this project:

Env-Wt 306.03 Activities Eligible for an Expedited Permit (EXP)

Requirements for Coverage Under State General Permits. Any project classified as minimum impact shall be eligible to apply for an expedited permit (EXP) as authorized by RSA 482-A:11, VI and as described in Env-Wt 310 unless:

(a) The project includes activities that are prohibited under RSA 482-A;

The project has not been constructed.

- (b) Any work in any jurisdictional area was commenced prior to obtaining the applicable approval; The project construction has not started.
- (c) The application has not been signed to indicate the right to intervene has been waived by:
 - (1) The conservation commission; or

The permit application was signed by the conservation commission.

(2) If the town in which the project is proposed does not have a conservation commission, the local governing body; or

Not applicable to this project.

(d) If an EXP is sought for a project that is within LAC jurisdiction, the application has not been signed to indicate the right to intervene has been waived by the applicable LAC.

The project does not fall under the jurisdiction of a Local Advisory Committee (LAC).

Env-Wt 306.05 Required Planning For All Projects

Env-Wt 306.05 has been met, as described in the permit application which can be found in Section A-1.

Env-Wt 307 Conditions Applicable to All Activities in Jurisdictional Areas

The proposed crossing meets the Project-Specific Criteria in Env-Wt 307 as follows:

Env-Wt 307.02 Requirements for Coverage Under State General Permits

In order to be in compliance with federal requirements, all work in areas under the jurisdiction of the U.S. Army Corps of Engineers (US ACE) shall comply with all conditions of the applicable state general permit, available at

http://www.nae.usace.army.mil/portals/74/docs/regulatory/StateGeneralPermits/NH/NH%20General%20Permit%2018August2017.pdf.



- a. General Criteria:
 - 1. Written approval is being requested from the Corps and the State.
 - 2. This project is eligible under the New Hampshire General Permits for:
 - i. Wetland, Stream, River and Brook crossings.
- b. Corps Jurisdiction/Authorities to Issue Permits:
 - The project does not require authorization under the Corps Regulatory Program because it is not located in, or affecting, navigable waters of the United States, discharging dredged material into waters of the U.S., or transporting dredged material for the purpose of disposal in the ocean.
 - 2. The project adheres to the following laws:
 - i. Section 401 of the CWA
 - Section 401 of the CWA is being met because a Wetlands Permit is being submitted to the NHDES for approval.
 - ii. The National Historic Preservation Act of 1966

 See Appendix B for the RPR.
 - iii. The Endangered Species Act, Section 7(a)
 See responses to Env-Wt 307.06, below.
 - iv. The Coastal Zone Management Act of 1972
 North Hampton falls within the Coastal Zone of New Hampshire and is in a tidal zone, but CZMA consistency isn't required as the project does not require an individual permit with the Army Corps.
 - 3. The following law is not applicable to the project:
 - i. The Wild and Scenic Rivers Act
- c. Procedures:
 - It is understood that state Water Quality Certification requirements will be met through the approval of this wetlands permit. The NH Department of Environmental Services determined that a CZMA Federal consistency review is not necessary for this project.
 - 2. This project is eligible for the SV Minimum permit.
- d. Application Procedures Pre-Construction Notification (PCN) (Minor and Major):
 Not applicable to this project.
- e. Federal/State Review Procedures Pre-Construction Notification (PCN) (Minor and Major): Not applicable to this project.
- f. Emergency Procedures 33 CFR 325.2(e)(4): Pre-Construction Notification (PCN) (Minor/Major):
 - Not applicable to this project.
- g. Construction of Solid Fill Structures and Fills Along the Coastline or Baseline From Which the Territorial Sea is Measured. all are considered Pre-Construction Notification (PCN) (Major):
 - Not applicable to this project.
- h. Individual Permit:
 - The project meets the terms and conditions of the General Permit and does not fall under the Individual Permit category.



- i. General Permit Conditions:
 - 1. Other Permits:
 - i. It is understood that the applicant is responsible for obtaining all required State or local approvals.
 - 2. Federal Jurisdictional Boundaries:
 - i. The project is located in a "water of the U.S." but not a "navigable water of the U.S.".
 - ii. Wetlands were delineated in accordance with the Corps of Engineers Wetlands Delineation Manual and the most recent Northeast Regional Supplement.
 - 3. Mitigation:
 - i. See Section 1 of the coastal resource worksheet in Section B-9.
 - ii. Compensatory mitigation is not required.
 - 4. Discretionary Authority:

This condition is understood.

5. Single and Complete Project:

This condition is understood.

6. Projects requiring the use of multiple GPs:

This condition is understood.

7. Permit/Authorization Letter On-Site:

This condition is understood.

8. Historic Properties:

This condition is understood.

9. National Lands:

Not applicable to this project.

10. Corps Property and Federal Projects:

Not applicable to this project.

11. Essential Fish Habitat (EFH):

No habitat areas of particular concern (HAPC) or essential fish habitat areas protected from fishing were identifies at the project location using the NOAA Essential Fish Habitat Mapper.

12. Pile Driving and Removal (for all applicable GPs):

Not applicable to this project.

13. Federal Threatened and Endangered Species:

This condition is understood. Based on this guidance, the project qualifies for a SV (Minimum) permit because the IPaC review lists the northern long-eared bat as the only species present, the activity does not remove trees, the activity is not within an NLEB hibernacula or maternity roost tree, and the activity does not involve bridges or dams.

14. Wild and Scenic Rivers:

Not applicable to this project.

15. Navigation:

This condition is understood.

16. Federal Liability:

This condition is understood.

17. Heavy Equipment in Wetlands:

Not applicable to this project.

18. Temporary Fill:



This condition is understood. See Env-Wt 307.11 response below.

19. Restoration of Inland Wetland Areas:

This condition is understood. See Env-Wt 307.12 response below.

20. Soil Erosion and Sediment Controls:

This condition is understood. See Env-Wt 307.03 response below.

21. Bank Stabilization:

Not applicable to this project.

22. Waterway/Wetland Work and Crossings:

This condition is understood.

23. Discharge of Pollutants:

Not applicable to this project.

24. Spawning, Breeding, and Migratory Areas:

This condition is understood.

25. Storage of Seasonal Structures:

Not applicable to this project.

26. Environmental Functions and Values:

This project will minimize adverse impacts on existing fish, wildlife, and the environmental functions to the extent practicable. The spread of non-native invasive plant species is discouraged. See responses in Env-Wt 307.05 Protection Against Invasive Species Required and Env-Wt 307.12 Restoring Temporary Impacts: Site Stabilization.

27. Invasive Species:

Invasive species are not known to be on site; therefore, an Invasive Species Control Plan is not needed. If encountered, they will be dealt with per NHDOT's BMPs for Roadside Invasive Plants manual.

28. Protection of Special Resources (Special Aquatic Sites, Areas Containing Shellfish, and Special Wetlands):

The project area does not contain shellfish, but the project area is a tidal wetland and saltmarsh which are special aquatic sites. The project aims to improve and protect these priority resource areas.

29. Vernal Pools:

There are no vernal pools in the project area.

30. Inspections:

This condition is understood.

31. Maintenance:

This condition is understood.

32. Property Rights:

This condition is understood.

33. Transfer of GP Verifications:

This condition is understood.

34. Modification, Suspension, and Revocation:

This condition is understood.

35. Special Conditions:

This condition is understood.

36. False or Incomplete Information:

This condition is understood.

37. Abandonment:

This condition is understood.



- 38. Enforcement Cases:
 - This condition is understood.
- *39. Duration of Authorization:*
 - It is understood that the General Permit expires 5 years from the date issued. Activities completed under the SV (Minimum) authorization of this General Permit will continue to be authorized after their expiration date.
- 40. Previously Authorized Activities:
 Not applicable to this project.

Env-Wt 307.03 Protection of Water Quality Required

- a. No activity shall be conducted in such a way as to cause or contribute to any violation of:
 - 1. The surface water quality standards specified in RSA 485-A:8 or Env-Wq 1700; There will be no discharges of sewer or wastes into Class A waters, because this project does not involve sewer work, there aren't any existing sewer mains or septic tanks in the vicinity of the culvert, and Chapel Brook is not a Class A water. There will be no changes in the stream due to benthic deposits; oil & grease; color; turbidity; slicks, odors & surface floating solids; temperature; nutrients; radioactivity; or pH, because proper erosion and sediment control will be used and all equipment will be refueled, maintained, and stored outside the wetland area.
 - 2. The ambient groundwater quality standards established under RSA 485-C; All equipment will be refueled, maintained, and stored outside the wetland area.
 - 3. The limitations on activities in a sanitary protective area established under Env-Dw 302.10 or Env-Dw 305.10; or
 - There aren't any sanitary protective radii in the project area.
 - 4. Any provision of RSA 485-A, Env-Wq 1000, RSA 483-B, or Env-Wq 1400 that protects water quality.
 - There will not be any pollution entering surface or groundwater, and the integrity of public waters will be maintained by adhering to #1 & 2 above.
- b. All work, including management of soil stockpiles, shall be conducted so as to minimize erosion, minimize sediment transfer to surface waters or wetlands, and minimize turbidity in surface waters and wetlands using the techniques described in:
 - 1. Env-Wq 1505.02, Env-Wq 1505.04, Env-Wq 1506, and Env-Wq 1508; Contractor shall install perimeter controls prior to beginning any earth moving operations, direct runoff to temporary controls until stormwater BMPs are stabilized, stabilize ditches and swales prior to directing runoff to them, and inspect erosion controls at least weekly and after every rain event of 0.5 inches or more. The contractor shall comply with sediment and erosion control methods and stormwater treatment practices per manufacturer's recommendations or, if none, the applicable requirements of Env-Wq 1506 or Env-Wq 1508.
 - 2. The applicable BMP manual, available as noted in Appendix B:
 - i. For forestry projects, the Forestry BMPs;Not applicable to this project.
 - ii. For SPN utility projects, the Utility BMPs;Not applicable to this project.



iii. For trail projects, whether under an SPN or other approval, the Trail BMPs;

Not applicable to this project.

- iv. For roadway maintenance projects, whether under an SPN, registration, or other approval, the Routine Roadway BMPs; or
 - The Contractor shall follow the Best Management Practices in the 2018 Routine Roadway Maintenance Activities in New Hampshire.
- 3. The applicable BMP manual supplemented by the portions of Env-Wq 1500 listed in (1), above, if the applicable BMP manual provides less protection to jurisdictional areas than the provisions of Env-Wq 1500 listed in (1), above.
 - As stated in #1 above, the Contractor shall comply with sediment and erosion control methods and stormwater treatment practices per manufacturer's recommendations or, if none, the applicable requirements of Env-Wq 1506 or Env-Wq 1508.
- c. Water quality control measures shall:
 - Be selected and implemented based on the size and nature of the project and the physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to jurisdictional areas;
 - Contractor shall select water quality control measures according to the contract plans, permits, and what is appropriate for the site conditions.
 - 2. Be comprised of wildlife-friendly erosion control materials when:
 - i. Erosion control blankets are used;
 - Erosion control blankets are not anticipated to be used on this project.
 - ii. A protected species or habitat is documented;
 - The Information for Planning and Consultation (IPaC) review listed one threatened species, the Northern Long-Eared Bat, on the species list. However, the project does not propose to remove any trees, therefore the project will not affect bats even if they are present.
 - iii. The proposed work is in or adjacent to a PRA;
 - The project is a tidal water and a saltmarsh, so it is in a PRA.
 - iv. Specifically requested by NHB or NHF&G; orPer NHF&G's request, the Contractor is prohibited from installing erosion
 - control matting products containing welded plastic or "biodegradable plastic" netting or thread.
 - v. Any combination of i. through v., above, applies;
 It is mandatory for all erosion control materials used on this project to be wildlife friendly and adhere to i. through iv. above.
 - 3. Be installed prior to start of work and in accordance with the manufacturer's recommended specifications or, if none, the applicable requirements of Env-Wq 1506 or Env-Wq 1508;
 - It is mandatory for the Contractor to install water quality control measures prior to the start of work and in accordance with manufacturer's recommendations or, if none, the applicable requirements of Env-Wq 1506 or Env-Wq 1508.
 - 4. Be capable of:
 - i. Minimizing erosion;
 - ii. Collecting sediment and suspended and floating materials; and
 - iii. Filtering fine sediment;



It is required for water quality control measures to be capable of all of the

- 5. Be maintained so as to ensure continued effectiveness in minimizing erosion and retaining sediment on-site during and after construction;
 - It is mandatory for the Contractor to maintain the erosion control on a weekly basis and after each rain event of 0.5 inch or more.
- 6. Remain in place until all disturbed surfaces are stabilized to a condition in which soils on the site will not experience accelerated or unnatural erosion, using techniques such as:
 - i. Achieving and maintaining a minimum of 85% vegetative cover using an erosion control seed mix, whether applied in a blanket or otherwise, that is certified by its manufacturer as not containing any invasive species; or
 - ii. Placing and maintaining a minimum of 3 inches of non-erosive material such as stone; and

The Contractor shall leave all water quality control measures in place until all disturbed surfaces are stabilized to a condition in which soils on the site will not experience acceleration or unnatural erosion using techniques as specified in #6 above, or in #7 below.

- 7. If designed and installed as temporary methods, be removed upon completion of work when compliance with (6), above, is achieved;
- d. Any sediment collected by water quality control measures shall be:
 - Removed with sufficient frequency to prevent the discharge of sediment; and The Contractor shall remove sediment from erosion control devices on a weekly basis.
 - 2. Placed in an upland location in a manner that prevents its erosion into a surface water or wetland.
 - The Contractor shall dispose of sediment from erosion control devices outside of the wetland area to prevent its migration into a surface water or wetland.
- e. All exposed soils and other fills shall be permanently stabilized within 3 days following final grading.
 - The Contractor shall permanently stabilize soils and other fills within 3 days following final grading. Stabilization techniques shall include any of the methods described in Env-Wq 1506.



- f. A cofferdam or other turbidity control shall be:
 - 1. Used to enclose a dredging project conducted in or along the shoreline of a bog, marsh, lake, pond, stream, river, creek, or any other surface water, provided that a cofferdam shall not be installed during periods of high flow; and
 - Cofferdams and other turbidity control are not anticipated to be used on this project because the work area will be isolated from stream flow.
 - 2. Removed after work within the cofferdam or other turbidity control is completed, the contained water has returned to background clarity, and removing the structure will not cause or contribute to a violation of (c)(6), above.
 - Not applicable to this project.
- g. The person in charge of construction equipment shall:
 - 1. Inspect such equipment for leaking fuel, oil, and hydraulic fluid each day prior to entering surface waters or wetlands or operating in an area where such fluids could reach groundwater, surface waters, or wetlands;
 - The Contractor is responsible for checking all equipment daily for leaks.
 - 2. Repair any leaks prior to using the equipment in an area where such fluids could reach groundwater, surface waters, or wetlands;
 - The Contractor shall make all equipment repairs outside of jurisdictional areas.
 - 3. Maintain oil spill kits and diesel fuel spill kits, as applicable to the type(s) and amount(s) of oil and diesel fuel used, on site so as to be readily accessible at all times during construction; and
 - The Contractor shall maintain the following on site: oil spill kits and diesel fuel spill kits specific to their equipment.
 - 4. Train each equipment operator in the use of the spill kits.

 Each equipment operator shall be trained in the use of spill kits.
- h. Equipment shall be staged and refueled in accordance with Env-Wt 307.15.

 Not applicable to this project

Env-Wt 307.05 Protection Against Invasive Species Required

- a. Prior to the installation of swamp mats, the mats and any heavy machinery used to install them shall be inspected for and cleaned of all vegetative matter by a method and in a location that prevents the spread of the vegetative matter to jurisdictional areas.
 - The use of swamp mats is not anticipated to construct this project.
- b. Equipment to be used in surface waters shall be completely free of all aquatic and terrestrial invasive plants and all exotic aquatic species of wildlife as defined in RSA 487:16, I-a.
 - It is not anticipated that equipment will need to enter surface waters to construct the project.
- c. All applicable requirements of RSA 487:15-25 shall be met.
 - Contractor shall inspect equipment for any exotic weeds and plants prior to mobilizing them onsite. The Contractor is responsible for ensuring all sediment and erosion control products are free of exotic weeds and plants prior to their use and installation.
- d. No boat washing or rinsing shall occur in jurisdictional areas or in a location where runoff is likely to flow to any jurisdictional area.
 - There will not be any boats on this project. However, the Contractor shall rinse all equipment in non-jurisdictional areas where runoff is unlikely to occur.



e. To prevent the use of soil or seed stock containing nuisance or invasive species, the contractor responsible for work shall follow the Invasive Plant BMPs, available as noted in Appendix B.

The Contractor shall follow the BMPs described in the NHDOT Best Management Practices for Roadside Invasive Plants, latest edition.

Env-Wt 307.06 Protection of Rare, Threatened or Endangered Species and Critical Habitat

No activity shall jeopardize the continued existence of a threatened or endangered species, a species proposed for listing as threatened or endangered, or designated or proposed critical habitat under the:

- a. Federal Endangered Species Act, 16 U.S.C. §1531 et seq.; Both NHB and IPaC reviews were performed as part of this project. No additional coordination is required with these agencies because there were no known records found in the NHB review and although the NLEB was listed in the IPaC review, no trees or bridges will be impacted as part of this project. By performing these reviews, we have met the requirements of the Federal Endangered Species Act, 16 U.S.C. §1531.
- b. State Endangered Species Conservation Act, RSA 212-A; or Both NHB and IPaC reviews were performed as part of this project. The NHB results showed there are no recorded occurrences for sensitive species near the project area. A review was also conducted through USFWS on the IPaC website, and the results showed the Northern Long-Eared Bat (NLEB) is a threatened mammal that may be present in the area of proposed action. However, the project does not propose to remove any trees or impact any bridges, therefore the project will not affect bats even if they are present. A Consistency Letter was generated on 5/28/2020 and USFWS did not comment within the 30-day comment period. Our project is consistent with the USFWS BO for the 4(d) rule and the project will not result in any prohibited take of the species.

The proper reviews have been conducted with the applicable State and Federal agencies. The project will not export, take, possess, process, sell, offer for sale, deliver, carry, transport or ship any protected species. Thus, the project is compliant with the New Hampshire Endangered Species Conservation Act (RSA 212-A).

c. New Hampshire Native Plant Protection Act, RSA 217-A.
Both NHB and IPaC reviews were performed as part of this project. Both the NHB and IPaC results showed there are no recorded occurrences for sensitive plants near the project area.

The proper reviews have been conducted with the applicable State and Federal agencies. The project will not export, import, transport, take, possess, sell, offer for sale, deliver, carry, or ship any protected species. Thus, the project is compliant with the New Hampshire Native Plant Protection Act (RSA 217-A).

Env-Wt 307.07 Consistency Required with Shoreland Water Quality Protection Act

All development activities associated with any project shall be conducted in compliance with applicable requirements of RSA 483-B and Env-Wq 1400 during and after construction.

This project adheres to the requirements of RSA 483-B and Env-Wq 1400.



Env-Wt 307.10 Dredging Activity Conditions

In addition to all other applicable conditions in this part, the following conditions shall apply to all dredging activities:

- a. No dredging shall occur that would create violations of any set-backs specified in:
 - 1. RSA 485-A or 483-B relative to protecting water quality; or All necessary easements will be in place prior to starting work.
 - Env-Wq 1000 relative to septic systems;
 There are no septic systems included in this project, and this project will not disturb any existing septic systems.
- b. Work shall be done during low flow or in the dry unless a dredge dewatering, diversion, or cofferdam plan has been approved as part of the project;
 - The Contractor shall submit a water diversion and dewatering plan for review by the Engineer.
- c. Turbidity controls shall:
 - 1. Be installed prior to construction and maintained during construction such that no turbidity escapes the immediate dredge area; and
 - 2. Remain in place until suspended particles have settled and water at the work site has returned to normal clarity;

Erosion and water quality control measures will meet the applicable turbidity requirements.

- d. Dredged materials shall be disposed of out of jurisdictional areas, unless other disposition is specifically permitted pursuant to (e), below;
 - The Contractor shall dispose of dredged material outside of jurisdictional areas.
- e. If an applicant wishes to use dredged materials as part of the proposed project or dispose of dredged materials in a jurisdictional area, the applicant shall specifically request authorization to do so as part of the application filed pursuant to Env-Wt 311;
 - Dredged material shall not be used as part of the proposed project or disposed of in jurisdictional areas unless the sediment is not contaminated, in which case the sediment will be used to reestablish the channel between the two culverts.
- f. Dredged materials to be stockpiled in uplands shall be dewatered in sedimentation basins that are:
 - 1. Contained within turbidity controls that prevent turbid water from leaving the basins; and
 - The Contractor shall dewater dredged materials to be stockpiled using turbidity controls that prevent turbid water from leaving the stockpile area.
 - 2. Located outside of any jurisdictional area;
 - The Contractor shall stockpile dredged materials outside of jurisdictional areas unless the sediment is not contaminated, in which case the sediment will be used to reestablish the channel between the two culverts.



- g. Subject to (h), below, in non-tidal waters, no dredging shall occur:
 - 1. Between October 1 and March 31 for any fish migration or larval settling area of cold water fish; or
 - 2. In March or April for any area that is habitat for rainbow smelt;

This project does not involve logging.

h. For logging projects, work shall be done to protect water quality in accordance with the Forestry BMPs, available as noted in Appendix B;

This project does not involve logging.

- i. In addition to the limitations on tidal dredging in Env-Wt 600, no dredging shall occur in tidal waters during a fish migration or larval setting stage of fish and shellfish, which is between November 15 and March 15;
 - It is currently unknown when construction will occur and it may be between November 15 and March 15. Due to the short duration of the project and the limited dredging, impacts to fish and shellfish will be minimal.
- j. In addition to the limitations on tidal dredging in Env-Wt 600, dredging projects in tidal waters shall be designed and implemented to ensure that there is no disruption of tidal flushing. Tidal flushing means the influx or outflow of water that is associated with the normal ebb and flow of the tide;
 - There will be disruption to tidal flushing for a couple days while the concrete slab is being set and channel work is being completed.
- k. Dredging shall not impede fish migrations or interfere with spawning areas for fish; Plugs will be used to isolate the work zone from the Atlantic Ocean. Therefore, the project will only impede fish migrations or interfere with fish spawning areas for a couple days.
- I. Dredging shall not disturb contaminated sediment unless dredging of such sediment is specifically identified in the application, authorized in the issued permit, and implemented with such protective conditions as are necessary to ensure that the contaminated sediment is properly managed;
 - There are no known contaminants within the project limits.
- m. Dredging operations that are not related to the operation of a public water supply (PWS) shall be no closer than 250 feet from an active intake for the PWS; and
 - The proposed project is located roughly 9,000 feet from the nearest public water supply intake, Aquarion Water in Hampton.
- n. The permittee shall send prior notification of dredging activities to the PWS owner/operator by registered mail at least 30 days prior to dredging when done in a waterbody or other jurisdictional area within 500 feet of a public water supply intake.
 - The proposed project is located roughly 9,000 feet from the nearest public water supply intake, Aquarion Water in Hampton. Therefore, no notifications are required.

Env-Wt 307.11 Filling Activity Conditions

In addition to all other applicable conditions in this part, the following conditions shall apply to all temporary and permanent filling activities:

- a. Fill shall be clean sand, gravel, rock, or other material that:
 - 1. Meets the project's specifications for its use; and
 If fill is necessary, the Contractor shall only use fill that is clean sand, gravel, rock,
 or other material that meets the project specifications for its use.
 - 2. Does not contain any material that could contaminate surface or groundwater or otherwise adversely affect the ecosystem in which it is used;



If fill is necessary, the Contractor shall only use fill that does not contain any material that could contaminate surface or groundwater or otherwise adversely affect the ecosystem.

- b. Limits of fill shall be clearly identified prior to commencement of work and controlled in accordance with Env-Wt 307.03 to ensure that fill does not spill over or erode into any area where filling is not authorized;
 - Fill is not anticipated on the project.
- c. Slopes shall be immediately stabilized by a method specified in Env-Wq 1506 or Env-Wq 1508, as applicable, to prevent erosion into adjacent wetlands or surface waters;
 - If fill is necessary, the Contractor shall immediately stabilize slopes using methods in Env-Wq 1506 or Env-Wq 1508, as applicable.
- d. No fill shall be allowed to achieve setbacks to septic systems specified in Env-Wq 1000; There are no septic systems included in this project, and this project will not disturb any existing septic systems.
- e. Fill shall be not placed so as to direct flows onto adjacent or down-current property;
 If fill is necessary, fill placement will not alter stormwater flows into adjacent or down-current property.
- f. Swamp mats and construction mats shall be deemed temporary fill for new authorizations only if they meet the requirements of (h)(1) and (h)(2), below;
 - Swamp mats will not be necessary for this project.
- g. Authorized temporary fill other than swamp mats, construction mats, and corduroy shall be placed on geotextile fabric laid on preconstruction wetland grade;
 - Temporary fill is not anticipated on this project.
- h. Subject to (i), below, temporary fill shall be:
 - In place no longer than one growing season;
 If temporary fill is necessary, the Contractor shall remove temporary fill after one growing season.
 - 2. Removed immediately upon work completion; and If temporary fill is necessary, the Contractor shall remove temporary fill immediately upon work completion.
 - 3. Disposed of at an upland location in a manner that prevents its erosion into a surface water or wetland;
 - If temporary fill is necessary, the Contractor shall dispose of temporary fill at an upland location which prevents its erosion into a surface water or wetland.
- i. Corduroy shall be deemed temporary fill that may be left in place if it:
 - 1. Is installed as part of a skid trail in accordance with the Forestry BMPs;
 - 2. Does not exceed 1,000 LF and 20,000 SF per crossing; and
 - 3. Does not cross or otherwise impact a perennial stream, marsh, PRA, or vernal pool; Corduroy will not be used on the project.
- j. Wetlands and surface waters shall be restored to pre-impact conditions and elevation as specified in Env-Wt 307.12(i), below, unless otherwise authorized in an issued permit; If fill is used on this project, the Contractor shall restore wetlands and surface waters to pre-impact conditions and elevations.
- k. Swamp mats shall be:
 - 1. Properly installed, not dragged into position; and
 - 2. Removed immediately upon the completion of work; and
 - Swamp mats are not necessary for this project.
- I. No fill shall take place in a PRA unless:



- Specifically authorized by the department in an issued permit; or
 This wetland permit requests the authorization by the department to be able to
 fill in some of the wetlands as part of this project. The only fill would be in the
 vicinity of the culvert where the stone apron and concrete slab will be installed.
 The fill would consist of stone, concrete, and non-shrink grout to construct the
 project.
- 2. Authorized under applicable project-specific provisions. Fill may be necessary to repair the culvert inlet.

Env-Wt 307.12 Restoring Temporary Impacts: Site Stabilization

In addition to all other applicable conditions in this part, the following conditions shall apply to restoring all temporary impacts:

- a. Within 3 days of final grading or temporary suspension of work in an area that is in or adjacent to surface waters, all exposed soil areas shall be stabilized by:
 - 1. Seeding and mulching, if during the growing season; or
 - 2. Mulching with tackifiers on slopes less than 3:1 or netting and pinning on slopes steeper than 3:1 if not within the growing season;

Within 3 days, Contractor shall stabilize all areas that have had final grading or temporary suspension of work in an area that is in, or adjacent to, surface waters. Contractor shall seed and mulch during the growing season, mulch with tackifiers on slopes less than 3:1, and mulch with netting or pinning on slopes steeper than 3:1, if not within the growing season.

- b. Upon completion of construction, all disturbed wetland areas shall be stabilized with wetland seed mix containing non-invasive plant species only;
 - The Contractor shall stabilize all disturbed wetland areas with wetland seed mix containing non-invasive plant species only.
- c. Any seed mix used shall not contain plant species that are exotic aquatic weeds;
 The Contractor is prohibited from using seed mix containing plant species that are exotic aquatic weeds.
- d. Mulch used within an area being restored shall be natural straw or equivalent non-toxic, non-seedbearing organic material;
 - The Contractor shall use natural straw or equivalent non-toxic non-seedbearing organic material within areas being restored using mulch.



- e. Wetland soils from areas vegetated with purple loosestrife or other invasive plant species shall not be used in the area being restored;
 - All material used on the project shall be free from contamination by invasive or exotic species such as Japanese knotweed and purple loosestrife.
- f. If any temporary impact area that is stabilized with seeding or plantings does not have at least 75% successful establishment of wetlands vegetation after 2 growing seasons, the area shall be replanted or reseeded, as applicable;
 - The Contractor shall replant or reseed, as applicable, the impact areas that do not attain 75% successful establishment of wetlands vegetation after 1 growing season.
- g. If a temporary impact area is restored by seeding or plantings, then:
 - The work shall not be deemed successful if the area is invaded by nuisance species such as common reed or purple loosestrife during the first full growing season following the completion of construction; and
 - The person responsible for the work shall submit a remediation plan to the department that proposes measures to be taken to eradicate nuisance species during this same period;
 - If, at the end of the warranty period, it is determined the site is contaminated with invasive species, Contractor shall submit a remediation plan to eradicate the invasive species. Costs associated with removing invasive species will be at the Contractor's expense.
- h. Unless otherwise authorized, any trees cut in an area of authorized temporary impacts shall be cut at ground level with the shrub and tree roots left intact, to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area; and There will not be any tree removal as part of this project.
- i. Unless otherwise authorized, wetland areas where permanent impacts are not authorized shall be restored to their pre-impact conditions and elevation by replacing the removed soil and vegetation in their pre-construction location and elevation such that postconstruction soil layering and vegetation schemes are as close as practicable to preconstruction conditions.
 - For wetland areas where permanent impacts are not authorized, the Contractor shall restore wetlands and surface waters to pre-impact conditions and elevations.

Env-Wt 307.13 Property Line Setbacks

- a. As required by RSA 482-A:3, XIII(a), all boat docking facilities shall be at least 20 feet from the abutting property line, whether in tidal or in non-tidal waters.
 - There are no boat docking facilities on this project.
- b. Subject to (c) and (d), below, dredging, filling, or construction activity within a jurisdictional area that is not covered by (a), above, that is covered by an LSA or for which an EXP or standard permit is required shall occur at least 10 feet from an abutting property line.
 - There will be dredging, minor filling associated with providing scour protection to the concrete slab, and other work performed within 10 feet from the estimated abutting property lines. However, the project is being undertaken by a public agency (Town of North Hampton) and is in conformance with the Routine Roadway BMPs.
- c. The set-back established in (b), above, shall not apply to utility projects in a utility right-of-way if a boundary survey has been or will be completed prior to initiation of work.

 The proposed project is not a utility project.



d. Subject to (e), below, if an applicant wishes to extend an activity that is covered by (b), above, closer than 10 feet to an abutting property line, the applicant shall obtain written consent from the affected abutter.

Not applicable to this project.

- e. An applicant shall not be required to obtain consent from the affected abutter to extend work closer than 10 feet to the property line for:
 - 1. A bank stabilization project; or
 - Not applicable to this project.
 - 2. Stream crossing projects undertaken by a public agency in conformance with the Routine Roadway BMPs, available as noted in Appendix B.

Not applicable to this project.

- f. The department shall inform the applicant that an increase to the setback to property lines is required if the department determines during the review process that the location proposed for an activity:
 - 1. Represents a danger to other waterfront activities due to its size or character, or both, being inconsistent with the size and character of the surrounding area;
 - 2. Is likely to create a navigation hazard due to its size or proximity to other existing legal structures; or
 - 3. Is likely to interfere with an abutter's access to or use of the abutter's property.

An increase to the setback to property lines is not applicable to the project, because the existing culvert is located on the property boundaries of two lots. It is not possible to increase the setback.

g. If the department determines pursuant to (f), above, that a larger setback is required, the department shall increase the set-back only the distance required to abate the danger, hazard, or interference, as applicable.

A larger setback is not possible. See (f) above.

Env-Wt 307.16 Adherence to Approved Plans Required

For any project for which plans were submitted and an SPN, PBN, LSA, EXP, or standard permit was issued, all work on the project shall be done in accordance with the approved plans.

All work will be done in accordance with the approved plans, and a resident project representative will periodically be on site to ensure that this requirement is met.

Env-Wt 307.18 Reports

Env-Wt 307.18 is not applicable to this project.



Env-Wt 310.01 EXP Submission Requirements

(a) The name, mailing address, and daytime telephone number including area code of the applicant, the applicant's agent if any, and the owner of the subject property if not the applicant;

See application in section A-1.

- (b) Information on the proposed project location
 - See application in section A-1.
- (c) Information on the proposed project
 - See application in section A-1.
- (d) A signed statement by the applicant certifying, in addition to the certifications specified in Env-Wt 311.11, that:
 - (4) The proposal is the alternative with the least adverse impact to jurisdictional areas, as required by Env-Wt 313.03;

The size and invert elevations of the existing Route 1A culvert restricts drainage flows, and low tide levels are constrained by the presence of a cobble "weir" at the entrance to the culvert which results in water levels in the marsh system remaining at near high tide levels, even when the ocean is at low tide.

In its current condition, the Philbrick Pond salt marsh will continue a long-term trend of degradation. Per Env-Wt 313.03, the proposed project has the least adverse impact to jurisdictional areas because replacement of the cobble weir with a concrete slab at the entrance to the Route 1A culvert would have a substantial benefit to marsh health, increasing the daily tidal variation in the pond from 5 inches to about 16 inches. The hydraulic model indicates that this modification would not increase flooding of the pond either from precipitation events or storm surges.

(6) The project is located in a PRA but is subject to a classification adjustment under Env-Wt 407.02 or a project-type exception (PTE) under Env-Wt 407.04; and;

The project is located in a Priority Resource Area (PRA), but it is subject to a classification adjustment because it falls under the provisions of Env-Wt 407.04 PTE. The classification adjustment applies because the project is publicly funded, will be conducted under the supervision of NHDES, and is not subject to a removal or restoration order.

- (e) The application fee for minimum impact projects as required by RSA 482-A:3, I; See fee in Section A-2.
- (f) A signed statement by the county conservation district or certified wetland scientist, where required by the appropriate minimum impact project rule, certifying compliance with all conditions of that rule;

See application in section A-1.

(g) A signed statement from the municipal conservation commission or, if there is no conservation commission, the local governing body, certifying that the municipality waives its right to intervene on the project; and

See application in section A-1.

(h) A signed statement from the LAC, if the project is within LAC jurisdiction, certifying that the LAC waives its right to intervene on the project.

Not applicable to this project.

Env-Wt 310.03 Conditions for EXPs.

The following conditions shall apply to all work done pursuant to an EXP:



- (a) No other work shall be done on the subject property pursuant to another EXP or an SPN for a period of 12 months from the date the EXP was issued unless the property owner submits information, including a plan, to demonstrate that:
 - (1) The proposed work is wholly unrelated to and separate from the work already done under the EXP or SPN; and

No additional work is planned on the property apart from this proposed project.

(2) The proposed work and the work already done under the EXP or SPN do not, when combined, constitute a project for which a standard permit is required;

No previous work has been done, and the project does not require a standard permit.

Env-Wt 311.07 Demonstration of Avoidance and Minimization

See Section 1 of the coastal resource worksheet in B-9.

Env-Wt 313 Procedures and Criteria for Standard Permit Decisions

Env-Wt 313 is not applicable to this project because it is not a standard permit.

Env-Wt 400 Delineation and Classification of Jurisdictional Areas; Classification of Projects

A certified wetlands scientist has delineated and classified the jurisdictional areas in accordance with Env-Wt 400. See project plans.

Env-Wt 500 Project-Specific Requirements

The following sections are applicable to this project:

Env-Wt 522.06 Classification of Agricultural Construction Projects

Env-Wt 522.06 is not applicable to this project.

Env-Wt 525.03 Application Requirements for Restoration/Enhancement Activities.

The project specific information required by Env-Wt 310.01(c)(1) or Env-Wt 311.03(b)(11), as applicable, shall be as follows:

(a) A description of the project goals explaining how the project will achieve restoration/enhancement of desired functions and values in accordance with Env-Wt 805.02(d) and Env-Wt 300;

The project goal is to increase the daily tide level variation in the 29 acre Philbrick Pond salt marsh from the current 5 inches to about 16 inches, with associated improvements to the marsh environment. The installation of the slab would not increase the water surface elevation in Philbrick Pond at high tide, but rather would decrease the pond's water surface elevation at low tide. Also, the project will excavate the existing "high bottom", presumed to be of unconsolidated sediments, in the stream channel between the two culverts. The existing "high bottom" is formed due to both the water elevation at the v-notch weir, and the swirling of water entering and exiting the 30 inch trolley berm pipe which is approximately 1-ft lower than the downstream Route 1A culvert.

In similar drainage projects, NHDES typically prefers a natural bottom, of bottom muds or cobbles, to a concrete slab. This culvert entrance could be constructed of cobbles, however, even the ripples created by flow over cobbles would permanently increase low tide water levels in the 29 acres of marsh behind the culvert. A flat culvert entrance would best accomplish the environmental objectives of this improvement.



- (b) For wetland restoration/enhancement projects, all the information or documents specified in Env-Wt 805.03 except for a list of activities that will or will not be allowed within the project area;
 - ❖ Typical cross sections with existing and proposed grades, predicted water fluctuations, and wetland cover types are shown on the plans.
 - Construction procedures, sequence, and timing are shown on the plans.
 - **❖** There will not be any plantings as part of this project.
 - Existing soils are in the boring logs. There will not be any fill on the project, so proposed soils do not apply.
 - Erosion control notes and details are on the plans.
 - There are no known invasive species present.
- (e) A restoration/enhancement monitoring plan that identifies:
 - (1) The metrics by which project success will be measured; and

The purpose of the project is to increase the tidal range in Philbrick's Pond and the salt marsh that are upstream of this project. Currently the tidal range is approximately 5 inches and completion of the project should increase it to 16 inches.

- (2) A schedule showing anticipated construction phases, timing of plantings, dates of submission of monitoring reports, and a final date of completion;
- It is intended that monitoring reports will be included in potential future phase(s) of the project.
- (f) A description of stakeholder engagement conducted to assist in determining any potential impacts to upstream and downstream property owners, if any;
 - There have been multiple project meetings with the public. The upstream property owners are aware of the project, and most of them are in favor of the project.
- (g) A description of any on-site features, conditions, or past work that might restrict excavation or access; and
 - Not applicable to this project.
- (h) Identification of the source of any hydric soils and plantings to be used.
 - No hydric soils or plantings are proposed as part of this project.



Env-Wt 525.04 Design and Construction Requirements for Restoration/Enhancement Activities.

In addition to the design and construction requirements specified in Env-Wt 300, a restoration/enhancement project shall be designed and constructed to:

- (a) Restore or increase wetland function, stream function, water quality, or other functions of resources within jurisdictional areas;
 - This project is designed to increase wetland function and water quality within jurisdictional areas.
- (b) Create hydrologic conditions, organism passage, or land connections that will support or enhance wetland functions and values of the resources proposed to be restored or enhanced;
 - This project is designed to improve hydrologic conditions and organism passage that will enhance wetland functions and values in Philbrick Pond Marsh.
- (c) For stream restoration/enhancement projects, meet as many of the goals specified in Env-Wt 806.02(a) as practicable;

The goals of this project include:

- increasing native ecosystem productivity and biodiversity
- increasing sediment, nutrient, and particulate transport and retention/recycling dynamics
- restoring the natural hydrologic regime
- improving migration and movement of aquatic biota
- increasing the availability of upstream aquatic habitats
- improving water quality
- improving access to refuge and reproductive habitat for aquatic organisms
- (d) Where applicable, preserve access to the restoration/enhancement areas; and Not applicable to this project.
- (e) For wood addition, comply with the "Practical Guide to Adding Wood to Streams in NH" dated 2018, published by the NRCS, available as noted in Appendix B.

 Not applicable to this project.

Env-Wt 525.05 Restoration/Enhancement Activities Construction Project Classification.

A restoration/enhancement project shall be a minimum impact project if the project:

- (a) Is not proposed to be used to fulfill the requirements of an administrative order, court order, settlement, or other enforcement proceeding obligating the applicant or another person to perform such restoration/enhancement activities; and
 - Correct, this project is not being used to fulfill the requirements of an administrative order, court order, settlement, or other enforcement proceeding.
- (b) Meets the requirements for a project-type exception specified in Env-Wt 407.04(b). Yes, the project meets a project-type exception specified in Env-Wt 407.04(b) because the project is publicly funded, will be conducted under the supervision of NHDES, and is not subject to a removal or restoration order.

Env-Wt 600 Coastal Lands and Tidal Waters/Wetlands

The following sections are applicable to this project:



Env-Wt 603.02 Required Information

The applicant shall:

(a) Provide a written explanation of the purpose of the proposed project, including the overall goal of the project, the core project purpose including a concise description of the facilities and work that could impact jurisdictional areas, and the intended project outcome;

See application in Section A-1.

(b) Specifically identify all natural resource assets in the area proposed to be impacted and include maps created through a data screening in accordance with Env-Wt 603.03 and Env-Wt 603.04; See application in Section A-1.

- (c) For standard permit projects, provide:
 - (1) A CFA report in accordance with Env-Wt 603.04; and
 - (2) A vulnerability assessment in accordance with Env-Wt 603.05;

Not applicable to this project.

(d) Explain all recommended methods and other considerations to protect the natural resource assets during and as a result of project construction in accordance with Env-Wt 603.04, Env-Wt 311.07, and Env-Wt 313;

See application in Section A-1.

- (e) Provide a narrative showing how the project meets:
 - (1) The standard conditions in Env-Wt 307; and

See responses in Env-Wt 307.

(2) The approval criteria in Env-Wt 313.01; and

Not applicable to this project.

- (f) Provide:
 - (1) The project design narrative described in Env-Wt 603.06;

See responses in Env-Wt 603.06.

(2) Design plans that meet the requirements of Env-Wt 603.07;

See responses in Env-Wt 603.07.

(3) The water depth supporting information required by Env-Wt 603.08; and

See responses in Env-Wt 603.08.

(4) A statement regarding impact on navigation and passage required by Env-Wt 603.09. **Not applicable to this project.**

Env-Wt 603.03 Data Screening

Data screening maps and attachments are in the Appendices.

Env-Wt 603.04 Coastal Functional Assessment

A CFA is not required for an EXP permit.

Env-Wt 603.05 Vulnerability Assessment

See Coastal Resource Worksheet in Section B-9.

Env-Wt 603.06 Project Design Narrative Required

The applicant shall provide a project design narrative that includes the following:

- (a) A discussion of how the proposed project:
 - (1) Uses best management practices and standard conditions in Env-Wt 307;
 - (2) Meets all avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
 - (3) Meets approval criteria in Env-Wt 313.01;



- (4) Meets evaluation criteria in Env-Wt 313.01(c);
- (5) Meets CFA requirements in Env-Wt 603.04; and
- (6) Considers sea-level rise and potential flooding evaluated pursuant to Env-Wt 603.05; See application in Section 1 for project design narrative.
- (b) A construction sequence, erosion/siltation control methods to be used, and a dewatering plan; and
 - See project plans in Section B-6 and application in Section A-1.
- (d) A discussion of how the completed project will be maintained and managed. **See application in Section A-1.**

Env-Wt 603.07 Design Plans

(a) The applicant shall submit design plan for the project in both plan and elevational views that clearly depict and identify all required elements, as described in Env-Wt 311 and (b) and (c), below.

See project plans in Section B-6.

- (b) The plan view shall depict the following:
 - (1) The engineering scale used, which shall be no larger than one inch equals 50 feet; The scale is not larger than one inch equals 50 feet.
 - (2) The location of tidal datum lines depicted as a line with the associated elevation noted, based on NAVD 88, derived from https://tidesandcurrents.noaa.gov/datum_options.html, as described in Env-Wt 603.08;

The highest observable tide line (HOTL) is included in the plans.

(3) An imaginary extension of property boundary lines into the waterbody and a 20-foot setback from those property line extensions;

This does not apply, because the existing culvert is located on the property boundaries of two lots. It is not possible to get a 20-foot setback.

- (4) The location of all special aquatic sites at or within 100 feet of the subject property; The project area is considered a tidal wetland and saltmarsh, which are special aquatic sites.
- (5) Existing bank contours;

Existing bank contours are included in the plans.

- (6) The name and license number, if applicable, of each individuals responsible for the plan, including:
- a. The agent for tidal docking structures who determined elevations represented on plans;
 and

Not applicable to this project.

- b. The certified wetland scientist or qualified coastal professional who completed the CFA report and located the identified resources on the plan; and
 - A CFA report is not necessary for an EXP permit, however, the name and license number of the certified wetland scientist is included on the plans. The certified wetland scientist located the identified resources on the plan.
- (7) The location and dimensions of all existing and proposed structures and landscape features on the property.

Existing and proposed structures and landscape features are included in the plans.

- (c) The elevational view shall depict the following:
 - (1) The nature and slope of the shoreline;
 - (2) The location and dimensions of all proposed structures, including permanent piers, pilings, float stop structures, ramps, floats, and dolphins; and



(3) Water depths depicted as a line with associated elevation at highest observable tide, mean high tide, and mean low tide, and the date and tide height when the depths were measured.

The nature and slope of the bank, location and dimensions of all proposed structures, and water depths indicated above are all included in the elevational view.

Env-Wt 603.08 Water Depth Supporting Information Required

- (a) Using current predicted NOAA tidal datum for the location, and tying field measurements to NAVD 88, field observations of at least 3 tide events, including at least one minus tide event, shall be located to document the range of the tide in the proposed location showing the following levels:
 - (1) Mean lower low water;
 - 3.4' (NGVD29)
 - (2) Mean low water;
 - 3.5' (NGVD29)
 - (3) Mean high water;
 - 4.7' (NGVD29)
 - (4) Mean tide level;
 - 3.9' (NGVD29)
 - (5) Mean higher high water;
 - 5.1' (NGVD29)
 - (6) Highest observable tide line; and
 - 5.3' (NGVD29)
 - (7) Predicted sea-level rise as identified in the vulnerability assessment in Env-Wt 603.05. See plans in Section B-6 for tidal datum information. The predicted sea-level rise (SLR), as identified in the vulnerability assessment (coastal resource worksheet, Section B-9), is +3.9 feet for end of project design life. The project does not increase SLR.
- (b) The following data shall be presented in the application project narrative to support how water depths were determined:
 - (1) The date, time of day, and weather conditions when water depths were recorded; and
 - (2) The name and license number of the licensed land surveyor who conducted the field measurements.

Water depths were determined through the installation and monitoring of transducers with data loggers throughout parts of June and July, 2017. The transducers were installed by Gomez and Sullivan Engineers and surveyed elevations were provided by James Verra Associates.

(c) For tidal stream crossing projects, provide water depth information to show how the tier 4 stream crossing is designed to meet Env-Wt 904.07(c) and (d), and for repair, rehabilitation or replacement of tier 4 stream crossings, demonstrate how the requirements of Env-Wt 904.09 are met.

Not applicable to this project.

Env-Wt 603.09 Statement Regarding Impact on Navigation and Passage Env-Wt 603.09 is not applicable to the project.

Env-Wt 604.01 General Criteria for Tidal Beaches, Tidal Shoreline, and Sand Dunes See Section 7 of the application.



Env-Wt 604.02 General Criteria for Tidal Buffer Zones

(a) The 100-foot statutory limit on the extent of the tidal buffer zone shall be measured horizontally.

The project is located within the 100-foot tidal buffer zone.

- (b) Any person proposing a project in or on an undeveloped tidal buffer zone shall evaluate the proposed project based on:
 - (1) The standard conditions in Env-Wt 307;

See responses to Env-Wt 307 regs above.

(2) The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03; See Section 1 of the coastal resource worksheet in Section B-9.

(3) The approval criteria in Env-Wt 313.01;

Not applicable to this project.

(4) The evaluation criteria in Env-Wt 313.05;

Not applicable to this project.

(5) The project specific criteria in Env-Wt 600;

See responses to Env-Wt 600, this section.

(6) The CFA required by Env-Wt 603.04; and

A CFA is not required for an EXP permit.

(7) The vulnerability assessment required by Env-Wt 603.05.

See coastal resource worksheet for vulnerability assessment in Section B-9.

(c) Projects in or on a tidal buffer zone shall preserve the self-sustaining ability of the buffer area to provide habitat values, protect tidal environments from potential sources of pollution, provide stability of the coastal shoreline, and maintain existing buffers intact where the lot has disturbed area defined under RSA 483-B:4, IV.

This condition is understood and will be met.

Env-Wt 604.03 General Criteria for Tidal Waters/Wetlands

(a) Except as allowed under Env-Wt 606, permanent new impacts to tidal wetlands shall be allowed only to protect public safety or homeland security.

Env-Wt 606 is not applicable to this project. The project aims to increase the daily tide level variation in the Philbrick Pond salt marsh, with associated improvements to the marsh environment. The project does not protect public safety or homeland security, but instead it protects jurisdictional areas.

- (b) Evaluation of impacts to tidal wetlands and tidal waters shall be based on:
 - (1) The standard conditions in Env-Wt 307;

Refer to Section A-3, Env-Wt 307 responses.

(2) The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03; See Section 1 of the coastal resource worksheet in Section B-9.

(3) The approval criteria in Env-Wt 313.01;

Not required for an EXP permit.

(4) The evaluation criteria in Env-Wt 313.05;

Not applicable to this project.

(5) The project specific criteria in Env-Wt 600;

Refer to Section A-3, Env-Wt 600 responses.

(6) The CFA required by Env-Wt 603.04; and

Not required for an EXP permit.

(7) The vulnerability assessment required by Env-Wt 603.05.

See Section 4 of the coastal resource worksheet in Section B-9.



- (c) Projects in tidal surface waters or tidal wetlands shall:
 - (1) Optimize the natural function of the tidal wetland, including protection or restoration of habitat, water quality, and self-sustaining stability to storm surge;
 - This project optimizes the natural function of the tidal wetland, Philbrick's Pond salt marsh, by increasing the daily tide level variation which will improve water quality and provide other associated improvements to the marsh environment.
 - (2) Be designed with a preference for living shorelines over hardened stabilization practices; and

Not applicable to this project.

(3) Be limited to public infrastructure or restoration projects that are in the interest of the general public, including a road, a bridge, energy infrastructure, or a project that addresses predicted sealevel rise and coastal flood risk.

This project protects jurisdictional areas, which is in the interest of the general public.

Env-Wt 605.01 Avoidance and Minimization Requirements in Coastal Areas

In addition to the avoidance and minimization requirements in Env-Wt 307, Env-Wt 311.07, Env-Wt 313, and Env-Wt 603.04, projects in coastal areas shall:

- (a) Use results of the CFA required by Env-Wt 603.04 to:
 - (1) Minimize adverse impacts to finfish, shellfish, crustacea, and wildlife;
 - (2) Minimize disturbances to groundwater and surface water flow;
 - (3) Avoid impacts that could adversely affect fish habitat, wildlife habitat, or both; and
 - (4) Avoid impacts that might cause erosion to shoreline properties.

A CFA is not required for an EXP permit

(b) Not impair the navigation, recreation, or commerce of the general public; and

This project is located in a brook that is not used for navigation, recreation, or commerce of the general public.

(c) Minimize alterations in prevailing currents.

Not applicable to this project.



<u>Env-Wt 605.02 Additional Requirements for Projects in or Adjacent to Tidal Waters/Wetlands</u> and Tidal Buffer Zones

An applicant for a permit for work in or adjacent to tidal waters/wetlands or the tidal buffer zone also shall demonstrate that the following have been avoided or minimized as required by Env-Wt 313.04:

(a) Adverse impacts to beach or tidal flat sediment replenishment;

Not applicable to this project. The project is in a tidal wetland, not a beach or tidal flat.

(b) Adverse impacts to the movement of sediments along a shore;

Not applicable to this project. The project is along a channel, not a shore.

(c) Adverse impacts on a tidal wetland's ability to dissipate wave energy and storm surge; and Based on the CMA Engineers report, the 100-yr storm surge will increase from El. 5.2 ft under current sea level to 7.9 ft assuming moderate SLR in the year 2100. With SLR, it is anticipated that Route 1A will become flooded, and the outward migration of flood waters will affect more properties. The 100-yr storm surge will not increase as a result of this project.

Assuming a moderate seal level rise (SLR) of +3.9 feet, the CMA Engineers report determined the normal high tide with SLR will not increase as a result of this project. As a result, there is no additional potential damage or loss due to the construction of this project. Table 6 from the CMA Engineers report is included below for reference. Additionally, since the slab is installed in the streambed, it is not affected by SLR.

Table 6. Hydraulic Impact of Sea Level Rise with existing pipe at Trolley Berm and SLAB at Route 1A Culvert on Philbrick Pond Water Levels – High Tides

| Sea Level Scenario | Normal High Tide | 100 Year Precipitation | Extreme Storm Surge |
|--------------------------|------------------|------------------------|---------------------|
| Current | 4.1 | 7.7 | 5.2 |
| 2050 Moderate, +1.3 feet | 4.4 | 8.0 | 5.9 |
| 2100 Moderate, +3.9 feet | 6.0 | 8.8 | 7.9 |
| 2100 Highest, +6.6 feet | 8.5 | 10.3 | 10.3 |

(d) Adverse impacts of project runoff on salinity levels in tidal environments. Not applicable to this project. There will not be any changes to project runoff.

Env-Wt 605.03 Impacts Requiring Compensatory Mitigation

Env-Wt 605.03 is not applicable to this project

Env-Wt 606 Overwater Structures in Coastal Areas

Env-Wt 606 is not applicable to this project

Env-Wt 607.02 Avoidance and Minimization

- (a) New dredging shall be avoided to the maximum extent practicable.
 - Dredging is a necessary aspect of this project to improve the flow of water into Philbrick's Pond salt marsh.
- (b) Dredging of existing regularly maintained FNP areas that exhibit high natural resource value shall meet avoidance and minimization techniques in Env-Wt 311.07 and Env-Wt 313.

This project is not a Federal Navigation Project.



- (c) All dredging projects shall be in accordance with standard conditions Env-Wt 307.03 and Env-Wt 307.10, provided that if the site is known to be a recruitment site for oyster spat, dredging shall not occur from June 1 through September 15 to accommodate oyster recruitment and spat development.
 - See response to sections 307.03 and 307.10 above. The site is not known to be a recruitment site for oyster spat.
- (d) Using data screening in Env-Wt 603.03, dredging projects shall be screened to avoid shellfish beds, submerged aquatic vegetation and essential fish habitat.
 - The WPPT tool was used to determine that there aren't any eelgrass beds or shellfish beds in the project area. There is no known current or historic presence of submerged aquatic vegetation within or adjacent to the proposed dredging footprint. The project area is not a salt marsh or a salt marsh migration pathway, but instead it is a tidal wetland that leads to a salt marsh. The project is located within the 100-year floodplain. The NOAA Essential Fish Habitat Mapper was used to determine that there are no habitat areas of particular concern identified at the project location.
- (e) The footprint and volume of material to be dredged shall be reduced to the maximum extent practicable.
 - This project includes dredging the existing "high bottom", presumed to be of unconsolidated sediments in the culvert pond between the two culverts. This is simple dredging and can likely be accomplished with a land-based excavator in less than a day.
- (f) Sequential dredging shall be used when practicable to avoid dredging activity during specific time periods in environmentally sensitive areas, to avoid turbidity and sedimentation, bottom disruption, and noise in sensitive areas used by fishery resources during spawning, migration, and egg development.
 - Sequential dredging is not necessary, because the dredging is limited to roughly 1,000 square feet and can likely be accomplished in less than a day. The dredging will occur in a culvert pond that will be isolated from the salt marsh and the ocean, so there will be minimal biological impacts on the natural resources present within the project area.
- (g) Avoidance and minimization techniques require avoidance of dredging in accordance with Env-Wt 607.05 in areas of high resource value identified by the CFA, including the following resource areas:
 - A CFA is not required for EXP permits.
 - (1) Areas that support shellfish beds;

Not applicable to this project.

(2) Areas with submerged aquatic vegetation, areas that historically supported submerged aquatic vegetation, historic and maintained FNP areas that exhibit high resource value, and publicly funded restoration sites;

Not applicable to this project.

(3) Intertidal and wetland habitat; or

The project is located within the intertidal zone and tidal wetland. Dredging is contained to a small area in the culvert pond that has a "high bottom", presumed to be of unconsolidated sediments between the two culverts.

(4) Estuarine/salt marshes, and other high value habitat areas, including shorebird habitat and nesting areas, essential fish habitat, and other protected species or habitat.

The project is not a salt marsh, does not have any essential fish habitat areas of particular concern, or any other protected species or habitat. The IPaC and NHB reviews did not indicate any shorebird habitat or nesting areas.



- (h) New cable and pipeline crossings shall be aligned along the least environmentally damaging route, specifically to avoid sensitive habitats including rocky reefs, submerged aquatic vegetation, oyster reefs, shellfish beds, emergent marsh, and mud flats.

 Not applicable to this project.
- (i) Pipelines and submerged cables shall be buried where possible to avoid impacts to invertebrate migratory patterns resulting from pipe exposure.
 - Not applicable to this project.
- (j) Open trenching for pipeline or cable installation shall not be used unless all other methods are not practicable. If open trenching is used, a method in which the trench is immediately backfilled shall be used to reduce the impact duration.
 - Not applicable to this project.
- (k) Existing rights-of-way shall be used whenever possible to lessen overall encroachment and disturbance of coastal areas.
 - Temporary easements are required on this project because Chapel Brook is located on the property boundary of two lots.
- (I) Equipment access shall be limited to the immediate project area unless access requires use of a more environmentally sensitive access.
 - This condition is understood.
- (m) No dredged material shall be disposed in areas containing sensitive or unique marine benthic habitats, including spawning sites, feeding sites, and surface deposits of cobble or gravel substrate.
 - Dredged material will not be disposed of in areas containing sensitive or unique marine benthic habitats.
- (n) Impacts to tidal waters/wetlands and submerged lands during the mobilization and demobilization of dredging and other related project equipment shall be evaluated and minimized.
 - The project is in a tidal wetland, and this disturbance cannot be avoided.

Env-Wt 607.03 Tidal Dredge Project Descriptions; Approval Criteria

- (a) Dredging in tidal waters or tidal wetlands shall not be allowed unless the primary purpose of the dredging is to:
 - (1) Maintain or improve a FNP that provides a public benefit to commercial and industrial shipping, commercial fishing, existing working waterfront areas, or homeland security;
 - (2) Construct, maintain, or improve a marina, private association, or public facility; or
 - (3) Remediate contamination, remove storm-driven sediment, or maintain intake and outflow infrastructure.
 - Dredging will take place in tidal waters in order to improve water quality in Philbrick's Pond salt marsh, remove storm-driven sediment from the culvert pond, and maintain the culvert inlet structure at Chapel Brook.
- (b) Dredging in tidal waters or tidal wetlands shall not be approved unless:
 - (1) The project meets standard conditions of Env-Wt 307 and avoidance and minimization techniques in Env-Wt 607.02;
 - The project meets Env-Wt 307 and Env-Wt 607.02, as explained above.
 - (2) The project applicant participates in and follows guidance provided in a pre-application meeting with the department or the New Hampshire dredge management task force; and The volume of material to be removed from the project site is minor, so a meeting was not held with the department. The Contractor will dispose of the material at an off-site location.



- (3) The project is sponsored by the state so that:
- a. All applications to the department for dredging of FNPs in tidal waters or tidal wetlands are submitted by the DP&H pursuant to RSA 12-G:45; and

The project is not an FNP.

- b. All other dredging projects in tidal waters/wetlands have DP&H sponsorship or authorization for another entity, such as a municipality or private person, to act as an agent to apply for a permit from the department.
 - CMA Engineers has authorization from the Town of North Hampton to act as an agent to apply for a permit from the department.

Env-Wt 607.04 Other Application Requirements

(a) Prior to finalizing a dredge proposal, the applicant shall conduct an existing conditions bathymetric survey and submit it with the application to the department.

The stream bottom has been surveyed.

- (b) Prior to finalizing a dredge proposal, the applicant shall submit information regarding the current and historic presence of submerged aquatic vegetation, as documented by the CFA in Env-Wt 603.04, within and adjacent to the proposed dredging footprint.
 - A CFA is not required for an EXP permit. There is no known current or historic presence of submerged aquatic vegetation within or adjacent to the proposed dredging footprint.
- (c) As specified in RSA 482-A:3, X(b), the application fee for dredging in tidal waters/wetlands for the purpose of improving navigation for a municipality, as sponsored by DP&H, shall not exceed \$10,000.
 - Not applicable to this project, because the project's primary purpose is unrelated to navigation.
- (d) The application fee for all projects not covered by (c), above, shall be as specified in RSA 482-A:3, I(a)(3).

This condition is understood.

Env-Wt 607.05 Additional Information Required for Dredging Projects

- (a) In addition to the plan requirements in Env-Wt 603, plans for tidal dredging projects shall include the following:
 - (1) Location of the state boundary line for projects proposed in the Piscataqua River or Salmon Falls River;

Not applicable to this project.

- (2) Location of each sediment sampling location, with a key to sampling findings;
- Since the project will completely isolate the work area from stream/tidal flow, sediment sampling is not proposed.
- (3) Projected dredge prism tied to bottom contours; and
- Dredging will be completed from the stream bank by an excavator.
- (4) Proposed overdredge, not to exceed 2 feet.
- Since dredging will be completed by an excavator from the stream bank, dredge elevations can be controlled and overdredging is not anticipated.
- (b) Disposal sites adequate to contain the volume of dredged material, including the volume of allowable over-depth dredging, shall be identified.
 - The Contractor is required to dispose of the dredge materials at an off-site location.
- (c) Bankward slopes of the dredged area shall be no steeper than 3:1 to ensure that sloughing of the channel side slopes does not occur.
 - Side slopes are not steeper than 3:1.



- (d) Fishery habitat functions/services in the project areas, including an essential fish habitat study, shall be identified and characterized prior to any dredge and fill activities.
 - The NOAA essential fish habitat mapper was used to determine that no habitat areas of particular concern were identified at the project location.
- (e) The impacts of dredge or fills on fishery habitat shall be identified during proposed project reviews, including alterations of hydrology and water quality as a result of the proposed project.
 - Not applicable to this project due to the plugs that will be used to isolate the culvert pond and the absence of fish habitat at the project location.
- (f) The CFA required in Env-Wt 603.04 shall include an assessment of the cumulative impact from past, current, and all reasonably foreseeable future dredge and fill operations that impact aquatic habitats and an anticipated dredge cycle.
 - A CFA is not required for an EXP permit.
- (g) Sediment from the proposed dredge site shall be characterized according to the following:
 - (1) Benthic analysis;
 - (2) Grain size; and
 - (3) History of exposure to contamination sources, whether from a land-based discharge source or in-water source from a spill.
 - Not applicable to this project, because the dredged material will not be disposed of in New England Waters.
- (h) If the results of the sediment characterization assessment in (g), above, meet the formula for potential or known contamination, then testing of the sediment in the proposed dredge location shall be as required by:
 - (1) Requirements for land-based solid or hazardous waste disposal as specified in Env-Sw 100-2000, Env-Hw 100-1200, and Env-Or 600; and
 - Contamination is unknown but unlikely. If the sediment from the proposed dredge site is contaminated, the above requirements for land-based or hazardous waste disposal will be followed.
 - (2) Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters, US EPA New England and US ACE New England District, dated April 2004, available as noted in Appendix B.
 - Not applicable to this project. Dredged material will not be disposed of in New England Waters.

Env-Wt 607.09 Sediment Transport and Disposal

- (a) The applicant shall include in the application an explanation of how the dredged material will be transported and off-loaded to minimize dispersion of sediments.
 - If the dredged material is contaminated, it will be transported off site in a dump truck. If the dredged material is not contaminated, it will be reused to shape the banks of the culvert pond. An excavator will be used to remove the dredged material and shape the banks. Sediment dispersion will be minimized by keeping the two culverts plugged while dredged materials are being moved, and only unplugging the pipes when the sediment has had time to settle and the dredging is complete.
- (b) The CFA report shall be considered when assessing the potential impact of proposed disposal locations and determining the least impacting disposal location.
 - A CFA is not required for an EXP permit.
- (c) Sediment disposal shall not negatively impact priority resource areas.



This condition is understood and precautions will be taken to avoid negative impacts to priority resource areas.

(d) Any unavoidable negative impacts from sediment disposal shall require compensatory mitigation.

This condition is understood but should not be necessary for this project.

- (e) The primary acceptable means of disposal for uncontaminated sediments shall be for beneficial use, such as beach nourishment, dune restoration, and shoal creation associated with living shorelines.
 - Uncontaminated sediments are planned for use along the banks to reestablish the Chapel Brook channel between the two culverts.
- (f) Near-shore disposal of dredged material with the intent of creating a berm to provide a sand source for a nearby sandy beach shall be considered beneficial use.
 - The amount of dredged material is minimal, so there will likely not be any extra to deposit at a nearby beach for sand replenishment. If there is extra, this option may be considered.
- (g) If dredged materials will not be beneficially used, the disposal location shall be:
 - (1) Appropriate to the nature of the material; and
 - (2) Identified in the application.

The project will remove the high spot on the stream channel between the Route 1A and trolley berm culverts. This material will be reused on-site in the channel grading to maintain material continuity in the stream bottom, and it is considered a beneficial reuse of the material.

(h) Contaminated sediment shall be disposed of at a facility authorized to accept such material.

This condition is understood and will be followed.

(i) For non-FNP requests to place dredged material in state waters, the applicant shall evaluate the site evaluation criteria developed for selection or designation of dredged material disposal sites in accordance with 40 CFR 228 and EPA's ocean dumping program described for Region I at https://www.epa.gov/oceandumping/managing-ocean-dumping-epa-region-1.

Not applicable to this project.

Env-Wt 608 Tidal Beach Maintenance and Stabilization

Env-Wt 608 is not applicable to this project.

Env-Wt 609 Tidal Shoreline Stabilization

Env-Wt 609 is not applicable to this project.

Env-Wt 610 Protected Tidal Zone

Env-Wt 610 is not applicable to this project.

Env-Wt 611 Sand Dunes

Env-Wt 611 is not applicable to this project.



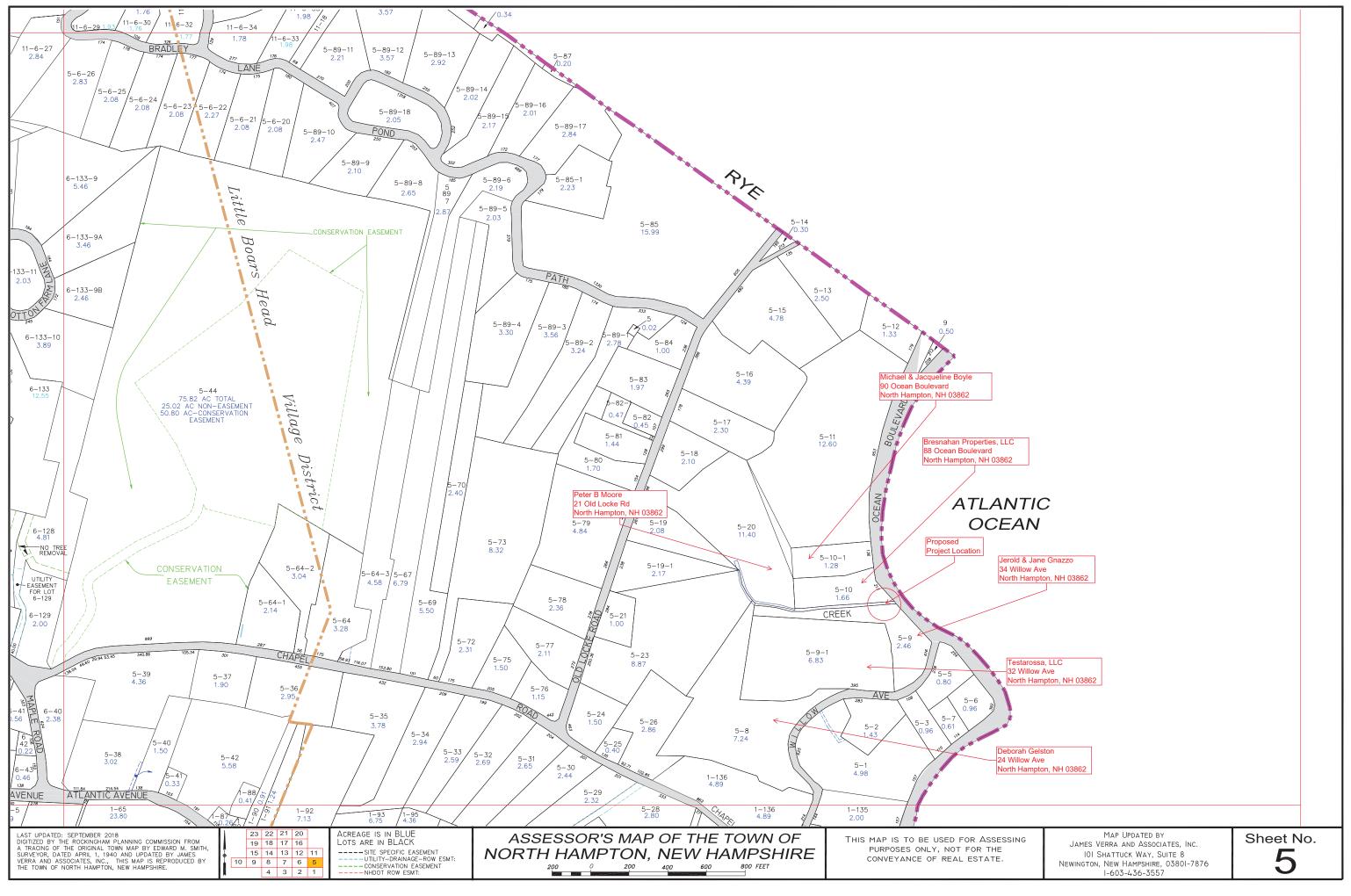
B. Checklist

- 1. Town Tax Maps
- 2. Abutter List
- 3. USGS Map
- 4. Project Photos
- 5. NHB Review
- 6. Project Plans
- 7. Rip-Rap Specifications and Plans
- 8. Project Specific Information (Env-Wt 500)
- 9. Coastal Resource Worksheet (Env-Wt 600)



B-1 Town Tax Maps





B-2 Abutter List

Abutters of the proposed project have been sent notification letters. The list of abutters is provided below. See attached example notification letter.

MAP 5 LOT 8
GELSTON, DEBORAH
24 WILLOW AVE
NORTH HAMPTON, NH 03862

MAP 5 LOT 9 GNAZZO, JEROLD & JANE 34 WILLOW AVE NORTH HAMPTON, NH 03862

MAP 5 LOT 9 UNIT 1 TESTAROSSA, LLC 32 WILLOW AVE NORTH HAMPTON, NH 03862

MAP 5 LOT 10 BRESNAHAN PROPERTIES, LLC 88 OCEAN BOULEVARD NORTH HAMPTON, NH 03862

MAP 5 LOT 10 UNIT 1 BOYLE, MICHAEL & JACQUELINE 90 OCEAN BOULEVARD NORTH HAMPTON, NH 03862

MAP 5 LOT 20 MOORE, PETER B 21 OLD LOCKE ROAD NORTH HAMPTON, NH 03862

Chapel Brook is the approximate property boundary between the above listed properties. Per Env-Wt 310.01(c)(7), the linear distance is 0 feet.





<DATE>

Re:

CMA ENGINEERS, INC. CIVIL | ENVIRONMENTAL | STRUCTURAL

35 Bow Street Portsmouth New Hampshire 03801-3819

P: 603 | 431 | 6196 www.cmaengineers.com

<ADDRESS>

Philbrick Pond Culvert Inlet Improvements

North Hampton, NH Wetlands Application Tax Map X/ Lot X CMA #1171 CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Dear Sir or Madam:

On behalf of the Town of North Hampton, we are writing this letter to provide notice that a Wetlands Permit Application will be filed with the New Hampshire Department of Environmental Services (NHDES) Wetland Bureau for the above referenced project. The proposed project includes improving the existing culvert inlet at the Ocean Boulevard crossing of Chapel Brook with a precast concrete slab. The project will require impacts to wetlands for which a Wetlands Permit is required to complete the work. As an abutter to a property on which wetland impacts are proposed, we are required to notify you about the application under state law RSA 482-A:3 I (d)(1).

Once it is filed, the permit application, including plans that show the proposed project will be available for viewing at the Town Office, at 233 Atlantic Ave, North Hampton or at the NHDES offices by scheduling a file review by calling (603) 271-2919 or emailing filereview@des.nh.gov.

Should you have any questions, please feel free to call me at (603) 431-6196.

Very truly yours,

CMA ENGINEERS, INC.

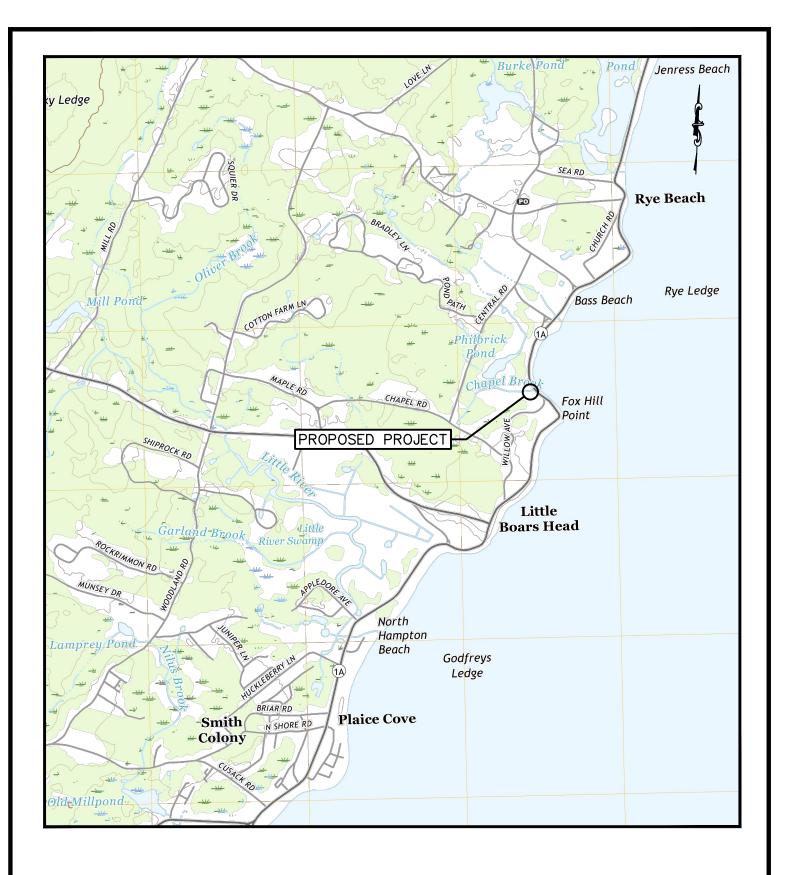
Josh Bouchard, P.E. Project Engineer

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cc: Michael Tully, Administrator, Town of North Hampton

B-3 USGS Map







CIVIL/ENVIRONMENTAL/STRUCTURAL

Portsmouth, NH 603/431-6196 c m a e n g i n e e r s . c o m

Town of North Hampton
Administrative Offices
Philbrick's Pond Culvert Inlet Improvements
USGS Map

June 2020

Scale: 1" = 2,000'

B-4 Project Photos





Photo 1: Philbrick's Pond Culvert (looking east) (7-2-2019) Stone weir at inlet to be removed and replaced with a precast concrete slab.



Photo 2: Philbrick's Pond Culvert (looking south) (5-7-2020) Riprap to be installed on slopes for inlet erosion protection.



Photo 3: Chapel Brook (looking west) (7-2-2019) Stream channel to be regraded to improve stream flow.



Photo 4: Philbrick's Pond Culvert (looking east) (7-2-2019) Stream channel to be regraded to improve stream flow.



Photo 5: Trolley Berm (looking west) (7-2-2019) No work.

B-5 NHB Review



To: Whitney Chamberlain

35 Bow Street

Portsmouth, NH 03801

From: NH Natural Heritage Bureau

Re: Review by NH Natural Heritage Bureau of request dated 6/8/2020

VALID ONLY FOR NOTIFICTION OR MINIMUM EXPEDITED APPLICATIONS SUBMITTED TO

THE NHDES WETLANDS BUREAU

NHB File ID: NHB20-1661 Applicant: Whitney Chamberlain

Location: Tax Map(s)/Lot(s): Map 5, Lots 9 & 10

North Hampton

Project Description: The project is located in North Hampton, NH, adjacent to

88 Ocean Boulevard. The project consists of removing an inlet stone weir and apron and replacing it with a precast concrete slab. The project includes regrading of the stream channel and installation of a stone apron and

stone slope protection.

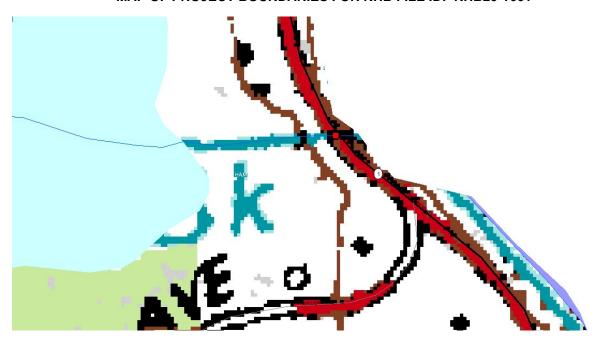
The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

This report is valid through 6/7/2021.

Date: 6/8/2020

MAP OF PROJECT BOUNDARIES FOR NHB FILE ID: NHB20-1661

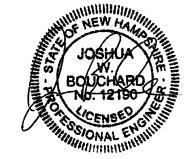


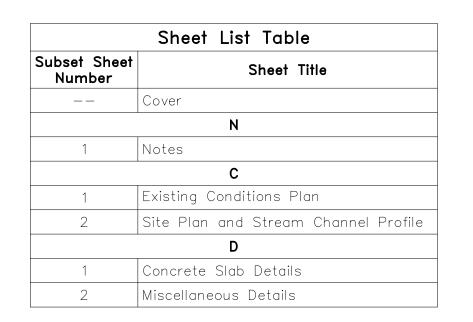
B-6 Project Plans

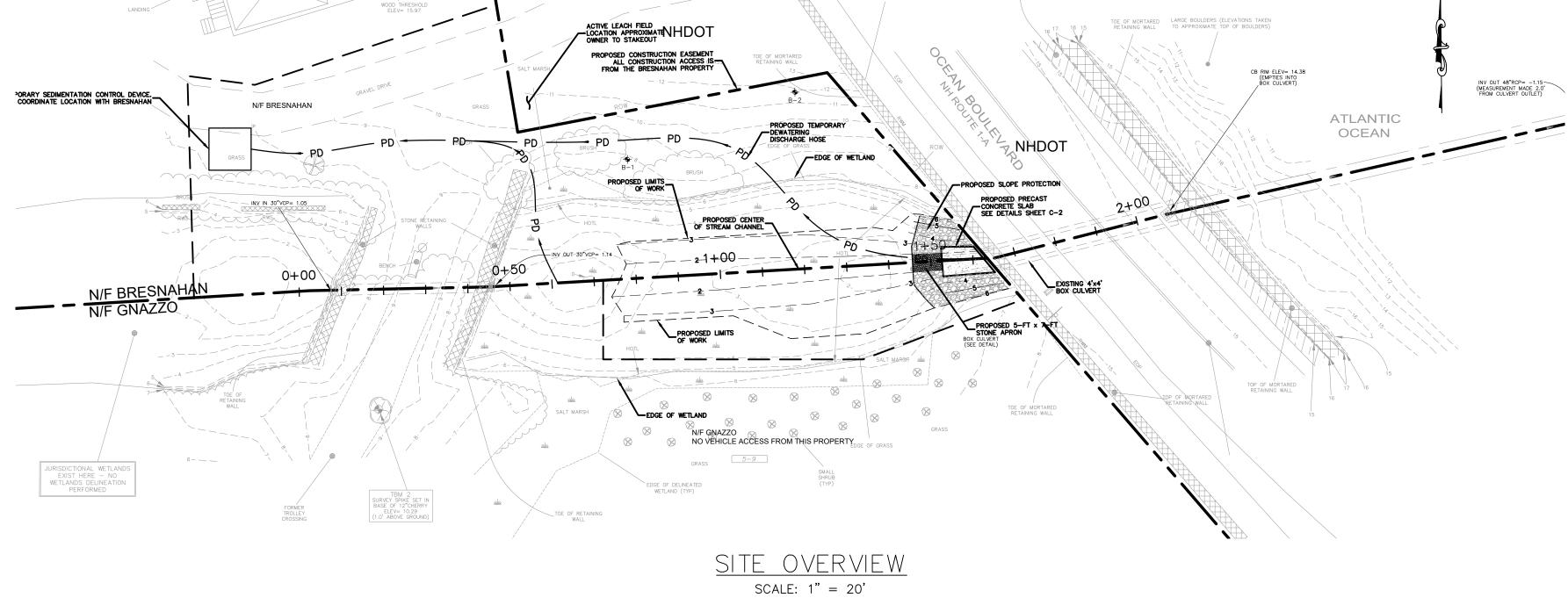
Bound Separately



Town Of North Hampton New Hampshire Philbrick's Pond Culvert Inlet Improvements Issued For Review September 2020







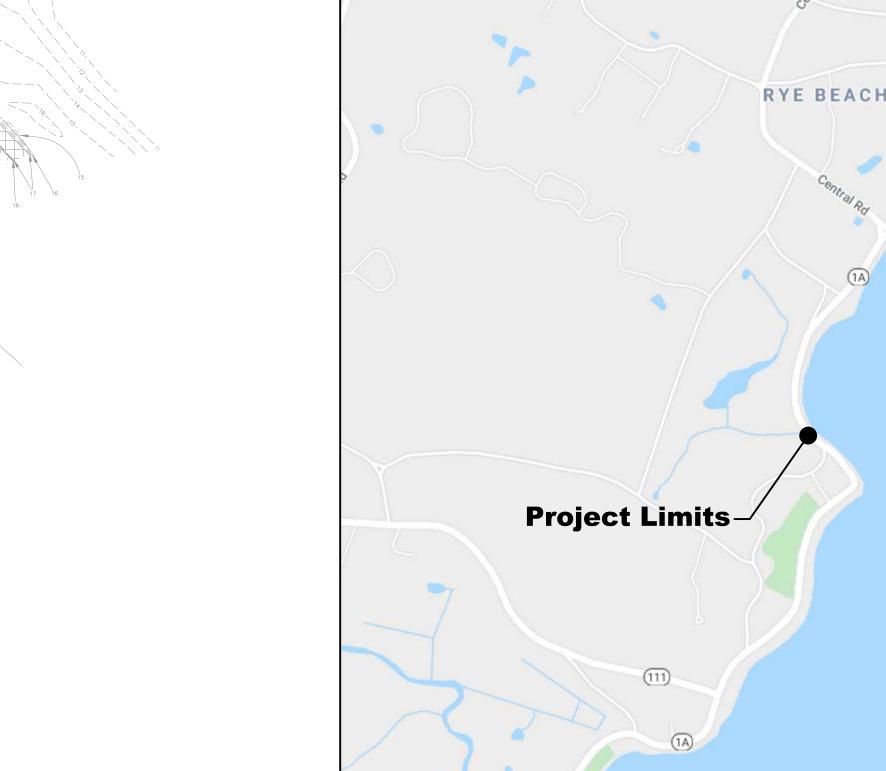
Prepared For:

Town of North Hampton The Nature Conservancy 223 Atlantic Ave 22 Bridge St., 4th Floor Concord, NH 03301 North Hampton, NH 03862

Prepared By:



CIVIL/ENVIRONMENTAL/STRUCTURAL Portsmouth, NH 603/431-6196 Manchester, NH 603/627-0708 Portland, ME 207/541-4223 c m a e n g i n e e r s . c o m



Project Location



Hillsborough

Construction Notes:

AND TOWN TAX MAPS.

- 1) ALL WORK SHALL BE IN CONFORMANCE WITH CURRENT NHDOT STANDARD SPECIFICATIONS AND DETAILS.
- 2) FOR STANDARD PLANS, SEE CURRENT NHDOT "STANDARD PLANS FOR ROAD CONSTRUCTION"
- 3) THE CONTRACTOR SHALL FOLLOW THE BMPS DESCRIBED IN THE NHDOT BEST MANAGEMENT PRACTICES FOR ROADSIDE INVASIVE PLANTS, LATEST EDITION.
- 4) ENGINEER SHALL BE DEFINED AS THE RESIDENT ENGINEER/OWNER'S REPRESENTATIVE, WHO IS RESPONSIBLE FOR ENGINEERING OBSERVATION OF THE CONSTRUCTION. ACTING DIRECTLY OR THROUGH HIS DULY AUTHORIZED REPRESENTATIVES ON BEHALF OF THE TOWN OF NORTH HAMPTON.
- CONTRACTOR SHALL VERIFY THE LOCATION ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES, PUBLIC OR PRIVATE, SHOWN OR NOT SHOWN, ON THESE PLANS PRIOR TO CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL NOTIFY DIG-SAFE PRIOR TO CONSTRUCTION.
- 6) OVERHEAD UTILITY LINES ARE LOCATED THROUGHOUT THE PROJECT WITH CROSSINGS AT VARIOUS LOCATIONS AND RUNNING ALONG THE ROAD. THE CONTRACTOR IS ADVISED THAT EXTREME CAUTION WILL BE REQUIRED IN THE OPERATION OF EQUIPMENT, ESPECIALLY CRANES.
- 7) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING THE HORIZONTAL AND VERTICAL CONTROL THROUGHOUT THE PROJECT.
- 8) THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING RESIDENTS OF ANY WORK RESTRICTING ACCESS TO ANY DRIVEWAY 24 HOURS IN ADVANCE.
- 9) APPARENT EDGE OF RIGHT-OF-WAY IS APPROXIMATE AND BASED ON MONUMENTATION FOUND IN THE FIELD
- 10) CONTRACTOR SHALL PROTECT PRIVATE PROPERTY AND SHALL TAKE ALL NECESSARY MEASURES AND PRECAUTIONS TO AVOID DAMAGE TO EXISTING TREES, SHRUBS, LAWNS, PLANTINGS, ETC. THAT ARE OUTSIDE OF THE PROJECT'S WORK LIMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS/REPLACEMENT OF ALL DAMAGED ITEMS.
- 11) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL METHODS AND MATERIALS FOR CONSTRUCTION OF THIS PROJECT, INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA REGULATIONS. THE OWNER AND ENGINEER WILL PERIODICALLY REVIEW CONSTRUCTION FOR COMPLIANCE WITH THE PLANS AND SPECIFICATIONS. SUCH REVIEW DOES NOT IMPLY APPROVAL OF METHODS OF CONSTRUCTION
- 12) THE CONTRACTOR SHALL NOTIFY DIG-SAFE AT LEAST 72 HOURS PRIOR TO BEGINNING WORK TO CONFIRM THE LOCATION OF UNDERGROUND UTILITIES.
- 13) THE CONTRACTOR SHALL EXERCISE CAUTION AND COMPLY WITH ALL APPLICABLE TRAFFIC LAWS AND REGULATIONS IN THE EXECUTION OF WORK. THE CONTRACTOR SHALL COORDINATE ACTIVITIES WITH THE TOWN'S POLICE AND FIRE DEPARTMENTS TO ENSURE ACCESS DURING CONSTRUCTION. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN BARRICADES, WARNING SIGNS, DELINEATORS, STRIPING, AND FLAGGERS IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE SPECIFICATIONS.
- 14) ALL EXISTING SIGNS REMOVED ARE TO BE STORED BY THE CONTRACTOR AND RESET AS DIRECTED. ANY EXISTING SIGNS TO BE RESET THAT ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS ARE TO BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN.
- 15) PROPERTY MONUMENTATION DISTURBED BY THE CONTRACTOR SHALL BE REPLACED BY A NH LICENSED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- 16) RELOCATION OF EXISTING UTILITIES IS NOT ANTICIPATED TO COMPLETE THE PROJECT; HOWEVER, IF THE CONTRACTOR DOES REQUIRE RELOCATION OF EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE ENGINEER AS SOON AS POSSIBLE TO ALLOW FOR COORDINATION WITH THE UTILITY COMPANIES AND COMPLETION OF THEIR WORK. COSTS ASSOCIATED WITH RELOCATING NECESSARY UTILITIES WILL BE AT CONTRACTOR EXPENSE.
- 17) CONTRACTOR SHALL MAINTAIN THE FOLLOWING ON-SITE: OIL SPILL KITS AND DIESEL FUEL SPILL KITS FOR THE TYPES OF EQUIPMENT THAT ARE ON SITE. EACH EQUIPMENT OPERATOR SHALL BE TRAINED IN THE USE OF SPILL KITS.
- 18) CONTRACTOR SHALL INSPECT EQUIPMENT DAILY FOR LEAKS, AND ANY LEAKS THAT ARE FOUND, SHALL BE REPAIRED OUTSIDE OF JURISDICTIONAL AREAS.
- 19) CONTRACTOR SHALL ONLY USE MATERIAL THAT IS CLEAN SAND, GRAVEL, OR ROCK THAT IS FREE FROM
- 20) ALL MATERIAL USED ON THE PROJECT SHALL BE FREE FROM CONTAMINATION BY INVASIVE OR EXOTIC SPECIES SUCH AS JAPANESE KNOTWEED AND PURPLE LOOSESTRIFE. IF, AT THE END OF THE WARRANTY PERIOD, IT IS DETERMINED THE SITE IS CONTAMINATED WITH INVASIVE SPECIES, CONTRACTOR SHALL SUBMIT A REMEDIATION PLAN TO ERADICATE THE INVASIVE SPECIES. COSTS ASSOCIATED WITH REMOVING INVASIVE SPECIES WILL BE AT THE CONTRACTOR'S EXPENSE.
- 21) CONTRACTOR SHALL KEEP ALL EQUIPMENT WITHIN THE CONSTRUCTION EASEMENT NOTED ON THE PLANS. ALL TEMPORARY AND PERMANENT WORK IMPACTS SHALL BE LIMITED TO THOSE AREAS NOTED IN THE PLANS, AND IMPACTS OUTSIDE OF THESE AREAS SHALL BE FULLY RESTORED BY THE CONTRACTOR AT NO EXPENSE

ABBREV.

Foundation Notes:

- 1) THE SLAB SHALL BE PLACED ON A COMPACTED BEDDING LAYER OVERLAYING UNDISTURBED SOIL. ALL EXISTING UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL. PLACEMENT OF STRUCTURAL FILL AND SLAB CONSTRUCTION SHALL BE COMPLETED IN THE DRY.
- 2) PROTRUDING COBBLES AND BOULDERS ENCOUNTERED AT THE FINAL EXCAVATION LEVEL SHOULD BE EITHER REMOVED OR SPLIT TO PROVIDE A LEVEL SURFACE NO HIGHER EL. 2.0'.
- 3) CONTROL OF WATER WITHIN THE EXCAVATION SHALL BE CONDUCTED IN SUCH A MANNER AS TO PREVENT DISTURBANCE OF IN-SITU EARTH TO REMAIN AS REQUIRED FOR STRUCTURAL BEARING. SUMPS, OR OTHER PUMPING AREAS, SHALL BE LOCATED OUTSIDE THE FOOTING EXCAVATION LIMITS.
- 4) EARTH REQUIRED FOR STRUCTURAL BEARING THAT IS DISTURBED AS A RESULT OF INSUFFICIENT CARE TAKEN IN MAINTAINING A DEWATERED CONDITION SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL (CRUSHED STONE CONFORMING TO 508.2.1.3) AT THE CONTRACTOR'S EXPENSE.
- 5) DEWATERING SHALL BE CONTINUOUS UNTIL THE STRUCTURE IS BACKFILLED TO THE ELEVATION OF THE SURROUNDING WATER TABLE, UNLESS DIRECTED OTHERWISE.

Erosion Control Notes:

- 1) THE CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT PRACTICES IN THE 2018 ROUTINE ROADWAY MAINTENANCE ACTIVITIES IN NEW HAMPSHIRE. CONTRACTOR TO FOLLOW THE MANUFACTURER'S INSTALLATION AND MAINTENANCE RECOMMENDATIONS FOR THE CONTRACTOR'S CHOSEN BEST MANAGEMENT PRACTICE.
- 2) THE CONTRACTOR IS RESPONSIBLE FOR THE DEVELOPMENT AND APPROVAL OF THE EROSION AND SEDIMENT CONTROL PLAN SILT FENCE AND HAY BALES, AT A MINIMUM, ARE REQUIRED AT THE OUTLET OF THE DEWATERING DISCHARGE TREATMENT DEVICE.
- 3) PRIOR TO CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NECESSARY. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING CONSTRUCTION. WHEN LAND IS EXPOSED DURING CONSTRUCTION, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME. ANY DISTURBED AREAS THAT ARE TO BE LEFT UN-STABILIZED LONGER THAN TWO WEEKS SHALL BE TEMPORARILY SEEDED AND MULCHED AT THE RATE OF 2 TONS PER ACRE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL REMEDIAL WORK REQUIRED TO REPAIR AREAS WHICH ARE DAMAGED BY EROSION.
- 4) CONTRACTOR SHALL MAINTAIN EROSION CONTROL ON A WEEKLY BASIS AND AFTER EACH RAIN EVENT OF 0.5 INCHES OR MORE AND CONTRACTOR SHALL DISPOSE OF ACCUMULATED SEDIMENT AT AN OFF-SITE LOCATION.
- 5) HAY BALE BARRIERS SHALL BE INSTALLED AND MAINTAINED AT DRAIN INLETS AND OUTLETS AND ALONG LIMITS OF WORK WHERE NECESSARY. HAY BALE BARRIERS SHALL NOT BE PLACED CLOSER THAN 25-FEET TO DRAIN INLETS AND OUTLETS. ADDITIONAL HAY BALES SHALL BE ADDED AS REQUIRED BY THE ENGINEER. HAY BALES WILL BE STAKED AND MAINTAINED PRIOR TO AND DURING CONSTRUCTION UNTIL DISTURBED AREAS HAVE A HEALTHY STAND OF GRASS.
- 6) WITHIN THREE DAYS OF PROJECT COMPLETION, DISTURBED AREAS AND SIDE SLOPES THAT ARE FINISH GRADED WITH NO FURTHER CONSTRUCTION TAKING PLACE SHALL BE TRACKED, SEEDED (IN ACCORDANCE WITH SECTION 644 OF THE STANDARD SPECIFICATIONS) AND MULCHED. ALL SEED, LIME AND FERTILIZER PROGRAMS SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE SPECIFICATIONS (SECTION 642 AND SECTION 643).
- 7) CONSTRUCTION TRAFFIC SHALL TRAVEL THE ROADBEDS OF EXISTING ROADS.
- 8) SILT FENCE SHALL BE INSTALLED AND MAINTAINED WHERE NECESSARY AND ADDITIONAL SILT FENCE ADDED AS REQUIRED BY THE ENGINEER PRIOR TO ANY ON-SITE GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. GENERALLY, SILT FENCE SHALL BE INSTALLED TO PREVENT MIGRATION OF THE SEDIMENT FROM THE WORK AREA, AND IT SHOULD BE MAINTAINED DURING AND AFTER CONSTRUCTION TO REMOVE SEDIMENT FROM NATURAL DRAINAGE WAYS. THE SILT FENCE IS TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE A HEALTHY STAND OF GRASS.
- 9) AFTER ALL DISTURBED AREAS ARE STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED AND ACCUMULATED SEDIMENT DISPOSED BY THE CONTRACTOR.
- 10) HAY BALES AND MULCH SHALL BE MOWINGS OF ACCEPTABLE HERBACEOUS GROWTH, FREE FROM NOXIOUS WEEDS OR WOODY STEMS AND SHALL BE DRY.
- 11) SILT FENCES SHALL BE A MINIMUM OF 36 INCHES HIGH WITH THE BOTTOM OF THE CLOTH KEYING INTO THE GROUND. POSTS SHALL BE OF WOOD OR STEEL.
- 12) THE EROSION CONTROL DEVICES DESCRIBED AND AS SPECIFIED IN THE SPECIFICATIONS REPRESENT THE MINIMUM REQUIRED MEASURES FOR EROSION CONTROL. THE CONTRACTOR SHALL ADD TO THESE DEVICES ANY OTHER MEASURES AS REQUIRED OR AS DIRECTED BY THE ENGINEER TO EFFECTIVELY PREVENT MIGRATION OF SEDIMENT FROM THE WORK AREA AND PROTECT WETLAND AREAS, WATERWAYS, EXISTING AND PROPOSED DRAINAGE FEATURES, SLOPES, LAWNS, AND PLANTS ADJACENT TO THE WORK AREA.
- 13) WELDED PLASTIC OR BIODEGRADABLE PLASTIC EROSION CONTROL NETTING SHALL NOT BE USED.
- 14) CONTRACTOR SHALL INSPECT EQUIPMENT FOR ANY EXOTIC WEEDS AND PLANTS PRIOR TO MOBILIZING THEM ONSITE. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL SEDIMENT AND EROSION CONTROL PRODUCTS ARE FREE OF EXOTIC WEEDS AND PLANTS PRIOR TO THEIR USE AND INSTALLATION.
- 15) CONTRACTOR SHALL STABILIZE ALL DISTURBED WETLAND AREAS WITH WETLAND SEED MIX CONTAINING NON-INVASIVE PLANT SPECIES ONLY. CONTRACTOR SHALL USE NATURAL STRAW OR EQUIVALENT NON-TOXIC NON-SEED BEARING ORGANIC MATERIAL WITHIN AREAS BEING RESTORED USING MULCH.
- 16) CONTRACTOR SHALL REPLANT OR RESEED, AS APPLICABLE, THE IMPACT AREAS THAT DO NOT ATTAIN 75% SUCCESSFUL ESTABLISHMENT OF VEGETATION AFTER 1 GROWING SEASON.

Design Notes:

- 1) DESIGN METHOD: LOAD RESISTANCE FACTOR DESIGN (LRFD)
- 2) SPECIFICATIONS: AASHTO LRFD 8TH ED., 2017

NHDOT 2016 STANDARD SPECIFICATIONS, AS AMENDED

- 3) FOUNDATION DATA: SLAB ON GRADE
- 4) REINFORCING STEEL: AASHTO M 31 (ASTM A 615) GRADE 60.

EPOXY COATED

5) CONCRETE: PRECAST CONCRETE = 5000 PSI (CLASS AAA)

Construction Sequence:

BELOW IS A CONSTRUCTION SCHEDULE THAT COULD BE USED BY THE CONTRACTOR TO CONSTRUCT THE PROJECT. CONTRACTOR SHALL SUBMIT THEIR OWN CONSTRUCTION SCHEDULE FOR CONSIDERATION BY THE ENGINEER.

- 1) INSTALL ALL EROSION CONTROL DEVICES.
- 2) VERIFY HORIZONTAL AND VERTICAL DATUM.
- 3) INSTALL CONSTRUCTION SIGNS, SEDIMENT CONTROL, AND EROSION CONTROL.
- 4) MOBILIZE ALL EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE PROJECT TO THE SITE, INCLUDING DELIVERY OF THE CONCRETE SLAB.
- 5) INSTALL PLUGS IN ROUTE 1A AND TROLLEY BERM CULVERTS TO PREVENT TIDAL AND STREAM WATER FROM ENTERING THE WORK ZONE.
- 6) DEWATER THE EXCAVATION
- 7) EXCAVATE FOR THE PROPOSED SLAB, INSTALL CRUSHED STONE, AND INSTALL PROPOSED SLAB.
- 8) INSTALL STONE APRON AND SLOPE PROTECTION.
- 9) EXCAVATE STREAM CHANNEL. CONTRACTOR TO DISPOSE OF EXCAVATED MATERIAL OFF-SITE.
- 10) REINTRODUCE STREAM/TIDAL FLOW INTO THE CONSTRUCTION AREA. SEE DEWATERING NOTES
- 11) INSTALL LOAM AND SEED OVER ALL DISTURBED AREAS.
- 12) REMOVE ALL CONSTRUCTION SIGNS, SEDIMENT CONTROL, AND EROSION CONTROL DEVICES.
- 13) RESTORE ALL DISTURBED AREAS TO PRE-CONSTRUCTION CONDITIONS.

Site Specific Dewatering Notes:

- 1) ALTHOUGH THE UPSTREAM PORTION OF THE ROUTE 1A CULVERT IS A 4-FT BY 4-FT BOX CULVERT, THE DOWNSTREAM PORTION OF THE CULVERT IS A 48-INCH RCP DRAINAGE PIPE. IT IS ANTICIPATED THAT A PIPE PLUG CAN BE INSTALLED IN THE 48-INCH PIPE (OR IN THE 4-FT BY 4-FT BOX CULVERT) TO LIMIT OCEAN WATER FROM ENTERING INTO THE WORK ZONE.
- 2) AT EXTREME LOW TIDE, THE CONTRACTOR SHALL INSTALL THE PIPE PLUG IN THE 48—INCH CULVERT AND THEN PLUG THE 30-INCH TROLLEY BERM CULVERT ON THE INLET END.
- 3) THE INTENT IS TO IMPOUND WATER UPSTREAM OF THE TROLLEY BERM IN PHILBRICK'S POND. TO ACCOMPLISH THIS, THE EXTENDED FORECAST SHALL SHOW NO SUBSTANTIAL RAIN EVENTS. TO PREVENT UPSTREAM WATER ISSUES, THE WORK WILL NEED TO BE COMPLETED EXPEDITIOUSLY WITH WORK BEING COMPLETED EVERY DAY UNTIL THE PROJECT IS ACCEPTED AS COMPLETE ..
- 4) IT IS ANTICIPATED THAT WATER WILL LEAK THROUGH THE TROLLEY BERM, SOILS, AND THE ROUTE 1A CULVERT PIPE, REQUIRING DEWATERING IN BOTH LOCATIONS.
- 5) WATER PUMPED FROM THE EXCAVATION CAN BE DISCHARGED UPSTREAM OF THE TROLLEY BERM IN UPLAND SOILS ON THE WEST END OF THE BRESNAHAN PROPERTY. THE LOCATION WILL NEED TO BE COORDINATED WITH THE ENGINEER. DISTURBED AREAS WILL BE RESTORED BY THE CONTRACTOR.
- 6) PUMPED WATER SHALL BE DISCHARGED INTO A SEDIMENT CONTROL DEVICE SUCH AS A DIRT BAG OR OTHER ACCEPTABLE METHOD.
- 7) AFTER THE WORK IS COMPLETED, AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL REMOVE THE DOWNSTREAM PLUG FROM THE 48-INCH CULVERT. AT THE SUBSEQUENT INCOMING TIDE, THE CONTRACTOR SHALL REMOVE THE UPSTREAM PLUG FROM THE 30-INCH CULVERT. THIS WORK SEQUENCE IS TO MINIMIZE EROSION WHEN STREAM/TIDAL FLOW ARE REINTRODUCED INTO THE CONSTRUCTION AREA.
- 8) AFTER A FEW DAYS OF TIDE CYCLES, THE CONSTRUCTION AREA SHALL BE INSPECTED FOR EROSION, AND ANY AREAS ADDRESSED. THE PLUG(S) MAY NEED TO BE REINSTALLED TO COMPLETE THE WORK.
- 9) CONTRACTOR SHALL DEWATER DREDGED MATERIAL OUTSIDE OF JURISDICTIONAL AREAS WITH APPROPRIATE TURBIDITY AND SILTATION CONTROLS. ONCE THE MATERIAL IS DEWATERED, IT CAN BE TRANSPORTED AND DISPOSED OF OFF-SITE.

Water Diversion Structure Notes:

- 1) ITEM 503.1—WATER DIVERSION STRUCTURES SHALL BE REQUIRED TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL SUBMIT THE DIVERSION STRUCTURE TYPE, DESIGN, AND PROPOSED METHOD OF CONSTRUCTION TO THE ENGINEER IN ACCORDANCE WITH SECTION 105.02 OF THE NHDOT STANDARD SPECIFICATIONS.
- 2) EROSION AND WATER QUALITY CONTROL MEASURES SHALL MEET THE APPLICABLE TURBIDITY REQUIREMENTS.
- 3) CONTRACTOR SHALL SUBMIT A WATER DIVERSION PLAN FOR REVIEW.
- 4) CONTRACTOR SHALL DETERMINE THE REQUIRED LIMITS TO MAINTAIN A DEWATERED AND ADEQUATELY SUPPORTED EXCAVATION DURING CONSTRUCTION.
- 7) WATER DIVERSION STRUCTURE AND SEDIMENT CONTROL DEVICE(S) SHALL BE IN PLACE BEFORE STARTING
- 8) ALL WATER DIVERSION STRUCTURES ARE TO BE INSTALLED DURING PERIODS OF LOW FLOW. CONTRACTOR SHALL PUMP/DIVERT STREAM FLOW AROUND WORK AREA TO MINIMIZE SILTATION OF STREAM WATERS. THE CONTRACTOR SHALL BE PREPARED FOR, AND MAKE PROVISIONS FOR, HIGH FLOW EVENTS THAT MAY OCCUR EVEN DURING TYPICAL LOW FLOW PERIODS.
- 9) ALL COSTS FOR DESIGN, INSTALLATION, AND REMOVAL OF WATER DIVERSION STRUCTURES SHALL BE

| Legend: | | | N THE WATER DIVERSION ITEM. | THE THE THE | DIVERSION STREET SET |
|---------------|--------------------------|-------------|-----------------------------|-------------|---------------------------|
| | EXISTING 10-FT CONTOUR | . ~ ~ . | EXISTING TREE LINE | | PROPOSED SILT FENCE |
| | EXISTING 2-FT CONTOUR | | EXISTING EDGE OF PAVEMENT | | PROPOSED EDGE OF PAVEMENT |
| | PROPERTY & ROW BOUNDARY | ohe | EXISTING OVERHEAD ELECTRIC | | PROPOSED CULVERT |
| | ROADWAY CENTERLINE | | BORING SITE (PAINT) | | PROPOSED SLOPE PROTECTION |
| · · · · · · · | EXISTING EDGE OF WETLAND | | SIGN | | PROPOSED STONE APRON |
| | EXISTING EDGE OF STREAM | | UTILITY POLE | | |
| | EXISTING EDGE OF GRAVEL | ~ | | | |
| | EXISTING CULVERT | X | LIGHT | | |

Abbreviations:

ABBREV

DRAIN

DEPT DEPARTMENT

MEANING

| @ ^RD | AT ABANDONED ASBESTOS CEMENT PIPE ADDITIONAL APPROXIMATE AMERICAN SOCIETY FOR | DH | DRILL HOLE DUCTILE IRON DUCTILE IRON CEMENT-LINED DIAMETER DISCHARGE DRAIN MANHOLE DRAIN TILE DRAWING EACH EACH FACE ELECTRIC-VAULT ELEVATION ELECTRIC EDGE OF PAVEMENT | L | LEAVE |
|------------|---|----------|---|-------|--------------------------|
| ADD ADD | ASRESTAS CEMENT DIDE | DI | DUCTILE IRON | MHW | MEAN HIGH WATER |
| ACI | ADDITIONAL | DICL | CEMENT-LINED | MINI | MINIMI IM |
| ADD L | ADDROVIMATE | DIA | DIAMETER | MON | MONUMENT |
| AFFINOX | AMERICAN SOCIETY FOR | DISCH | DISCHARGE | NIC | NOT IN CONTRACT |
| ASTM | TESTING AND MATERIALS | DMH | DRAIN MANHOLF | NO # | NUIMBER |
| втм | BOTTOM | DT | DRAIN TILE | NITC | NOT TO SCALE |
| ВН | BRADIFY HEAD | DWG | DRAWING | DR | PULL BOX |
| BIT | BITUMINOUS CONCRETE | ΕA | EACH | DC | PRECAST CONCRETE |
| BLDG | BUILDING | EF | EACH FACE | 1 0 | PRESTRESSED CONCRETE |
| BMP | BUILDING MONITORING POINT | E-VAULT | ELECTRIC-VAULT | PCCP | CYLINDER PIPE |
| BOW | BOTTOM OF WALL | EL, ELEV | ELEVATION | PCI | PIT CAST IRON |
| BR | BRICK | ELEC, E | ELECTRIC—VAULT ELEVATION ELECTRIC EDGE OF PAVEMENT EXISTING FIRE ALARM FLOOR DRAIN FEDERAL FIBERGLASS FORCE MAIN | PERF | PEFORATED |
| CB | CATCH BASIN | EOP | EDGE OF PAVEMENT | PM | PARKING METER |
| C.B. | CONCRETE BOUND | EXIST | EXISTING | PROP | PROPOSED |
| CBCI | CATCH BASIN WITH CURB | FA | FIRE ALARM | PSI | POUNDS PER SQUARE INCH |
| CDCI | INLET | FD | FLOOR DRAIN | PT | POST TENSION |
| CC | CAST-IN-PLACE CONCRETE | FED | FEDERAL | PVC | POLYVINYL CHLORIDE |
| CEM | CEMENT | FG | FIBERGLASS | R | REMOVE/RELOCATE |
| CL | CLEAR | FM | FORCE MAIN | REC | RECORD INFORMATION |
| <u> </u> | CENTER LINE | FND | FOUND | REINF | REINFORCEMENT |
| CLF | CLEAR CENTER LINE CHAIN LINK FENCE CAST IRON | FP | FLAG POLE | RES | REVERE EXTENSION SEWER |
| CI | CAST IRON | FΤ | FOOT | RCP | REINFORCED CONCRETE PIPE |
| CICL | CAST IRON CEMENT-LINED | GRAN | GRANITE | RS | RECEIVING SHAFT |
| CIP | CAST IN PLACE | HDPF | HIGH DENSITY | ROW | RIGHT-OF-WAY |
| C.O. | CAST IN PLACE CLEAN OUT CONCRETE CONNECTION | 1101 _ | POLYETHYLENE | SB | STREET LIGHT BASE |
| CONC | CONCRETE | HH | HAND HOLE | S.B. | STONE BOUND |
| CONN | CONNECTION | HURIZ | HURIZUNTAL | SD | STORM DRAIN |
| COR | CORNER CONCRETE PIPE CORRUGATED METAL PIPE | H Y D | FIBERGLASS FORCE MAIN FOUND FLAG POLE FOOT GRANITE HIGH DENSITY POLYETHYLENE HAND HOLE HORIZONTAL HYDRANT HANDICAP INVERT | SF | FIRE SERVICE |
| CP | CUNCKETE METAL DIDE | H/C | HANDICAP | SGC | SLOPED GRANITE CURB |
| CMP | CUKKUGATED METAL PIPE | INV | INVERT | SLCC | STREET LIGHT CONTROL |

MEANING

ABBREV.

MEANING

CARINET

SMH SEWER MANHOLE

SPEC SPECIFICATION SQ SQUARE SANITARY SEWER STEEL STD SINGLE TILE DUCT STY STORY SW SIDEWALK TOP AND BOTTOM TBC TOP BACK OF CURB TCC TRAFFIC CONTROL CABINET TELEDUCT TELEPHONE CONDUIT/DUCT BANK TH TOP OF HATCH TRAFFIC LIGHT CONDUIT TOW TOP OF WALL TRAF TRAFFIC CONDUIT TS TRAFFIC SIGNAL TYP TYPICAL UMP UTILITY MONITORING POINT UNKNOWN UNK UP UTILITY POLE VITRIFIED CLAY VERT VERTICAL VGC VERTICAL GRANITE CURB WATER W/ WITH WC WYE CONNECTION WIP WROUGHT IRON PIPE WM WATER METER

WMH WATER MANHOLE

WFLG WETLAND FLAG

MEANING

ABBREV.

EXISTING CULVER

Philb

drawing no.

sheet: 2 of

\CADD\PROJECTS\1171 TNC Philbricks Pond\Production\1071—Notes.dwg Date Plotted: May 13, 2021 — 9:23am Plotted By: WCHAMBERLAIN

IN INCHES

IP IRON PIPE

OWNERS OF RECORD JEROLD A. GNAZZO JANE S. GNAZZO 34 WILLOW AVE WETLANDS DELINEATION NOTE NO HAMPTON, NH 03862 5928/1134 HIGHEST OBSERVABLE TIDE LINE (HOTL) AND SALT MARSH DEPICTED WERE DELINEATED BY MARC JACOBS, CERTIFIED WETLAND SCIENTIST 5-9-1 (32 WILLOW AVE) GORDON A. VINTHER, JR 090, AT HIGH TIDE (10.3') ON FEBRUARY 11, 2020. SALT MARSH PO BOX 1822 WAS DELINEATED AS PER ENV-WT 602.22 BASED UPON THE HAMPTON, NH 03843 OBSERVED EXTENT OF ROOTED EMERGENT SALT-TOLERANT 6025/1766 VEGETATION, EXCLUDING POTENTIAL EELGRASS BEDS. HOTL WAS DELINEATED BASED UPON THE CODE OF ADMINISTRATIVE RULES, NH - CONCRETE 5-10 (88 OCEAN BLVD) DEPARTMENT OF ENVIRONMENTAL SERVICES - WETLANDS BUREAU -SURVEY SPIKE SET EARTHROWL FAMILY LTD PARTENRSHIP (44% INTEREST) ENV WT 100-900, ESPECIALLY ENV-WT 602.23. COPIES OF SITE 935 BEACON ST PLANS WHICH DEPICT THE DELINEATION THAT HAVE BEEN REVIEWED ELEV= 16.19 NEWTON, MA 02459 BY THE WETLAND SCIENTIST ARE INDIVIDUALLY STAMPED, SIGNED AND 2 1/2 STORY DATED. THIS NOTE HAS BEEN CUSTOMIZED FOR THIS PROJECT. 4215/180 WOOD FRAME 5-10 RUTH S. EARTHROWL, TRUSTEE (56% INTEREST) FRANCIS H. EARTHROWL, JR FAMILY TRUST 935 BEACON ST NEWTON, MA 02459 TOE OF MORTARED (ELEVATIONS TAKEN FF CONCRETE FLEV= 7.11 4191/2020 TOP OF WALL TO APPROXIMATE RETAINING ABOUT 1.6' ABOVE TOP OF BOULDERS) GRADE AT ROAD SIDE FACE (TYP) WOOD THRESHOLD CB RIM ELEV= 14.38 (EMPTIES INTO BOX CULVERT) PHILBRICK POND MARSH a.k.a. TRUNK MARSH SECTION 4 **APPROXIMATE** SECTION 3 SECTION 2A SECTION 1 **APPROXIMATE** CENTERLINE OF TIDAL DITCH APPROXIMATE 5-10 5-9 RETAINING RETAINING MORTARED RETAINING OCEAN BOULEVARD TOP OF BANK JURISDICTIONAL WETLANDS SMALL SHRUB (TYP) $\times 9.2$ EXIST HERE - NO NH ROUTE 1-A SECTION 2 TBM 2 SURVEY SPIKE SET IN BASE OF 12"CHERRY DELINEATED WETLANDS DELINEATION WETLAND PERFORMED RETAINING TROLLEY ELEV= 10.29 5-9 (1.0' ABOVE GROUND) $\times 11.2$ 7.2× 5-9-1 $\times 11.7$ $\times 13.0$ \times 6.7 LEGEND: 5-9-1 1. THIS PLAN IS BASED ON A FIELD SURVEY 6/30/2017 & 8/14/2017 110-5 .. TAX SHEET - LOT NUMBER BY JAMES VERRA AND ASSOC., INC. $\times 13.0$ RCRD .. ROCKINGHAM COUNTY REGISTRY OF DEEDS 2. HORIZONTAL DATUM: NAD 1983 (1986 ADJUSTMENT) ..EDGE OF PAVEMENT HORIZONTAL BM: NHDOT 345-0220 MORTARED STONE .. MORTARED RETAINING WALL VERTICAL DATUM: NGVD 1929 RETAINING WALL VERTICAL BM: NHDOT 397-0490 ..STONE RETAINING WALL .REFLECTOR ENGINEER OR CONTRACTOR TO VERIFY SITE BENCHMARKS BY LEVELING BETWEEN 2 BENCHMARKS PRIOR TO THE SETTING OR ESTABLISHMENT OF ANY GRADES/ELEVATIONS. .SIGN DISCREPANCIES ARE TO BE REPORTED TO JAMES VERRA AND ASSOC., INC. ...CATCH BASIN ..TREE LINE/BRUSH LINE ♦ SEPTIC VENT 4. THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE .. DRAIN LINE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE CATCH BASINS, MANHOLES, WATER GATES ETC.) AND INFORMATION . CEMENT CONCRETE COMPILED FROM PLANS PROVIDED BY UTILITY COMPANIES AND GOVERNMENTAL AGENCIES. ALL CONTRACTORS SHOULD NOTIFY, IN WRITING, SAID AGENCIES . RETAINING WALL PRIOR TO ANY EXCAVATION WORK AND CALL DIG-SAFE @ 1-888-DIG-SAFE. ...LANDSCAPED AREA SEE WETLANDS DELINEATION NOTE ABOVE. RIGHT OF WAY ...SPOT GRADE 6. DECREASE NGVD 1929 ELEVATIONS 0.781' TO CONVERT TO NAVD 1988 DATUM. 4/24/2020 UPDATE OWNERS OF RECORD, ADD WETLANDS LINES & REVISE OCEAN BOULEVARD ROW .. HIGHEST OBSERVABLE TIDE LINE 1 9/6/2017 ADD TOPOGRAPHIC INFORMATION FOR EARTHROWL PARCEL & REVISE TBM ELEVATIONS REV. NO. DATE DESCRIPTION BOX CULVERT DETAIL (VIEW LOOKING TOWARD OCEAN) REFERENCE PLANS: LIMITED TOPOGRAPHIC PLAN 1. SURVEY COMPILATION PLAN, "PHILBRICK POND" - NORTH HAMPTON, N.H. AND OCEAN BOULEVARD "BASS BEACH" - RYE, N.H., FOR N.H. OFFICE OF STATE PLANNING, DATED 9/9/2002, PLAN NO. 21511, BY JAMES VERRA AND ASSOCIATES, INC., NOT RECORDED. N.H. ROUTE 1-A 2. PLAT OF LAND, 88 OCEAN BOULEVARD, NORTH HAMPTON, N.H., FOR FRANCIS H. NORTH HAMPTON, NEW HAMPSHIRE EARTHROWL, JR., DATED 9/21/1998, PLAN NO. 20935, BY JAMES VERRA AND ASSOCIATES, INC. NOT RECORDED.

STATE OF N.H. HIGHWAY DEPARTMENT, OCEAN BOULEVARD, TOWNS OF RYE, NORTH HAMPTON AND HAMPTON, COUNTY OF ROCKINGHAM, FILE# 31228,

SHEETS 12 & 13, ON FILE AT NHDOT, CONCORD, N.H.

for CMA ENGINEERS, INC. 7/14/2017 JAMES VERRA and ASSOCIATES, INC. JOB NO: 21511-A 101 SHATTUCK WAY SUITE 8 NEWINGTON, N.H. 03801-7876 SCALE: 1" = 20' DWG NAME: 21511-A 603-436-3557

COPYRIGHT @ 2017 by JAMES VERRA and ASSOCIATES, INC.

PLAN NO: 21511-A

SHEET: 1 OF 1

JCS

PROJECT MGR

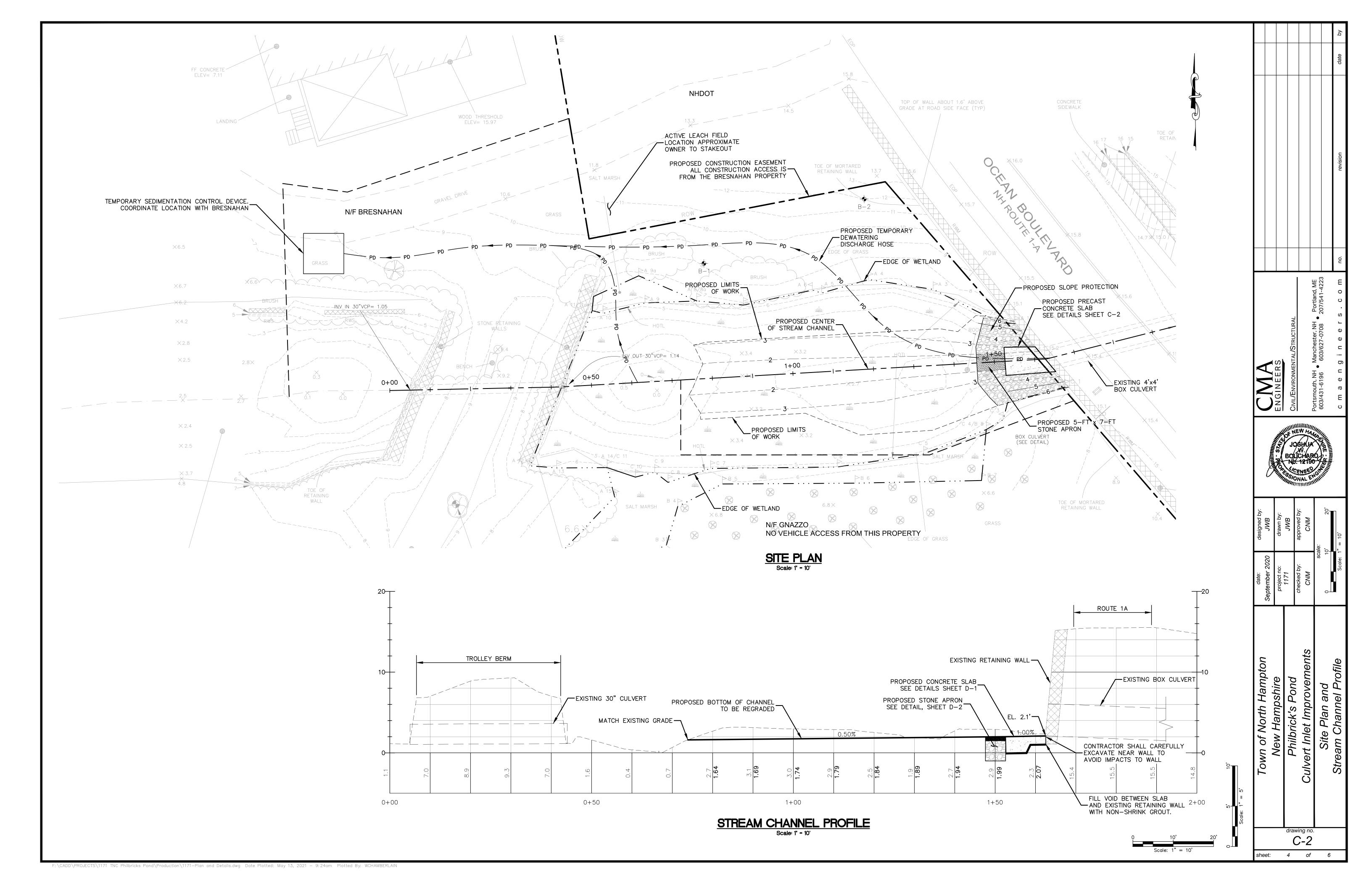
80 FEET

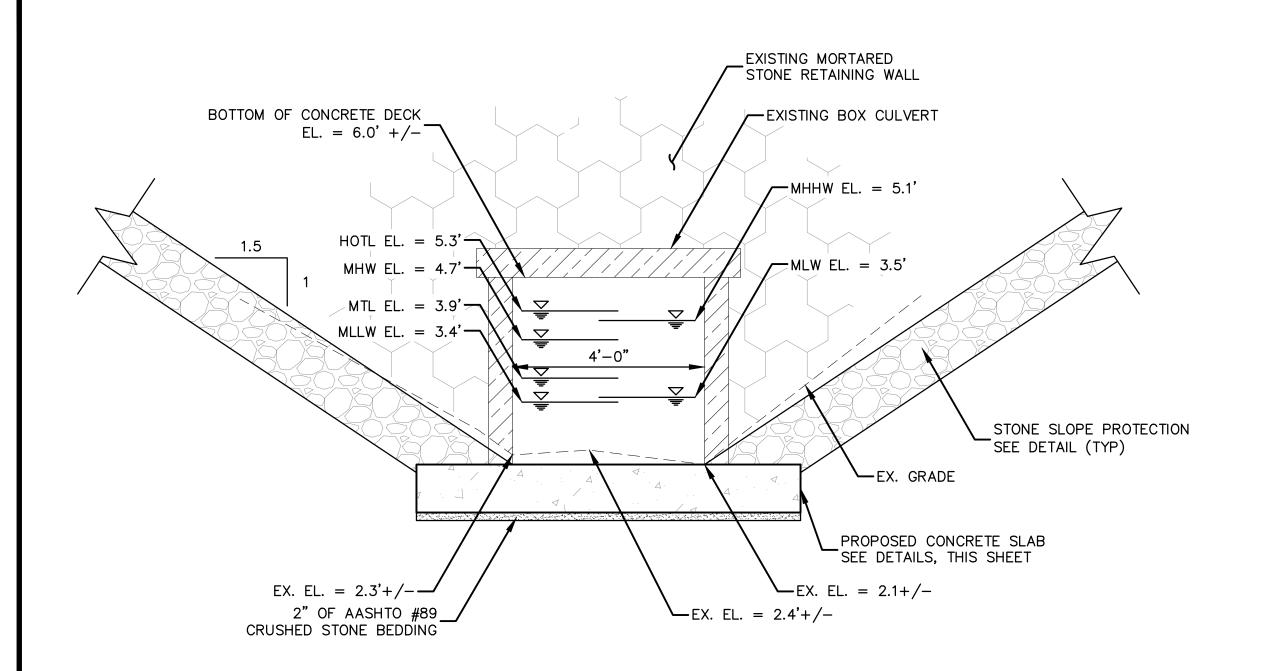
20 METERS

ATLANTIC

OCEAN

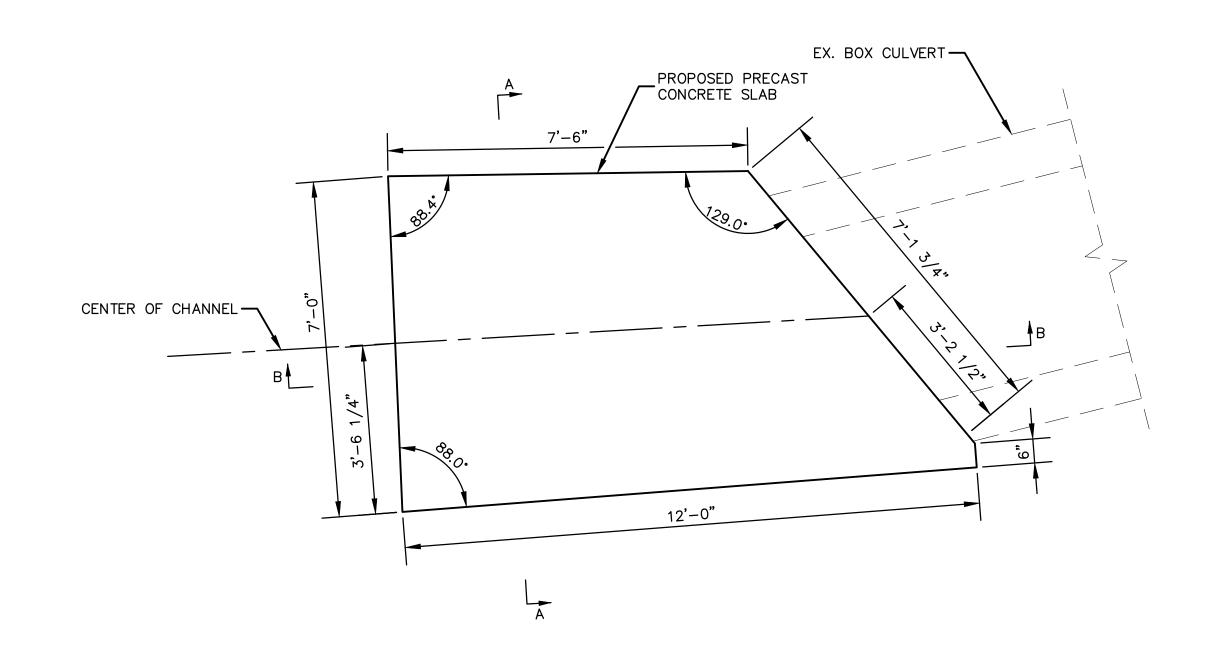
INV OUT 48"RCP= -1.15~ (MEASUREMENT MADE 2.0' FROM CULVERT OUTLET)



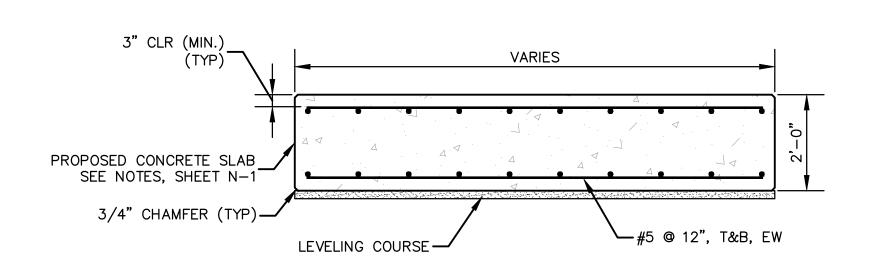


BOX CULVERT INLET ELEVATION

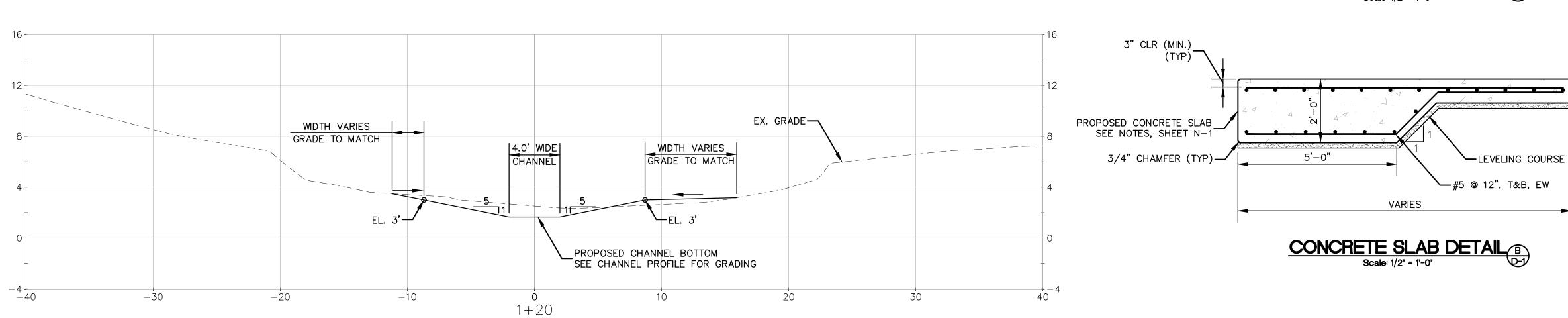
Scale: 1/2" = 1'-0"



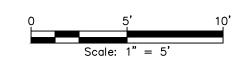
CONCRETE SLAB DETAIL Scale: 1/2" = 1'-0"



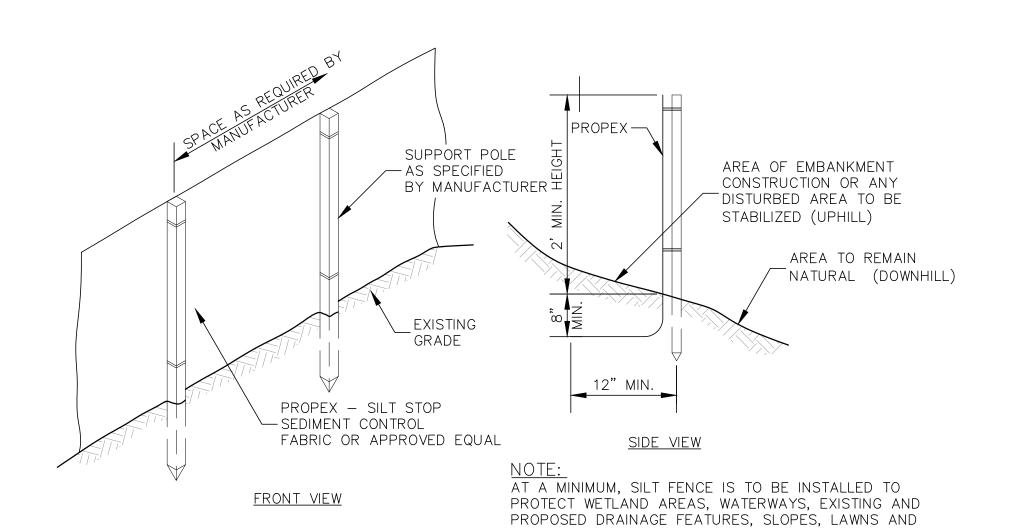
CONCRETE SLAB DETAIL A Scale: 1/2' = 1'-0'



STREAM CHANNEL SECTION
Scale: 1' = 5'

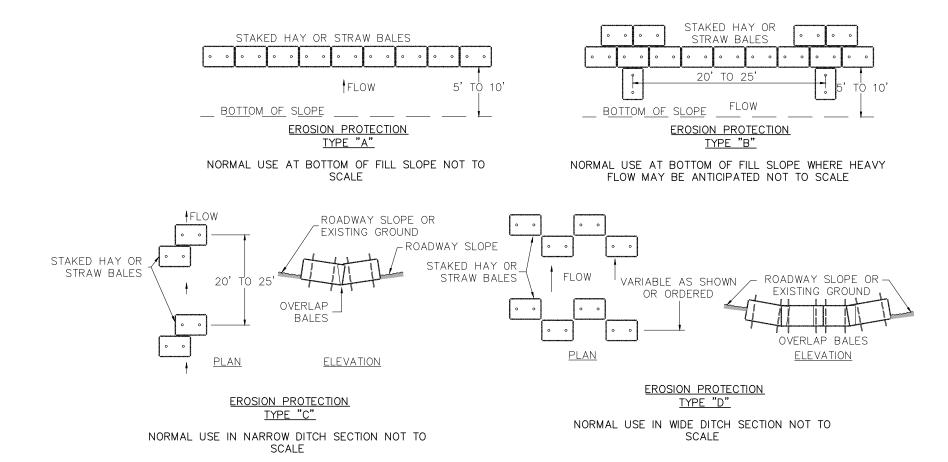


| | | | | | | | iq |
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| CMA | ENGINEERS | CIVII /ENVIRONMENTAI /STRIICTI IRAI | | | Portsmouth, NH Manchester, NH Portland, ME | 0020-12020 | c m a e n g i n e e r s . c o m |
| | Name of the line | BOX | IN SOUTH SERVICE | NA LANGE | PO PO | DE SASILIA | |
| JWB | drawn by: | JWB | approved by: | CNM | scale: | 2, 4, | $2^n = 1^n - 0^n$ |
| September 2020 | project no: | 11/1 | checked by: | CNM | SOS | 0_ | Scale: 1/2" = 1' |
| I own of North Hampton | New Hampshire | Philhrick's Pond | | Culvert Inlet Improvements | | Concrete Slab Details | |
| | | | | ng n - 1 | 1 | | |
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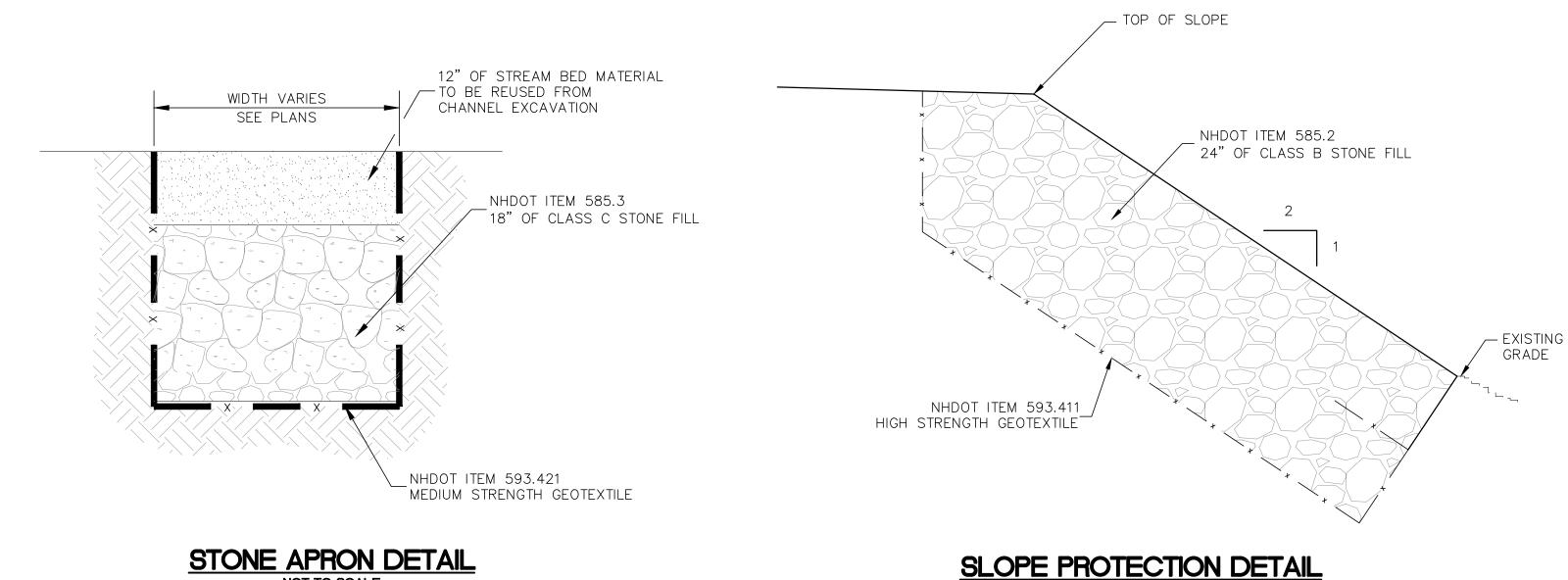


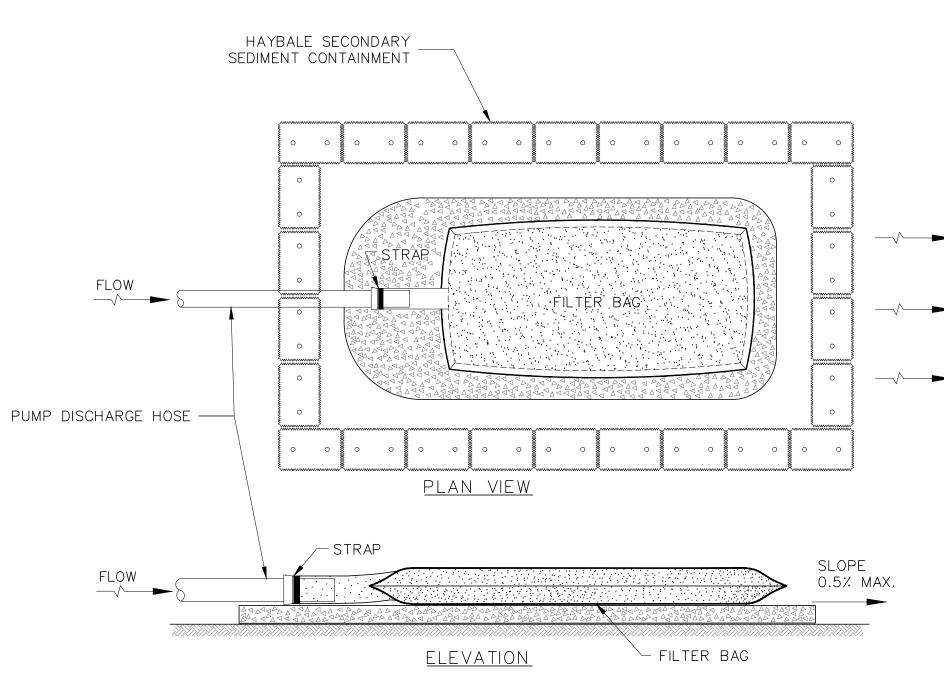
SILT FENCE DETAIL NOT TO SCALE

PLANTINGS ADJACENT TO THE WORK.



HAY BALE DETAIL NOT TO SCALE





NOT TO SCALE

DEWATERING FILTER BAG NOT TO SCALE <u>NOTES:</u>

1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.

NOT TO SCALE

- 2. PLACE FILTER BAG ON SUITABLE BASE LOCATED ON A LEVEL OR 0.5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA.
 - 3. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE
 - 4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
 - 5. USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

| GRAB TENSILE | 250 LB | ASTM D-4632 |
|-----------------------------------|--------------------------|----------------|
| GRAD TENSILE | 250 LB | |
| PUNCTURE | 150 LB | ASTM D-4833 |
| FLOW RATE | 70 GAL/MIN/FT² | ASTM D-4491 |
| PERMITTIVITY (SEC ⁻¹) | 1.2 SEC ⁻¹ | ASTM D-4491 |
| UV RESISTANCE | 70% STRENGTH @ 500 HOURS | ASTM D-4355 |
| APPARENT OPENING SIZE (AOS) | 0.15-0.18 MM | ASTM D-4751 |
| SEAM STRENGTH | 90% | ASTM D -4632 |

6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

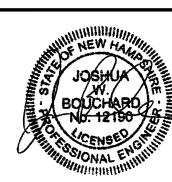
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Portsmouth, NH Manchester, NH Portlan

603/431-6196 603/627-0708 207/541



| sheet: | | Town of North Hampton | date: September 2020 | designed by: JWB |
|--------|-------------|----------------------------|-------------------------|---------------------|
| | | new Hampsnire | project no: | drawn by: |
| 6 | | Philhrick's Pond | 1171 | JWB |
| | | | file name: | approved by: |
| of | g no. -2 | Culvert Inlet Improvements | 1171-MIsc. Details.dwg | CNM |
| 6 | | Miscellaneous Details | scale: AS NOTED | le:)7 <i>ED</i> |
| | | | | |

B-7 Rip-Rap Specifications and Plans

There is an existing riprap slope protecting the existing culvert inlet that will be removed to install the concrete slab. The project will regrade and restore the riprap slope to protect the culvert inlet and concrete slab.

- ❖ See Section B-4 for project photos that show the existing culvert inlet protection.
- See Section B-6 for project plans which include a cross-section and plan view of the proposed installation.
- See Section A-1 for a discussion of how this project meets Env-Wt 310.01(c).



B-8 Project Specific Information (Env-Wt 500)

See Section A-3 for all project-specific information required under Env-Wt 500.



B-9 Coastal Resource Worksheet (Env-Wt 600)





COASTAL RESOURCE WORKSHEET

Water Division/Land Resources Management Wetlands Bureau





RSA/Rule: RSA 482-A/ Env-Wt 600

APPLICANT LAST NAME, FIRST NAME, M.I.: Bouchard, Joshua W.

Applicability: This worksheet may be used to present the information required for projects in coastal areas in addition to the information required for Lower-Scrutiny Approvals, Expedited Permits, and Standard Permits under Env-Wt 603.01.

Please refer to Env-Wt 605.03 for impacts requiring compensatory mitigation.

SECTION 1 - REQUIRED INFORMATION (Env-Wt 603.02; Env-Wt 603.06; Env-Wt 603.09)

The following information is required for projects in coastal areas.

Describe the purpose of the proposed project, including the overall goal of the project, the core project purpose including a concise description of the facilities and work that could impact jurisdictional areas, and the intended project outcome. Specifically identify all natural resource assets in the area proposed to be impacted and include maps created through a data screening in accordance with Env-Wt 603.03 (refer to Section 2) and Env-Wt 603.04 (refer to Section 3) as attachments.

In 2018, CMA Engineers, with Gomez & Sullivan, completed a study of Philbrick's Pond and the surrounding salt marsh. For years, the salt marsh has been declining in health, and the study determined this is due to reduced tidal range because of the stone weir at the inlet of the 4-ft by 4-ft box culvert of the Chapel Brook culvert crossing at Route 1A at elevation 2.1 ft. Additionally, there's an abandoned trolley berm approximately 100 feet upstream of the Route 1A culvert, and Chapel Brook flows under the trolley berm through a 30-in CMP culvert at elevation 1.14 ft. Because the Route 1A culvert is higher than the trolley berm culvert, it's created a high spot in the stream channel between the two culverts. The intent of the project is to remove the stone weir, replace the stone weir with a concrete slab, and regrade the stream channel to create a consistent stream bed elevation. The project will include permanent wetlands impacts to install the concrete slab, stone apron, and stone slope protection, and the project will include temporary wetlands impacts to regrade the stream channel and install the plugs in the culverts that are required to isolate the stream between Route 1A and trolley berm. The intended project outcome is to increase the tidal range in the salt marsh which will improve the health of the salt marsh. Please refer to maps in the Appendices.

Irm@des.nh.gov or (603) 271-2147
NHDES Wetlands Bureau, 29 Hazen Drive, PO BOX 95, Concord, NH 03302-0095
www.des.nh.gov

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| For standard permit projects, provide: |
|---|
| A Coastal Functional Assessment (CFA) report (refer to Section 3); and |
| A vulnerability assessment (refer to Section 4). |
| Explain all recommended methods and other considerations to protect the natural resource assets during and as a result of project construction in accordance with Env-Wt 603.04, Env-Wt 311.07, and Env-Wt 313. |
| Env-Wt 603.04 does not apply to this project because Coastal Functional Assessments are only required for standard permits. |
| Per Env-Wt 311.07, the primary purpose of the project is to increase the tidal range in the marsh by improving the culvert inlet to Philbrick's Pond. The proposed project will not construct a water access structure nor provide access through wetlands to reach a buildable lot. This project is neither industrial development nor commercial development; it is a restoration project. Four potential alternatives were considered in the CMA Engineers' Drainage Evaluation: no action, slab, box culvert, and channel improvements + slab. All options impact the wetlands. The "no action" alternative will lead to the complete degradation of the Philbrick Pond Marsh. The chosen alternative, channel improvements and concrete slab, was shown to have the greatest impact on tidal range to improve the primary goal of the project, improve marsh health. |
| Env-Wt 311.10c does not apply because this project is an expedited permit which does not require a functional assessment. |
| Env-Wt 313 does not apply because the project is not a standard permit. |
| Provide a narrative showing how the project meets the standard conditions in Env-Wt 307 and the approval criteria in Env-Wt 313.01. |
| Please see Section A-3 for the explanation of how this project meets the requirements in Env-Wt 307. |
| Env-Wt 313.01 does not apply because the project is not a standard permit. |
| |

<u>Irm@des.nh.gov</u> or (603) 271-2147 NHDES Wetlands Bureau, 29 Hazen Drive, PO BOX 95, Concord, NH 03302-0095 <u>www.des.nh.gov</u>

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| Provide a project design narrative that includes the following: |
|---|
| A discussion of how the proposed project: |
| Uses best management practices and standard conditions in Env-Wt 307; Meets all avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03; Meets approval criteria in Env-Wt 313.01; Meets evaluation criteria in Env-Wt 313.01(c); Meets CFA requirements in Env-Wt 603.04; and Considers sea-level rise and potential flooding evaluated pursuant to Env-Wt 603.05; |
| A construction sequence, erosion/siltation control methods to be used, and a dewatering plan; and |
| A discussion of how the completed project will be maintained and managed. |
| See Section A-3 for responses to this section. |
| See construction drawings for the Construction Sequence, Erosion Control Notes and Methods, and Dewatering Notes. |
| After project completion, the salt marsh will be monitored for health and the affects of the project. Additionally, the project site will be monitored for erosion due to the increased tidal flow and re-deposition of material in the channel between the Route 1A and trolley berm culverts. |
| ✓ Provide design plans that meet the requirements of Env-Wt 603.07 (refer to Section 5); ✓ Provide water depth supporting information required by Env-Wt 603.08 (refer to Section 6); and |
| For any major project that proposes to construct a structure in tidal waters/wetlands or to extend an existing structure seaward, provide a statement from the Pease Development Authority Division of Ports and Harbors ("DP&H") chief harbormaster, or designee, for the subject location relative to the proposed structure's impact on navigation. If the proposed structure might impede existing public passage along the subject shoreline on foot or by non-motorized watercraft, the applicant shall explain how the impediments have been minimized to the greatest extent practicable. N/A |
| Philbrick's Pond Culvert Inlet Improvements is not a major project. |
| |

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| SECTION 2 - DATA SCREENING (Env-Wt 603.03, in addition to Env-Wt 306.05) |
|---|
| Please use the Wetland Permit Planning Tool, or any other database or source, to indicate the presence of: |
| Existing salt marsh and salt marsh migration pathways; |
| Eelgrass beds; N/A |
| Documented shellfish sites; N/A |
| Projected sea-level rise; and |
| |
| Conduct data screening as described to identify documented essential fish habitat, and tides and currents that may be impacted by the proposed project, by using the following links: |
| National Oceanic and Atmospheric Administration (NOAA) Tides & Currents; and |
| NOAA Essential Fish Habitat Mapper. |
| Verify or correct the information collected from the data screenings by conducting an on-site assessment of the subject property in accordance with Env-Wt 406 and Env-Wt 603.04. |
| SECTION 3 - COASTAL FUNCTIONAL ASSESSMENT/ AVOIDANCE AND MINIMIZATION (Env-Wt 603.04; Env-Wt 605.01; Env-Wt 605.02; Env-Wt 605.03) |
| Projects in coastal areas shall: |
| Not impair the navigation, recreation, or commerce of the general public; and |
| Minimize alterations in prevailing currents. N/A |
| An applicant for a permit for work in or adjacent to tidal waters/wetlands or the tidal buffer zone shall demonstrate that the following have been avoided or minimized as required by Env-Wt 313.04: |
| Adverse impacts to beach or tidal flat sediment replenishment; |
| Adverse impacts to the movement of sediments along a shore; |
| Adverse impacts on a tidal wetland's ability to dissipate wave energy and storm surge; and |
| Adverse impacts of project runoff on salinity levels in tidal environments. |
| For standard permit applications submitted for minor or major projects: |
| Attach a CFA based on the data screening information and on-site evaluation required by Env-Wt 603.03. The CFA for tidal wetlands or tidal waters shall be: N/A |
| Performed by a qualified coastal professional; and |
| Completed using one of the following methods: |
| a. The US Army Corps of Engineers (USACE) Highway Methodology Workbook, dated 1993, together with the USACE New England District <i>Highway Methodology Workbook Supplement</i> , dated 1999; or |
| b. An alternative scientifically-supported method with cited reference and the reasons for the alternative method substantiated. |
| For any project that would impact tidal wetlands or tidal waters or associated sand dunes, the applicant shall: |

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| _ | Jse the results of the CFA to select the location of the proposed project having the least impact to tidal wetlands, tidal waters or associated sand dunes; N/A |
|---------------|--|
| | Design the proposed project to have the least impact to tidal wetlands, tidal waters or associated sand dunes; |
| _ | Where impact to wetland and other coastal resource functions is unavoidable, limit the project impacts to the least valuable functions, avoiding and minimizing impact to the highest and most valuable functions; and |
| ⊠ı | nclude on-site minimization measures and construction management practices to protect coastal resource areas. |
| Proj | ects in coastal areas shall use results of this CFA to: |
| | Minimize adverse impacts to finfish, shellfish, crustacea, and wildlife; |
| | Minimize disturbances to groundwater and surface water flow; |
| | Avoid impacts that could adversely affect fish habitat, wildlife habitat, or both; and |
| $\boxtimes A$ | Avoid impacts that might cause erosion to shoreline properties. |
| SEC | TION 4 - VULNERABILITY ASSESSMENT (Env-Wt 603.05) |
| | er to the New Hampshire Coastal Flood Risk Summary Part 1: Science and New Hampshire Coastal Flood Risk mary Part II: Guidance for Using Scientific Projections or other best available science to: |
| a. | Determine the time period over which the project is designed to serve; |
| | The service life of precast concrete is generally considered to be 75 years. |
| | |
| | |
| | |
| b. | Identify the project's relative risk tolerance to flooding and potential damage or loss likely to result from flooding to buildings, infrastructure, salt marshes, sand dunes and other valuable coastal resource areas; |
| | At existing sea level, the CMA Engineers report determined the maximum daily high tide in Philbrick's Pond will |
| | not increase as a result of this project. As a result, there is no additional potential damage or loss due to the |
| | construction of this project. In the report, see Table 3 Philbrick Pond Water Levels with Alternatives - Existing Sea |
| | Level. |
| | |
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c. Reference the projected sea-level rise (SLR) scenario that most closely matches the end of the project design life and the project's tolerance to risk or loss; Assuming a moderate seal level rise (SLR) of +3.9 feet, the CMA Engineers report determined the normal high tide with SLR will not increase as a result of this project. As a result, there is no additional potential damage or loss due to the construction of this project. In the report, see Table 6 Hydraulic Impact of Sea Level Rise with existing pipe at Trolley Berm and SLAB at Route 1A Culvert on Philbrick PondWater Levels – High Tides. Additionally, since the slab is installed in the streambed, it is not affected by SLR. d. Identify areas of the proposed project site subject to flooding from SLR; Based on the CMA Engineers report, the 100-yr storm surge will increase from El. 5.2 ft under current sea level to 7.9 ft assuming moderate SLR in the year 2100. With SLR, it is anticipated that Route 1A will become flooded, and the outward migration of flood waters will affect more properties. The 100-yr storm surge will not increase as a result of this project. e. Identify areas currently located within the 100-year floodplain and subject to coastal flood risk; In the G&S report, Figure 9 - Flooding Extent Modeled during 100-year Storm Event, G&S determined portions of the nearby roadways flood, but the buildings themselves are above the 100-year flood elevation. Based on the FEMA FIRMette for the project site, the properties along the coast are also subject to coastal flooding and storm waves. f. Describe how the project design will consider and address the selected SLR scenario within the project design life, including in the design plans; Since the proposed project does not increase SLR, the project did not consider, or address, SLR in the design of the project. g. Where there are conflicts between the project's purpose and the vulnerability assessment results, schedule a pre-application meeting with the department to evaluate design alternatives, engineering approaches, and use of the best available science. Pre-application meeting date held:

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SECTION 5 - DESIGN PLANS (Env-Wt 603.07, in addition to Env-Wt 311)

Submit design plans for the project in both plan and elevation views that clearly depict and identify all required elements:

- The plan view shall depict the following:
 - The engineering scale used, which shall be no larger than one inch equals 50 feet;
 - The location of tidal datum lines depicted as a line with the associated elevation noted, based on North American Vertical Datum of 1988 (NAVD 88), derived from https://tidesandcurrents.noaa.gov/datum options.html, as described in Section 6.
 - An imaginary extension of property boundary lines into the waterbody and a 20-foot setback from those property line extensions;
 - The location of all special aquatic sites at or within 100 feet of the subject property;
 - Existing bank contours;
 - The name and license number, if applicable, of each individual responsible for the plan, including:
 - a. The agent for tidal docking structures who determined elevations represented on plans; and
 - b. The qualified coastal professional who completed the CFA report and located the identified resources on the plan; and
 - The location and dimensions of all existing and proposed structures and landscape features on the property;
 - ☑ Tidal datum(s) with associated elevations noted, based on NAVD 88; and
 - ☑ Location of all special aquatic sites within 100-feet of the property.
- The elevation view shall depict the following:
 - The nature and slope of the shoreline;
 - The location and dimensions of all proposed structures, including permanent piers, pilings, float stop structures, ramps, floats, and dolphins; and
 - Water depths depicted as a line with associated elevation at highest observable tide, mean high tide, and mean low tide, and the date and tide height when the depths were measured. Refer to Section 6 for more instructions regarding water depth supporting information.
- See specific design and plan requirements for certain types of coastal projects:
 - Overwater structures (Env-Wt 606);
 - Dredging activities (Env-Wt 607);
 - Tidal beach maintenance (Env-Wt 608);
- Tidal shoreline stabilization (Env-Wt 609);
- Protected tidal zone (Env-Wt 610);
- Sand Dunes (Env-Wt 611).

| Using current predicted NOAA tidal datum for the location, and tying field measurements to NAVD 88, field observations of at least 3 tide events, including at least one minus tide event, shall be located to document the range of the tide in the proposed location showing the following levels: |
|--|
| Mean lower low water; |
| Mean low water; |
| Mean high water; |
| ⊠ Mean tide level; |
| Mean higher high water; |
| ⊠ Highest observable tide line; and |
| Predicted sea-level rise as identified in the vulnerability assessment in Env-Wt 603.05. |
| The following data shall be presented in the application project narrative to support how water depths were determined: |
| The date, time of day, and weather conditions when water depths were recorded; and |
| $oxedsymbol{oxed}$ The name and license number of the licensed land surveyor who conducted the field measurements. |
| For tidal stream crossing projects, provide water depth information to show how the tier 4 stream crossing is designed to meet Env-Wt 904.07(c) and (d), and for repair, rehabilitation or replacement of tier 4 stream crossings, demonstrate how the requirements of Env-Wt 904.09 are met. N/A |
| SECTION 7 - GENERAL CRITERIA FOR TIDAL BEACHES, TIDAL SHORELINE, AND SAND DUNES (Env-Wt 604.01) |
| Any person proposing a project in or on a tidal beach, tidal shoreline, or sand dune, or any combination thereof, shall evaluate the proposed project based on: |
| MTI |
| ☑ The standard conditions in Env-Wt 307; |
| |
| |
| The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03; |
| The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03; The approval criteria in Env-Wt 313.01; N/A |
| ∑ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03; ☐ The approval criteria in Env-Wt 313.01; N/A ☐ The evaluation criteria in Env-Wt 313.05; N/A |
| The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03; The approval criteria in Env-Wt 313.01; N/A The evaluation criteria in Env-Wt 313.05; N/A The project specific criteria in Env-Wt 600; |
| ☑ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03; ☑ The approval criteria in Env-Wt 313.01; N/A ☑ The evaluation criteria in Env-Wt 313.05; N/A ☑ The project specific criteria in Env-Wt 600; ☑ The CFA required by Env-Wt 603.04; and N/A |
| The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03; The approval criteria in Env-Wt 313.01; N/A The evaluation criteria in Env-Wt 313.05; N/A The project specific criteria in Env-Wt 600; The CFA required by Env-Wt 603.04; and N/A The vulnerability assessment required by Env-Wt 603.05. New permanent impacts to sand dunes that provide coastal storm surge protection for protected species or |

SECTION 6 - WATER DEPTH SUPPORTING INFORMATION REQUIRED (Env-Wt 603.08)

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Projects in tidal surface waters or tidal wetlands shall:

- Optimize the natural function of the tidal wetland, including protection or restoration of habitat, water quality, and self-sustaining stability to storm surge;
- Be designed with a preference for living shorelines over hardened stabilization practices; and N/A
- Be limited to public infrastructure or restoration projects that are in the interest of the general public, including a road, a bridge, energy infrastructure, or a project that addresses predicted sea-level rise and coastal flood risk.

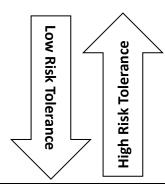
SECTION 10 – GUIDANCE

Your application must follow the New Hampshire Coastal Risk and Hazards Commission's Guiding Principles or other best available science. Below are some of these guidance principles:

- Incorporate science-based coastal flood risk projections into planning;
- Apply risk tolerance* to assessment, planning, design and construction;
- Protect natural resources and public access;
- Create a bold vision, start immediately, and respond incrementally and opportunistically as projected coastal flood risks increase over time; and
- Consider the full suite of actions including effectiveness and consequences of actions.

*Risk tolerance is a project's willingness to accept a higher or lower probability of flooding impacts. The diagram below gives examples of project with lower and higher risk tolerance:

Critical Infrastructures, historic sites, essential ecosystems, and high value assets typically have lower risk tolerance, and thus should be planned, designed, and constructed using higher coastal flood risk projections.



Sheds, pathways, and small docks typically have higher risk tolerance and thus may be planned, designed, and constructed using less protective coastal flood risk projections.

GENERAL COMMENTS

The following regulations only apply to standard permits and not expedited permits: Env-Wt 313.03, Env-Wt 313.01, Env-Wt 313.01(c), and Env-Wt 603.04.

SECTION 1

Discussion of how the proposed project:

- 1) Uses best management practices and standard conditions in Env-Wt 307;
- 2) Meets all avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- 3) Meets approval criteria in Env-Wt 313.01;
- 4) Meets evaluation criteria in Env-Wt 313.01(c);
- 5) Meets CFA requirements in Env-Wt 603.04; and
- 6) Considers sea-level rise and potential flooding evaluated pursuant to Env-Wt 603.05;

Env-Wt 313 and Env-Wt 603.04 do not apply because it is not a standard permit and a CFA is not required.

This project abides by the best management practices and standard conditions in Env-Wt 307 because pipe plugs will be used to isolate the work area for a couple days while construction is underway, which will prevent suspended sediment from negatively affecting fish. Protection against invasive species will be managed by having the contractor inspect equipment for any exotic weeds and plants prior to mobilizing on site, prohibiting washing of equipment where runoff is likely to flow to any jurisdictional area, and preventing the use of seed stock containing nuisance or invasive species. NHB and IPaC reviews showed that there are no recorded occurrences for sensitive species near the project area, so no activity will jeopardize threatened or endangered species. Dredged material will be disposed of properly and the contractor will be responsible for submitting a diversion and dewatering plan for review by the engineer. Within 3 days, the contractor will stabilize all areas that have had final grading or temporary suspension of work in an area that is in or adjacent to surface waters. See comprehensive responses to Env-Wt 307 in Section A-3.

Per Env-Wt 311.07, the primary purpose of the project is to increase the tidal range in the marsh by improving the culvert inlet to Philbrick's Pond. The proposed project will not construct a water access structure nor provide access through wetlands to reach a buildable lot. This project is neither industrial development nor commercial development; it is a restoration project. Four potential alternatives were considered in the CMA Engineers Philbrick's Pond Evaluation: no action, slab, box culvert, and channel improvements + slab. All options impact the wetlands. The "no action" alternative will lead to the continued degradation of the Philbrick Pond Marsh. The chosen alternative, channel improvements and concrete slab, was shown to have the greatest impact on tidal range to improve the primary goal of the project, improve marsh health.

Env-Wt 311.10c does not apply because this project is an expedited permit which does not require a functional assessment.

Sea-level rise and potential flooding have been evaluated and can be found in part 4 of the coastal resource worksheet in Section B-9.

Construction sequence:

- 1) Install all erosion control devices
- 2) Verify horizontal and vertical datum
- 3) install construction signs, sediment control, and erosion control
- 4) Mobilize all equipment and materials necessary to complete the project to the site, including delivery of the concrete slab
- 5) Install plugs in Route 1A and Trolley Berm culverts to prevent tidal and stream water from entering the work zone
- 6) Dewater the excavation
- 7) Excavate for the proposed slab, install crushed stone, and install proposed slab
- 8) Install stone apron and slope protection
- 9) Excavate stream channel. Contractor to dispose of excavated material off-site
- 10) Reintroduce stream/tidal flow into the construction area
- 11) Install loam and seed over all disturbed areas
- 12) Remove all Construction signs, sediment control, and erosion control devices
- 13) Restore all disturbed areas to pre-construction conditions

Erosion/Siltation Control Methods:

The contractor is responsible for the development and approval of the erosion and sediment control plan. Silt fence and hay bales, at a minimum, are required at the outlet of the dewatering discharge treatment device. Prior to construction and thereafter, erosion control measures are to be implemented as necessary. The smallest practical area of land should be exposed at any one time during construction. When land is exposed during construction, the exposure should be kept to the shortest practical period of time. Any disturbed areas that are to be left un-stabilized longer than two weeks shall be temporarily seeded and mulched at the rate of 2 tons per acre. The contractor shall be responsible for any and all remedial work required to repair areas which are damaged by erosion. Hay bale barriers shall be installed and maintained at drain inlets and outlets and along limits of work where necessary. Hay bale barriers shall not be placed closer than 25 feet to drain inlets and outlets. Additional hay bales shall be added as required by the engineer. Hay bales will be staked and maintained prior to and during construction until disturbed areas have a healthy stand of grass. Disturbed areas and side slopes that are finish graded with no further construction taking place shall be tracked, seeded (in accordance with Section 644 of the NHDOT Standard Specifications) and mulched. All seed, lime and fertilizer programs shall conform to all applicable sections of the specification (Section 642 and Section 643). Construction traffic shall travel the roadbeds of existing roads. Silt fence shall be installed and maintained where necessary and additional silt fence added as required by the engineer prior to any on-site grading or disturbance of existing surface material. Generally, silt fence shall be installed to prevent migration of the sediment from the work area, and it should be maintained during and after construction to remove sediment from natural drainage ways. The silt fence is to be maintained and cleaned until all slopes have a healthy stand of grass. After all disturbed areas are stabilized, the temporary erosion control measures are to be removed and accumulated sediment disposed by the contractor. Hay bales and mulch shall be mowings of acceptable herbaceous growth, free from noxious weeds or woody stems and shall be dry. Silt fences shall be a minimum of 36 inches high with the bottom of the cloth keying into the ground. Posts shall be of wood or steel. The erosion control devices described and as specified in the

specifications represent the minimum required measures for erosion control. The contractor shall add to these devices any other measures as required or as directed by the engineer to effectively prevent migration of sediment from the work area and protect wetland areas, waterways, existing and proposed drainage features, slopes, lawns, and plants adjacent to the work area. Welded plastic or biodegradable plastic erosion control netting shall not be used.

Dewatering Plan:

At extreme low tide, the contractor shall install a pipe plug in the 48 inch drainage pipe at the downstream portion of the culvert to limit ocean water from entering into the work zone, and then plug the 30 inch Trolley Berm culvert on the inlet end. The inlet is to impound water upstream of the Trolley Berm in Philbrick's Pond. To accomplish this, the extended forecast shall show no substantial rain events. To prevent upstream water issues, the work will need to be completed expeditiously with work being completed every day until the project is accepted as complete. It is anticipated that water will leak through the Trolley Berm, soils, and the Route 1A culvert pipe, requiring dewatering in both locations. Water pumped from the excavation can be discharged upstream of the Trolley Berm in upland soils on the west end of the Bresnahan property. The location will need to be coordinated with the engineer and disturbed areas will be restored by the contractor. Pumped water shall be discharged into a sediment control device such as a silt sack or other acceptable method. After the work is completed, and approved by the engineer, the contractor shall remove the downstream plug from the 48 inch culvert. At the subsequent incoming tide, the contractor shall remove the upstream plug from the 30 inch culvert. This work sequence is to minimize erosion when stream/tidal flow are reintroduced into the construction area. After a few days of tide cycles, the construction area shall be inspected for erosion, and any areas addressed. The plugs may need to be reinstalled to complete the work.

SECTION 2

- The certified wetland scientist determined that the project is located in an existing salt marsh.
- There aren't any eelgrass beds or documented shellfish sites according to the Wetland Permit Planning Tool.
- ❖ The projected sea level rise was determined through a salt marsh drainage evaluation and is discussed in Section 4 of the Coastal Resource Worksheet.
- The project is located in the 100-year floodplain as determined using the Wetland Permit Planning Tool and the FEMA website.

SECTION 3

- The proposed project is located in a tidal wetland that is not used for navigation, recreation, or commerce of the general public.
- Minimizing alterations in prevailing currents is not applicable to this project, because the project is in a brook that will be plugged on both ends while construction is underway.
- See Section 1 of the coastal resource worksheet for the minimization of adverse impacts.

The CFA related items in this section do not apply because a CFA is not required for an EXP permit.

SECTION 9

- ❖ Env-Wt 313, living shorelines, and a CFA are not applicable to this project.
- This restoration project protects jurisdictional areas, which is in the interest of the general public.

SECTION 10

The proposed project does not increase flooding impacts.

Appendices

- A. WPPT PRA Map
- B. Army Corps Appendix B
- C. IPaC Review
- D. NHB Review
- E. WPPT Peatlands Map
- F. WPPT FEMA Floodplains Map
- G. WPPT Floodplain Tier 3 Map
- H. WPPT Prime Wetlands Map
- I. WPPT Wetlands Map
- J. WPPT Eelgrass and Shellfish Map
- K. WPPT Designated Rivers Map
- L. WPPT Potential Contamination Map
- M. WPPT Impaired Waters Map
- N. NHDES Watershed Reportcard
- O. NHDES OneStop Class A Waters Map
- P. WPPT ORW Watersheds Map
- Q. NHDES OneStop PWS Map
- R. NOAA Essential Fish Habitat Mapper
- S. WPPT Salt Marsh Map

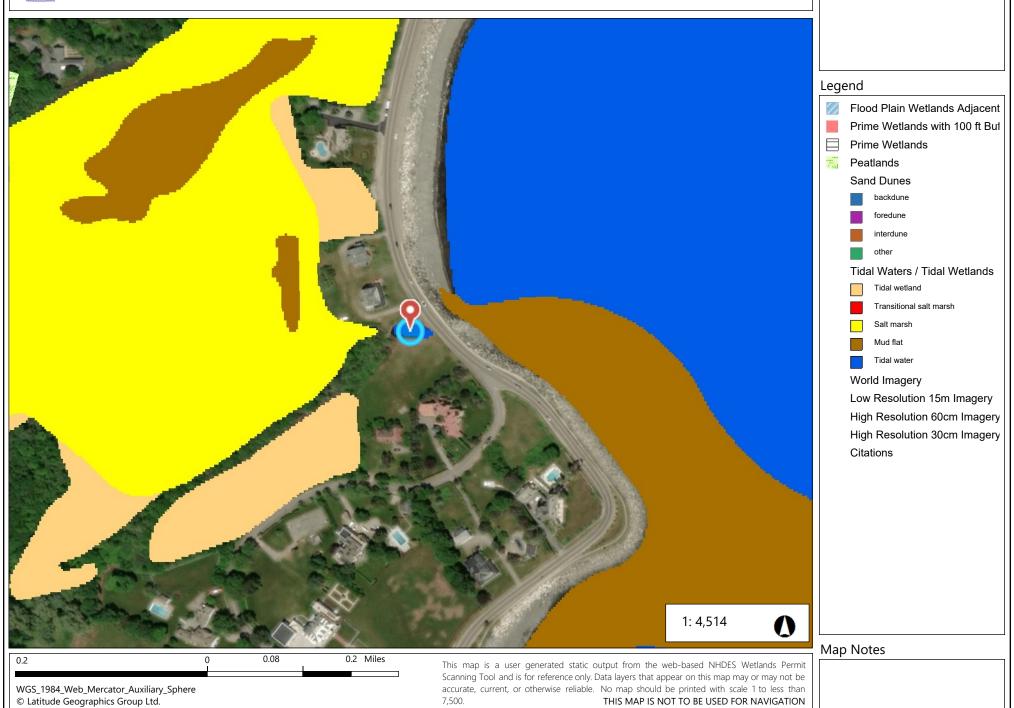


Appendix A WPPT PRA Map





Philbrick's Pond Culvert Inlet Improvements - WPPT Priority Resource Areas



Appendix B Army Corps – Appendix B





New Hampshire General Permits (GPs) Appendix B - Corps Secondary Impacts Checklist (for inland wetland/waterway fill projects in New Hampshire)

- 1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
- 2. All references to "work" include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
- 3. See GC 5, regarding single and complete projects.
- 4. Contact the Corps at (978) 318-8832 with any questions.

| 1. Impaired Waters | Yes | No |
|--|------------|----------|
| 1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See | _ | |
| http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm | V | |
| to determine if there is an impaired water in the vicinity of your work area.* | | |
| 2. Wetlands | Yes | No |
| 2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work? | | |
| 2.2 Are there proposed impacts to SAS, special wetlands. Applicants may obtain information | | |
| from the NH Department of Resources and Economic Development Natural Heritage Bureau | | _ |
| (NHB) DataCheck Tool for information about resources located on the property at | | V |
| https://www2.des.state.nh.us/nhb_datacheck/. The book Natural Community Systems of New | | |
| <u>Hampshire also contains specific information about the natural communities found in NH.</u> | | |
| 2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, | ot Appli | cable |
| sediment transport & wildlife passage? | л лррп | cabic |
| 2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent | | |
| to streams where vegetation is strongly influenced by the presence of water. They are often thin | | |
| lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream | | • |
| banks. They are also called vegetated buffer zones.) | | |
| 2.5 The overall project site is more than 40 acres? | | |
| 2.6 What is the area of the previously filled wetlands? | 395 s | q. ft |
| 2.7 What is the area of the proposed fill in wetlands? | 306 sq. ft | |
| 2.8 What is the % of previously and proposed fill in wetlands to the overall project site? | 25% | |
| 3. Wildlife | Yes | No |
| 3.1 Has the NHB & USFWS determined that there are known occurrences of rare species, | | |
| exemplary natural communities, Federal and State threatened and endangered species and habitat, | _ | |
| in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS | / | |
| IPAC determination.) NHB DataCheck Tool: https://www2.des.state.nh.us/nhb_datacheck/ | | |
| USFWS IPAC website: https://ecos.fws.gov/ipac/location/index | | |
| | | |

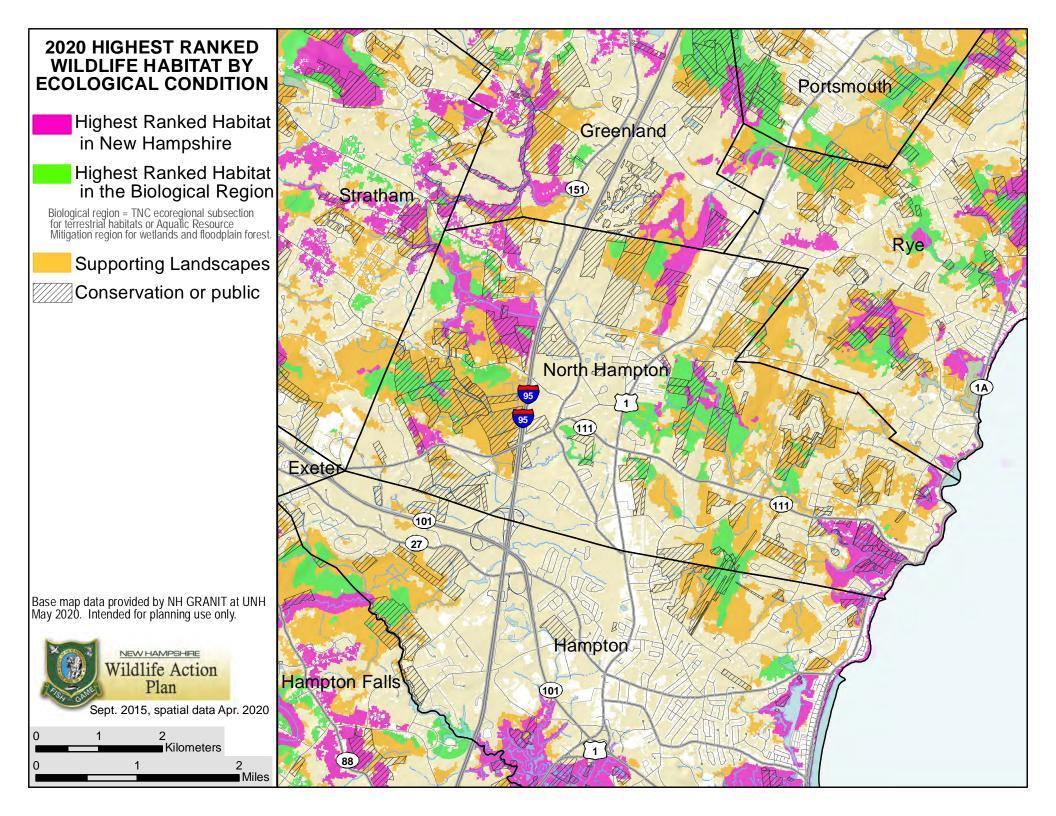
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| 3.2 Would work occur in any area identified as either "Highest Ranked Habitat in N.H." or "Highest Ranked Habitat in Ecological Region"? (These areas are colored magenta and green, respectively, on NH Fish and Game's map, "2010 Highest Ranked Wildlife Habitat by Ecological Condition.") Map information can be found at: • PDF: www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm . • Data Mapper: www.granit.unh.edu . • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html . | ✓ | |
|---|----------|----------|
| 3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)? | | ✓ |
| 3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development? | | ✓ |
| 3.5 Are stream crossings designed in accordance with the GC 21? | Not App | licable |
| 4. Flooding/Floodplain Values | Yes | No |
| 4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream? | / | |
| 4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage? | | ✓ |
| 5. Historic/Archaeological Resources | | |
| For a minimum, minor or major impact project - a copy of the Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) with your DES file number shall be sent to the NH Division of Historical Resources as required on Page 11 GC 8(d) of the GP document** | / | |

^{*}Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

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^{**} If your project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law.



Please mail the completed form and required material to:

New Hampshire Division of Historical Resources State Historic Preservation Office Attention: Review & Compliance 19 Pillsbury Street, Concord, NH 03301-3570 RECEIVED
JUN 0 8 2021

DHR Use Only

R&C# 12555M

Log In Date (0/8/21

Response Date (19/21

Sent Date (19/21

Request for Project Review by the New Hampshire Division of Historical Resources

☐ This is a new submittal
 ☐ This is additional information relating to DHR Review & Compliance (R&C) #:

GENERAL PROJECT INFORMATION

Project Title Philbrick's Pond Culvert Inlet Improvements

Project Location Ocean Boulevard (NH Route 1-A)

City/Town North Hampton

Tax Map 5

Lot #9,10

NH State Plane - Feet Geographic Coordinates:

Easting 1223720

Northing 171104

(See RPR Instructions and R&C FAQs for guidance.)

Lead Federal Agency and Contact (if applicable) N/A (Agency providing funds, licenses, or permits)

Permit Type and Permit or Job Reference # N/A

State Agency and Contact (if applicable) NHDES

Permit Type and Permit or Job Reference # Wetland Permit

APPLICANT INFORMATION

Applicant Name Michael Tully, Town of North Hampton

Mailing Address 233 Atlantic Ave

Phone Number 6039648087

City North Hampton

State NH

Zip 03862

Email mtully@northhampton-nh.gov

CONTACT PERSON TO RECEIVE RESPONSE

Name/Company Joshua Bouchard, CMA Engineers

Mailing Address 35 Bow Street

Phone Number 6034316196

City Portsmouth

State NH

Zip 03801

Email jbouchard@cmaengineers.com

This form is updated periodically. Please download the current form at www.nh.gov/nhdhr/review. Please refer to the Request for Project Review Instructions for direction on completing this form. Submit one copy of this project review form for each project for which review is requested. Include a self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: www.nh.gov/nhdhr/review or contact the R&C Specialist at marika.labash@dncr.nh.gov or 603.271.3558.

| PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION |
|--|
| Project Boundaries and Description |
| Attach the Project Mapping using EMMIT or relevant portion of a 7.5' USGS Map. (See RPR Instructions and R&C FAQs for guidance.) Attach a detailed narrative description of the proposed project. Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation. Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) (Informative photo captions are requested.) A DHR records search must be conducted to identify properties within or adjacent to the project area. Provide records search results via EMMIT or in Table 1. (Blank table forms are available on the DHR website.) EMMIT or in-house records search conducted on 5/28/2020. |
| Architecture |
| Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the project area? Yes No If no, skip to Archaeology section. If yes, submit all of the following information: |
| Approximate age(s): > 50 years old |
| Photographs of each resource or streetscape located within the project area, with captions, along with a mapped photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused.) If the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures, provide additional photographs showing detailed project work locations. (i.e. Detail photo of windows if window replacement is proposed.) |
| Archaeology |
| Does the proposed undertaking involve ground-disturbing activity? Yes No If yes, submit all of the following information: |
| Description of current and previous land use and disturbances. Available information concerning known or suspected archaeological resources within the project area (such as cellar holes, wells, foundations, dams, etc.) |
| Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process. |
| DHR Comment/Finding Recommendation This Space for Division of Historical Resources Use Only |
| Insufficient information to initiate review. Additional information is needed in order to complete review. |
| No Potential to cause Effects No Historic Properties Affected No Adverse Effect Adverse Effect |
| Comments: NO MICHAEOLOGICAL CONCERNS, |
| be raised regarding orports to historic mousins and avoid impacts to adjust flatures to the quality when the possible Todaic Mulia, DSHPD 6/9/2009 |
| If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation. |
| Authorized Signature: Special Charles Date: 6/7/3021 |
| New Hympshire Division of Historical Resources / State Historic Preservation Office |

No Dot no obvenint except for Destrict Excavation Permets

Appendix C IPaC Review





United States Department of the Interior



FISH AND WILDLIFE SERVICE

New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 Phone: (603) 223-2541 Fax: (603) 223-0104

http://www.fws.gov/newengland

In Reply Refer To: April 01, 2021

Consultation Code: 05E1NE00-2020-SLI-2716

Event Code: 05E1NE00-2021-E-06734

Project Name: Philbrick's Pond Culvert Inlet Improvements

Subject: Updated list of threatened and endangered species that may occur in your proposed

project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan

(http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 (603) 223-2541

Project Summary

Consultation Code: 05E1NE00-2020-SLI-2716 Event Code: 05E1NE00-2021-E-06734

Project Name: Philbrick's Pond Culvert Inlet Improvements
Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: The project is located in North Hampton, NH, adjacent to 88 Ocean

Boulevard. The project consists of removing an inlet stone weir and apron

and replacing it with a precast concrete slab. The project includes

regrading of the stream channel and installation of a stone apron and stone

slope protection. The project should take approximately 180 days to

construct.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.966049459078285,-70.77229243607184,14z



Counties: Rockingham County, New Hampshire

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME STATUS

Northern Long-eared Bat Myotis septentrionalis

Threatened

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 Phone: (603) 223-2541 Fax: (603) 223-0104

http://www.fws.gov/newengland



IPaC Record Locator: 534-21930754 May 28, 2020

Subject: Consistency letter for the 'Philbrick's Pond Culvert Inlet Improvements' project indicating that any take of the northern long-eared bat that may occur as a result of the

Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50

CFR §17.40(o).

Dear Whitney Chamberlain:

The U.S. Fish and Wildlife Service (Service) received on May 28, 2020 your effects determination for the 'Philbrick's Pond Culvert Inlet Improvements' (the Action) using the northern long-eared bat (Myotis septentrionalis) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take" of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Philbrick's Pond Culvert Inlet Improvements

2. Description

The following description was provided for the project 'Philbrick's Pond Culvert Inlet Improvements':

The project is located in North Hampton, NH, adjacent to 88 Ocean Boulevard. The project consists of removing an inlet stone weir and apron and replacing it with a precast concrete slab. The project includes regrading of the stream channel and installation of a stone apron and stone slope protection. The project should take approximately 180 days to construct.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.966049459078285N70.77229243607184W



Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

- 1. Is the action authorized, funded, or being carried out by a Federal agency? *No*
- 2. Will your activity purposefully **Take** northern long-eared bats? *No*
- 3. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

Automatically answered

No

4. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases — the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

Yes

5. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

No

6. Will the action involve Tree Removal?

No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

- 1. Estimated total acres of forest conversion: 0 2. If known, estimated acres of forest conversion from April 1 to October 31 0 3. If known, estimated acres of forest conversion from June 1 to July 31 If the project includes timber harvest, report the appropriate acreages below.
- Otherwise, type '0' in questions 4-6.
- 4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

- 6. If known, estimated acres of timber harvest from June 1 to July 31
- If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.
- 7. Estimated total acres of prescribed fire

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31 0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)? $\it 0$

Appendix D NHB Review

See Section B-5.



Appendix E WPPT Peatlands Map





Philbrick's Pond Culvert Inlet Improvements - WPPT Peatlands



Legend

Peatlands World Imagery Low Resolution 15m Imagery High Resolution 60cm Imagery High Resolution 30cm Imagery Citations

Map Notes

This map is a user generated static output from the web-based NHDES Wetlands Permit Scanning Tool and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. No map should be printed with scale 1 to less than

WGS_1984_Web_Mercator_Auxiliary_Sphere © Latitude Geographics Group Ltd.

0.04

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Appendix F WPPT FEMA Floodplains Map





Philbrick's Pond Culvert Inlet Improvements - WPPT FEMA Floodplains



Appendix G WPPT Floodplain Tier 3 Map





Philbrick's Pond Culvert Inlet Improvements - WPPT Floodplain Tier 3



Legend

1/2

Flood Plain Wetlands Adjacent World Imagery Low Resolution 15m Imagery High Resolution 60cm Imagery High Resolution 30cm Imagery Citations

Map Notes

This map is a user generated static output from the web-based NHDES Wetlands Permit Scanning Tool and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. No map should be printed with scale 1 to less than

THIS MAP IS NOT TO BE USED FOR NAVIGATION

WGS_1984_Web_Mercator_Auxiliary_Sphere © Latitude Geographics Group Ltd.

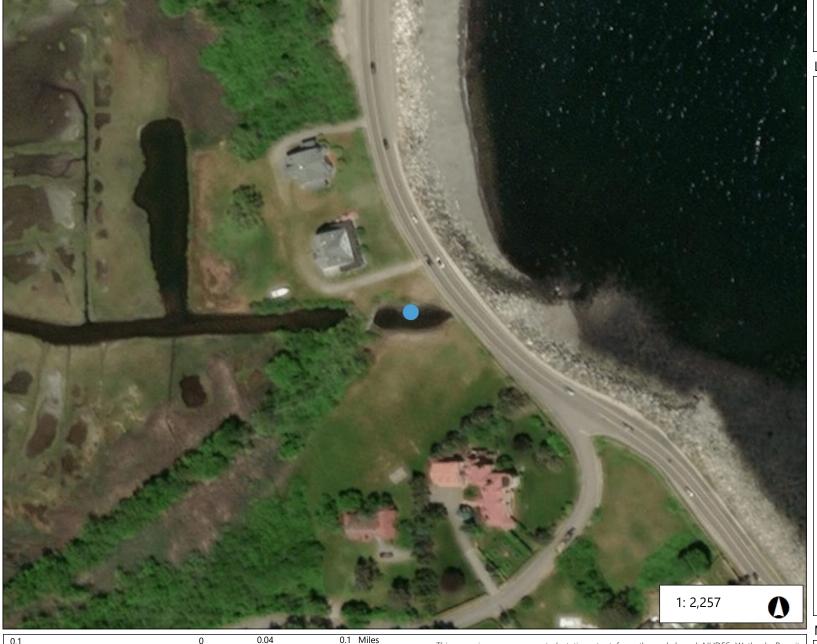
0.04

Appendix H WPPT Prime Wetlands Map





Philbrick's Pond Culvert Inlet Improvements - WPPT Prime Wetlands



Legend

Prime Wetlands with 100 ft But
Prime Wetlands
World Imagery
Low Resolution 15m Imagery
High Resolution 60cm Imagery
High Resolution 30cm Imagery

Citations

Map Notes

WGS_1984_Web_Mercator_Auxiliary_Sphere
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This map is a user generated static output from the web-based NHDES Wetlands Permit Scanning Tool and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. No map should be printed with scale 1 to less than 7,500.

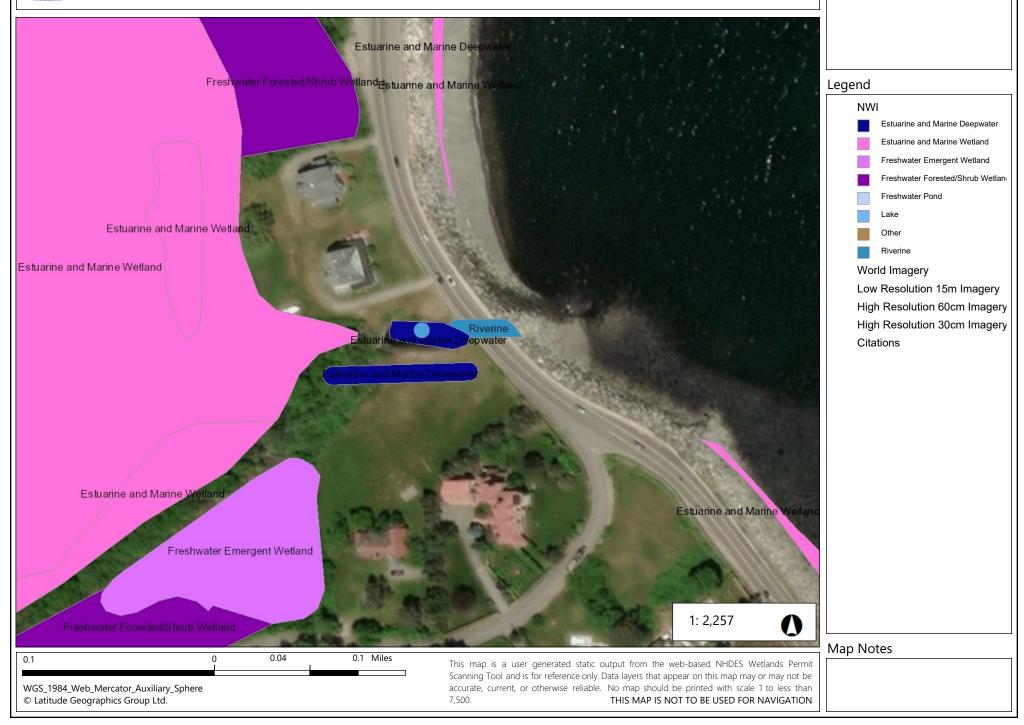
THIS MAP IS NOT TO BE USED FOR NAVIGATION

Appendix I WPPT Wetlands Map





Philbrick's Pond Culvert Inlet Improvements - WPPT NWI Classification

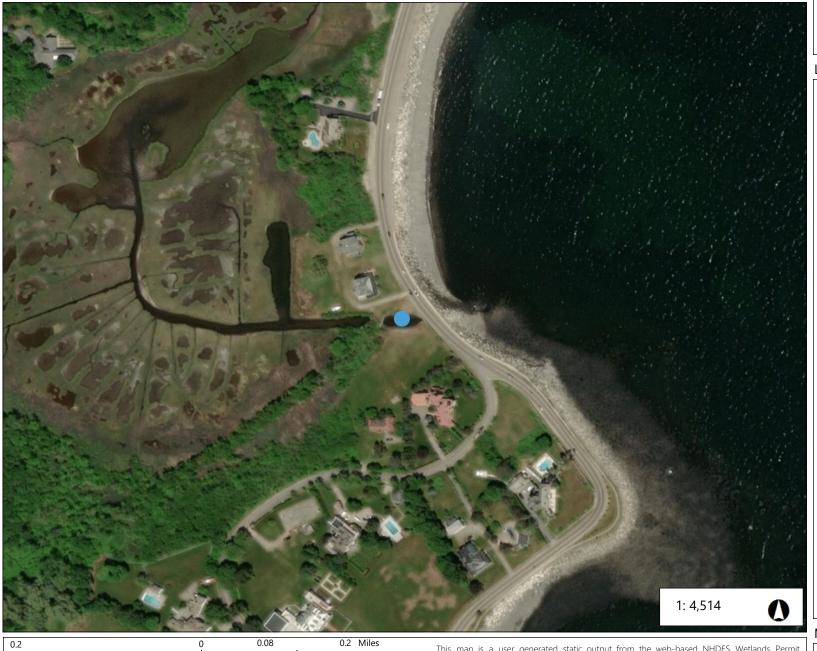


Appendix J WPPT Eelgrass and Shellfish Map





Philbrick's Pond Culvert Inlet Improvements - WPPT Eelgrass and Shellfish



Legend

Aquaculture Sites - 2015

Eelgrass 2017

Eelgrass 2016

Eelgrass 2006

Eelgrass 1996

Eelgrass 1986

World Imagery

Low Resolution 15m Imagery High Resolution 60cm Imagery

High Resolution 30cm Imagery

Citations

Map Notes

WGS_1984_Web_Mercator_Auxiliary_Sphere © Latitude Geographics Group Ltd.

This map is a user generated static output from the web-based NHDES Wetlands Permit Scanning Tool and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. No map should be printed with scale 1 to less than 7,500.

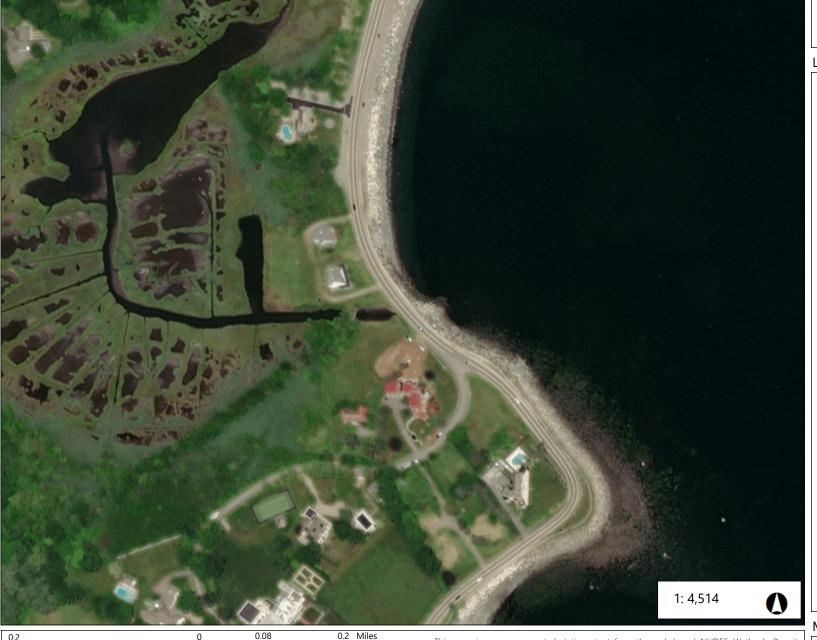
THIS MAP IS NOT TO BE USED FOR NAVIGATION

Appendix K WPPT Designated Rivers Map





Philbrick's Pond Culvert Inlet Improvements - WPPT Designated Rivers



Legend

NH Parcel Mosaic

Designated Rivers

Subject to SWQPA

Not Subject to SWQPA

World Imagery

Low Resolution 15m Imagery High Resolution 60cm Imagery High Resolution 30cm Imagery Citations

Map Notes

This map is a user generated static output from the web-based NHDES Wetlands Permit Scanning Tool and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. No map should be printed with scale 1 to less than 7,500.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

WGS_1984_Web_Mercator_Auxiliary_Sphere © Latitude Geographics Group Ltd.

Appendix L WPPT Potential Contamination Map





Philbrick's Pond Culvert Inlet Improvements - WPPT Potential Contamination



Legend

- Aboveground Storage Tank Sit
- Asbestos Disposal Sites
- Automobile Salvage Yards
- Hazardous Waste Generators
- NPDES Outfalls
- Remediation Sites
- Solid Waste Facilities
- Underground Storage Tank Sit World Imagery Low Resolution 15m Imagery High Resolution 60cm Imagery High Resolution 30cm Imagery Citations

Map Notes

WGS_1984_Web_Mercator_Auxiliary_Sphere
© Latitude Geographics Group Ltd.

0.08

0.2 Miles

This map is a user generated static output from the web-based NHDES Wetlands Permit Scanning Tool and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. No map should be printed with scale 1 to less than 7,500.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Appendix M WPPT Impaired Waters Map





Philbrick's Pond Culvert Inlet Improvements - WPPT Impaired Waters



Appendix N NHDES Watershed Reportcard



Each Watershed Report Card covers a single 12 digit Hydrologic Unit Code (HUC12), on average a 34 square mile area. Each Watershed Report Card has three components;

- 1. REPORT CARD A one page card that summarizes the overall use support for Aquatic Life Integrity, Primary Contact (i.e. Swimming), and Secondary Contact (i.e. Boating) Designated Uses on every Assessment Unit ID (AUID) within the HUC12.
- 2. HUC 12 MAP A map of the watershed with abbreviated labels for each AUID within the HUC12.
- 3. ASSESSMENT DETAILS Anywhere from one to forty pages with the detailed assessment information for each and every AUID in the Report Card and Map.

How are the Surface Water Quality Assessment determinations made?

All readily available data with reliable Quality Assurance/Quality Control is used in the biennial surface water quality assessments. For a full understanding of how the Surface Water Quality Standards (Env-Wq 1700) are translated into surface water quality assessments we urge the reader to review the 2018 Consolidated Assessment and Listing Methodology (CALM) at

https://www.des.nh.gov/organization/divisions/water/wmb/swqa/2018/documents/r-wd-19-04.pdf.

Where can I find more advanced mapping resources?

GIS files are available by assessment cycle at http://pubftp.nh.gov/DES/wmb/WaterQuality/SWQA/2018/GIS

I'd like to see the more raw water quality data?

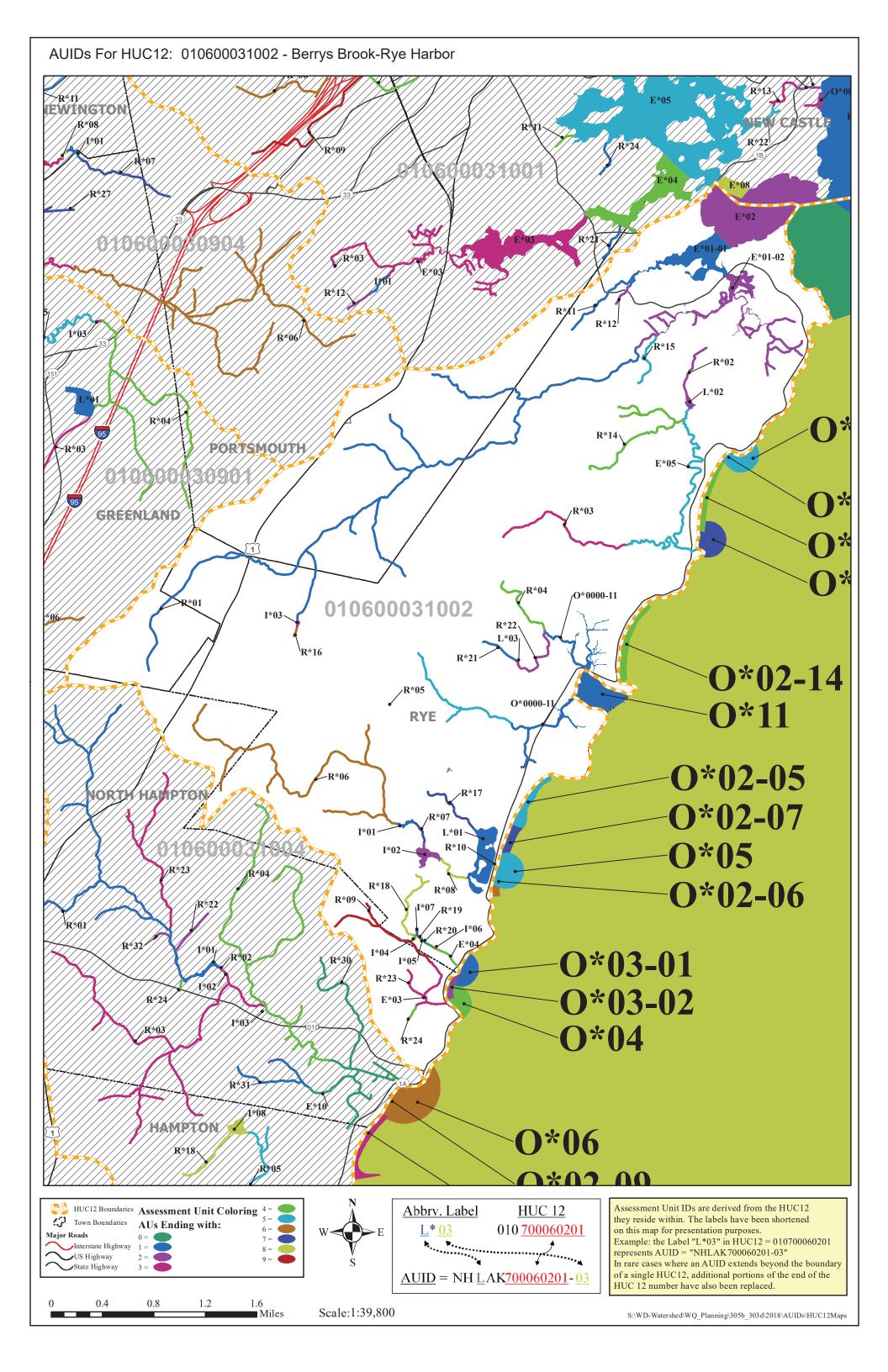
The web mapping tool allows you to download the data used in the assessment of the primary contact and aquatic life designated uses by clicking on the "Data Access Waterbody Data (Aquatic Life and Swimming Uses)" link for any assessment unit. (https://www.des.nh.gov/organization/divisions/water/wmb/swqa/assessment-viewers.htm)

How are assessments coded in the report card?

Assessment outcomes are displayed on a color scale as well as an alpha numeric scale that provides additional distinctions for the designated use and parameter level assessments as outlined in the table below.

| | | Severe | Poor | Likely Bad | No | Likely | Marginal | Good |
|------------|---|------------------------------|--------------------------------|--|------------------------|---|---------------------------|-----------------------|
| | | Not Supporting, Severe | Not Supporting, Marginal | Insufficient Information – Potentially Not Supporting | Data No Data | Good Insufficient Information – Potentially Full Supporting | Full Support, Marginal | Full Support, Good |
| CATEGORY | Description | | | | | | | |
| Category 2 | Meets standards | | | | | | 2-M or 2-OBS | 2-G |
| Category 3 | Insufficient Information | | | 3-PNS | 3-ND | 3-PAS | | |
| Category 4 | Does not Meet Standards; | | | | | | | |
| 4A | TMDL* Completed | 4A-P | 4A-M or 4A-T | | | | | |
| 4B | Other enforceable measure will correct the issue. | 4B-P | 4B-M or 4B-T | | | | | |
| 4C | Non-pollutant (i.e. exotic weeds) | 4C-P | 4C-M | | | | | |
| Category 5 | TMDL^ Needed | 5-P | 5-M or 5-T | | | | | |

^{*} TMDL stands for Total Maximum Daily Load studies (http://des.nh.gov/organization/divisions/water/wmb/tmdl/index.htm)



Assessment Unit ID

NHEST600031002-03

Assessment Unit Name

CHAPEL BROOK

Primary Town NORTH HAMPTON

Size 0.0060 SQUARE MILES

Beach N

Assessment Unit Category*~ 5-M

2018, 305(b)/303(d) -All Reviewed Parameters by Assessment Unit

| Designated Use Description | *Desig. Use Category | Parameter Name | Parameter Threatened (Y/N) | Last Sample | Last Exceed | Parameter Category* | TMDL Priority |
|---------------------------------|----------------------------|---------------------------------|----------------------------------|----------------|----------------|------------------------|------------------|
| Aquatic Life Integrity | 3-ND | Dissolved oxygen saturation | N | | | 3-ND | |
| | | Oxygen, Dissolved | N | | | 3-ND | |
| | | PH | И | 2001 | N/A | 3-ND | |
| Fish Consumption | 5-M | Mercury | N | | | 5-M | LOW |
| | | Polychlorinated biphenyls | N | | | 5-M | LOW |
| Potential Drinking Water Supply | 2-G | ESCHERICHIA COLI | N | 2007 | 2006 | 3-ND | |
| | | FECAL COLIFORM | N | 2017 | 2017 | 3-PNS | |
| Primary Contact Recreation | 2-G | ENTEROCOCCUS | N | 2016 | 2011 | 2-G | |
| Secondary Contact Recreation | 2-G | ENTEROCOCCUS | N | 2016 | 2010 | 2-G | |
| Shellfish Consumption | 5-M | Dioxin (including 2,3,7,8-TCDD) | N | | | 5-M | LOW |
| | | Fecal Coliform | N | | | 4A-P | |
| | | Mercury | N | | | 5-M | LOW |
| | | Polychlorinated biphenyls | N | | | 5-M | LOW |
| Wildlife | 3-ND | | | | | | |

| Severe | Poor | Likely Bad | No Data | Likely Good | Marginal | Good |
|------------------------|--------------------------|---|---------|---|------------------------|--------------------|
| Not Supporting, Severe | Not Supporting, Marginal | Insufficient Information – Potentially Full Supporting | No Data | Insufficient Information – Potentially Full Supporting | Full Support, Marginal | Full Support, Good |

Assessment Unit ID

NHRIV600031002-23

Assessment Unit Name

TRIB TO CHAPEL BROOK

Primary Town

NORTH HAMPTON

Size 0.2160 MILES

Beach N

Assessment Unit Category*~ 4A-P

2018, 305(b)/303(d) -All Reviewed Parameters by Assessment Unit

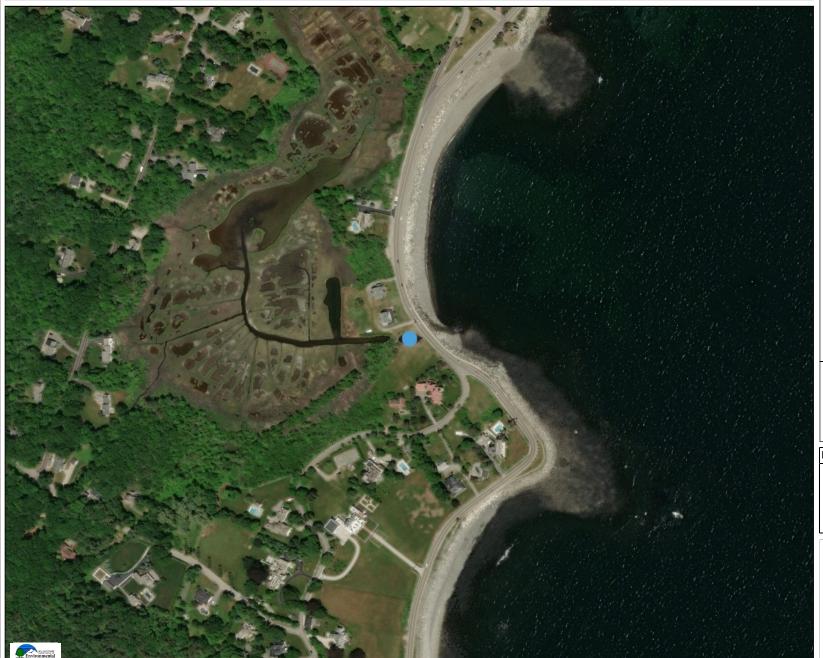
| *Designated Use Use Description Category | | Parameter Name | Parameter Threatened (Y/N) | Last Sample | Last Exceed | Parameter Category* | TMDL Priority |
|--|------|--|----------------------------------|----------------|----------------|------------------------|------------------|
| Aquatic Life Integrity | 3-ND | Benthic-Macroinvertebrate Bioassessments (Streams) | N | | | 3-ND | |
| | | Dissolved oxygen saturation | N | | | 3-ND | |
| | | Fishes Bioassessments (Streams) | N | | | 3-ND | |
| | | Oxygen, Dissolved | N | | | 3-ND | |
| | | рН | N | | | 3-ND | |
| Fish Consumption | 4A-M | Mercury | N | | | 4A-M | |
| Potential Drinking Water Supply | 2-G | ESCHERICHIA COLI | Ŋ | 2006 | 2006 | 3-ND | |
| Primary Contact Recreation | 4A-P | Escherichia coli | | 2006 | 2006 | 4A-P | |
| Secondary Contact Recreation | 3-ND | ESCHERICHIA COLI | | 2006 | NA | 3-ND | |
| Wildlife | 3-ND | | | | | | |

| Severe | Poor | Likely Bad | No Data | Likely Good | Marginal | Good |
|------------------------|--------------------------|---|---------|---|------------------------|--------------------|
| Not Supporting, Severe | Not Supporting, Marginal | Insufficient Information – Potentially Full Supporting | No Data | Insufficient Information – Potentially Full Supporting | Full Support, Marginal | Full Support, Good |

Appendix O NHDES OneStop Class A Waters Map



Philbrick's Pond Culvert Inlet Improvements - Class A Waters



Legend

- ☐ Class A Lakes with a Quarte Buffer
- Class A All Features

Map Scale

1: 5,000

© NH DES, http://des.nh.gov Map Generated: 6/8/2020

Notes

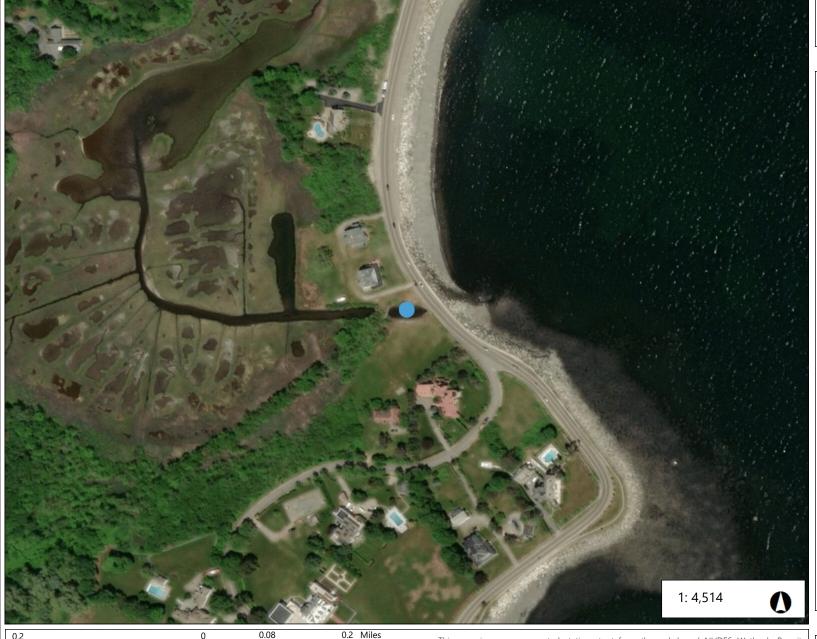


Appendix P WPPT ORW Watersheds Map





Philbrick's Pond Culvert Inlet Improvements - WPPT ORW Watersheds



0.2 Miles

Legend

Outstanding Resource Water V World Imagery Low Resolution 15m Imagery High Resolution 60cm Imagery High Resolution 30cm Imagery Citations

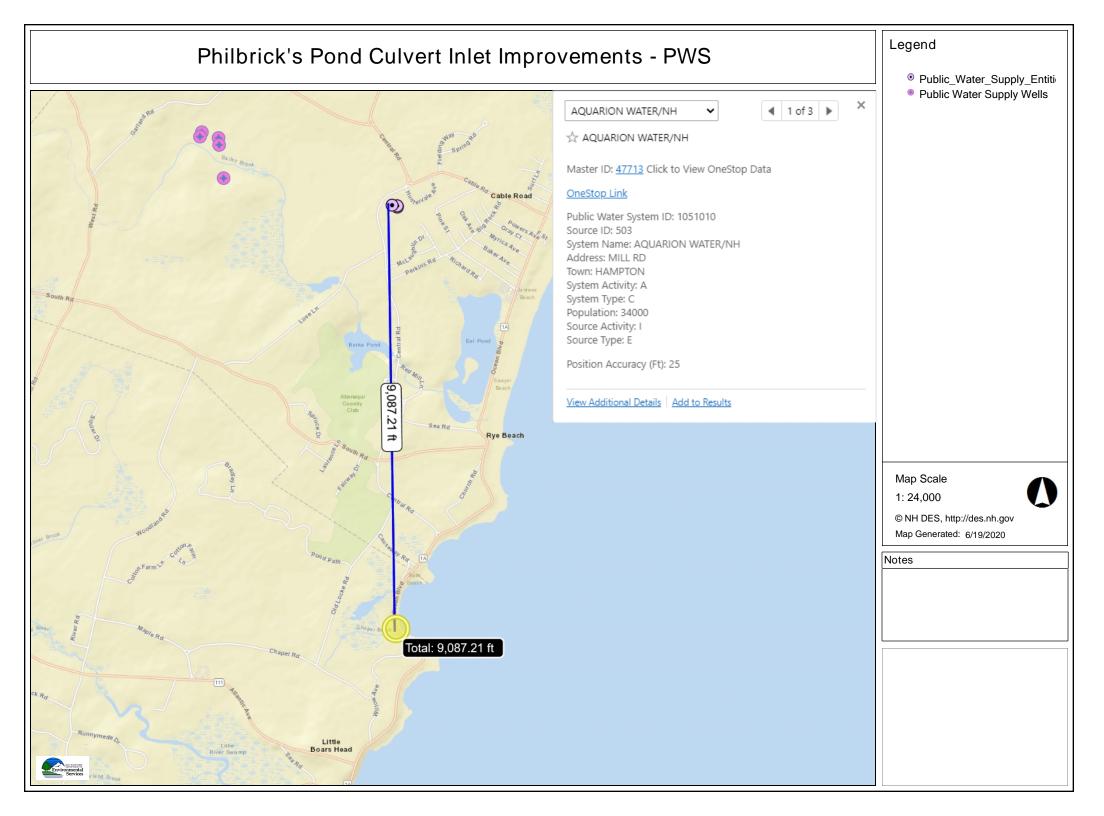
Map Notes

This map is a user generated static output from the web-based NHDES Wetlands Permit Scanning Tool and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. No map should be printed with scale 1 to less than THIS MAP IS NOT TO BE USED FOR NAVIGATION

WGS_1984_Web_Mercator_Auxiliary_Sphere © Latitude Geographics Group Ltd.

Appendix Q NHDES OneStop PWS Map





Appendix R NOAA Essential Fish Habitat Mapper



EFH Data Notice: Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional Fishery Management Councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

Greater Atlantic Regional Office Atlantic Highly Migratory Species Management Division

Query Results

Degrees, Minutes, Seconds: Latitude = 42°57'58" N, Longitude = 71°13'43" W
Decimal Degrees: Latitude = 42.97, Longitude = -70.77

The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

*** W A R N I N G ***

Please note under "Life Stage(s) Found at Location" the category "ALL" indicates that all life stages of that species share the same map and are designated at the queried location.

EFH

| Show | Link | Data Caveats | Species/Management Unit | Lifestage(s) Found at Location | Management Council | FMP |
|--|----------|-----------------|----------------------------|----------------------------------|-----------------------|--|
| \(\sqrt{\sq}}\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}} | P | • | Haddock | Juvenile | New England | Amendment 14 to the Northeast Multispecies FMP |
| 8 | <u>"</u> | • | Winter Flounder | Eggs Juvenile Larvae/Adult | New England | Amendment 14 to the Northeast Multispecies FMP |
| \(\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | <u> </u> | • | Little Skate | Juvenile Adult | New England | Amendment 2 to the Northeast Skate Complex FMP |
| > | <u> </u> | • | Ocean Pout | Adult Eggs Juvenile | New England | Amendment 14 to the Northeast Multispecies FMP |
| \(\) | Į. | • | Atlantic Herring | Juvenile Adult | New England | Amendment 3 to the Atlantic Herring FMP |
| 25 | <u> </u> | • | Atlantic Cod | | New England | |

| Show | Link | Data Caveats | Species/Management Unit | Lifestage(s) Found at Location | Management Council | FMP |
|--------------|----------|-----------------|----------------------------|-------------------------------------|-----------------------|---|
| | | | | Larvae Adult Juvenile Eggs | | Amendment 14 to the Northeast Multispecies FMP |
| \(\) | <u> </u> | • | Pollock | Juvenile | New England | Amendment 14 to the Northeast Multispecies FMP |
| <u>\</u> | Ų | • | Red Hake | Eggs/Larvae/Juvenile | New England | Amendment 14 to the Northeast Multispecies FMP |
| <u>\</u> | Ų | • | Silver Hake | Eggs/Larvae Adult | New England | Amendment 14 to the Northeast Multispecies FMP |
| > | Ų | • | Yellowtail Flounder | Adult Juvenile | New England | Amendment 14 to the Northeast Multispecies FMP |
| <u> </u> | <u>~</u> | • | Monkfish | Adult Eggs/Larvae Juvenile | New England | Amendment 4 to the Monkfish FMP |
| <u> </u> | <u> </u> | • | White Hake | Larvae Juvenile | New England | Amendment 14 to the Northeast Multispecies FMP |
| 25 | P | • | Windowpane Flounder | Adult Juvenile | New England | Amendment 14 to the Northeast Multispecies FMP |
| > | Ų | © | Winter Skate | Adult Juvenile | New England | Amendment 2 to the Northeast Skate Complex FMP |
| 130 | Į. | • | Witch Flounder | Adult | New England | Amendment 14 to the Northeast Multispecies FMP |

| Show | Link | Data Caveats | Species/Management Unit | Lifestage(s) Found at Location | Management Council | FMP |
|--|------|-----------------|----------------------------|--|-----------------------|---|
| 3 | Į. | • | American Plaice | Adult Juvenile | New England | Amendment 14 to the Northeast Multispecies FMP |
| | Ų | ② | Bluefin Tuna | Adult | Secretarial | Amendment 10 to the 2006 Consolidated HMS FMP: EFH |
| \(\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | Ų | • | Atlantic Mackerel | Juvenile | Mid-Atlantic | Atlantic Mackerel, Squid,& Butterfish Amendment 11 |
| 15 | Į. | • | Atlantic Butterfish | Adult Juvenile | Mid-Atlantic | Atlantic Mackerel, Squid,& Butterfish Amendment 11 |
| \(\) | Ų | • | Spiny Dogfish | Sub-Adult Female Adult Male Adult Female | Mid-Atlantic | Amendment 3 to the Spiny Dogfish FMP |
| | Į. | • | Atlantic Surfclam | Juvenile Adult | Mid-Atlantic | Surfclam and Ocean Quahog |

HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data. **For links to all EFH text descriptions see the complete data inventory: open data inventory -->

Mid-Atlantic Council HAPCs,

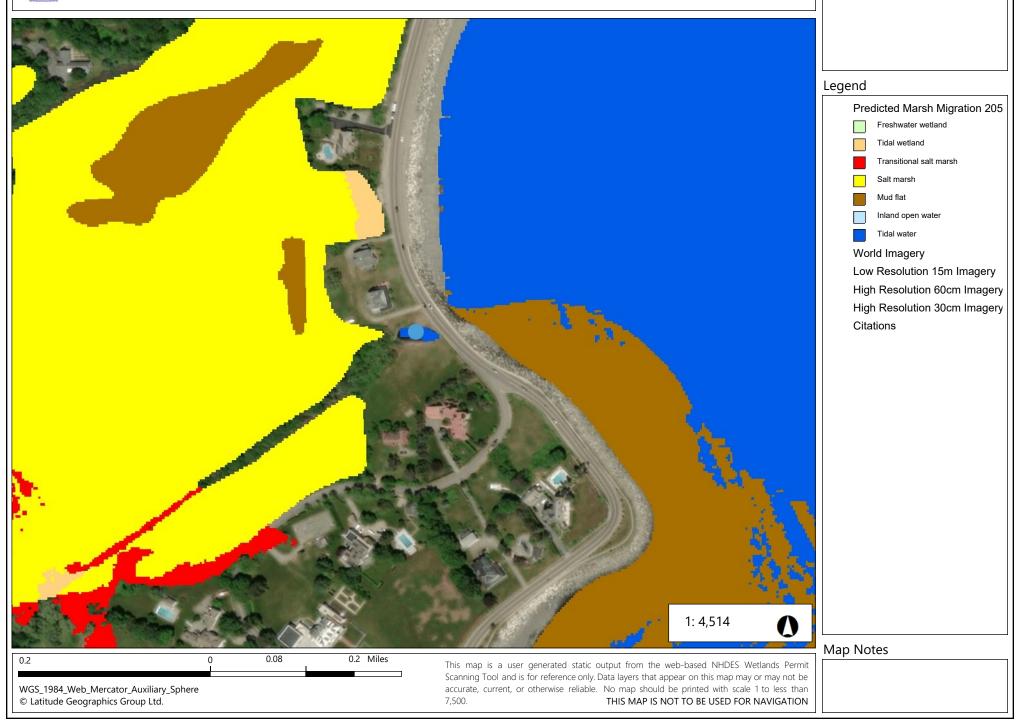
No spatial data for summer flounder SAV HAPC.

Appendix S WPPT Salt Marsh Map





Philbrick's Pond Culvert Inlet Improvements - WPPT Salt Marsh



Appendix T Easements



Book: 6202 Page: 2978

Town of North Hampton

20067815 12/02/2020 11:25:48 AM Book 6202 Page 2978 Page 1 of 2 Register of Deeds, Rockingham County

RECORDING SURCHARGE

14.00 2.00

TEMPORARY CONSTRUCTION EASEMENT

BRESNAHAN PROPERTIES, LLC, owner. ("Grantor") of 205 Durango Drive, Trophy Club, TX 76262 for valuable consideration the sufficiency of which is hereby acknowledged, grant to the Town of North Hampton, NH ("Grantee"), whose address is 233 Atlantic Avenue, North Hampton, NH 03862, the following easement on land of the Grantor located in the Town of North Hampton, as shown on a Plan "Exhibit A – 88 Ocean Boulevard Construction Easement" attached hereto and on file in the Town of North Hampton Town Offices:

Temporary Construction Easement:

Grantor grants the Town of North Hampton and its agents authorization to file an application for a wetlands permit and a temporary access and construction easement for the purposes of constructing, repairing and maintaining the Philbrick's Pond Culvert Inlet Improvements as shown on the set of Drawings prepared by CMA Engineers, Inc., Portsmouth, NH dated August, 2020 and on file in the Town of North Hampton, with the following conditions:

- 1. No construction shall occur between Memorial Day and September 30.
- 2. Access is provided for vehicles and equipment solely in the specific areas of Map 5, Lot 10 so indicated in Exhibit A.
- 3. Upon mobilizing to the site, the contractor shall be required to complete all work and demobilize within 14 days, or, in the event of inclement weather, within 21 days.
- 4. Brief subsequent mobilization for repair and restoration work will be allowed with notice to, and agreement of, the property owner.
- 5. Access is provided for construction crews to cross the "trolley berm" on the property on foot to access the south side of the Philbrick's Pond stream channel on the adjacent property. No other construction activity shall occur on the "trolley berm" under this construction easement.
- 6. The Grantee, following the exercise of the rights granted herein, shall restore the surface of disturbed areas to substantially their condition prior to the exercise of said rights.

The rights and easements conveyed herein and the terms and conditions thereof shall be binding upon and shall inure to the benefit of the parties hereto, and their respective successors and assigns. Said easement shall expire on May 15, 2022, or one (1) year after completion of the construction for the project, whichever date shall come first.

Book: 6202 Page: 2979

| Said easement shall expire on May 15, 2022, or one (1) year after completion of the construction for the project, whichever date shall come first. |
|--|
| Being an interest in that property recorded, 2020, at the Rockingham County Registry of Deeds in Book, Page |
| Bresnahan Properties, LLC Anul / Breynola Manyen Date: 11/24/2020 |
| STATE OF NEW HAMPSHIRE, ROCKING hamps A. D., 2020 |
| State of New Hampshire County of Rockingham This instrument was acknowledged before me this 24 (200) by Daniel (name[s] of person[s]). Breshahan Propusseal, if any (Signature of notarial officer) Title (and Rank) IN WITNESS WHEREOF I have hereunto set my hand and seal. |
| Notato Public/Justice of the Peace My commission exames: L. FACELLA Notary Public - New Hampshire Notary Public - New Ham |
| My Commission Expires October 21, 2020 |
| |



Town of North Hampton 233 Atlantic Avenue North Hampton, NH 03862 # 20067814 12/02/2020 11:25:47 AM Book 6202 Page 2977 Page 1 of 1 Register of Deeds, Rockingham County

Carely and Stacey

RECORDING SURCHARGE 10.00 2.00

TEMPORARY CONSTRUCTION EASEMENT

JANE and JEROLD GNAZZO. of 34 Willow Avenue (Tax Map 5, Lot 9), Town of North Hampton County of Rockingham, State of New Hampshire grant to the Town of North Hampton, NH whose address is 233 Atlantic Avenue, North Hampton, NH 03862, the following described property right(s) on land of the Grantor located in the Town of North Hampton, as shown on a Plan "Exhibit A – 34 Willow Avenue" on file in the Town of North Hampton Town Offices. :

Temporary Construction Easement:

Grantor grants the Town of North Hampton and its agents authorization to file an application for a wetlands permit and a temporary access and construction easement for the purposes of constructing, repairing and maintaining the Philbrick's Pond Culvert Inlet Improvements as shown on the set of Drawings prepared by CMA Engineers, Inc., Portsmouth, NH dated August, 2020 and on file in the Town of North Hampton, with the following conditions:

- 1. No construction shall occur between Memorial Day and Labor Day.
- 2. Access is provided for construction crews on foot solely in the area indicated in Exhibit A.
- 3. All heavy equipment access shall be from the north side of the Philbrick's Pond stream channel, and not from the Map 5/Lot 9 property.
- All vegetated areas on the property shall be returned to pre-existing conditions to the satisfaction
 of the property owner prior to completion of construction.

This easement shall apply to successors and assigns through the term of the easement described below.

Said easement shall expire on May 15,2022, or one (1) year after completion of the construction for the project, whichever date shall come first.

| roject, whichever date shall come inst. |
|---|
| Being an interest in that property recorded <date>, at the Rockingham County Registry of Deeds in Book, Page</date> |
| Jane Gnazzo Jane Strasjo Jerold Gnazzo Jane Strasjo Jerold Gnazzo Jerold Gnazzo |
| STATE OF NEW HAMPSHIRE, SS A. D., 20 |
| State of New Hampshire County of Kockuscham Tomes GN0220 |
| This instrument was acknowledged before me this / (date) by Jevel 4 A + James Grazzo (name[s] of person[s]). |
| (Seal, if any) (Signature of notarial officer) Title (and Rank) |
| [My commission expires 2/1/2021] |
| IN WITNESS WHEREOF I have hereunto set my hand and seal. |

DIANGE N

Notary Public/Justice of the Peace My commission expires: 2/



THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION



Victoria F. Sheehan Commissioner

June 3, 2021

Michael Tully, Town Administrator Town of North Hampton 233 Atlantic Avenue North Hampton, NH 03862

Dear Michael:

On behalf of the New Hampshire Department of Transportation (NHDOT) Commissioner we are forwarding to you a signed copy of the fully executed Municipal Maintenance Agreement for your records. A permanent signed record will be held at the NHDOT Bureau of Highway Maintenance Office in Concord.

Please do not hesitate to contact Roger Appleton at the NHDOT District 6 Office in Durham at 868-1133 if you have any further questions.

/ 1//

Caleb B. Dobbins

NHDOT - State Maintenance Engineer

cc: Commissioner Victoria Sheehan Brian Schutt, District Engineer, NHDOT District 6 Office Roger Appleton, Assistant District Engineer, NHDOT District 6 Office

Enc: Signed Agreement

MUNICIPAL MAINTENANCE AGREEMENT FOR TOWN OF NORTH HAMPTON

PHILBRICK POND CULVERT INLET IMPROVEMENTS AT NH 1A PROJECT

THIS AGREEMENT, made and entered into this <u>36 h</u> day of <u>Forces</u>, 2021, between the New Hampshire Department of Transportation, hereinafter called the "DEPARTMENT" and the Town of North Hampton, hereinafter called the "TOWN".

WITNESSETH that,

WHEREAS, the TOWN is proposing a project at Philbrick Pond's outlet at NH 1A, further described as the removal of a cobble weir at the upstream entrance to NH 1A culvert and installing a scour resistant concrete slab at the upstream invert elevation and further depicted on project plans titled "Philbrick's Pond Culvert Inlet Improvements", dated September, 2020, as revised by CMA Engineers, Inc. (the "Plan"), in the right of way along NH 1A; and

WHEREAS, the purpose of the project is to improve upstream salt marsh health by increasing upstream tidal range; and

WHEREAS, The Department maintenance forces, historically have not maintained the referenced cobble weir; and

WHEREAS, there exists a stone retaining wall and culvert under NH 1A adjacent to the proposed work area that is owned and maintained by the state, and

WHEREAS, The proposed improvements lay the foundation to further improving the health of the adjacent marsh. These improvements have been supported by NHDES, the North Hampton Conservation Commission and other environmental organizations as a first step toward marsh restoration.

NOW, THEREFORE, in consideration of the above premises, it is mutually agreed as follows:

- A. The TOWN shall cause to provide the improvements at Philbrick Pond's outlet at NH 1A per the aformentioned project plans. These improvements shall be performed under a temporary easement agreed to by the TOWN and the landowners of record at the location of the cobble weir improvements.
- B. The DEPARTMENT will be responsible for the management and operation of the highway throughout the duration of the construction of the project.
- C. The TOWN through the North Hampton Conservation Commission shall cause to provide the maintenance of the scour resistant concrete slab and associated rip rap as specified in the project plans previously referenced, once the work under item A is completed. Any maintenance the TOWN through the North Hampton Conservation Commission determines as necessary shall be performed under a separate agreement with the landowners of record of said parcel. Unless agreed otherwise at Project completion, the DEPARTMENT's maintenance responsibility shall be no greater than that which exists within the proposed project limits prior to the start of construction. Should operational adjustments be necessary, the TOWN agrees that no changes will be made without prior approval of the DEPARTMENT and the Federal Highway Administration.
- D. The TOWN shall cause to provide for the repair of DEPARTMENT maintained stone retaining wall and/or culvert in the event they are damaged during construction or maintenance activities associated with the proposed improvements.
- E. The DEPARTMENT shall provide or cause to provide for the repair of TOWN maintained scour resistant concrete slab in the event they are damaged by the DEPARTMENT during construction or maintenance activities associated with the existing stone retaining wall and/or culvert.

IN WITNESS WHEREOF, the parties here have affixed their signatures, the Town of North Hampton, New Hampshire, on this day of day



NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

By: Victoria Sheehan, Commissioner

New Hampshire Department of Transportation

APR 1 6 2021

DISTRICT SIX

TOWN OF NORTH HAMPTON

By: Michael Tully, Town of North Hampton Administrator

