STATE OF NEW HAMPSHIRE
INTER-DEPARTMENT COMMUNICATION

DATE: February 2, 2023

FROM: Andrew O'Sullivan
Wetlands Program Manager

AT (OFFICE): Department of Transportation
Bureau of Environment

SUBJECT Dredge & Fill Application
Wolfeboro, 2022-M311-1

TO: Karl Benedict, Public Works Permitting Officer
New Hampshire Wetlands Bureau
29 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095

Forwarded herewith is the application package prepared by NH DOT District 3 for the subject major impact project. The project is located along NH Route 109A in the Town of Wolfeboro, NH. The proposed work includes replacing two deteriorated and one failed corrugated metal pipes (two existing 24" pipes and one existing 15" pipe) that equalize the water elevation of the wetlands located north and south of the roadway with two 30" and one 15" reinforced concrete pipes.

This project was reviewed at the Natural Resource Agency Coordination Meeting on January 21, 2022. A copy of the minutes has been included with this application package. A copy of this application and plans can be accessed on the Departments website via the following link: http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/wetland-applications.htm.

NHDOT anticipates and request that this project be reviewed and permitted by the Army Corp of Engineers through the State Programmatic General Permit process. A copy of the application has been sent to the Army Corp of Engineers.

Mitigation was determined to not be required.

The lead people to contact for this project are Samantha Fifield, Bureau of Bridge Maintenance (271-3668 or Samantha.D.Fifield@dot.nh.gov) or Andrew O'Sullivan, Wetlands Program Manager, Bureau of Environment (271-3226 or Andrew.M.O'Sullivan@dot.nh.gov).

A payment voucher has been processed for this application (Voucher # 707984) in the amount of $400.00.

If and when this application meets with the approval of the Bureau, please send the permit directly to Andrew O'Sullivan, Wetlands Program Manager, Bureau of Environment.

AMO;
cc:
BOE Original
Town of Wolfeboro (4 copies via certified mail)
David Trubey, NH Division of Historic Resources (Cultural Review Within)
John Magee, NH Fish & Game (via electronic notification)
Maria Tur, US Fish & Wildlife (via electronic notification)
Jeanie Brochi, US Environmental Protection Agency (via electronic notification)
Michael Hicks & Rick Kristoff, US Army Corp of Engineers (via electronic notification)
Kevin Nyhan, BOE (via electronic notification)

S:\Global\B58-District3\Environmental Permits\Wolfeboro - NH Route 109A over Harvey Brook (2022-M311-1)\Wetland_Permit_App_Docs\WETTAPP D3

STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION

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: NH Department of Transportation **TOWN NAME:** Wolfeboro

Administrative Use Only	Administrative Use Only	Administrative Use Only	File No.:
			Check No.:
			Amount:
			Initials:

A person may request a waiver of the requirements in Rules Env-Wt 100-900 to accommodate situations where strict adherence to the requirements would not be in the best interest of the public or the environment but is still in compliance with RSA 482-A. A person may also request a waiver of the standards for existing dwellings over water pursuant to RSA 482-A:26, III(b). For more information, please consult the Waiver Request Form.

SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2))

Please use the Wetland Permit Planning Tool (WPPT), the Natural Heritage Bureau (NHB) DataCheck Tool, the Aquatic Restoration Mapper, or other sources to assist in identifying key features such as: priority resource areas (PRAs), protected species or habitats, coastal areas, designated rivers, or designated prime wetlands.

Has the required planning been completed?	☒ Yes ☐ No
Does the property contain a PRA? If yes, provide the following information:	☒ Yes ☐ No
• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&G) and NHB agreement for a classification downgrade) or a Project-Type Exception (e.g. Maintenance or Statutory Permit-by-Notification (SPN) project)? See Env-Wt 407.02 and Env-Wt 407.04.	☐ Yes ☒ No
• Protected species or habitat? ○ If yes, species or habitat name(s): ○ NHB Project ID #: NHB22-3079	☐ Yes ☒ No
• 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? 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:	☐ Yes ☒ No

For dredging projects, is the subject property contaminated? • If yes, list contaminant:	☐ Yes ☒ No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	☐ Yes ☒ No
For stream crossing projects, provide watershed size (see WPPT or Stream Stats): NA	

SECTION 2 - PROJECT DESCRIPTION (Env-Wt 311.04(i))

Provide a **brief** description of the project and the purpose of the project, outlining the scope of work to be performed and whether impacts are temporary or permanent. DO NOT reply "See attached"; please use the space provided below.

Replace two deteriorated and 1 failed corrugated metal pipes (two 24" pipes and one 15" pipe) that equalize the water elevation of the wetlands located north and south of the roadway with two 30" and one 15" reinforced concrete pipes.

Due to the size of reinforce concrete pipe segments (8-ft) the proposed pipes will be as close to the length of the existing pipes.

The existing corrugated metal pipes are always submerged; this has caused the pipe material to deteriorate enough to cause sinkholes on NH Route 109A over one of the pipes. To prevent pipe failure from impacting the traveling public, a steel sheet was placed over the failed pipe (the pavement over the pipes was removed, steel sheet was laid over the failed pipe, and then roadway materials and pavement was placed over the steel sheet).

The 24" pipes were replaced approximately 11 years ago under an emergency permit. Unfortunately, at that time RCP pipe was unavailable. Plastic pipe would have been unsuitable due to the shallow profile of the roadway.

Due to the roadway's low profile, all three proposed reinforced concrete pipes will be installed as shallow as the existing pipes. All project impacts to resources will be temporary.

SECTION 3 - PROJECT LOCATION

Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.

ADDRESS: NH Route 109A

TOWN/CITY: Wolfeboro

TAX MAP/BLOCK/LOT/UNIT: NHDOT ROW

US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME:
☒ N/A

(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places): 43.608711° North
71.214739° West

SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a))

If the applicant is a trust or a company, then complete with the trust or company information.

NAME: NH Department of Transportation, Samantha Fifield		
MAILING ADDRESS: 2 Sawmill Road		
TOWN/CITY: Gilford	STATE: NH	ZIP CODE: 03249
EMAIL ADDRESS: samantha.d.fifield@dot.nh.gov		
FAX: 603-524-8027	PHONE: 603-524-6667	

ELECTRONIC COMMUNICATION: By initialing here: SDF, I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c))

☒ N/A

LAST NAME, FIRST NAME, M.I.:		
COMPANY NAME:		
MAILING ADDRESS:		
TOWN/CITY:	STATE:	ZIP CODE:
EMAIL ADDRESS:		
FAX:	PHONE:	

ELECTRONIC COMMUNICATION: By initialing here , I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b))

If the owner is a trust or a company, then complete with the trust or company information.

☐ Same as applicant

NAME: NH Department of Transportation, Andrew O'Sullivan		
MAILING ADDRESS: 7 Hazen Drive, PO Box 483		
TOWN/CITY: Concord	STATE: NH	ZIP CODE: 03302
EMAIL ADDRESS: andrew.m.OSullivan@dot.nh.gov		
FAX: 603-271-7199	PHONE: 603-271-3226	

ELECTRONIC COMMUNICATION: By initialing here AMO, I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 7 - RESOURCE-SPECIFIC CRITERIA ESTABLISHED IN Env-Wt 400, Env-Wt 500, Env-Wt 600, Env-Wt 700, OR Env-Wt 900 HAVE BEEN MET (Env-Wt 313.01(a)(3))

Describe how the resource-specific criteria have been met for each chapter listed above (please attach information about stream crossings, coastal resources, prime wetlands, or non-tidal wetlands and surface waters):
NH Route 109A bisects a prime wetland at the the pipes' location. Both 24" pipes were installed under an emergency permit in 2009, File No. 2009-00649.

Env-Wt 400: The site was delineated by Joshua Brown and Deidra Benjamin on 10/21/2022 in accordance with Env-Wt 406. This project will have temporary impact to a Palustrine, scrub-shrub, broad-leaved deciduous/ Emergent persistent, permanently flooded(PSS1/EM1H) wetland. Project classified as major under Env 408.01

Env-Wt 500: This project is applicable under a maintenance of public highway infrastructure under Env-Wt 527.

Env-Wt 600: N/A, this is not a project in coastal lands or tidal waters

Env-Wt 700: Prime Wetlands in the project area and all impacts are temporary

Env-Wt 900: N/A, this is not a stream crossing

SECTION 8 - AVOIDANCE AND MINIMIZATION

Impacts within wetland jurisdiction must be avoided to the maximum extent practicable (Env-Wt 313.03(a)).* Any project with unavoidable jurisdictional impacts must then be minimized as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization and the Wetlands Permitting: Avoidance, Minimization and Mitigation Fact Sheet. For minor or major projects, a functional assessment of all wetlands on the project site is required (Env-Wt 311.03(b)(10)).*

Please refer to the application checklist to ensure you have attached all documents related to avoidance and minimization, as well as functional assessment (where applicable). Use the Avoidance and Minimization Checklist, the Avoidance and Minimization Narrative, or your own avoidance and minimization narrative.

**See Env-Wt 311.03(b)(6) and Env-Wt 311.03(b)(10) for shoreline structure exemptions.*

SECTION 9 - MITIGATION REQUIREMENT (Env-Wt 311.02)

If unavoidable jurisdictional impacts require mitigation, a mitigation pre-application meeting must occur at least 30 days but not more than 90 days prior to submitting this Standard Dredge and Fill Permit Application.

Mitigation Pre-Application Meeting Date: Month: 12 Day: 21 Year: 2022

(☒ N/A - Mitigation is not required)

SECTION 10 - THE PROJECT MEETS COMPENSATORY MITIGATION REQUIREMENTS (Env-Wt 313.01(a)(1)c)

Confirm that you have submitted a compensatory mitigation proposal that meets the requirements of Env-Wt 800 for all permanent unavoidable impacts that will remain after avoidance and minimization techniques have been exercised to the maximum extent practicable: ☐ I confirm submittal.

(☒ N/A – Compensatory mitigation is not required)

SECTION 11 - IMPACT AREA (Env-Wt 311.04(g))

For each jurisdictional area that will be/has been impacted, provide square feet (SF) and, if applicable, linear feet (LF) of impact, and note whether the impact is after-the-fact (ATF; i.e., work was started or completed without a permit).

For intermittent and ephemeral streams, the linear footage of impact is measured along the thread of the channel. *Please note, installation of a stream crossing in an ephemeral stream may be undertaken without a permit per Rule Env-Wt 309.02(d), however other dredge or fill impacts should be included below.*

For perennial streams/rivers, the linear footage of impact is calculated by summing the lengths of disturbances to the channel and banks.

Permanent impacts are impacts that will remain after the project is complete (e.g., changes in grade or surface materials).

Temporary impacts are impacts not intended to remain (and will be restored to pre-construction conditions) after the project is completed.

JURISDICTIONAL AREA		PERMANENT			TEMPORARY		
		SF	LF	ATF	SF	LF	ATF
Wetlands	Forested Wetland			☐			☐
	Scrub-shrub Wetland			☐	23		☐
	Emergent Wetland			☐			☐
	Wet Meadow			☐			☐
	Vernal Pool			☐			☐
	Designated Prime Wetland			☐	366		☐
	Duly-established 100-foot Prime Wetland Buffer			☐			☐
Surface Water	Intermittent / Ephemeral Stream			☐			☐
	Perennial Stream or River			☐			☐
	Lake / Pond			☐			☐
	Docking - Lake / Pond			☐			☐
	Docking - River			☐			☐
Banks	Bank - Intermittent Stream			☐			☐
	Bank - Perennial Stream / River			☐			☐
	Bank / Shoreline - Lake / Pond			☐			☐
Tidal	Tidal Waters			☐			☐
	Tidal Marsh			☐			☐
	Sand Dune			☐			☐
	Undeveloped Tidal Buffer Zone (TBZ)			☐			☐
	Previously-developed TBZ			☐			☐
	Docking - Tidal Water			☐			☐
TOTAL					**389**		

SECTION 12 - APPLICATION FEE (RSA 482-A:3, I)

☒ **MINIMUM IMPACT FEE**: Flat fee of $400.

☐ **NON-ENFORCEMENT RELATED, PUBLICLY-FUNDED AND SUPERVISED RESTORATION PROJECTS, REGARDLESS OF IMPACT CLASSIFICATION:** Flat fee of $400 (refer to RSA 482-A:3, 1(c) for restrictions).

☐ **MINOR OR MAJOR IMPACT FEE:** Calculate using the table below:

Permanent and temporary (non-docking):	389 SF	× $0.40 =	$	155.6
Seasonal docking structure:	SF	× $2.00 =	$	
Permanent docking structure:	SF	× $4.00 =	$	
Projects proposing shoreline structures (including docks) add $400 =			$	
Total =			$	155.6

The application fee for minor or major impact is the above calculated total or $400, whichever is greater = $ 400

SECTION 13 - PROJECT CLASSIFICATION (Env-Wt 306.05)

Indicate the project classification.

☐ Minimum Impact Project	☐ Minor Project	☒ Major Project

SECTION 14 - REQUIRED CERTIFICATIONS (Env-Wt 311.11)

Initial each box below to certify:

Initials: SDF	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials: SDF	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.
Initials: SDF	The signer understands that: • The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: 1. Deny the application. 2. Revoke any approval that is granted based on the information. 3. 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. • 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 Department to inspect the site of the proposed project, except for minimum impact forestry SPN projects and minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.
Initials: SDF	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.

SECTION 15 - REQUIRED SIGNATURES (Env-Wt 311.04(d); Env-Wt 311.11)

SIGNATURE (OWNER): Samantha D Fifield	PRINT NAME LEGIBLY: Samantha D. Fifield	DATE: 1-27-2023
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (AGENT, IF APPLICABLE):	PRINT NAME LEGIBLY:	DATE:

SECTION 16 - TOWN / CITY CLERK SIGNATURE (Env-Wt 311.04(f))

As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.

TOWN/CITY CLERK SIGNATURE:	PRINT NAME LEGIBLY: Exempt, State Agency per RSA 482-A:31(a)(1)
TOWN/CITY:	DATE:

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 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. Make check or money order payable to “Treasurer – State of NH”.

Wolfeboro, #2022-M311-1

0 0.5 1 Miles

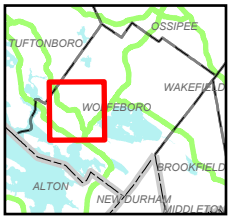
1:24,000

Project Location

Map depicting project location for replacement of 2 metal pipes which carry Harvey Brook under NH 109A.

Map created by Arin Mills on 9/19/2022

New Hampshire DOT
Department of Transportation



STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION ATTACHMENT A: MINOR AND MAJOR PROJECTS

Water Division/Land Resources Management

Wetlands Bureau

Check the Status of your Application

RSA/ Rule: RSA 482-A/ Env-Wt 311.10; Env-Wt 313.01(a)(1); Env-Wt 313.03

APPLICANT'S NAME: **NH Department of Transportation** **TOWN NAME:** Wolfeboro

Attachment A is required for *all minor and major projects*, and must be completed *in addition* to the Avoidance and Minimization Narrative or Checklist that is required by Env-Wt 307.11.

For projects involving construction or modification of non-tidal shoreline structures over areas of surface waters having an absence of wetland vegetation, only Sections I.X through I.XV are required to be completed.

PART I: AVOIDANCE AND MINIMIZATION

In accordance with Env-Wt 313.03(a), the Department shall not approve any alteration of any jurisdictional area unless the applicant demonstrates that the potential impacts to jurisdictional areas have been avoided to the maximum extent practicable and that any unavoidable impacts have been minimized, as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization.

SECTION I.I - ALTERNATIVES (Env-Wt 313.03(b)(1))

Describe how there is no practicable alternative that would have a less adverse impact on the area and environments under the Department's jurisdiction.

THIS PROJECT COULD HAVE BEEN CONSTRUCTED UNDER THE CULVERT MAINTAINER PROGRAM HAD THE WETLANDS LOCATED ON BOTH SIDES OF NH ROUTE 109A NOT BEEN DESIGNATED PRIME. THIS LOCATION IS NOT A STREAM CROSSING, THE EXISTING PIPES ALLOW FOR A CONNECTION BETWEEN THE WETLANDS LOCATED ON THE NORTH AND SOUTH SIDE OF THE ROADWAY. THE SCOPE OF WORK INCLUDES THE REPLACEMENT OF THREE DETERIORATED PIPES (TWO 24-INCH AND ONE 15-INCH CORRUGATED METAL PIPES) WITH TWO 30-INCH REINFORCED CONCRETE PIPES AND 1 15-INCH REINFORCED CONCRETE PIPE. ALL RESOURCE IMPACTS WILL BE TEMPORARY

TO IMPROVE AQUATIC ORGANISM CROSSINGS, DISTRICT 3 WILL UPSIZE THE 24" PIPES. THE ELEVATION OF THE EXISTING 15' PIPE IS TOO SHALLOW AND WILL NOT ACCOMMODATE A LARGER PIPE.

DISTRICT 3 ALSO LOOKED AT ELEVATING THE ROADWAY BY 12" TO ALLOW FOR MUCH LARGER CULVERTS AND DETERMINED THAT APPROXIMATELY 800 LF OF ROADWAY WOULD HAVE TO BE ELEVATED. THIS OPTION WOULD REQUIRE APPROXIMATELY 1/3 AN ACRE OF PERMANENT IMPACTS TO THE WETLANDS LOCATED ON BOTH THE NORTH AND SOUTH SIDES OF THE ROADWAY. SO, THIS OPTION IS NOT ONLY COST PROHIBITED BUT IT WOULD PERMANENTLY IMPACT PRIME WETLANDS.

THE BENEFITS OF INSTALLING MUCH LARGER CULVERTS DOES NOT OUTWEIGH THE IMPACTS TO THE PRIME WETLANDS.

SECTION I.II - MARSHES (Env-Wt 313.03(b)(2))

Describe how the project avoids and minimizes impacts to tidal marshes and non-tidal marshes where documented to provide sources of nutrients for finfish, crustacean, shellfish, and wildlife of significant value.

This project does not impact a marsh, see PRA report.

SECTION I.III - HYDROLOGIC CONNECTION (Env-Wt 313.03(b)(3))

Describe how the project maintains hydrologic connections between adjacent wetland or stream systems.

The existing crossings, two 24" corrugated metal pipes and one 15" corrugated metal pipe, have deteriorated to the point of failure. This project proposes to replace the failed pipes with two 30" reinforced concrete pipes and one 15" reinforced concrete pipe. The proposed concrete pipes shall be far more durable in comparison to the existing metal pipes. The pipes are typically partially underwater at all times at this location. Ordinarily, there is approximately 4" of freeboard at this crossing's location. The proposed pipes will be installed at close to the existing pipes' inverts, so the connection shall be maintained between the wetlands located on the north and south side of the roadway.

SECTION I.IV - JURISDICTIONAL IMPACTS (Env-Wt 313.03(b)(4))

Describe how the project avoids and minimizes impacts to wetlands and other areas of jurisdiction under RSA 482-A, especially those in which there are exemplary natural communities, vernal pools, protected species and habitat, documented fisheries, and habitat and reproduction areas for species of concern, or any combination thereof.

All of this project's impacts are temporary and are associated with the replacement of two 24" corrugated metal pipes and one 15" corrugated metal pipe with two (proposed) 30" reinforced concrete pipes and one (proposed) 15" reinforced concrete pipe. Temporary impacts are for installation of erosion control measures during construction.

SECTION I.V - PUBLIC COMMERCE, NAVIGATION, OR RECREATION (Env-Wt 313.03(b)(5))

Describe how the project avoids and minimizes impacts that eliminate, depreciate or obstruct public commerce, navigation, or recreation.

The project proposed to replace three deteriorated pipes, one of which has caused sink holes on NH Route 109A. This project will eliminate impacts to the traveling public, and maintain the existing roadway.

SECTION I.VI - FLOODPLAIN WETLANDS (Env-Wt 313.03(b)(6))

Describe how the project avoids and minimizes impacts to floodplain wetlands that provide flood storage.

The project will not create permanent impacts to floodplain wetlands. All impacts are temporary for installation of erosion control measures.

SECTION I.VII - RIVERINE FORESTED WETLAND SYSTEMS AND SCRUB-SHRUB – MARSH COMPLEXES (Env-Wt 313.03(b)(7))

Describe how the project avoids and minimizes impacts to natural riverine forested wetland systems and scrub-shrub – marsh complexes of high ecological integrity.

This project does not impact a riverine forest. Impacts to scrub-shrub marsh of high ecological integrity have been minimized by placement of the proposed concrete pipes in the same location as the existing. All impacts are temporary and have been minimized to areas needed for installation of erosion control measures during construction.

SECTION I.VIII - DRINKING WATER SUPPLY AND GROUNDWATER AQUIFER LEVELS (Env-Wt 313.03(b)(8))

Describe how the project avoids and minimizes impacts to wetlands that would be detrimental to adjacent drinking water supply and groundwater aquifer levels.

This project does not impact a drinking water supply or groundwater aquifer levels.

SECTION I.IX - STREAM CHANNELS (Env-Wt 313.03(b)(9))

Describe how the project avoids and minimizes adverse impacts to stream channels and the ability of such channels to handle runoff of waters.

This project is not a stream crossing, see PRA report, nor does it cause any adverse impacts to a stream channel.

SECTION I.X - SHORELINE STRUCTURES - CONSTRUCTION SURFACE AREA (Env-Wt 313.03(c)(1))

Describe how the project has been designed to use the minimum construction surface area over surface waters necessary to meet the stated purpose of the structures.

NA

SECTION I.XI - SHORELINE STRUCTURES - LEAST INTRUSIVE UPON PUBLIC TRUST (Env-Wt 313.03(c)(2))

Describe how the type of construction proposed is the least intrusive upon the public trust that will ensure safe docking on the frontage.

NA

SECTION I.XII - SHORELINE STRUCTURES – ABUTTING PROPERTIES (Env-Wt 313.03(c)(3))

Describe how the structures have been designed to avoid and minimize impacts on ability of abutting owners to use and enjoy their properties.

NA

SECTION I.XIII - SHORELINE STRUCTURES – COMMERCE AND RECREATION (Env-Wt 313.03(c)(4))

Describe how the structures have been designed to avoid and minimize impacts to the public's right to navigation, passage, and use of the resource for commerce and recreation.

NA

SECTION I.XIV - SHORELINE STRUCTURES – WATER QUALITY, AQUATIC VEGETATION, WILDLIFE AND FINFISH HABITAT (Env-Wt 313.03(c)(5))

Describe how the structures have been designed, located, and configured to avoid impacts to water quality, aquatic vegetation, and wildlife and finfish habitat.

NA

SECTION I.XV - SHORELINE STRUCTURES – VEGETATION REMOVAL, ACCESS POINTS, AND SHORELINE STABILITY (Env-Wt 313.03(c)(6))

Describe how the structures have been designed to avoid and minimize the removal of vegetation, the number of access points through wetlands or over the bank, and activities that may have an adverse effect on shoreline stability.

NA

PART II: FUNCTIONAL ASSESSMENT
REQUIREMENTS Ensure that project meets the requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).
FUNCTIONAL ASSESSMENT METHOD USED: US Army Corp of Engineers Highway Methodology; Wetlands Functions and Values
NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT: JOSH BROWN & DEIDRA BENJAMIN
DATE OF ASSESSMENT: 10/21/2022
Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT: ☒
For minor or major projects requiring a standard permit without mitigation, the applicant shall submit a wetland evaluation report that includes completed checklists and information demonstrating the RELATIVE FUNCTIONS AND VALUES OF EACH WETLAND EVALUATED. Check this box to confirm that the application includes this information, if applicable: ☒ Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.

AVOIDANCE AND MINIMIZATION CHECKLIST

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/ Env-Wt 311.07(c)

This checklist can be used in lieu of the written narrative required by Env-Wt 311.07(a) to demonstrate compliance with requirements for Avoidance and Minimization (A/M), pursuant to RSA 482-A:1 and Env-Wt 311.07(c).

For the construction or modification of non-tidal shoreline structures over areas of surface waters without wetland vegetation, complete only Sections 1, 2, and 4 (or the applicable sections in Attachment A: Minor and Major Projects (NHDES-W-06-013).

The following definitions and abbreviations apply to this worksheet:

- "A/M BMPs" stands for Wetlands Best Management Practice Techniques for Avoidance and Minimization dated 2019, published by the New England Interstate Water Pollution Control Commission (Env-Wt 102.18).
- "Practicable" means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes (Env-Wt 103.62).

SECTION 1 - CONTACT/LOCATION INFORMATION	
APPLICANT LAST NAME, FIRST NAME, M.I.: NH Department of Transportation	
PROJECT STREET ADDRESS: NH Route 109A	PROJECT TOWN: Wolfeboro
TAX MAP/LOT NUMBER: DOT ROW	

SECTION 2 - PRIMARY PURPOSE OF THE PROJECT		
Env-Wt 311.07(b)(1)	Indicate whether the primary purpose of the project is to construct a water-access structure or requires access through wetlands to reach a buildable lot or the buildable portion thereof.	☐ Yes ☒ No

If you answered "no" to this question, describe the purpose of the "non-access" project type you have proposed:

The purpose of the project is to replace two deteriorated 24" corrugated metal (equalizing) pipes and one deteriorated 15" corrugated metal pipe with two 30" reinforced concrete pipes and one 15" reinforced concrete pipes. Under submerged conditions, as is at this location, the proposed reinforced concrete pipes will be far more durable than existing corrugated metal pipes.

SECTION 3 - A/M PROJECT DESIGN TECHNIQUES Check the appropriate boxes below in order to demonstrate that these items have been considered in the planning of the project. Use N/A (not applicable) for each technique that is not applicable to your project.		
Env-Wt 311.07(b)(2)	For any project that proposes new permanent impacts of more than one acre or that proposes new permanent impacts to a Priority Resource Area (PRA), or both, whether any other properties reasonably available to the applicant, whether already owned or controlled by the applicant or not, could be used to achieve the project's purpose without altering the functions and values of any jurisdictional area, in particular wetlands, streams, and PRAs.	☐ Check ☒ N/A
Env-Wt 311.07(b)(3)	Whether alternative designs or techniques, such as different layouts, construction sequencing, or alternative technologies could be used to avoid impacts to jurisdictional areas or their functions and values.	☒ Check ☐ N/A
Env-Wt 311.07(b)(4) Env-Wt 311.10(c)(1) Env-Wt 311.10(c)(2)	The results of the functional assessment required by Env-Wt 311.03(b)(10) were used to select the location and design for the proposed project that has the least impact to wetland functions.	☐ Check ☒ N/A
Env-Wt 311.07(b)(4) Env-Wt 311.10(c)(3)	Where impacts to wetland functions are unavoidable, the proposed impacts are limited to the wetlands with the least valuable functions on the site while avoiding and minimizing impacts to the wetlands with the highest and most valuable functions.	☐ Check ☒ N/A
Env-Wt 313.01(c)(1) Env-Wt 313.01(c)(2) Env-Wt 313.03(b)(1)	No practicable alternative would reduce adverse impact on the area and environments under the department's jurisdiction and the project will not cause random or unnecessary destruction of wetlands.	☒ Check ☐ N/A
Env-Wt 313.01(c)(3)	The project would not cause or contribute to the significant degradation of waters of the state or the loss of any PRAs.	☒ Check ☐ N/A
Env-Wt 313.03(b)(3) Env-Wt 904.07(c)(8)	The project maintains hydrologic connectivity between adjacent wetlands or stream systems.	☒ Check ☐ N/A
Env-Wt 311.10 A/M BMPs	Buildings and/or access are positioned away from high function wetlands or surface waters to avoid impact.	☐ Check ☒ N/A
Env-Wt 311.10 A/M BMPs	The project clusters structures to avoid wetland impacts.	☐ Check ☒ N/A
Env-Wt 311.10 A/M BMPs	The placement of roads and utility corridors avoids wetlands and their associated streams.	☐ Check ☒ N/A
A/M BMPs	The width of access roads or driveways is reduced to avoid and minimize impacts. Pullouts are incorporated in the design as needed.	☐ Check ☒ N/A
A/M BMPs	The project proposes bridges or spans instead of roads/driveways/trails with culverts.	☐ Check ☒ N/A

A/M BMPs	The project is designed to minimize the number and size of crossings, and crossings cross wetlands and/or streams at the narrowest point.	☐ Check ☒ N/A
Env-Wt 500 Env-Wt 600 Env-Wt 900	Wetland and stream crossings include features that accommodate aquatic organism and wildlife passage.	☒ Check ☐ N/A
Env-Wt 900	Stream crossings are sized to address hydraulic capacity and geomorphic compatibility.	☐ Check ☒ N/A
A/M BMPs	Disturbed areas are used for crossings wherever practicable, including existing roadways, paths, or trails upgraded with new culverts or bridges.	☒ Check ☐ N/A
SECTION 4 - NON-TIDAL SHORELINE STRUCTURES		
Env-Wt 313.03(c)(1)	The non-tidal shoreline structure has been designed to use the minimum construction surface area over surfaces waters necessary to meet the stated purpose of the structure.	☐ Check ☒ N/A
Env-Wt 313.03(c)(2)	The type of construction proposed for the non-tidal shoreline structure is the least intrusive upon the public trust that will ensure safe navigation and docking on the frontage.	☐ Check ☒ N/A
Env-Wt 313.03(c)(3)	The non-tidal shoreline structure has been designed to avoid and minimize impacts on the ability of abutting owners to use and enjoy their properties.	☐ Check ☒ N/A
Env-Wt 313.03(c)(4)	The non-tidal shoreline structure has been designed to avoid and minimize impacts to the public's right to navigation, passage, and use of the resource for commerce and recreation.	☐ Check ☒ N/A
Env-Wt 313.03(c)(5)	The non-tidal shoreline structure has been designed, located, and configured to avoid impacts to water quality, aquatic vegetation, and wildlife and finfish habitat.	☐ Check ☒ N/A
Env-Wt 313.03(c)(6)	The non-tidal shoreline structure has been designed to avoid and minimize the removal of vegetation, the number of access points through wetlands or over the bank, and activities that may have an adverse effect on shoreline stability.	☐ Check ☒ N/A

Natural Resource Agency Meeting
Wolfeboro 2022-M311-1
January 21, 2022

Arin introduced the Wolfeboro culvert replacement project #2022-M311-1 as a state funded and executed project along NH 109A in Wolfeboro. The project will replace two failing 24" Corrugated Metal Pipes (CMPs) and one 15" CMP. The project is in the headwaters of Harvey Brook, although field delineation determined no stream crossing at the project location. The water flows easterly and eventually forms Harvey Brook, flowing under NH 109/28 and enter Lake Wentworth approx. 6.8 miles downstream. The 24' pipes are functioning as equalizer pipes and the wetland complex, at the inlet of the 24" pipes, is not connected to the wetland that inlets into the 15" pipe, a narrow rise of land is between the systems and an aerial image including topography was shown. The project is in a rural residential area with no conservation lands adjacent. Photos were shown of the project location.

Sam provided a project overview to include the replacement of two 24" CMPs with two 30" reinforced concrete pipes (RCPs) and one 15" CMP with one 15" RCP in the same location as existing. The pipes shall be nearly the same length as existing. The replacement could have been completed under the Culvert Maintainer program, had it not been for the temporary impacts to prime wetlands adjacent to the crossings. Sam showed wetland impact plans to include a total of 389 sf of temporary wetland impacts to PSS1/EM1H. Sam described the 24" pipe impacts were connected as the work is in very close proximity and will be done at the same time. Concrete pipes will be installed as the pipes are submerged in water, and at the time of previous emergency permit concrete was not available. Arin mentioned 366 sf of impacts are within prime wetland, as the inlet of the 15" CMP is outside prime wetland designation.

A brief construction sequence was described by Sam as installation of temporary erosion control measures of perimeter controls, sandbag cofferdams and sediment basins. Traffic along the roadway will be maintained using single lane alternating two-way traffic patterns while the culverts are removed and replaced, one side at a time. Once all three pipes have been replaced, permanent erosion control measures will be placed, the roadway will be re-built, temporary erosion control measures will be removed, and the site will be cleaned up.

Arin described the results of the environmental review to include the drainage area, as at initial review it was anticipated the project would include stream impacts. A field review determined no stream resources are present in the project area. A previous emergency permit (2009-00649) replaced previous failing metal pipes with new metal pipes. NWI map was shown, with delineation determining PSS1/EM1H within project area. Natural Heritage Bureau review NHB22-3079 determined no known occurrences of rare species. Predicted Priority Resource Areas (PRA) predicted bog, although no bog was determined present based on field survey. The project will be classified as Major due to temporary impacts to Prime wetlands. A functions and values assessment was completed and determined the following principal functions/values: Wildlife, Nutrient Removal, Sediment/Toxicant Retention and Uniqueness (Prime). No permanent impacts to the functions and values are anticipated as all impacts are temporary and in same footprint as the existing pipes, and the 24" pipes will be up sized to 30". The

Aquatic Restoration Mapper was shown with full aquatic organism passage and wetland geomorphic compatibility. Habitat ranking shows no priority habitat or wildlife corridor in project area. The crossing is adjacent to a 100-year FEMA floodplain. US Fish & Wildlife coordination predicted Northern long-eared bat and no impacts are predicted. Arin acknowledged the recent up-listing of the bat and said consultation would be completed, although 4(d) concurrence was reached currently. Section 106 for historic resources has no concerns.

Karl B acknowledged no impacts to functions and values, replacement in-kind and agency coordination. He asked about coordination with local Conservation Commission (CC). Arin said a letter was sent to Wolfeboro's CC and no response has been received. She also mentioned following up with a phone call, where she left a message, and has yet to receive a return phone call from the CC.

Michael D, Kevin N, Gary C, Jamie S and Jean B had no comment.

Mike H commented to ensure endangered species and Section 106 review is complete and included in the application.

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: Arin Mills
John O. Morton Building
7 Hazen Drive
Concord, NH 03302-0483

From: NH Natural Heritage Bureau

Date: 9/20/2022 (This letter is valid through 9/20/2023)

Re: Review by NH Natural Heritage Bureau of request dated 9/20/2022

Permit Types: Wetland Standard Dredge & Fill - Major
General Permit

NHB ID: NHB22-3079

Applicant: Arin Mills

Location: Wolfeboro
Tax Map: DOT ROW, Tax Lot: DOT ROW
Address: NH 109A over Harvey Brook

Proj. Description: Replace two failed CMP's which carry NH 109A over Harvey Brook. The pipes have failed and propose to be replaced with a single concrete box structure. Work is anticipated in August 2023, DOT Project #2022-M311-1.

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.

Based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord NH 03301

MAP OF PROJECT BOUNDARIES FOR: NHB22-3079

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord NH 03301

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

In Reply Refer To:
Project Code: 2022-0087070
Project Name: Wolfeboro, #2022-M311-1

January 27, 2023

Subject: 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:

Updated 12/27/2022 - Please review this letter each time you request an Official Species List, we will continue to update it with additional information and links to websites may change.

About Official Species Lists

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. Federal and non-Federal project proponents have responsibilities under the Act to consider effects on listed species.

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 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. 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 by returning to an existing project's page in IPaC.

Endangered Species Act Project Review

Please visit the "**New England Field Office Endangered Species Project Review and Consultation**" website for step-by-step instructions on how to consider effects on listed

species and prepare and submit a project review package if necessary:

https://www.fws.gov/office/new-england-ecological-services/endangered-species-project-review

NOTE Please do not use the **Consultation Package Builder** tool in IPaC except in specific situations following coordination with our office. Please follow the project review guidance on our website instead and reference your **Project Code** in all correspondence.

Northern Long-eared Bat - (Updated 12/27/2022) Please visit our New England Field Office Project Review webpage at the link above for updated northern long-eared bat consultation guidance. The Service published a final rule to reclassify the northern long-eared bat (NLEB) as endangered on November 30, 2022. The final rule will go into effect on **January 30, 2023**. After that date, the current 4(d) rule for NLEB will no longer be in effect, and the 4(d) determination key will no longer be available. New compliance tools will be available by mid- to late-January, and information will be posted on our New England Field Office Project Review webpage in January, so please check this site often for updates.
Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective. If your project may result in incidental take of NLEB after the new listing goes into effect, this will need to be addressed in an updated consultation that includes an Incidental Take Statement. Many of these situations will be addressed through the new compliance tools. If your project may require re-initiation of consultation, please wait for information on the new tools to appear on our website or contact our office at **newengland@fws.gov** for additional guidance.

Additional Info About Section 7 of the Act
Under section 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether projects may affect threatened and endangered species and/or designated critical habitat. If a Federal agency, or its non-Federal representative, determines 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 Federal agency also may need to consider proposed species and proposed critical habitat in the consultation. 50 CFR 402.14(c)(1) specifies the information required for consultation under the Act regardless of the format of the evaluation. 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:

https://www.fws.gov/service/section-7-consultations

In addition to consultation requirements under Section 7(a)(2) of the ESA, please note that under sections 7(a)(1) 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. Please contact NEFO if you would like more information.

Candidate species that appear on the enclosed species list have no current protections under the

ESA. The species' occurrence on an official species list does not convey a requirement to consider impacts to this species as you would a proposed, threatened, or endangered species. The ESA does not provide for interagency consultations on candidate species under section 7, however, the Service recommends that all project proponents incorporate measures into projects to benefit candidate species and their habitats wherever possible.

Migratory Birds

In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see:

https://www.fws.gov/program/migratory-bird-permit

https://www.fws.gov/library/collections/bald-and-golden-eagle-management

Please feel free to contact us at **newengland@fws.gov** with your **Project Code** in the subject line if you need more information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Attachment(s): Official Species List

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

Project Code: 2022-0087070
Project Name: Wolfeboro, #2022-M311-1
Project Type: Culvert Repair/Replacement/Maintenance
Project Description: Replace three failed CMP’s which carry 109A over Harvey Brook. Pipes are failing and will be replaced with precast concrete in same location as existing.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.6086697,-71.21463696448248,14z

Counties: Carroll County, New Hampshire

Endangered Species Act Species

There is a total of 2 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 Fisheries[1], 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.

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1. NOAA Fisheries, 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* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

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

IPaC User Contact Information

Agency: New Hampshire Department of Transportation
Name: Arin Mills
Address: 7 Hazen Drive
City: Concord
State: NH
Zip: 03302
Email arin.j.mills@dot.nh.gov
Phone: 6032710187

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

In Reply Refer To:
Project code: 2022-0087070
Project Name: Wolfeboro, #2022-M311-1

September 20, 2022

Subject: Verification letter for the 'Wolfeboro, #2022-M311-1' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Arin Mills:

The U.S. Fish and Wildlife Service (Service) received on September 20, 2022 your effects determination for the 'Wolfeboro, #2022-M311-1' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"[1] prohibitions applicable to the northern long-eared bat 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, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take 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 PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in 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 the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

This IPaC-assisted determination allows you to rely on the PBO for compliance with ESA Section 7(a)(2) only for the northern long-eared bat. It **does not** apply to the following ESA-protected species that also may occur in the Action area:

- Monarch Butterfly *Danaus plexippus* Candidate

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

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[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

Wolfeboro, #2022-M311-1

2. Description

The following description was provided for the project 'Wolfeboro, #2022-M311-1':

> Replace two failed CMP’s which carry 109A over Harvey Brook. The two pipes are failing and will be replaced with a single precast concrete.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.6086697,-71.21463696448248,14z

Determination Key Result

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service’s PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

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 Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service’s PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may

affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   Yes

2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")

   No

3. Will your activity purposefully **Take** northern long-eared bats?

   No

4. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered
   No

5. 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/media/nleb-roost-tree-and-hibernacula-state-specific-data-links-0.

   Yes

6. 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

7. 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

0

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

0

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

0

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)?

0

IPaC User Contact Information

Agency: New Hampshire Department of Transportation
Name: Arin Mills
Address: 7 Hazen Drive
City: Concord
State: NH
Zip: 03302
Email arin.j.mills@dot.nh.gov
Phone: 6032710187

Section 106 Programmatic Agreement – Cultural Resources Review Effect Finding

Appendix B Certification – Activities with Minimal Potential to Cause Effects

Date Reviewed: (Desktop or Field Review Date)	9/19/2022	☒ This Project uses only State funding; however project activities listed below comply with the PA.	
Project Name:	Wolfeboro Culvert Replacement		
State Number:	2022-M311-1	**FHWA Number:**	N/A
Environmental Contact:	Arin Mills	**DOT Project Manager:**	Samantha Fifield
Email Address:	Arin.j.mills@dot.nh.gov		
Project Description:	Replacement of two existing 24" CMP's which carry NH 109A over Harvey Brook. The two pipes were installed c.2009 after the previous pipes failed. The actions will include the removal of the existing pipes and replacement with a single concrete box.		

Please select the applicable activity/activities:

Highway and Roadway Improvements	
☐	1. Modernization and general highway maintenance **that may require additional highway right-of-way or easement**, including: Choose an item. Choose an item.
☐	2. Installation of rumble strips or rumble stripes
☐	3. Installation or replacement of pole-mounted signs
☐	4. Guardrail replacement, provided any extension does not connect to a bridge older than 50 years old (unless it does already), and there is no change in access associated with the extension
Bridge and Culvert Improvements	
☒	5. Culvert replacement (excluding stone box culverts), when the culvert is less than 60" in diameter and excavation for replacement is limited to previously disturbed areas
☐	6. Bridge deck preservation and replacement, as long as no character defining features are impacted
☐	7. Non-historic bridge and culvert maintenance, renovation, or total replacement, **that may require minor additional right-of-way or easement**, including: Choose an item. Choose an item.
☐	8. Historic bridge maintenance activities within the limits of existing right-of-way, including: Choose an item. Choose an item.
☐	9. Stream and/or slope stabilization and restoration activities (including removal of debris or sediment obstructing the natural waterway, or any non-invasive action to restore natural conditions)
Bicycle and Pedestrian Improvements	
☐	10. Construction of pedestrian walkways, sidewalks, sidewalk tip-downs, small passenger shelters, and alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons
☐	11. Installation of bicycle racks
☐	12. Recreational trail construction
☐	13. Recreational trail maintenance when done on existing alignment
☐	14. Construction of bicycle lanes and shared use paths and facilities within the existing right-of-way
Railroad Improvements	
☐	15. Modernization, maintenance, and safety improvements of railroad facilities within the existing railroad or highway right-of-way, **provided no historic railroad features are impacted,** including, but not limited to:

Appendix B Certification – Activities with Minimal Potential to Cause Effects

	Choose an item. Choose an item.
☐	16. In-kind replacement of modern railroad features (i.e. those features that are less than 50 years old)
☐	17. Modernization/modification of railroad/roadway crossings provided that all work is undertaken within the limits of the roadway structure (edge of roadway fill to edge of roadway fill) and no associated character defining features are impacted
Other Improvements	
☐	18. Installation of Intelligent Transportation Systems
☐	19. Acquisition or renewal of scenic, conservation, habitat, or other land preservation easements where no construction will occur
☐	20. Rehabilitation or replacement of existing storm drains.
☐	21. Maintenance of stormwater treatment features and related infrastructure

Please describe how this project is applicable under Appendix B of the Programmatic Agreement.

Work will include replacement of existing c.2009 CMP pipes with a single concrete box. Work will be done in previously disturbed areas. EMMIT review (9/19/2022 revealed there are no individually inventoried properties, historic districts, or archaeological sites within or immediately adjacent to the project area.

Please submit this Certification Form along with the Transportation RPR, including photographs, USGS maps, design plans and as-built plans, if available, for review. Note: The RPR can be waived for in-house projects, please consult Cultural Resources Program Staff.

Coordination Efforts:

Has an RPR been submitted to NHDOT for this project?	Not Applicable	NHDHR R&C # assigned?	Click here to enter text.
Please identify public outreach effort contacts; method of outreach and date:	Town officials, including historical society, will be contacted as part of review process.		

Finding: (To be filled out by NHDOT Cultural Resources Staff)

☒	**No Potential to Cause Effects**	☐	**No Historic Properties Affected**
This finding serves as the Section 106 Memorandum of Effect. No further coordination is necessary.			
☐	**This project does *not* comply with Appendix B. Review will continue under Stipulation VII of the Programmatic Agreement. Please contact NHDOT Cultural Resources Staff to determine next steps.**		

NHDOT comments:

Sheila Charles

9/19/2022

NHDOT Cultural Resources Staff — Date

Section 106 Programmatic Agreement – Cultural Resources Review Effect Finding

Appendix B Certification – Activities with Minimal Potential to Cause Effects

Coordination of the Section 106 process should begin as early as possible in the planning phase of the project (undertaking) so as not to cause a delay.

Project sponsors should not predetermine a Section 106 finding under the assumption a project is limited to the activities listed in Appendix B until this form is signed by the NHDOT Bureau of Environment Cultural Resources Program staff.

Every project shall be coordinated with, and reviewed by the NHDOT-BOE Cultural Resources Program in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the New Hampshire State Historic Preservation Office, the Army Corps of Engineers, New England District, the Advisory Council on Historic Preservation, and the New Hampshire Department of Transportation Regarding the Federal Aid Highway Program in New Hampshire*. In accordance with the Advisory Council's regulations, we will continue to consult, as appropriate, as this project proceeds.

NHDOT and the State Historic Preservation Office may use provisions of the Programmatic Agreement to address the applicable requirements of NH RSA 227-C:9 in the location, identification, evaluation and management of historic resources, for projects funded by State funds.

If any portion of the project is not entirely limited to any one or a combination of the activities specified in Appendix B (with, or without the inclusion of any activities listed in Appendix A), please continue discussions with NHDOT Cultural Resources staff.

This No Potential to Cause Effect or No Historic Properties Affected project determination is your Section 106 finding, as defined in the Programmatic Agreement.

Should project plans change, please inform the NHDOT Cultural Resources staff in accordance with Stipulation VII of the Programmatic Agreement.

US Army Corps of Engineers ®
New England District

Appendix B
New Hampshire General Permits
Required Information and USACE Section 404Checklist

USACE Section 404 Checklist

1. Attach any explanations to this checklist. Lack of information could delay a USACE 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 3 for information on single and complete projects.
4. Contact USACE at (978) 318-8832 with any questions.
5. The information requested below is generally required in the NHDES Wetland Application. See page 61 for NHDES references and Admin Rules as they relate to the information below.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See the following to determine if there is an impaired water in the vicinity of your work area. * https://nhdes-surface-water-quality-assessment-site-nhdes.hub.arcgis.com/ https://www.des.nh.gov/water/rivers-and-lakes/water-quality-assessment https://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx		X
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?	X	
2.2 Are there proposed impacts to tidal SAS, prime wetlands, or priority resource areas? 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 https://www4.des.state.nh.us/NHB-DataCheck/.	X	
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage?	X	
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.)		X
2.5 The overall project site is more than 40 acres?		X
2.6 What is the area of the previously filled wetlands?		
2.7 What is the area of the proposed fill in wetlands?		
2.8 What % of the overall project sire will be previously and proposed filled wetlands?		
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://www4.des.state.nh.us/NHB-DataCheck/. USFWS IPAC website: https://ipac.ecosphere.fws.gov/		X

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: https://wildlife.state.nh.us/wildlife/wap-high-rank.html. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html.		**X**
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)?		**X**
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?		**X**
3.5 Are stream crossings designed in accordance with the GC 31?		
4. Flooding/Floodplain Values	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?	**X**	
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?		**X**
5. Historic/Archaeological Resources		
For a minimum, minor or major impact project - a copy of the 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 37 GC 14(d) of the GP document**	**X**	
6. Minimal Impact Determination (for projects that exceed 1 acre of permanent impact)	Yes	No
Projects with greater than 1 acre of permanent impact must include the following: • Functional assessment for aquatic resources in the project area. • On and off-site alternative analysis. • Provide additional information and description for how the below criteria are met.		
6.1 Will there be complete loss of aquatic resources on site?		
6.2 Have the impacts to the aquatic resources been avoided and minimized to the greatest extent practicable?		
6.3 Will all aquatic resource function be lost?		
6.4 Does the aquatic resource (s) have regional significance (watershed or ecoregion)?		
6.5 Is there an on-site alternative with less impact?		
6.6 Is there an off-site alternative with less impact?		
6.7 Will there be a loss to a resource dependent species?		
6.8 Are indirect impacts greater than 1 acre within and adjacent to the project area?		
6.9 Does the proposed mitigation replace aquatic resource function for direct, indirect, and cumulative impacts?		

*Although this checklist utilizes state information, its submittal to USACE is a federal requirement.
** If your project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law.

Additional Information
2.2: Prime wetland impacts in wetlands 1 & 2, as shown on plans. Total impacts 366 sf, all temporary.
4.2: Compensatory flood storage not required, all impacts temporary.
5.0: Project complies with Appendix B of NHDOT Programmatic Agreement.
6: Project <1 acre of permanent impacts, all impacts temporary.

Photo 1: Looking Southeast Down NH 109-A

Photo 2: Looking Northwest Down NH 109-A

Photo 3: South Side of NH 109-A

Photo 4: North Side of NH 109-A

Photo 5: Western Pipe Inlet

Photo 6: Western Pipe Outlet

Photo 7: Eastern Pipe Inlet

Photo 8: Eastern Pipe Outlet

Photo 9: 15” Pipe Looking at Outlet Looking Southwest

Photo 10: 15” Pipe from Outlet Looking Northeast

Photo 11: 15” Pipe at Inlet Looking Northwest

Photo 12: 15” Pipe from Inlet Looking Southeast

CONSTRUCTION SEQUENCE

As a preventative measure, sediment control measures, such as silt fence, compost sock, and hay bales, will be placed parallel to the roadway, between the proposed work area and designated wet areas ahead of all construction activities.

The installation of the three proposed RCP pipes will take place during no flow conditions, which is primarily in the summer/early fall months. During no flow conditions, there is zero chance of flow overtopping the sandbag cofferdams. All sediment and erosion control measures will be installed, monitored, repaired, or replaced as needed. These measures will not be removed until all impacted areas are stabilized. Work will be completed as detailed below:

Install Culvert

All three reinforced concrete pipes will be installed in two phases. Each pipe will be completed one at a time. Each pipe will be installed from the north to the south side of the roadway. The following will be completed for each pipe.

1. Install both the downstream and upstream perimeter control and turbidity barrier if needed to prevent sediment from entering the adjacent wetlands.
2. Install the downstream and upstream sandbag cofferdams; the cofferdams should be located within the temporary permitted areas.
3. Install the dewatering sump pump and connect it to a sediment basin located either on the north or south side of the roadway. The basin shall be located to maximize the distance to the wetlands located adjacent to the roadway. Due to site limitations, the sediment basin cannot be placed 20-feet away from the adjacent wetland; however, at least two layers of buffer perimeter controls will be placed between the sediment basin and adjacent wetland.
4. Connect the dewatering sump pump to the sediment basin and dewater the site confined within the two cofferdams.
5. Use alternating two-way traffic patterns with flaggers, or temporary signals, to maintain traffic over the north side of the roadway.
6. Construct the south side of the proposed culvert pipe.
7. Construct and compact the roadway materials located over the south side of the culvert.
8. Shift traffic to the south side of the roadway and continue to use alternating two-way traffic patterns with flaggers, or temporary signals, to maintain traffic over the south side of the culvert.
9. Construct the north side of the proposed culvert pipe.

10. Construct and compact the roadway materials located over the north side of the culvert.
11. Repave the roadway over the culverts.
12. Remove both the upstream and downstream cofferdams and turbidity curtains.
13. Once all permanent erosion control measures are established, remove the upstream and downstream temporary erosion control measures.

All erosion control measures, installed at the inception of the project, will be maintained until the site has returned to its original conditions.

WETLANDS DELINEATED ON 10/21/2022
BY JOSHUA BROWN AND DEIDRA BENJAMIN

LEGEND

TYPE OF WETLAND IMPACT	SHADING/ HATCHING
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	
TEMPORARY IMPACTS	

WETLAND DESIGNATION NUMBER

WETLAND IMPACT LOCATION

WETLAND MITIGATION AREA

MITIGATION

RIGHT-OF-WAY NOTE:

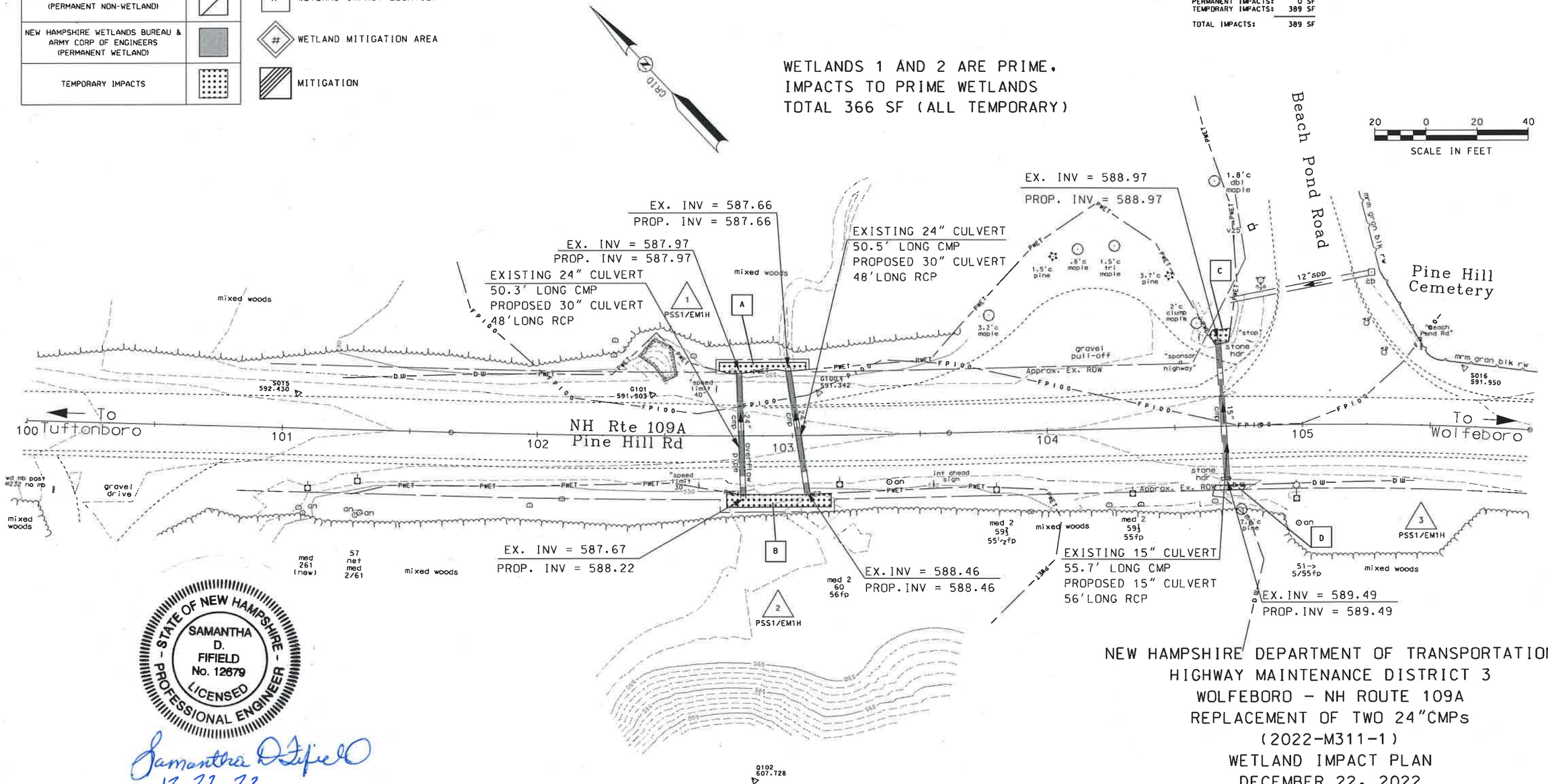
1) ALL TEMPORARY IMPACTS ARE LOCATED WITHIN THE PRESCRIPTIVE RIGHT-OF-WAY.

WETLAND IMPACT SUMMARY

WETLAND NUMBER	WETLAND CLASS-IFICATION	LOCATION	AREA IMPACTS						LINEAR STREAM IMPACTS FOR MITIGATION		
			PERMANENT				TEMPORARY		PERMANENT		
			N.H.W.B. (NON-WETLAND)		N.H.W.B. & A.C.O.E. (WETLAND)				BANK LEFT	BANK RIGHT	CHANNEL
			SF	LF	SF	LF	SF	LF	LF	LF	LF
1	PSS1/EM1H	A					122				
2	PSS1/EM1H	B					206				
1	PSS1/EM1H	C					38				
3	PSS1/EM1H	D					23				
		TOTAL					389				

PERMANENT IMPACTS: 0 SF
TEMPORARY IMPACTS: 389 SF
TOTAL IMPACTS: 389 SF

WETLANDS 1 AND 2 ARE PRIME.
IMPACTS TO PRIME WETLANDS
TOTAL 366 SF (ALL TEMPORARY)



Samantha D Fifield
12-22-22

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
HIGHWAY MAINTENANCE DISTRICT 3
WOLFEBORO – NH ROUTE 109A
REPLACEMENT OF TWO 24"CMPs
(2022-M311-1)
WETLAND IMPACT PLAN
DECEMBER 22, 2022

WETLANDS DELINEATED ON 10/21/2022
BY JOSHUA BROWN AND DEIDRA BENJAMIN

EROSION CONTROL PLAN LEGEND

PC	PERIMETER CONTROL
	SILT FENCE
	EROSION CONTROL MIX BERM
	EROSION CONTROL MIX SOX
	TURBIDITY CURTAIN
	SHEET PILE
	COFFER DAM
NB/PC	NATURAL BUFFER/PERIMETER CONTROL
	SILT FENCE
	EROSION CONTROL MIX BERM
	EROSION CONTROL MIX SOX
	TURBIDITY CURTAIN
	SHEET PILE
	COFFER DAM
CP	CHANNEL PROTECTION
	STONE CHECK DAMS
	STRAW WATTLES
	CHANNEL MATTING
	CLASS D EROSION STONE
	CLASS C STONE
CWB	CLEAN WATER BYPASS
	PUMP THROUGH PIPE
	DRAIN THROUGH PIPE OR CHANNEL

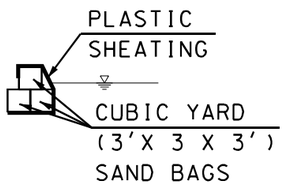
NOTES:

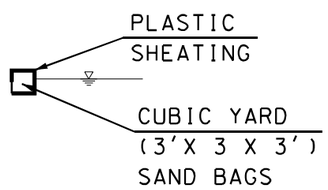
1) DUE TO SITE CONSTRAINTS, SEDIMENT BASINS CANNOT BE PLACED A MINIMUM OF 20-FEET FROM THE DELINEATED WETLANDS. THE BASINS SHALL BE PLACED AS FAR AWAY FROM THE DELINEATED WETLANDS AS PRACTICABLE.

2) A CLEAN WATER BYPASS IS NOT REQUIRED FOR PIPE REPLACEMENT; THESE ARE NOT STREAM CROSSINGS. HOWEVER, AS ONE IS REPLACED THE OTHERS SHALL FUNCTION AS CLEAN WATER BYPASS.

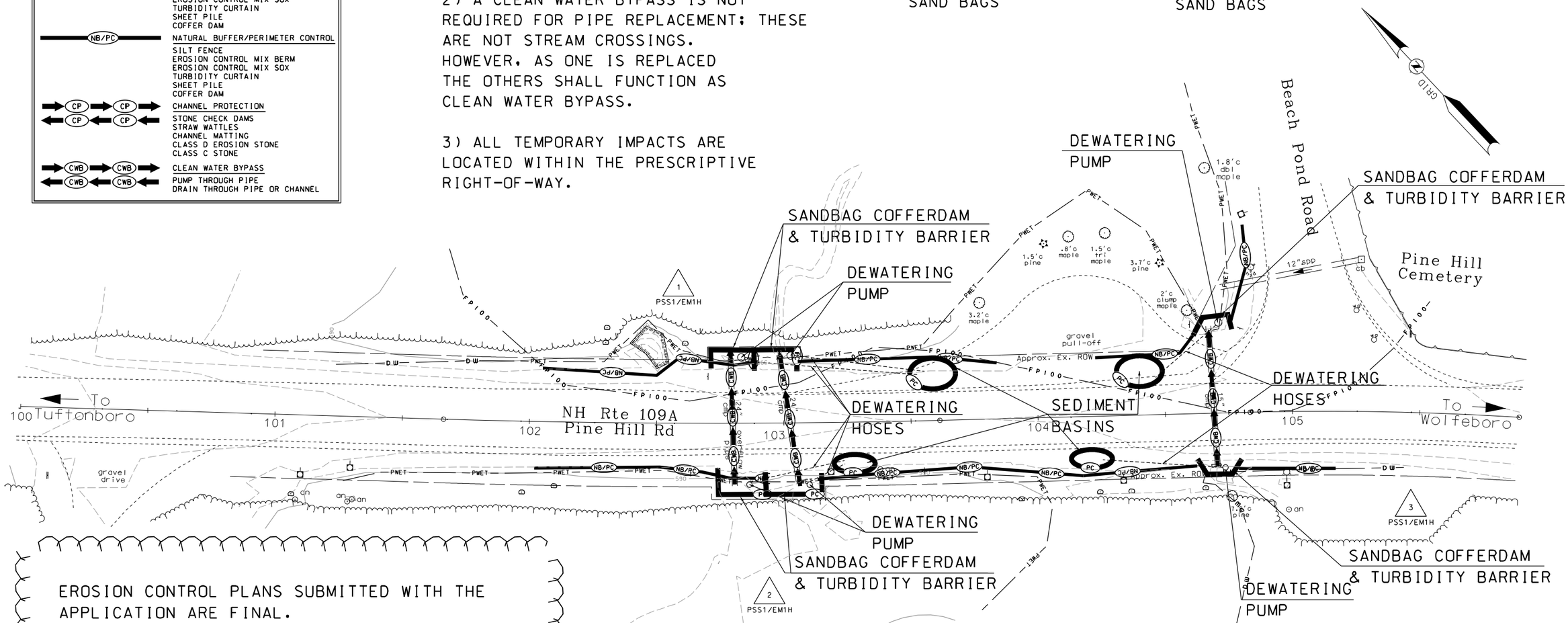
3) ALL TEMPORARY IMPACTS ARE LOCATED WITHIN THE PRESCRIPTIVE RIGHT-OF-WAY.

COFFERDAM TYPICALS





20 0 20 40
SCALE IN FEET



EROSION CONTROL PLANS SUBMITTED WITH THE APPLICATION ARE FINAL.

UPDATED PLANS WILL BE SUBMITTED TO NHDES PRIOR TO THE START OF CONSTRUCTION IF THE EROSION CONTROL STRATEGIES CHANGE FROM THOSE SHOWN ON THE SUBMITTED PLANS.

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
HIGHWAY MAINTENANCE DISTRICT 3
WOLFEBORO - NH ROUTE 109A
REPLACEMENT OF TWO 24"CMPs
(2022-M311-1)
EROSION CONTROL PLAN
JANUARY 5, 2023

Wolfeboro Culvert Replacement, #2022-M311-1

December 23, 2022

A letter from the NH Department of Transportation was sent to the Town of Wolfeboro, to include the Conservation Commission, on October 28, 2022. To date, no response has been received from the town, to include the Conservation Commission. A phonecall was also made on October 21, 2022 to a member of the Conservation Commission while at the Wolfeboro Town Hall conducting a Prime Wetlands file review and no response was received.

Arin Mills
Bureau of Environment
NHDOT

RE: Wetland Delineation Report:
Priority Resource Area
Wolfeboro, 2022-M311-1 CMP Replacement
Joshua Brown, NHDOT Bureau of Environment

Introduction:

On October 21, 2022 New Hampshire Department of Transportation (NHDOT) staff completed a site visit of the project area located along Route 109A just northwest of the intersection of Route 109A and Beach Pond Road in the Town of Wolfeboro, NH (the site). The site visit was completed by Joshua Brown (Wetlands Analyst), Deidra Benjamin (Environmental Coordinator/CWS) and Arin Mills (Senior Environmental Manager) to complete a wetland delineation and verify Priority Resource Areas located within the vicinity of the project. The New Hampshire Department of Environmental Services (NHDES) Wetlands Permit Planning Tool identified the potential for the headwaters of Harvey Brook (R4SBC), Peatland/Bog, and a Prime Wetland in the project area.

There are a total of three corrugated metal pipes (CMPs) that are proposed to be replaced due to severe deterioration leading to a risk of failure. In the northern section of the project area, there are two 24-inch CMPs, roughly 20-feet from one another, that are proposed to be replaced with 30-inch concrete pipes. In the southern portion of the project area, there is a single 15-inch CMP that is proposed to be replaced by a 15-inch concrete pipe.

Emergency work has previously been permitted by NHDES and taken place at the site in 2009 (NHDES # 2009-00649) after a different pair of CMPs failed (northern section of project area). The current scope of the project is to replace the CMPs with concrete pipes prior to needing an emergency authorization to prevent the same issue from occurring in the future as the pipes are submerged throughout the majority of the year.

Harvey Brook:

In the project area, the National Wetlands Inventory classifies the two northernmost pipes as carrying an intermittent stream (R4SBC) surrounded by scrub-shrub (PSS1E) and emergent (PEM1E) wetlands (Figure 1). During the wetland delineation, it was concluded that these pipes are functioning as equalizer pipes and is likely in the headwaters of what eventually becomes Harvey Brook further east of the project area. The water upstream and downstream is ponded and more diffuse with no clear evidence of banks or sediment transport in the vicinity of the project area. Evidence of this can be seen in the photo log section of this wetland's application.

For the reasons stated above, a stream crossing assessment is not required as no stream is in the project area per delineation. It's likely that the wetland on the southern portion of NH Route 109A and wetland on the northern portion were one wetland prior to construction of the road and the current culverts act as an equalizer between the wetland system.

Prime Wetland:

The wetlands adjacent to the project area are municipally Designated Prime Wetlands (Figure 2). DES records indicate that "Clow's Brook wetland complex" was approved for Prime Wetland Designation on April 13, 2000 under NHDES file number 1999-00487. Temporary impacts to Prime Wetlands require the project classified as major impact under Env-Wt 408.01. A functional assessment of the Prime Wetland was completed to determine key functions and values of the wetland (Attachment A) utilizing the Army Corps of Engineers Highway Methodology.

Due to the fact that the work is temporary, replacement pipes are a similar size, in the same location, and NHDOT District 3 will utilize proper BMP's for erosion control, NHDOT has determined that the project will not result in any significant net loss of any of the wetland value by the proposed project. The proposed project would be a minimum impact project and permitted under Routine Roadway 1 if not located within the Prime Wetland.

Bog/Peatland:

The NHDES Wetland Permit Planning Tool has identified the potential presence of a peatland at the site using the 2020 Wildlife Action Plan (WAP) GIS data (Figure 3). A bog, as defined by NHDES Env-Wt 102.30, is a wetland distinguished by stunted evergreen trees and shrubs, peat deposits, poor drainage, highly acidic soil conditions, highly acidic water conditions, or any combination thereof, as determined using "*Natural Communities of New Hampshire*", 2nd edition, published by UNH Cooperative Extension dated 2011.

Within the *Natural Communities in New Hampshire*, two types of major open peatlands are described: 1) bogs and poor fens 2) medium and rich fens.

From the two major groups, there are numerous subgroup types of bogs and fens that include species adapted for life in acidic conditions and typically are indicative of peatlands and bogs in NH such as: Sphagnum, Leatherleaf, Highbush Blueberry, Northern White Cedar, and Cranberry.

Furthermore, bogs have organic soils primarily made up of Peat, or fibric material. Due to the slow breakdown of carbon, soils are typically acidic and support specific plant communities such as the ones outlined above.

A delineation in the immediate area of the site was completed by Joshua Brown, Deidra Benjamin (CWS), and Arin Mills in accordance with the methodology outlined in Env-Wt 406, which took into consideration soil indicators, surrounding vegetation, and hydrology. The vegetation within the project is dominate by Lake sedge, cat-tail, Speckled alder and Winterberry with other species to include American elm, Bullrush, Glossy Buckthorn, Purple Loosestrife, Red Maple, Red Osier Dogwood, Royal Fern, Meadowsweet, and Goldenrod. The wetland within the limit of work lacks the vegetation species composition dominant in bogs as described in the *Natural Communities of NH* publication. Soils were identified using an auger as the high-water table did not allow for a full soil test pit to be dug in the saturated conditions. The soil profile consisted of about 20+" of organic layer comprised of ~6" of fibric material over ~6+" of hemic material followed by fine sandy loam. No sphagnum mat is present in the project area.

Through the delineation, the area adjacent to the site was classified as a Palustrine Scrub-shrub, Broad-Leaved Deciduous, Emergent, Persistent, semipermanently flooded (PSS1/EM1F) wetland. It was determined, based on field evidence, the project area is not within a peatland or bog as defined by NHDES or the *NH Natural Communities*. A photo log of the project area is included in this report.

Conclusion:

After delineating the project area, it has been concluded that the project area is a designated Prime Wetland, classified in the field as a palustrine, scrub-shrub, emergent wetland that is semipermanently flooded/saturated. There is no presence of bog/peatland vegetation, and these culverts are not carrying a stream. NHDOT is submitting this as a full standard dredge and fill permit application with classification of major under Env-Wt 408.01 - Projects in Priority Resource Areas due to the presence of the Prime Wetland.

Though this project is not being permitted under the Env-Wt 900 - Stream Crossing Rules, the culverts in this location have no history of causing or contributing to flooding and the two northern pipes are being slightly upsized to enhance connectivity and address items under Env-Wt 904.01 - General Design Considerations. All pipes will be replaced with a more appropriate material (concrete) to prevent future deterioration, which will lead to less future impacts on the Prime Wetland over the long term.

Photographic Log

Photo 1: *Inlet area for eastern most pipe (looking Northeast).*

Photo 2: *Outlet area for the eastern most pipe (looking Southwest).*

Photo 3: *Inlet area of western most pipe (looking Northeast).*

Photo 4: *Outlet area of the western most pipe (looking Southwest).*

Photo 5: *View of the wetland area southwest of the road.*

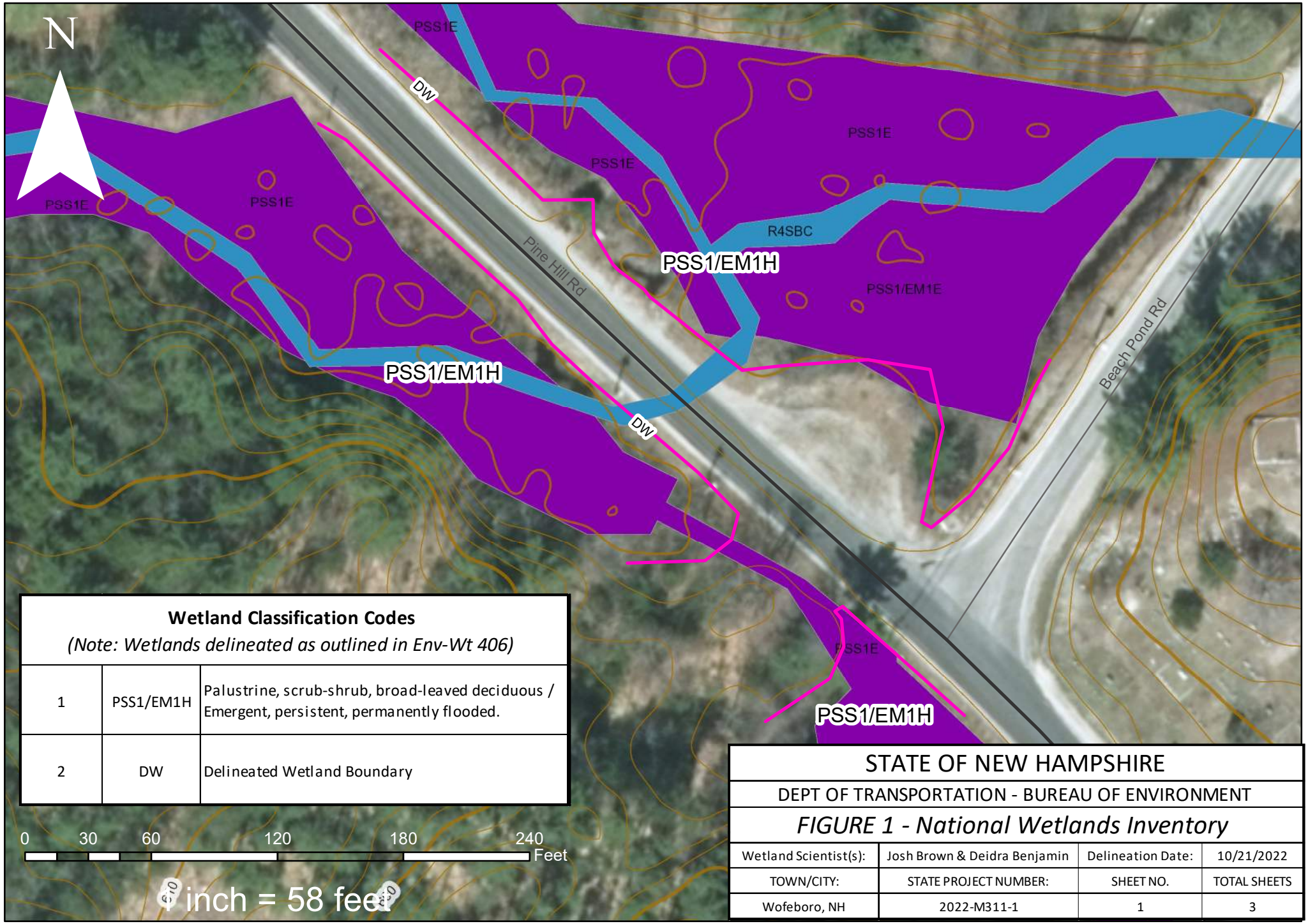
Photo 6: *View of the wetland area northeast of the road.*

Photo 7: *Photo showing ponded condition at the outlet.*

Photo 8: *Photo showing ponded condition at the inlet.*

Figures

Wolfeboro, 2022-M311-1



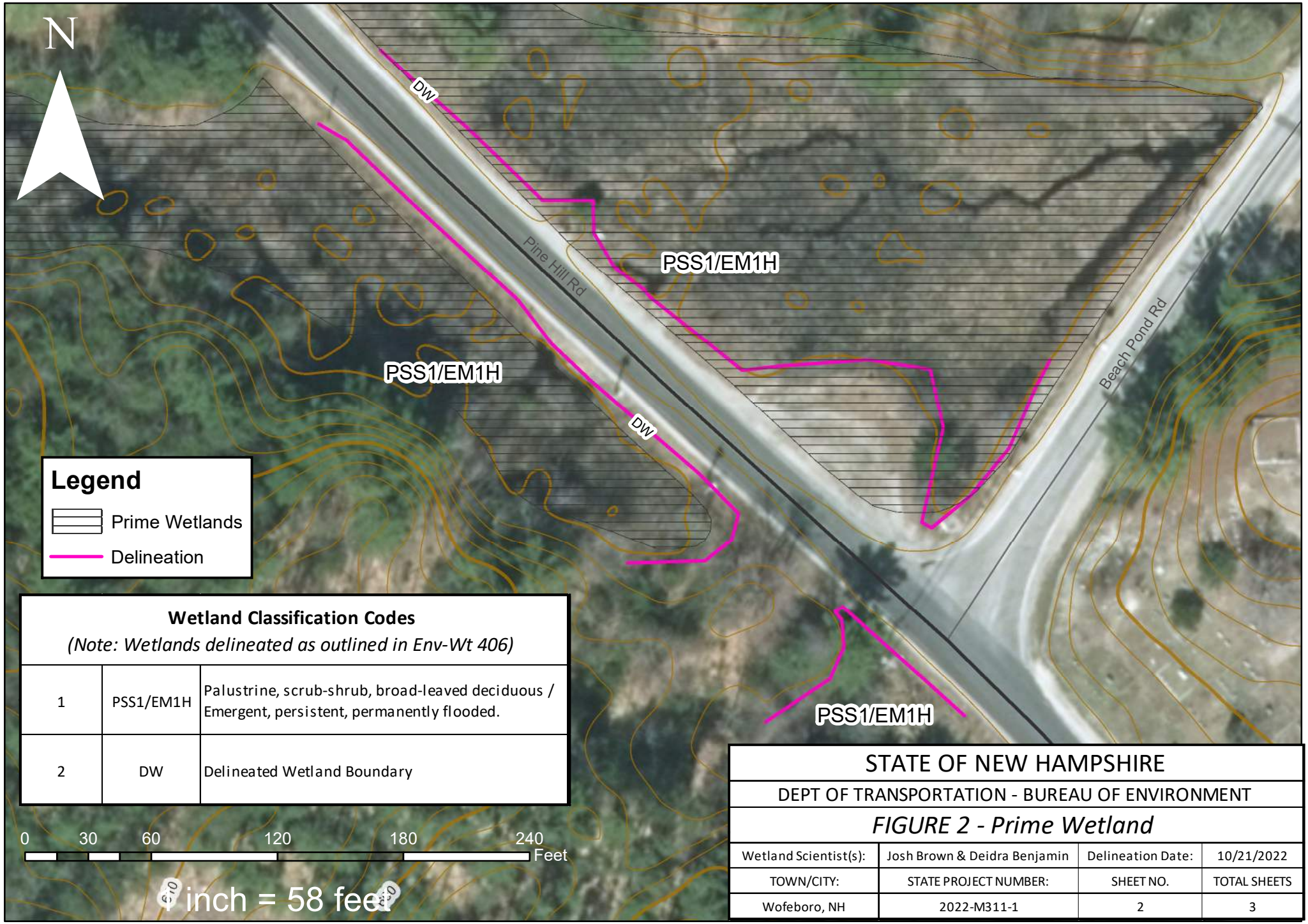
Wetland Classification Codes (Note: Wetlands delineated as outlined in Env-Wt 406)		
1	PSS1/EM1H	Palustrine, scrub-shrub, broad-leaved deciduous / Emergent, persistent, permanently flooded.
2	DW	Delineated Wetland Boundary

0 30 60 120 180 240 Feet

1 inch = 58 feet

STATE OF NEW HAMPSHIRE			
DEPT OF TRANSPORTATION - BUREAU OF ENVIRONMENT			
FIGURE 1 - National Wetlands Inventory			
Wetland Scientist(s):	Josh Brown & Deidra Benjamin	Delineation Date:	10/21/2022
TOWN/CITY:	STATE PROJECT NUMBER:	SHEET NO.	TOTAL SHEETS
Wofeboro, NH	2022-M311-1	1	3

Wolfeboro, 2022-M311-1



Wetland Classification Codes

(Note: Wetlands delineated as outlined in Env-Wt 406)

1	PSS1/EM1H	Palustrine, scrub-shrub, broad-leaved deciduous / Emergent, persistent, permanently flooded.
2	DW	Delineated Wetland Boundary

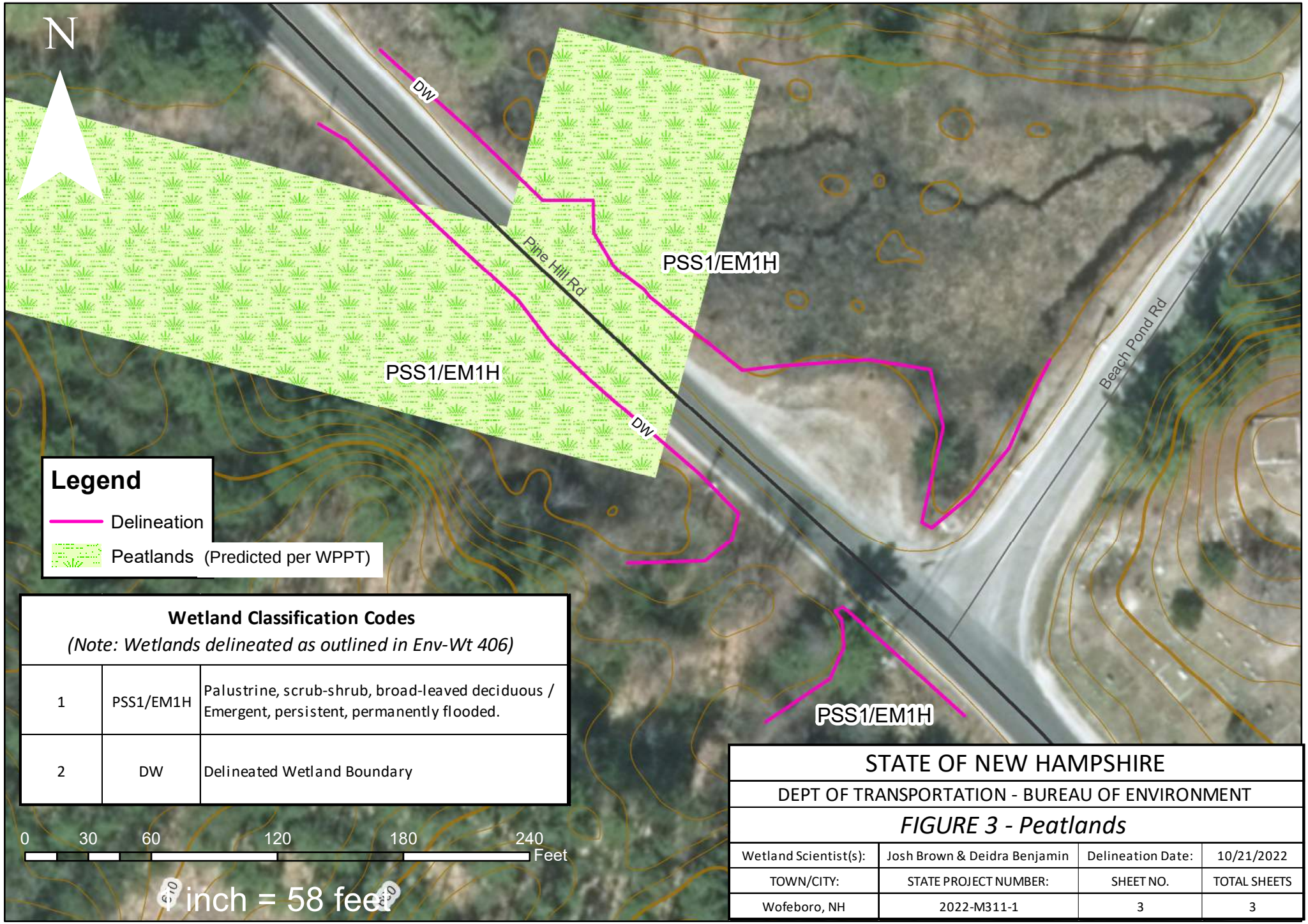
STATE OF NEW HAMPSHIRE

DEPT OF TRANSPORTATION - BUREAU OF ENVIRONMENT

FIGURE 2 - Prime Wetland

Wetland Scientist(s):	Josh Brown & Deidra Benjamin	Delineation Date:	10/21/2022
TOWN/CITY:	STATE PROJECT NUMBER:	SHEET NO.	TOTAL SHEETS
Wofeboro, NH	2022-M311-1	2	3

Wolfeboro, 2022-M311-1



Wetland Classification Codes

(Note: Wetlands delineated as outlined in Env-Wt 406)

1	PSS1/EM1H	Palustrine, scrub-shrub, broad-leaved deciduous / Emergent, persistent, permanently flooded.
2	DW	Delineated Wetland Boundary

STATE OF NEW HAMPSHIRE

DEPT OF TRANSPORTATION - BUREAU OF ENVIRONMENT

FIGURE 3 - Peatlands

Wetland Scientist(s):	Josh Brown & Deidra Benjamin	Delineation Date:	10/21/2022
TOWN/CITY:	STATE PROJECT NUMBER:	SHEET NO.	TOTAL SHEETS
Wofeboro, NH	2022-M311-1	3	3

Attachment A

ACOE Wetland Functions and Values

Wetland Function-Value Evaluation Form

Total area of wetland: 3.02 Ac. | Human made? No | Is the wetland part of a wildlife corridor? No | Or a "habitat island"? No

Adjacent land use: Road/Residential | Distance to nearest roadway or other development: Adjacent

Dominant wetland system present: PSS1/EM1H | Contiguous undeveloped buffer zone present: No

Is the wetland a separate hydraulic system? No | If not, where does the wetland lie in the drainage basin? Middle

How many tributaries contribute to the wetland? 1 | Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D.: Wetland A

Latitude: 43.6087 | Longitude: -71.214616

Prepared by: JRB | Date: 10/21/2022

Wetland Impact:

Type: Temp/Perm | Area: Unknown

Evaluation based on:

Office: Yes | Field: Yes

Corps manual wetland delineation Completed? Y: X | N:

Function / Value	Suitability Y / N	Rationale (Reference #)*	Principal Function(s)/ Value(s)	Comments
Groundwater Recharge/Discharge	Yes	1, 2, 4, 5, 7, 8, 11, 12	No	There are no PWS in the area & Wolfeboro gets its drinking water from Upper Beech Pond, which is approximately 2.5 miles away from the site.
Floodflow Alteration	Yes	5, 6, 7, 8, 9, 10, 11, 17, 18	No	The wetland adjacent to the project area is roughly 3 ac. While the HUC12 watershed size is roughly 37,000 ac. Or less than 1 percent.
Fish and Shellfish Habitat	Yes	1, 2	No	The project area functions more as an equalizer pipe and flow is more diffuse.
Sediment/Toxicant Retention	Yes	2, 3, 4, 5, 6, 7, 8, 9	Yes	This wetland is diffuse with a lot of emergent vegetation and roughly 2' of organic soil suggesting it would be effective at toxicant retention.
Nutrient Removal	Yes	3, 4, 5, 6, 7, 8, 9, 10, 11	Yes	This wetland is diffuse with a lot of emergent vegetation and roughly 2' of organic soil suggesting it would be effective at nutrient removal.
Production Export	Yes	1, 2, 4, 5, 7, 8, 10, 11, 12, 14	No	High plant diversity, however there is no evidence that anything is exported from this wetland.
Sediment/Shoreline Stabilization	No	3, 5	No	This is a diffuse wetland with very slow moving water and not perennial stream in the project area.
Wildlife Habitat	Yes	5, 6, 7, 8, 9, 11, 13, 14, 15, 17, 18, 19, 20, 21	Yes	Wetland is designated as a Prime Wetland and thus it is required in the RSA that one of its major functions be wildlife habitat.
Recreation	No	3, 5	No	The wetland has limited parking and very deep organic soil making it difficult to navigate and unsuitable as a recreational area.
Educational/Scientific Value	No	3, 5	No	There is a lack of parking and though a few wetland classes are evident, this was not considered a primary function.
Uniqueness/Heritage	Yes	4, 5, 6, 12, 15, 18, 19, 27, 28	Yes	Designated in town wetland conservation overlay district'
Visual Quality/Aesthetics	Yes	1, 3, 4, 5, 9	No	The wetland is primarily a scrub-shrub wetland with limited views through the wetland.
ES Endangered Species Habitat	No		No	NHB determined there were no protected species in the project area.
Other				

Notes:

* Refer to backup list of numbered considerations.