STATE OF NEW HAMPSHIRE
INTER-DEPARTMENT COMMUNICATION

DATE: July 18, 2022

FROM: Joshua Brown
Wetlands Program Analyst

AT (OFFICE): Department of Transportation
Bureau of Environment

SUBJECT Dredge & Fill Application
Troy, 43900

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 Bureau of Bridge Maintenance for the subject major impact project. The project is located along Mill Street in the Town of Troy, NH. The proposed work includes replacing the existing reinforced concrete bridge deck curb, and guardrail; repointing the existing stone abutments; and installing riprap in front of the abutments for protection of existing infrastructure.

This project was reviewed at the Natural Resource Agency Coordination Meeting on May 18, 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 as the proposed work is for the protection of existing infrastructure and was determined to be self-mitigating.

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

A payment voucher has been processed for this application (Voucher #688866) in the amount of $826.00.

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.

JRB;
cc:
BOE Original
Town of Troy (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)

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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:** Troy

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? o If yes, species or habitat name(s): o NHB Project ID #: NHB22-1247	☐ 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): 5,056 acres	

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.

The purpose of this project is to perform bridge maintenance activities at Br. No. 101/088 which carries Mill Street over a mill tail race, associated with the former Troy Blanket Mill, of the South Branch Ashuelot River in Troy. The existing structure is a 10' high x 24' wide x 28' long single span concrete slab bridge. The bridge was constructed in 1936 and lengthened in approximately 1991 from it's original 21'.

The proposed work includes replacing the exisitng reinforced concrete bridge deck, curb, and guardrail; repointing the existing stone abutments; installing rip rap in front of the existing abutments for infrastructure protection; and guardrail replacement. All proposed work is within the State right-of-way.

SECTION 3 - PROJECT LOCATION

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

ADDRESS: Mill Street

TOWN/CITY: Troy, NH

TAX MAP/BLOCK/LOT/UNIT: N/A

US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: South Branch Ashuelot River
☐ N/A

(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places): 42.827092° North
-72.178388° 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		
MAILING ADDRESS: PO Box 483		
TOWN/CITY: Concord	STATE: NH	ZIP CODE: 03302
EMAIL ADDRESS: timothy.m.boodey@dot.nh.gov		
FAX: N/A	PHONE: 603-271-3667	
ELECTRONIC COMMUNICATION: By initialing here: ____, 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:		
MAILING ADDRESS:		
TOWN/CITY:	STATE:	ZIP CODE:
EMAIL ADDRESS: Andrew.O'Sullivan@dot.nh.gov		
FAX:	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):
Env-Wt 400: The wetlands were delineated by Matt Urban, NHDOT Operations Section Chief and former NHDOT Wetlands Program Manager, and Sarah Large, former NHDOT Wetlands Program Specialist on 12/5/16 and verified by Matt Urban and Josh Brown, NHDOT Wetlands Program Specialist, on 4/12/22.

Env-Wt 500: The project meets the requirements of public highway projects.

Env-Wt 600: Not applicable, no tidal wetlands within the project area.

Env-Wt 700: Not applicable, no prime wetlands within the project area.

Env-Wt 900: This project includes repairs to a Tier 3 crossing to extend the life of the bridge. The project adheres to the criteria set forth in 904.01 General Design Criteria; 904.02 Conditions Applicable to All Stream Crossing Work; 904.05 Tier 3 Stream Crossing; and 904.09 (c) (1) the existing structure does not have a history of causing or contributing to flooding that damages the crossing or other human infrastructure or protected species habitat; and (2) the proposed crossing will (a) meet the general cirteria specified in Env-Wt 904.01; (b) maintain or enhance hydraulic capacity of the stream crossing; (c) maintain or enhance the capacity of the crossing to accommodate aquatic organism passage; (d) maintian or enhance the connectivitiy of the stream reaches upstream or downstream of the 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: 05 Day: 18 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			☐			☐
	Emergent Wetland			☐			☐
	Wet Meadow			☐			☐
	Vernal Pool			☐			☐
	Designated Prime Wetland			☐			☐
	Duly-established 100-foot Prime Wetland Buffer			☐			☐
Surface Water	Intermittent / Ephemeral Stream			☐			☐
	Perennial Stream or River	160	26	☐	1352	58	☐
	Lake / Pond			☐			☐
	Docking - Lake / Pond			☐			☐
	Docking - River			☐			☐
Banks	Bank - Intermittent Stream			☐			☐
	Bank - Perennial Stream / River			☐	553	58	☐
	Bank / Shoreline - Lake / Pond			☐			☐
Tidal	Tidal Waters			☐			☐
	Tidal Marsh			☐			☐
	Sand Dune			☐			☐
	Undeveloped Tidal Buffer Zone (TBZ)			☐			☐
	Previously-developed TBZ			☐			☐
	Docking - Tidal Water			☐			☐
TOTAL		160	26		**1905**	**116**	

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):	2065 SF	× $0.40 =	$ 826.0
Seasonal docking structure:	SF	× $2.00 =	$
Permanent docking structure:	SF	× $4.00 =	$
Projects proposing shoreline structures (including docks) add $400 =			$
Total =			$

The application fee for minor or major impact is the above calculated total or $400, whichever is greater = $ 826.0

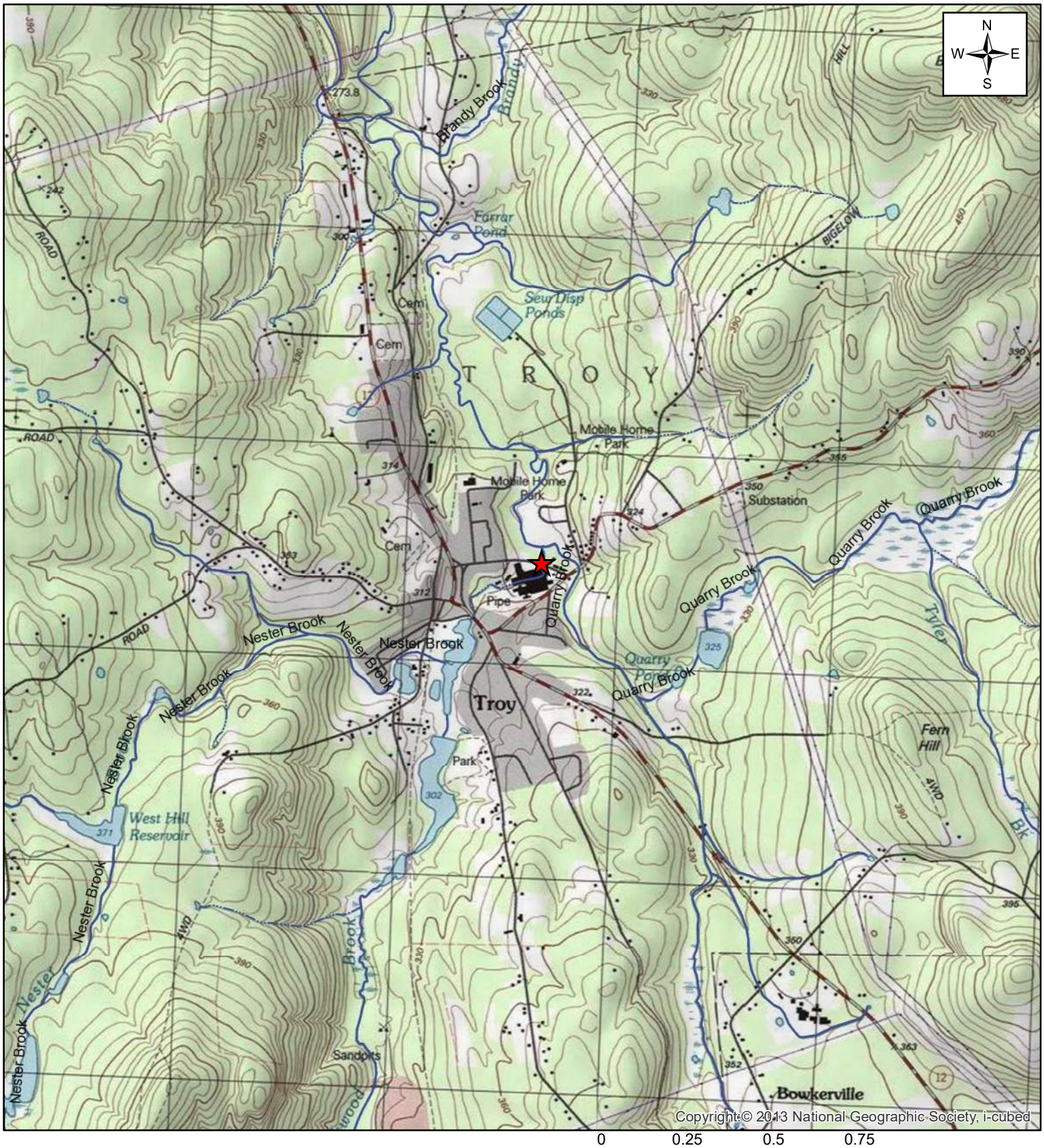
SECTION 13 - PROJECT CLASSIFICATION (Env-Wt 306.05) Indicate the project classification.		
☐ Minimum Impact Project	☐ Minor Project	☒ Major Project

SECTION 14 - REQUIRED CERTIFICATIONS (Env-Wt 311.11)	
Initial each box below to certify:	
Initials: TMB	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials: TMB	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: TMB	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: TMB	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): Timothy Boc dey	PRINT NAME LEGIBLY: Timothy Boc dey	DATE: 7/15/22
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
TOWN/CITY:	DATE:

Troy, 43900



0 0.25 0.5 0.75 Miles

Legend

Project_Location

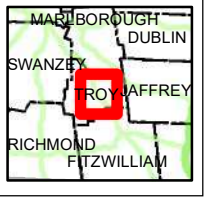
Map depicting bridge101/088 on Mill Street over a mill tail race of South Branch Ashuelot River

1:24,000

Map created by: K. Ryan on 3/23/22

Source: S:\Environment\PROJECTS\Troy\43900

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:** Troy

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.

THERE IS NO PRACTICABLE ALTERNATIVE THAT WOULD MEET THE PURPOSE OF THE PROJECT AND HAVE LESS OF AN ADVERSE IMPACT ON THE AREA AND ENVIRONMENTS UNDER THE DEPARTMENTS JURISDICTION.

TO DO NOTHING WOULD INCREASE THE RISK OF DETERORIATION OF THE CROSSING TO A DEGREE THAT REPAIR IS NO LONGER AN OPTION THUS REQUIRING A FULL REPLACEMENT. A FULL REPLACEMENT WOULD RESULT IN AN INCREASE IN COST AND AN INCREASE OF IMPACTS TO ENVIRONMENTS TO AREAS UNDER THE DEPARTMENTS CONTROL.

TO DO NOTHING WOULD INCREASE THE RISK OF FAILURE AT THE CROSSING AND INCREASE THE RISK TO THE TRAVELLING PUBLIC AND POSSIBLY REQUIRE A ROAD CLOSURE.

REPLACING THE BRIDGE DECK, INSTALLING RIP RAP AND REPOINTING THE STONE ABUTMENT WILL PROTECT THE CROSSING FROM DETERIORATION AND ALLOW THE CROSSING TO CONTINUE TO FUNCTION.

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.

N/A This project does not impact marshes.

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 crossing provides a hydrologic connection between the upstream and downstream channels of South Branch Ashuelot River and the hydrologic connection will remain the same post construcution.

The proposed project will neither result in realignment of the structure nor result in a change in hydraulic connection or flood storage capacity. The existing structure passess the 100-year storm event and the proposed work will not alter the ability of the structure to pass the 100-year storm event. During construction, a cofferdam will be placed around one of the existing abutments which will be repointed and will have rip rap protection installed. Once complete, the sandbag cofferdam will be removed and installed around the remaining abutment and the process repeated (ie the abutment will be repointed and rip rap protection will be installed). During each of these phases, the stream flow will be maintained through the remainder of the channel that is not cofferdamed off. The stream will flow through the crossing and the hydrologic connection will be maintained during in stream work. When the abutment work is complete, the sandbag cofferdam will be removed. Pipe staging will be installed in the channel for the deck replacement. While the pipe staging is in place, the stream will continue to flow through the exisiting channel. The pipe staging will be removed after the deck is replaced. The structure is not perched and will remain unperched post construction. There is a municipal water line immediately down stream of the structure that will not be affected by the project. Post construction, the stream will maintain the hydrologic connection as it is today.

This project will result in 26 lf of permanent channel impacts for the installation of rip rap and 1,905 lf of temporary bank and channel impacts for access, staging, and sandbag cofferdams. Repointing the existing stone abutments and installing rip rap will not alter the hydraulic connection of the riverine system.

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.

The project has been designed in accordance with Env-Wt 400, 500, and 900. Impacts to wetland resources have been minimized to the extent practicable. Jurisdictional impacts have been limited while improving the integrety of the structure.

A review of the Natural Heritage Bureau Database, NHB22-1247, did not identify rare species or exemplary natural communities near the project area.

An Official Species List, Project Code 2022-0026354, was obtained from the USFWS using the Information for Planning and Consultation tool. The northern long-eared bat (threatened species) and monarch butterfly (candidate species) were identified on the list. The project was reviewed using the USFWS 4(d) Rule and it was determined the proposed action is not likely to result in unauthorized take of the northern long-eared bat. The candidate status of the monarch butterfly does not provide protection under the Endangered Species Act, and no further coordination with the USFWS is necessary for the monarch butterfly.

This stream is not a documented cold water stream and NHFG commented during the May Agency Meeting this is a warm water stream at this location. The project will utilize sandbag cofferdams around the abutments during construction and water will be allowed to flow through the remainder of the channel, outside of the cofferdam, during construction.

All work, including daily removal of plant material from construction equipment, will be conducted in accordance with the Department's best management practices for the control of invasive species.

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.

Traffic will continue to flow on Mill Road during construction, allowing public travel. The bridge deck will be replaced one half at a time, ensuring a 12.5' travel lane during each phase to allow traffic to flow through the area utilizing alternating one-way traffic. Mill Road is not a major trucking route, and therefore it is not anticipated commerce will be impacted by the proposed project. In addition, Mill Street is accessable from NH Route 12 and from Mondanock Street, allowing for the travellign public to access Mill Street from either the west or the east to avoid passing through the project area. The site is located in a village center at a former blanket mill and is not suitable recreation area and therefore the level of impact to recreation will be minimal to none.

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 area is located within a FEMA 100-year flooodplain. The proposed action is a maintenance project and does not have a significant adverse impact on floodplain values or create a significatnt risk to human life or property.

The palustrine forested wetlands near the crossing at the outlet provide potential flood flow attenuation. Impacts to this area is not proposed as a part of this project and therefore the project will not impact flood flow attenuation.

The proposed design matches the existing flow condition to the maximum extent practicable.

There is no history of flooding at this crossing. The existing structure passes the 100-year storm event and the proposed work does not change the ability of the structure to pass the 100-year storm event.

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.

A palustrine forested wetlands is near the stream at the outlet side of the structure. Impacts to this area is not proposed as a part of this project.

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.

The proposed project is not anticipated to impact wetlands that would be detrimental to adjacent drinking water supply and groundwater aquifer levels. A review of the DES OneStop Database did not identify public water supply wells in the project area and an aquifer transmissivity was identified. The proposed project is a bridge maintenance project in order to maintain exisitng infrastructure and will include minimum excavation. The project will utilize best management practices throughout the construction in order to protect surrounding resources and maintain water quality. These best management practices will be maintianed throughout construction and remain in place until distrubed areas are permanently stabilized. Fueling and maintenance of equipment will take place in upland areas away from the stream.

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.

Impacts to stream have been minimized and avoided where possible. Some disturbance of the stream channel will be necessary for the installation of the rip rap, temporary cofferdams, and temporary staging. The project will result in 26 lf of permanent channel impacts and 1,352 lf of temporary channel impacts for this work.

In water work during construction will utilize a cofferdam around the abutments, one at a time, allowing the stream to flow under the remaining portion of the bridge which is not cofferdamed off.

The stream channel will continue to capture, contain, and convey stormwater runoff in the same manner as it does today. The surrounding landscape topography will not be changed as a result of this project, therefore stormwater runoff will enter the stream system the same way it currently does.

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.

N/A This project does not involve shoreline structures.

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.

N/A This project does not include any shoreline structures.

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.

All work will be within the State right-of-way and will not impact the abutting landowners use of their property.

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.

The bridge deck will be installed one half at a time and leave a 12.5' travel lane open during the construction allowing traffic to flow through the area utilizing alternating one way traffic. In addition, Mill Street is accessible from NH Route 12 to the west and Monadnock Street to the east, thereby making Mill Street accessible while avoiding the project area.

The proposed action does not require a US Coast Guard Bridge Permit. The proposed action is bridge maintenance project and will not alter the clearances, type of structure, or any integral part of the sustructure or superstructures or navigtion conditions and the waterway is not navigated other than by logs, log rafts, rowboats, canoes, and small motorboats.

Impacts to recreation areas are not anticipated as a result of this project. A review of the NH GraniteVie database did not identify places of interest, reacreation points, reacreation areas, or trails within the project area. In addition, this project is located in a village center at a former mill.

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.

This project does not proposed shoreline structures.

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.

This project does not propose shoreline structures.

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: Per RSA 310A:79-Exemption III, Sarah Large, former NHDOT Wetlands Specialist performed the original delineation 10/2016. This delineation was verified by Kerry Ryan, NHDOT Environmental Manager, on 4/12/22 using ACOE Methodology. No changes were noted.
NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT: N/A
DATE OF ASSESSMENT: N/A
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.

BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting
DATE OF CONFERENCE: May 18, 2022
LOCATION OF CONFERENCE: Virtual meeting held via Zoom

ATTENDED BY:

NHDOT
Andrew O'Sullivan
Matt Urban
Jon Evans
Joshua Brown
Arin Mills
Tim Boodey
Kerry Ryan
Mike Dugas
Amanda Zatecka

ACOE
Absent

EPA
Jean Brochi

NHDES
Karl Benedict
Lori Sommer
Christian Williams
Eben Lewis
Kevin Lucey

NHB
Jessica Bouchard

NH Fish & Game
John Magee

Federal Highway
Jamie Sikora

The Nature Conservancy
Pete Steckler

Consultants/ Public Participants
Christine Perron
Mark Debowski
Tim Whitney

PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH: *(minutes on subsequent pages)*

Table of Contents:

Lori stated no mitigation is required for protection of existing infrastructure.

John M asked about the timing of the project and Tim stated likely fall/early winter. John said based on the photos and existing site conditions (areas of scour and deep water) it is unlikely EBT would spawn in the area where work is proposed, and a time-of-year restriction is not warranted. He concurred a cross section would be beneficial in the application. A discussion related to EBT spawning, and John stated ideally to protect EBT spawning it is best if the work be done before October 1st or exclusion of the work area is installed in the stream, such as silt boom or cofferdam, ahead of spawning to prevent eggs from being laid in the streambed. Also, to allow for passage of spawning fish a portion of the stream remain free flowing is preferred during spawning (Oct 1st to March 31st).

Jeanie Brochi had no comments.

Jessica Bouchard was not present.

Pete provided an explanation of the wildlife corridor data, and how the 'coarseness' of the data used to develop corridors may not definitively depict all corridors and connections of highest ranked habitat in the WAP. He does not have concerns relating to corridor connectivity for this project.

Troy, 43900 (Non-fed):

Kerry Ryan, NHDOT Environmental Manager gave an overview of the project which is a state funded bridge maintenance project located at br. No. 101/088 which carries Mill Street over the South Branch Ashuelot River in Troy. The existing structure is a 10' high x 24' wide x 28' long single span concrete slab bridge located in the village center. This bridge is located at the mill tail race associated with the former Troy Blanket Mill. The crossing was described as a tier 3 crossing. The history of the bridge was described as being constructed in 1936 and widened in 1991. Photos of the project area were shown and included views from the roadway, inlet, outlet, and former Troy Blanket Mill.

Tim Boodey, NHDOT Bridge Maintenance Senior Engineer, described the purpose of the proposed project as being to protect the existing abutments from scour, replace the existing concrete bridge deck, repoint the existing stone abutments, and install rip rap in front of the existing abutments. He stated the bridge will not be widened and will be installed on the existing footprint. Wetland impact plans showing permanent and temporary impacts, wetland impact table, construction sequence, and hydraulics were described.

K. Ryan described resources in the area as being a tier 3 crossing with no previous permits identified, not in a designated river buffer, having a PRA in the area which will not be impacted, not identified as highest ranked habitat or supporting landscape on the Wildlife Action Plan, no conservation land in the area, in a FEMA 100-year floodplain, not a documented cold water stream, no species identified on the NHB report, not essential habitat, no potential to cause effects on cultural resources, and not a wildlife crossing.

Karl Benedict, NHDES, stated a cross section should be included in the application, the length of proposed linear feet on the wetland impact plan should be confirmed as the impact table shows 26 LF but there are impacts at both abutments, temporary impacts for access and pipe staging should be shown, flood plain fill (of any) should be considered, hydraulics details should be included, and to address invasive species management. T. Boodey said the temporary impacts are shown on the plan. Matt Urban, NHDOT, confirmed that when measuring LF of channel, even though impacts are shown on both sides, it is still just one channel which should not be counted twice and therefore just one length should be measured. K. Benedict stated that is a fair calculation but just to confirm the number.

Lori Sommer, NHDES, stated the rip rap is going to protect existing infrastructure so no mitigation would be required.

John Magee, NHFG, had no comments and that this is a warm water stream at this location.

Jessica Bouchard, NHB, had no comments.

Jeanie Brochi, EPA, asked if Section 106 historic review would be done because the mill was used previously and there could be artifacts and that this is more a of Corps. related comment. T. Boodey stated that due to the widening in the 1990's, this area has already been disturbed.

- Note: The project complies with the Section 106 Programmatic Agreement included elsewhere in this application.

Pete Steckler, NC, had no comments

Hampton-Portsmouth, 26485 (X-A003(355)):

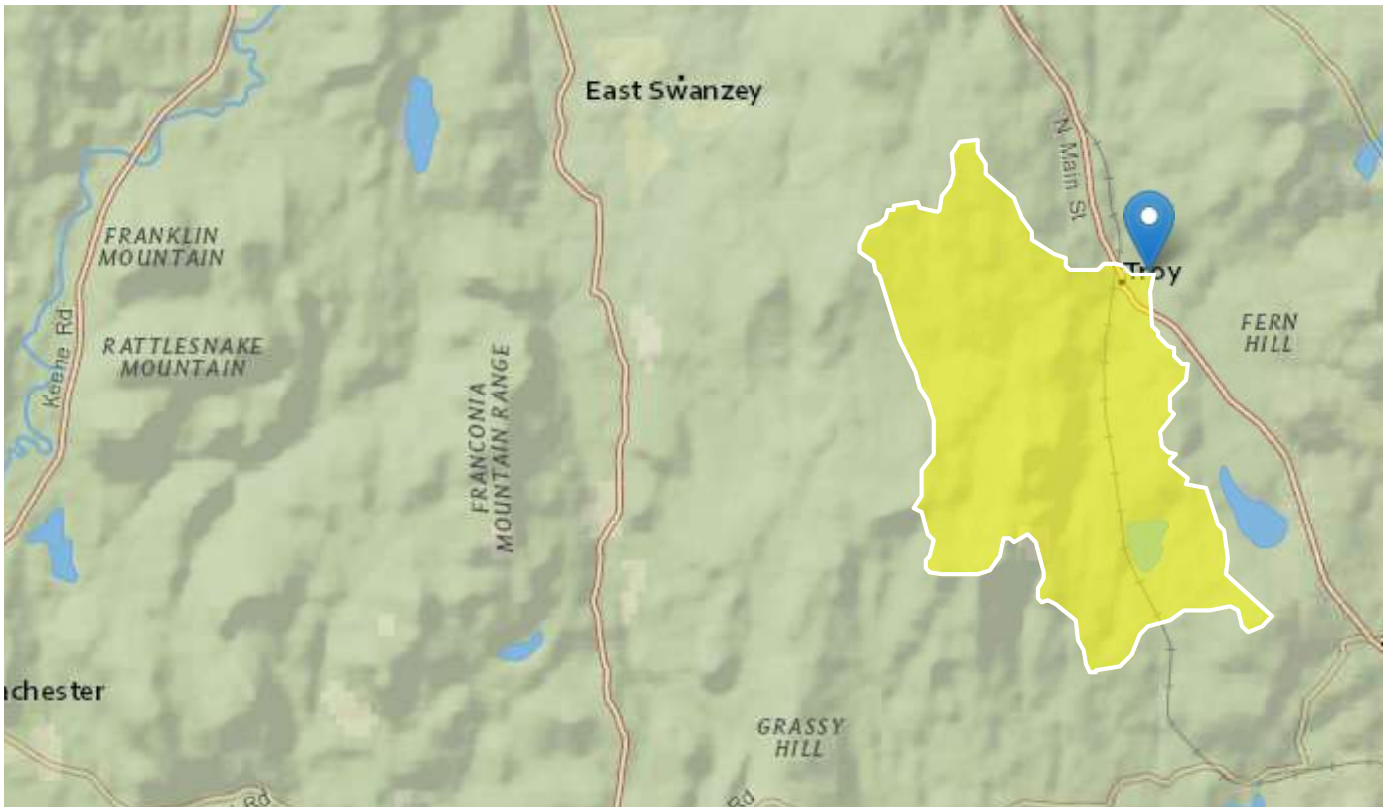
Christine Perron reviewed the project, which involves improvements to a rail trail and is funded under the Federal CMAQ (Congestion Mitigation & Air Quality Improvement) Program. The project was first introduced at the September 2021 Natural Resource Agency Meeting. The purpose of today's meeting was to provide a summary of preliminary wetland impacts and to obtain input on mitigation requirements and other resource concerns.

The corridor consists of just under 10 miles of the Hampton Branch Rail Corridor, recently purchased by NHDOT from Pan Am Railways, beginning at the southern terminus about 1,000 feet north of Drakeside Road in Hampton and continuing north-northeast to the northern terminus at Barberry Lane in Portsmouth. The project is being designed by Greenman-Pedersen Inc (GPI), and McFarland Johnson Inc (MJ) is completing the environmental review. At the September 2021 meeting, there was discussion about the potential for the Department to split the corridor into two separate projects due to more design time needed to address drainage issues in Hampton. That split has now been approved, with the first project being 8.1 miles north of the Hampton-North Hampton town line, and the second project consisting of the portion in Hampton. The focus of today's discussion will be only for Segment 1.

The first project, segment 1 of the corridor, is currently scheduled to advertise in early November 2022. The wetland permit application will be submitted within the next month. Segment 1 will be

StreamStats Report

Region ID: NH
Workspace ID: NH20220418135639796000
Clicked Point (Latitude, Longitude): 42.82698, -72.17837
Time: 2022-04-18 09:57:02 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
APRAVPRE	Mean April Precipitation	3.851	inches
BSLDEM30M	Mean basin slope computed from 30 m DEM	8.969	percent
CONIF	Percentaqe of land surface covered by coniferous forest	17.8798	percent
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	75.7	feet per mi
DRNAREA	Area that drains to a point on a stream 5,056 acres	7.9	square miles

Parameter Code	Parameter Description	Value	Unit
ELEVMAX	Maximum basin elevation	1883.048	feet
MIXFOR	Percentage of land area covered by mixed deciduous and coniferous forest	24.429	percent
PREBC0103	Mean annual precipitation of basin centroid for January 1 to March 15 winter period	8.11	inches
PREG_03_05	Mean precipitation at gaging station location for March 16 to May 31 spring period	9.3	inches
PREG_06_10	Mean precipitation at gaging station location for June to October summer period	18.5	inches
TEMP	Mean Annual Temperature	43.817	degrees F
TEMP_06_10	Basinwide average temperature for June to October summer period	59.688	degrees F
WETLAND	Percentage of Wetlands	5.9962	percent

Seasonal Flow Statistics Parameters [Low Flow Statewide]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	7.9	square miles	3.26	689
CONIF	Percent Coniferous Forest	17.8798	percent	3.07	56.2
PREBC0103	Jan to Mar Basin Centroid Precip	8.11	inches	5.79	15.1
BSLDEM30M	Mean Basin Slope from 30m DEM	8.969	percent	3.19	38.1
MIXFOR	Percent Mixed Forest	24.429	percent	6.21	46.1
PREG_03_05	Mar to May Gage Precipitation	9.3	inches	6.83	11.5
TEMP	Mean Annual Temperature	43.817	degrees F	36	48.7
TEMP_06_10	Jun to Oct Mean Basinwide Temp	59.688	degrees F	52.9	64.4
PREG_06_10	Jun to Oct Gage Precipitation	18.5	inches	16.5	23.1
ELEVMAX	Maximum Basin Elevation	1883.048	feet	260	6290

Seasonal Flow Statistics Flow Report [Low Flow Statewide]

PIl: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIl	Plu	SE	ASEp
Jan to Mar15 60 Percent Flow	5.79	ft^3/s	4.01	8.04	21.2	21.2
Jan to Mar15 70 Percent Flow	4.91	ft^3/s	3.44	6.76	20.7	20.7
Jan to Mar15 80 Percent Flow	4.16	ft^3/s	3.04	5.53	18.2	18.2
Jan to Mar15 90 Percent Flow	3.14	ft^3/s	2.25	4.24	19.3	19.3
Jan to Mar15 95 Percent Flow	2.48	ft^3/s	1.73	3.42	20.7	20.7
Jan to Mar15 98 Percent Flow	1.98	ft^3/s	1.23	2.98	27.1	27.1
Jan to Mar15 7 Day 2 Year Low Flow	4.1	ft^3/s	3.04	5.37	17.2	17.2
Jan to Mar15 7 Day 10 Year Low Flow	2.32	ft^3/s	1.59	3.24	21.5	21.5
Mar16 to May 60 Percent Flow	16.2	ft^3/s	13.1	19.8	12.2	12.2
Mar16 to May 70 Percent Flow	12.8	ft^3/s	10.5	15.4	11.4	11.4
Mar16 to May 80 Percent Flow	9.98	ft^3/s	8.06	12.2	12.4	12.4
Mar16 to May 90 Percent Flow	7.2	ft^3/s	5.68	8.97	13.7	13.7
Mar16 to May 95 Percent Flow	5.4	ft^3/s	4.19	6.84	14.8	14.8
Mar16 to May 98 Percent Flow	3.9	ft^3/s	2.85	5.19	18.1	18.1
Mar16 to May 7 Day 2 Year Low Flow	5.65	ft^3/s	4.39	7.12	14.5	14.5
Mar16 to May 7 Day 10 Year Low Flow	3.14	ft^3/s	2.36	4.07	16.2	16.2
Jun to Oct 60 Percent Flow	1.64	ft^3/s	0.87	2.8	36.7	36.7
Jun to Oct 70 Percent Flow	1.21	ft^3/s	0.606	2.15	39.9	39.9
Jun to Oct 80 Percent Flow	0.901	ft^3/s	0.415	1.69	44.5	44.5
Jun to Oct 90 Percent Flow	0.584	ft^3/s	0.241	1.17	50.7	50.7
Jun to Oct 95 Percent Flow	0.416	ft^3/s	0.154	0.89	57	57
Jun to Oct 98 Percent Flow	0.334	ft^3/s	0.115	0.748	61.1	61.1
Jun to Oct 7 Day 2 Year Low Flow	0.644	ft^3/s	0.236	1.34	55.6	55.6
Jun to Oct 7 Day 10 Year Low Flow	0.264	ft^3/s	0.0653	0.66	78.5	78.5
Nov to Dec 60 Percent Flow	7.5	ft^3/s	5.01	10.7	23.3	23.3
Nov to Dec 70 Percent Flow	5.86	ft^3/s	3.74	8.68	25.9	25.9
Nov to Dec 80 Percent Flow	4.53	ft^3/s	2.8	6.88	27.8	27.8
Nov to Dec 90 Percent Flow	3.04	ft^3/s	1.75	4.85	31.6	31.6

Statistic	Value	Unit	Pll	Plu	SE	ASEp
Nov to Dec 95 Percent Flow	2.1	ft^3/s	1.07	3.64	38.3	38.3
Nov to Dec 98 Percent Flow	1.4	ft^3/s	0.573	2.78	50.6	50.6
Oct to Nov 7 Day 2 Year Low Flow	4.42	ft^3/s	2.93	6.32	23.3	23.3
Oct to Nov 7 Day 10 Year Low Flow	1.98	ft^3/s	1.03	3.36	36.6	36.6

Seasonal Flow Statistics Citations

Flynn, R.H. and Tasker, G.D.,2002, Development of Regression Equations to Estimate Flow Durations and Low-Flow-Frequency Statistics in New Hampshire Streams: U.S.Geological Survey Scientific Investigations Report 02-4298, 66 p. (http://pubs.water.usgs.gov/wrir02-4298)

Peak-Flow Statistics Parameters [Peak Flow Statewide SIR2008 5206]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	7.9	square miles	0.7	1290
APRAVPRE	Mean April Precipitation	3.851	inches	2.79	6.23
WETLAND	Percent Wetlands	5.9962	percent	0	21.8
CSL10_85	Stream Slope 10 and 85 Method	75.7	feet per mi	5.43	543

Peak-Flow Statistics Flow Report [Peak Flow Statewide SIR2008 5206]

Pll: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

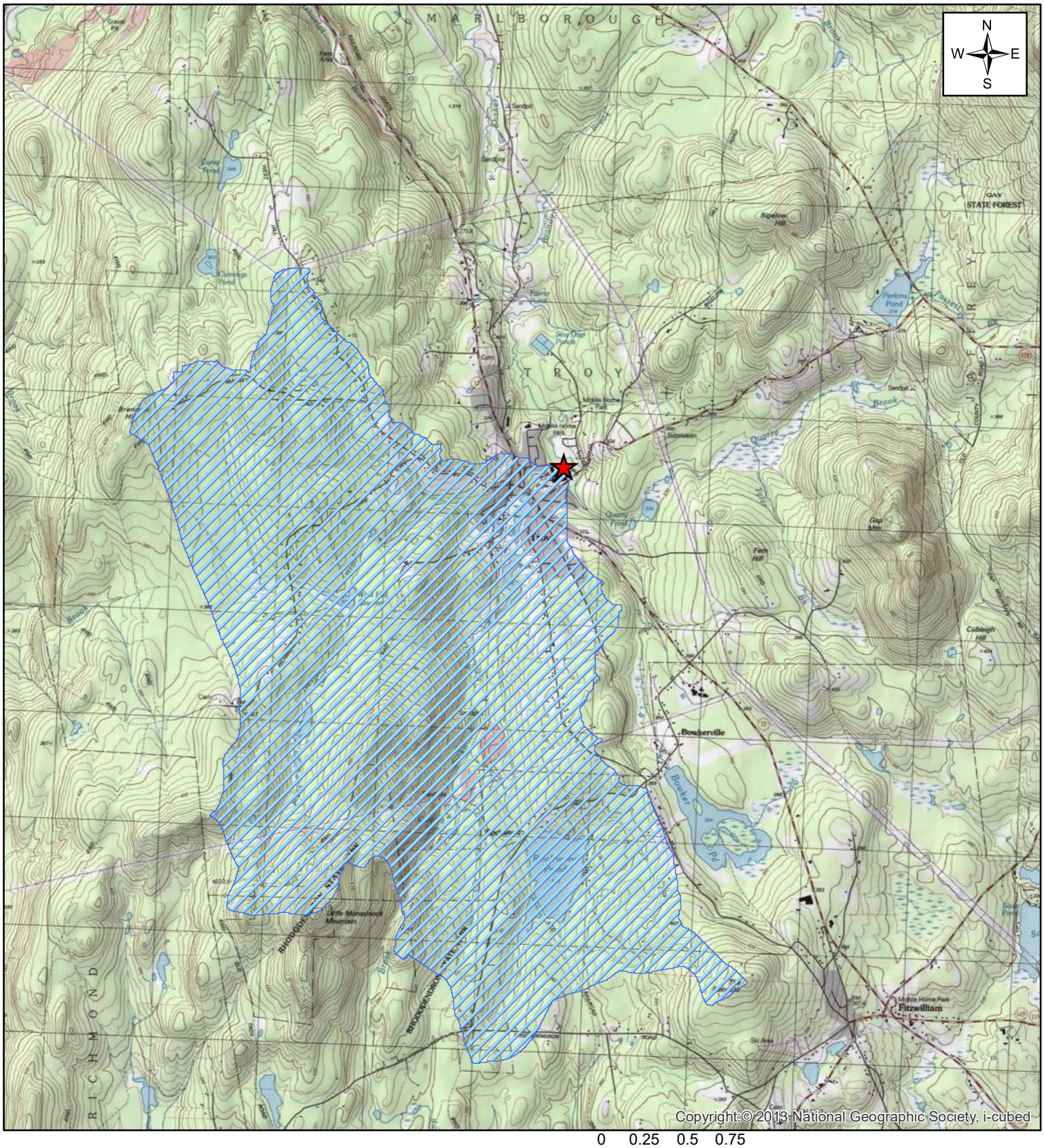
Statistic	Value	Unit	Pll	Plu	ASEp	Equiv. Yrs.
50-percent AEP flood	246	ft^3/s	152	398	30.1	3.2
20-percent AEP flood	403	ft^3/s	246	660	31.1	4.7
10-percent AEP flood	534	ft^3/s	320	891	32.3	6.2
4-percent AEP flood	709	ft^3/s	411	1220	34.3	8
2-percent AEP flood	852	ft^3/s	480	1510	36.4	9
1-percent AEP flood	1020	ft^3/s	557	1870	38.6	9.8
0.2-percent AEP flood	1440	ft^3/s	726	2860	44.1	11

Peak-Flow Statistics Citations

Olson, S.A.,2009, Estimation of flood discharges at selected recurrence intervals for streams in New Hampshire: U.S.Geological Survey Scientific Investigations Report 2008-5206, 57 p. (http://pubs.usgs.gov/sir/2008/5206/)

Application Version: 4.8.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

Troy, 43900



0 0.25 0.5 0.75 Miles

Map depicting bridge101/088 on Mill Street over Mil Tail Race

Map created by: K. Ryan on 3/23/22

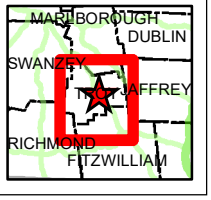
Source: S:\Environment\PROJECTS\Troy\43900

1:48,000

Legend

Project_Location

New Hampshire DOT Department of Transportation



WETLANDS PERMIT APPLICATION
STREAM CROSSING WORKSHEET

Land Resources Management
Wetlands Bureau

RSA 482-A/ Env-Wt-900

NOTE: This worksheet can be used to accompany Wetlands Permit Applications when proposing stream crossings.

1. Tier Classifications

Determine the contributing watershed size at USGS StreamStats

Note: Plans for Tier 2 and 3 crossings shall be designed and stamped by a professional engineer who is licensed under RSA 310-A to practice in New Hampshire.

Size of contributing watershed at the crossing location:	**5,056** acres

☐ **Tier 1**: A *tier 1* stream crossing is a crossing located on a watercourse where the contributing watershed size is less than or equal to 200 acres

☐ **Tier 2**: A *tier 2* stream crossing is a crossing located on a watercourse where the contributing watershed size is greater than 200 acres and less than 640 acres

☒ **Tier 3**: A *tier 3* stream crossing is a crossing that meets any of the following criteria:

- ☒ On a watercourse where the contributing watershed is more than 640 acres
- ☐ Within a Designated River Corridor
- ☐ On a watercourse that is listed on the surface water assessment 305(b) report
- ☒ Within a 100-year floodplain (see *section 2* below)
- ☐ In a jurisdictional area having any protected species or habitat (NHB DataCheck)
- ☐ In or within 100 feet of a Prime Wetland

2. 100-year Floodplain

Use the FEMA Map Service Center to determine if the crossing is located within a 100-year floodplain. Please answer the questions below:

☐ **No**: The proposed stream crossing *is not* within the FEMA 100-year floodplain.

☒ **Yes**: The proposed project *is* within the FEMA 100-year floodplain. Zone = **A**

- ☐ Elevation of the 100-year floodplain at the inlet: **No BFE determined** feet (FEMA El. or Modeled El.)

3. Calculating Peak Discharge

Existing 100-year peak discharge (Q) calculated in cubic feet per second (CFS): **1020** CFS	Calculation method: **StreamStats**
Estimated Bankfull discharge at the crossing location: **185** CFS	Calculation method: **Hy-8**

Note: If Tier 1 then skip to Section 10

4. Predicted Channel Geometry based on Regional Hydraulic Curves

*For **Tier 2** and **Tier 3** Crossings Only*

Bankfull Width: **34.3** feet	Mean Bankfull Depth: **2.2** feet
Bankfull Cross Sectional Area: **76.4** square feet	

5. Cross Sectional Channel Geometry: Measurements of the Existing Stream within a Reference Reach

*For **Tier 2** and **Tier 3** Crossings Only*

Describe the reference reach location: **Downstream, forested**

Reference reach watershed size: **5,056** acres

Parameter	**Cross Section 1** Describe bed form **riffle, run** (*e.g. pool, riffle, glide*)	**Cross Section 2** Describe bed form **riffle, run** (*e.g. pool, riffle, glide*)	**Cross Section 3** Describe bed form **riffle, run** (*e.g. pool, riffle, glide*)	**Range**
Bankfull Width	**29 feet**	**24 feet**	**28 feet**	**24 - 29 feet**
Bankfull Cross Sectional Area	**38.7 SF**	**38.6 SF**	**45.3 SF**	**38.6 - 45.3 SF**
Mean Bankfull Depth	**1.3 feet**	**1.6 feet**	**1.6 feet**	**1.3 - 1.6 feet**
Width to Depth Ratio	**21.7**	**14.9**	**17.3**	**14.9 - 21.7**
Max Bankfull Depth	**2 feet**	**2.4 feet**	**2.1 feet**	**2 - 2.4 feet**
Flood Prone Width	**36 feet**	**38 feet**	**34.5 feet**	**34.5 - 38 feet**
Entrenchment Ratio	**1.2**	**1.6**	**1.2**	**1.2 - 1.6**

*Use **Figure 1** below to determine the measurements of the Reference Reach Attributes*

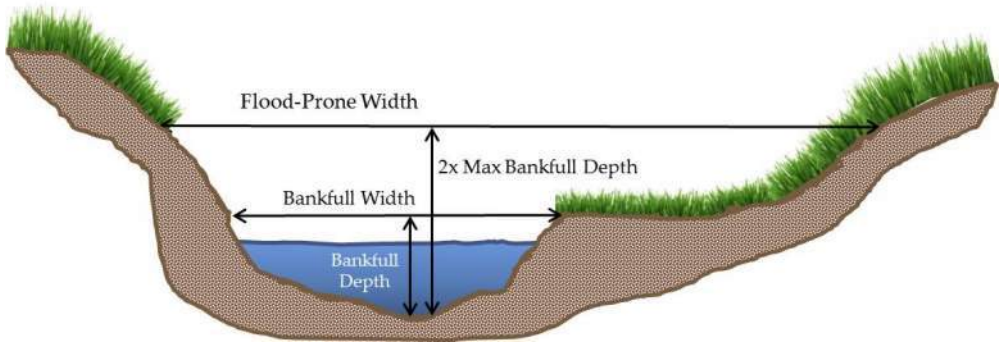


Figure 1: Determining the Reference Reach Attributes

6. Longitudinal Parameters of the Reference Reach and Crossing Location

*For **Tier 2** and **Tier 3** Crossings Only*

Average Channel Slope of the Reference Reach: **1%**
Average Channel Slope at the Crossing Location: **2%**

7. Plan View Geometry

*For **Tier 2** and **Tier 3** Crossings Only*

Sinuosity of the Reference Reach: **1.21**
Sinuosity of the Crossing Location: **0.56**

Note: Sinuosity is measured a distance of at least 20 times bankfull width, or 2 meander belt widths

8. Substrate Classification based on Field Observations *For **Tier 2** and **Tier 3** Crossings Only*	
% of reach that is *bedrock*	0 %
% of reach that is *boulder*	0 %
% of reach that is *cobble*	41.7 %
% of reach that is *gravel*	33.3 %
% of reach that is *sand*	25 %
% of reach that is *silt*	0 %

9. Stream Type of Reference Reach *For **Tier 2** and **Tier 3** Crossings Only*	
Stream Type of Reference Reach:	F

*Refer to Rosgen Classification Chart (**Figure 2**) below*

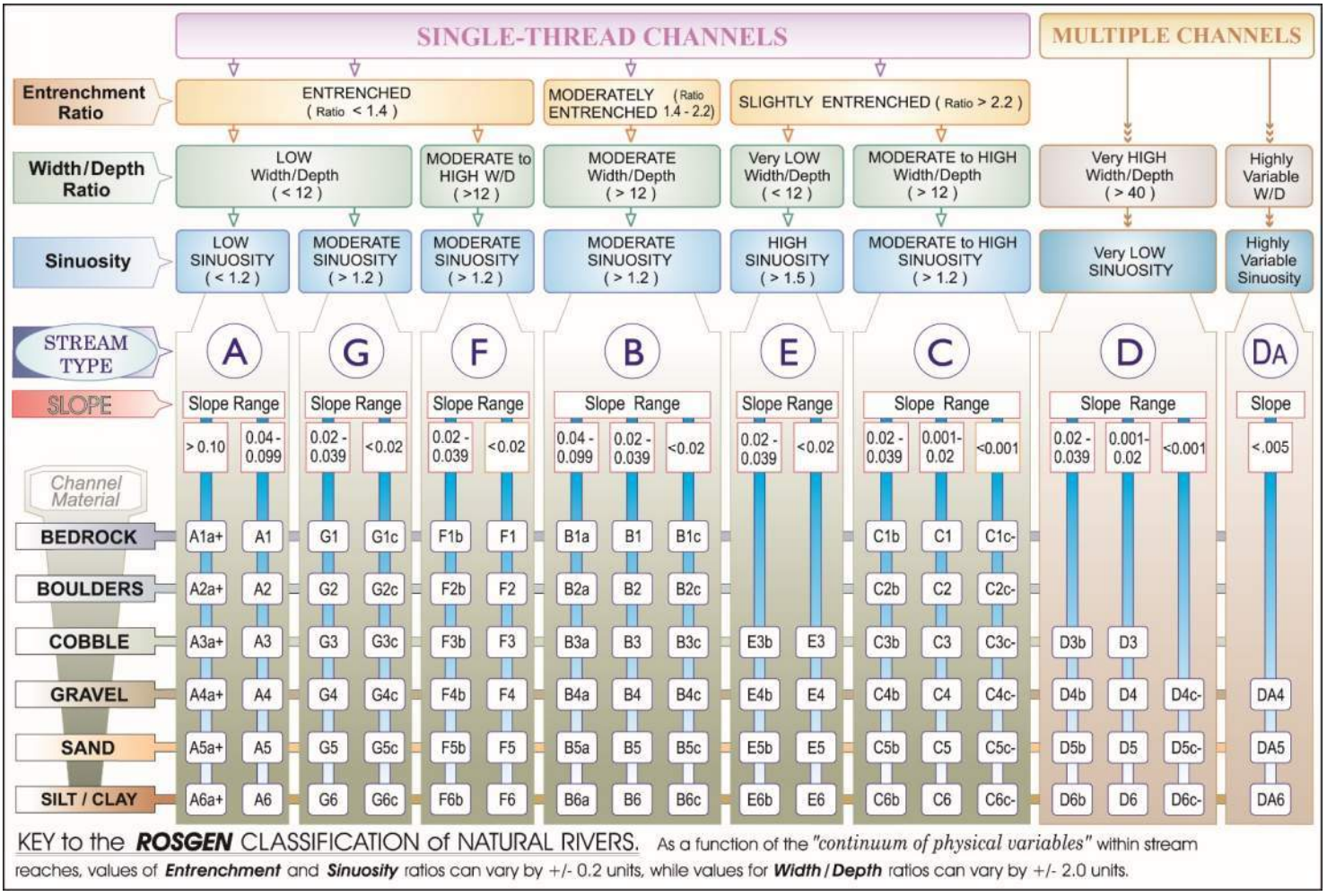


Figure 2. Reference from Applied River Morphology, Rosgen, 1996

10. Crossing Structure Metrics

Existing Conditions

Existing Structure Type:	☒ Bridge Span ☐ Pipe Arch ☐ Open-bottom Culvert ☐ Closed-bottom Culvert ☐ Closed-bottom Culvert with stream simulation ☐ Other: _____	
Existing Crossing Span *(perpendicular to flow)*	**23.8** feet	**Culvert Diameter N/A** feet **Inlet Elevation 950 ft**
Existing Crossing Length *(parallel to flow)*	**28.4** feet	**Outlet Elevation 949.5 ft** **Culvert Slope 0.018**

Proposed Conditions

Proposed Structure Type:	**Tier 1**	**Tier 2**	**Tier 3**	**Alternative Design**
Bridge Span	☐	☐	☒	☐
Pipe Arch	☐	☐		☐
Closed-bottom Culvert	☐	☐		☐
Open-bottom Culvert	☐	☐	☐	☐
Closed-bottom Culvert with stream simulation	☐	☐	☐	☐

Proposed structure Span *(perpendicular to flow)*	**23.8** feet	**Culvert Diameter N/A** feet **Inlet Elevation 950 ft**
Proposed Structure Length *(parallel to flow)*	**28.4** feet	**Outlet Elevation 949.5 ft** **Culvert Slope 0.018**
Proposed Entrenchment Ratio* **2.12** *For **Tier 2** and **Tier 3** Crossings Only*		*Note: To accommodate the entrenchment ratio, floodplain drainage structures may be utilized*

* *Note: Proposed Entrenchment Ratio must meet the minimum ratio for each stream type listed in **Figure 3**, otherwise the applicant must address the Alternative Design criteria listed in Env-Wt 904.09*

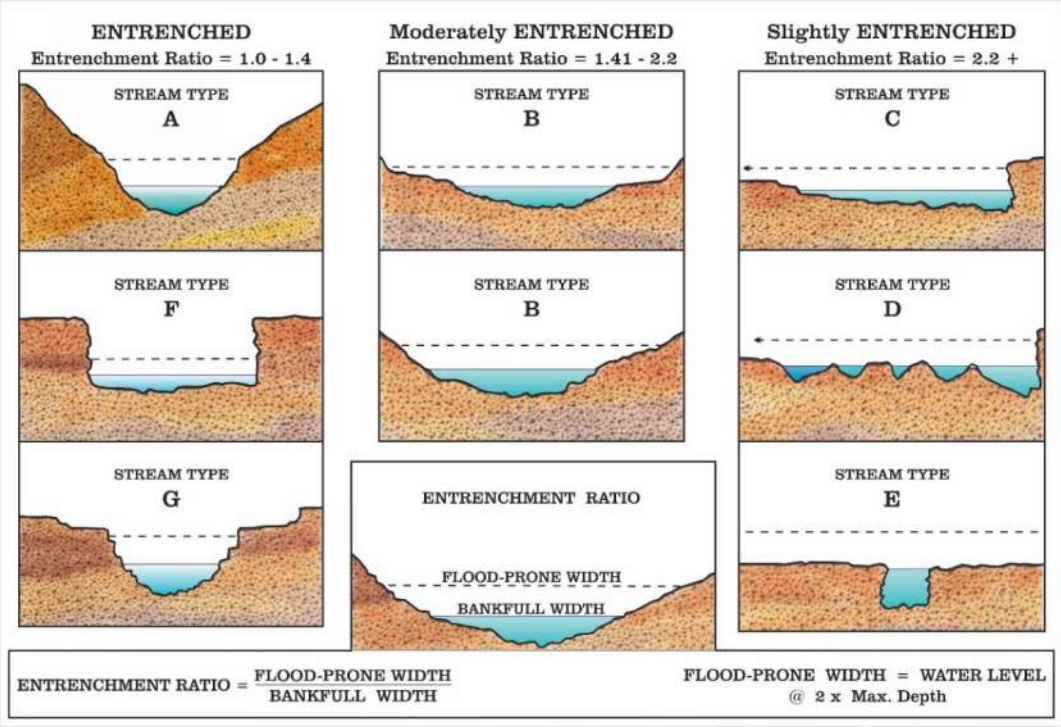


Figure 3. Reference from Applied River Morphology, Rosgen, 1996

11. Crossing Structure Hydraulics

	Existing	Proposed
100 year flood stage elevation at inlet	**956.5**	**956.9**
Flow velocity at outlet in feet per second (FPS)	**11**	**11.3**
Calculated 100 year peak discharge (Q) for the proposed structure in CFS		**1020**
Calculated 50 year peak discharge (Q) for the proposed structure in CFS		**852**

12. Crossing Structure Openness Ratio

*For **Tier 2** and **Tier 3** Crossings Only*

Crossing Structure Openness Ratio = **8.14**

Openness box culvert = (height x width)/length

Openness round culvert = (3.14 x radius^2)/length

13. General Design Considerations

Env-Wt 904.01 requires all stream crossings to be designed and constructed according to the following requirements. Check each box if the project meets these general design considerations.

All stream crossings shall be designed and constructed so as to:

- ☒ Not be a barrier to sediment transport.
- ☒ Prevent the restriction of high flows and maintain existing low flows.
- ☒ Not obstruct or otherwise substantially disrupt the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction.
- ☒ Not cause an increase in the frequency of flooding or overtopping of banks.
- ☒ Preserve watercourse connectivity where it currently exists.
- ☒ Restore watercourse connectivity where:
  (1) Connectivity previously was disrupted as a result of human activity(ies); and
  (2) Restoration of connectivity will benefit aquatic life upstream or downstream of the crossing, or both.
- ☒ Not cause erosion, aggradation, or scouring upstream or downstream of the crossing.
- ☒ Not cause water quality degradation.

14. Tier Specific Design Criteria

Stream crossings must be designed in accordance with the Tier specific design criteria listed in Part Env-Wt 904.

☒ The proposed project meets the Tier specific design criteria listed in Part Env-Wt 904 and each requirement has been addressed in the plans and as part of the wetland application.

15. Alternative Design

NOTE: If the proposed crossing does not meet all of the general design considerations, the Tier specific design criteria, or the minimum entrenchment ratio for each given stream type listed in **Figure 3**, then an alternative design plan and associated requirements must be addressed pursuant to Env-Wt 904.09.

☐ I have submitted an alternative design and addressed each requirement listed in Env-Wt 904.09

New Hampshire Department of Transportation
Bureau of Environment
Stream Crossing Summary Report

Project: Troy, 43900
Date of Assessment: 4/11/2022
Names of who completed the assessment: Kerry Ryan, Josh Brown, & Deidra Benjamin

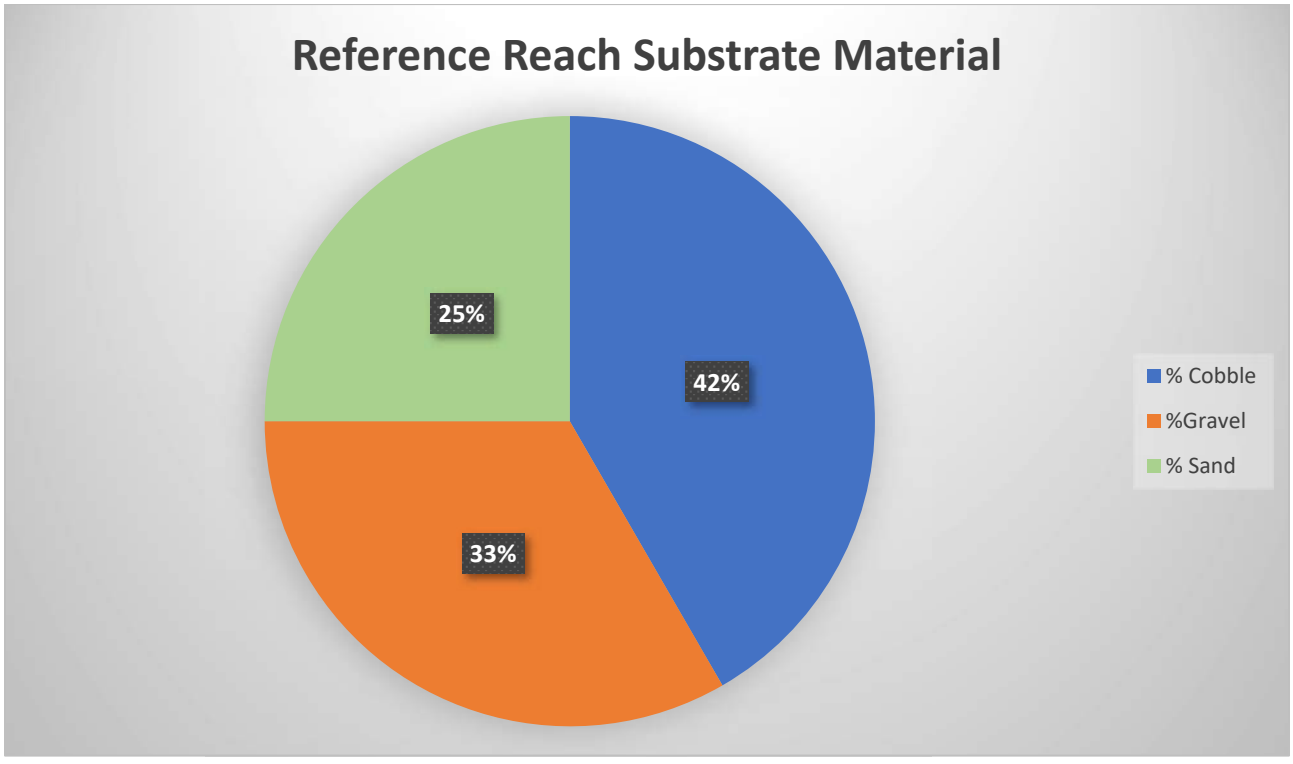
Stream Information:

Stream Name: Ashuelot River
Watershed Area: 5,056 acres
Stream Tier: Tier 3
Wetland Classification: R2UB12

Reference Reach:

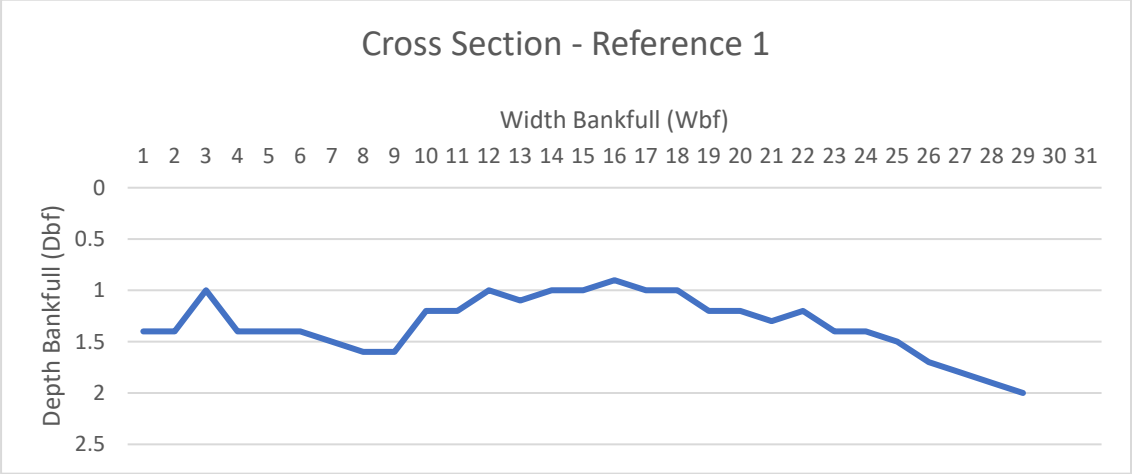
Average Bankfull Width: 27'
Average Floodprone Width: 36.2'
Average Depth: 1.5'
Average Slope: 1%
Entrenchment Ratio: 1.33
Rosgen Classification: Type F

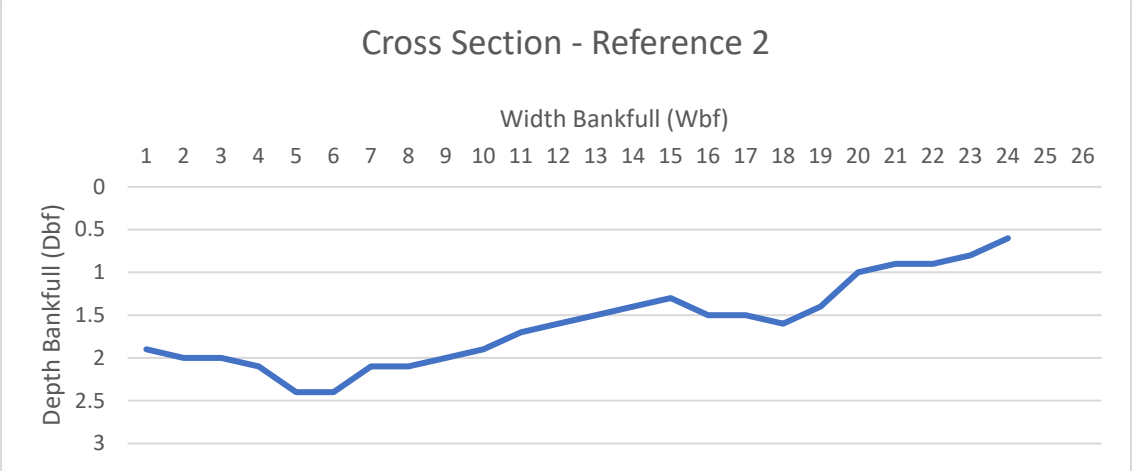
Channel Material (Average Reference Reach):

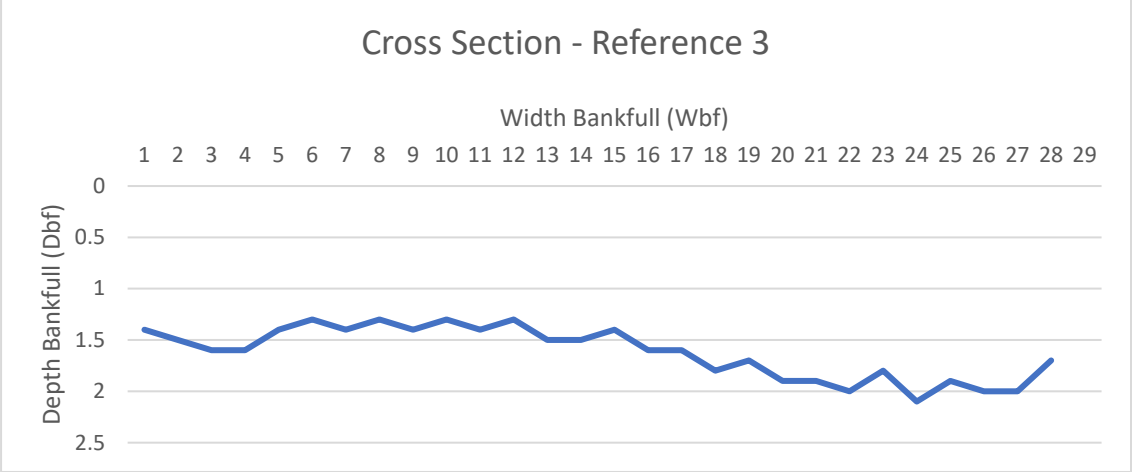


New Hampshire Department of Transportation
Bureau of Environment
Stream Crossing Summary Report

Cross Sections:







New Hampshire Department of Transportation
Bureau of Environment
Stream Crossing Summary Report

Photos:

Photo 1: Outlet looking upstream

Photo 2: Outlet looking downstream

Photo 3: Inlet looking downstream

Photo 4: Inlet looking upstream

Photo 5: Reference Reach One

Photo 6: Reference Reach Two

Photo 7: Reference Reach Three

NH Department of Transportation

Bureau of Bridge Maintenance
Project: Troy 101/088, #43900
Mill Street over South Branch Ashuelot River

P.E. Certification in Accordance with Env-Wt 904.

Stream Crossing Rules for Standard Application Tier 3, repair/preservation/rehabilitation project

Crossing's Drainage Area: 7.9 square miles
Existing Conditions: The crossing at this location is a 24' clear span bridge constructed in 1936. In 1991 new concrete wings were added and the substructure and deck widened. Other routine maintenance work has occurred to the structure since that time without any change in the footprint or structure. See the cross sections and pictures elsewhere in this document. There is not a history or evidence of flooding or overtopping at this crossing. There is a municipal water line immediately down stream of the structure that will not be affected by the project.

Project Description: The proposed project will remove and replace the existing concrete deck, curb and rail. The existing stone block portions of the abutments will be repointed. Rip rap will be added and toed in immediately adjacent to the abutments for infrastructure protection purposes. The unknown foundation type of the stone abutments necessitates this step. No clean water bypass pipe or through piping will be used. Work will be done behind erosion control/sediment barriers.

Proposed Conditions: The current and proposed conditions will be very similar. There is not history of flooding at this location. For this project we modeled the existing and the proposed conditions using flow data from StreamStats and in FHWA HY-8. The crossing will continue to pass the 100 year storm in both models. Based on the proposed work and cross sections there is a small change in hydraulic opening (~4 square feet) and minimal change during the 100 year event; about ½" difference in water surface elevation and less than 0.1 foot per second change in tailwater velocity. There is virtually no change during lower flow condition. During construction we will use the impact map to layout the rip areas in the stream.

Included with this form is supporting analysis by way of photos and plans

Env-Wt 904.01 General Design Considerations
Applicable to All Stream Crossings

(a) All stream crossings, whether over tidal or non-tidal waters, shall be designed and constructed so as to:
1) Not be a barrier to sediment transport;
2) Not restrict high flows and maintain existing low flows;
3) Not obstruct or otherwise substantially disrupt the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction;
4) Not cause an increase in the frequency of flooding or overtopping of banks;
5) Maintain or enhance geomorphic compatibility by:
    a. Minimizing the potential for inlet obstruction by sediment, wood, or debris; and
    b. Preserving the natural alignment of the stream channel;
6) Preserve watercourse connectivity where it currently exists;
7) Restore watercourse connectivity where:
    a. Connectivity previously was disrupted as a result of human activity(ies); and

b. Restoration of connectivity will benefit aquatic life upstream or downstream of the crossing, or both;

8) Not cause erosion, aggradation, or scouring upstream or downstream of the crossing; and
9) Not cause water quality degradation.

(b) For stream crossing over tidal waters, the stream crossing shall be designed to:
1) Match the velocity, depth, cross-sectional area, and substrate of the natural stream: and
2) Be of sufficient size to not restrict bi-directional tidal flow over the natural tide range above, below, and through the crossing.

Env-Wt 904.09(a)- The repair, rehabilitation, or replacement of tier 3 stream crossings shall be limited to existing legal crossings where the tier classification is based only on the size of the contributing watershed.

Env-Wt 904.09(b)- Rehabilitation of a culvert or other closed-bottom stream crossing structure pursuant to this section may be accomplished by concrete repair, slip lining, cured-in place lining, or concrete invert lining, or any combination thereof, except that slip lining shall not occur more than once. *(Not applicable to repair)*

Env-Wt 904.09(c) A project shall qualify under this section only if a professional engineer certifies, and provides supporting analyses to show, that:

(1) The existing crossing does not have a history of causing or contributing to flooding that damages the crossing or other human infrastructure or protected species habitat;

(2) The proposed stream crossing will:
a. Meet the general criteria specified in Env-Wt 904.01; *(see page 2 of this form for Env-Wt 904.01)*
b. Maintain or enhance the hydraulic capacity of the stream crossing;
c. Maintain or enhance the capacity of the crossing to accommodate aquatic organism passage;
d. Maintain or enhance the connectivity of the stream reaches upstream or downstream of the crossing; and
e. Not cause or contribute to the increase in the frequency of flooding or overtopping of the banks upstream or downstream of the crossing.

Env-Wt 904.09(d) Repair, rehabilitation, or replacement of a tier 4 stream crossing shall comply with Env-Wt 904.07(d). *(if non-tidal, N/A)*

I hereby certify that the above referenced project meets the criteria of Env-Wt 904.09(c).

Timothy Boodey 6/30/2022

Name: Date:

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: Kerry Ryan
7 Hazen Drive
Concord, NH 03301

From: NH Natural Heritage Bureau

Date: 3/31/2022 (This letter is valid through 3/31/2023)

Re: Review by NH Natural Heritage Bureau of request dated 3/31/2022

Permit Type: Wetland Standard Dredge & Fill - Major

NHB ID: NHB22-1247

Applicant: Kerry Ryan

Location: Troy
Tax Map: NA, Tax Lot: NA
Address: Mill Street

Proj. Description: The proposed project is a State funded bridge maintenance project located at bridge number 101/088 which carries Mill Street over Mil Tail Race. The proposed work will include replacement of the bridge deck and repairing abutments.

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: NHB22-1247

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
http://www.fws.gov/newengland

In Reply Refer To:
Project Code: 2022-0026354
Project Name: Troy 43900

March 31, 2022

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:

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/newengland/endangeredspecies/project-review/index.html

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.

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:

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

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/birds/policies-and-regulations.php

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: 2022-0026354
Event Code: None
Project Name: Troy 43900
Project Type: Bridge - Maintenance
Project Description: The proposed project is a State funded bridge maintenance project located at bridge number 101/088 which carries Mill Street over Mill Tail Race, The proposed work includes bridge deck replacement and abutment repair.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.8270603,-72.17833178469726,14z

Counties: Cheshire 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	Threatened

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: Kerry Ryan
Address: 7 Hazen Drive
City: Concord
State: NH
Zip: 03301
Email kerry.ryan@dot.nh.gov
Phone: 6032713717

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

In Reply Refer To:
Project code: 2022-0026354
Project Name: Troy 43900

May 16, 2022

Subject: Consistency letter for the 'Troy 43900' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Kerry Ryan:

The U.S. Fish and Wildlife Service (Service) received on May 16, 2022 your effects determination for the 'Troy 43900' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take"[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

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

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

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

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

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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

Troy 43900

2. Description

The following description was provided for the project 'Troy 43900':

> The proposed project is a State funded bridge maintenance project located at bridge number 101/088 which carries Mill Street over Mill Tail Race, The proposed work includes bridge deck replacement and abutment repair.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.8270603,-72.17833178469726,14z

Determination Key Result

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

Determination Key Description: Northern Long-eared Bat 4(d) Rule
This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

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

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

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

Determination Key Result

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

Qualification Interview

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

   No

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

   No

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

   Automatically answered
   No

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

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/media/nleb-roost-tree-and-hibernacula-state-specific-data-links-0.

   Yes

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

   No

6. Will the action involve Tree Removal?

   Yes

7. Will the action only remove hazardous trees for the protection of human life or property?

   No

8. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

   No

9. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

   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:

0.1

2. If known, estimated acres of forest conversion from April 1 to October 31

0.1

3. If known, estimated acres of forest conversion from June 1 to July 31

0.1

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: Kerry Ryan
Address: 7 Hazen Drive
City: Concord
State: NH
Zip: 03301
Email kerry.ryan@dot.nh.gov
Phone: 6032713717

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)	5/16/2022	☒ This Project uses only State funding; however project activities listed below comply with the PA.	
Project Name:	Troy		
State Number:	43900	**FHWA Number:**	NA
Environmental Contact:	Kerry Ryan	**DOT Project Manager:**	Tim Boodey
Email Address:	Kery.a.ryan@dot.nh.gov		

Project Description: The proposed project is a State funded bridge maintenance project located at Br. No. 101/088 which carries Mill Street over a mill tail race, associated with the former Troy Blanket Mill, on the South Branch Ashuelot River. The proposed work includes replacing the existing deck, repointing the existing stone abutments, installing rip rap in front of the existing abutments for infrastructure protection, replacing curb, and replacing guardrail with extension. The guardrail extension will not fall in front of the house directly and will be 2.5 feet off the edge of pavement. All proposed work is within the State right-of-way.

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: a. replacement or maintenance of non-historic bridges Choose an item.
☐	8. Historic bridge maintenance activities within the limits of existing right-of-way, including: c. placement of riprap and channel work l. Installation of culvert inverts or slip-lining
☐	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

Section 106 Programmatic Agreement – Cultural Resources Review Effect Finding

Appendix B Certification – Activities with Minimal Potential to Cause Effects

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: 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.

The proposed project activities conform to undertakings in Appendix B (minimal potential to cause effects to historical resources) including: (4) Guardrail replacement, provided any extension does not connect to a bridge older than 50 years old (unless it already does), and there is no change in access associated with the extension and (7) Non-historic bridge and culvert maintenance, renovation, or replacement, that may require minor additional right-of-way or easement, including: (a) replacement or maintenance of non-historic bridges. Neither the Cultural Resources Program Manager nor the Cultural Resources Program Specialist detected any cultural resources that, based on the project scope, were determined to be likely to be impacted by the project. While the 1936 concrete slab bridge is located within the Troy Village historic district (NR2002), it was determined not eligible for the National Register as it was altered and widened c.1970s-1980s. In addition, email correspondence (4.13.2022) with Kerry Ryan and Tim Boodey confirmed that the new guardrail in the northeast quadrant will not be extended in front of house and will be restricted to the front of the side yard, 2.5 ft from the edge of pavement.

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?	No	NHDHR R&C # assigned?	Click here to enter text.
Please identify public outreach effort contacts; method of outreach and date:	Initial Contact Letters were sent to the Troy historical society chair, planning committee chair, police chief, chairman of selectmen, and town administrator on 4/11/21. The Department of Natural & Cultural Resources-Land & Water Conservation Fund Program, Land & Community Investment Program, and Conservation Land Stewardship Program were contacted on 4/21/21.		

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:

5/16/2022

NHDOT Cultural Resources Staff | Date

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

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

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

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm to determine if there is an impaired water in the vicinity of your work area.*	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 SAS, special wetlands. Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) DataCheck Tool for information about resources located on the property at https://www2.des.state.nh.us/nhb_datacheck/. The book Natural Community Systems of New Hampshire also contains specific information about the natural communities found in NH.		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?	unknown	
2.7 What is the area of the proposed fill in wetlands?	unknown	
2.8 What is the % of previously and proposed fill in wetlands to the overall project site?	unknown	
3. Wildlife	Yes	No
3.1 Has the NHB & USFWS determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS IPAC determination.) NHB DataCheck Tool: https://www2.des.state.nh.us/nhb_datacheck/ USFWS IPAC website: https://ecos.fws.gov/ipac/location/index	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: www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html.		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 21?		
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 Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) with your DES file number shall be sent to the NH Division of Historical Resources as required on Page 11 GC 8(d) of the GP document**		x***

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

***Project activities comply with Section 106 Programmatic Agreement, Appendix B Certification therefore RPR submission is not necessary.

CONSTRUCTION SEQUENCE

Work is anticipated to take approximately 6 months to complete and is currently proposed to be done during winter 2022. Work on the bridge will include repointing the existing stone abutments, installing rip rap scour protection in front of the existing abutments, and replacing the reinforced concrete deck.

1. Erosion control barrier will be installed at access and staging points prior to earth disturbing activities. A sedimentation basin will be installed at the appropriate location shown on the plans
2. A sandbag cofferdam will be installed along one of the abutments. The existing stone abutment will be repointed and rip rap will be installed in directly in front of the abutment to serve as scour protection
3. The sandbag cofferdam will be removed and replaced along the opposing abutment. Again, the existing stone abutment will be repointed and rip rap will be installed directly in front of the abutment to serve as scour protection
4. The sandbag cofferdam will be completely removed from the stream upon the completion of abutment and rip rap work
5. Pipe staging will be installed to facilitate the deck work
6. Half of the deck will be removed and replaced at a time, installing new bridge rail prior to opening the new deck to traffic
7. Upon the completion of the deck work, the guardrail adjoining the bridge at all four corners will be replaced to meet present regulations
8. Erosion control barrier will remain in place until slopes are stabilized by vegetation, and access areas will be revegetated as needed

Notes:

A. See the included Erosion Control Plans for additional details and the location of temporary erosion control measures.
B. The Project will utilize BMP's from the Best Management Practices manual during all phases of construction.
C. Dewatering System Details per Env-WT 903.03

The following information about the dewatering system proposed to be used:

(1) Estimated maximum flow anticipated during construction;

During the proposed time of construction, we anticipate a maximum flow of 125 CFS based on the inlet conditions. The two-year storm event is calculated as 246 CFS.

(2) The location, height, and width of the diversion dam;

Sandbag cofferdams will be located as show on the erosion control plan, we anticipate a maximum height of 3' and minimum width of 4'. This anticipated height of cofferdam and available width will pass the 2-year storm event.

(3) The location and capacity of each sump; and

Potential sumps will be located just inside the work area. They will be large enough to accommodate up to a 3" pump per sump discharging to the detention basins.

(4) Backwater prevention method:
Sandbag cofferdams will completely surround the work area to prevent backwater from entering the work area.

Troy 43900, 4/12/22

Mill Street, facing east

Mill Street, facing west

Troy 43900, 4/12/22

Facing upstream, from roadway

Facing downstream, from roadway

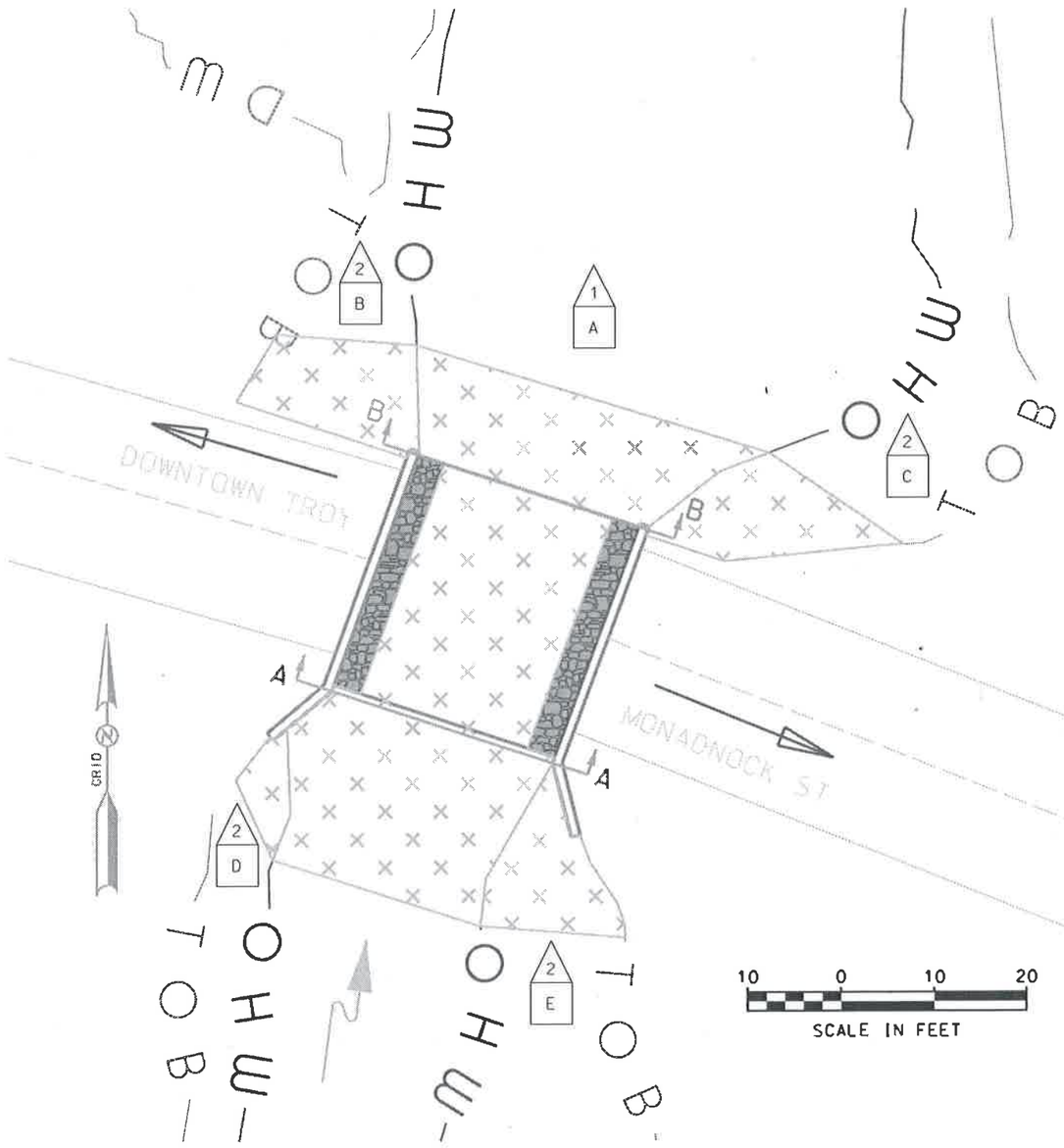
Troy 43900, 4/12/22

Downstream, through structure

Upstream, through structure

Troy 43900, 4/12/22

House at NE quadrant where guardrail will be extended



WETLAND IMPACTS

SCALE: 1/16"=1'

WETLAND CLASSIFICATION CODES	
R2UB12	RIVERINE, LOWER PERENNIAL, UNCONSOLIDATED BOTTOM, COBBLE-GRAVEL, SAND
BANK	BANK

LEGEND

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

(#) WETLAND DESIGNATION NUMBER

WETLAND IMPACT LOCATION

RIPRAP GRADATION
D15 < 15.5"
D50 < 20.5"
D100 < 36"
NOMINAL DIAMETER 18"

NOTE:
1) WETLANDS ORIGINALLY DELINEATED BY SARAH LARGE IN 2016
WETLAND DELINEATION VERIFIED BY KERRY RYAN ON 4/12/22
WETLANDS WERE DELINEATED IN ACCORDANCE WITH ENV-WT 406
2) ALL WORK WILL BE DONE WITHIN STATE ROW

STATE OF NEW HAMPSHIRE - PROFESSIONAL ENGINEER - TIMOTHY MAIN BOODEY No. 12189 LICENSED
6/29/2022

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE MAINTENANCE

TOWN TROY BRIDGE NO. 101/088 STATE PROJECT 43900
LOCATION MILL STREET OVER MILL BROOK
WETLAND IMPACTS

REVISIONS AFTER PROPOSAL	BY	DATE		BY	DATE
	DESIGNED			CHECKED	
	DRAWN	JPJ	4/2022	CHECKED	
	QUANTITIES	JPJ	4/2022	CHECKED	
	ISSUE DATE		FISCAL YEAR	CREW	SHEET NO.
	REV. DATE				

BRIDGE SHEET 4 OF 5
FILE NUMBER
TOTAL SHEETS 5
SHEET SCALE AS NOTED

TROY 101/088

WETLAND IMPACT SUMMARY

WETLAND NUMBER	WETLAND CLASSIFICATION	LOCATION	AREA IMPACTS					
			PERMANENT				TEMPORARY	
			N.H.W.B. (NON WETLAND)		N.H.W.B. & A.C.O.E. (WETLAND)			
			SF	LF	SF	LF	SF	LF
1	R2UB12	A			160	26	1352	58
2	BANK	B					178	12
2	BANK	C					176	13
2	BANK	D					47	15
2	BANK	E					152	18
	TOTAL		0	0	160	26	1905	116

PERMANENT IMPACTS:	160	SF
TEMPORARY IMPACTS:	1905	SF
TOTAL IMPACTS:	2065	SF

WETLANDS IMPACT TABLE

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE MAINTENANCE

TOWN TROY BRIDGE NO. 101-088 STATE PROJECT 43900

LOCATION MILL STREET OVER MILL BROOK

WETLAND IMPACT TABLE

BRIDGE SHEET OF 5

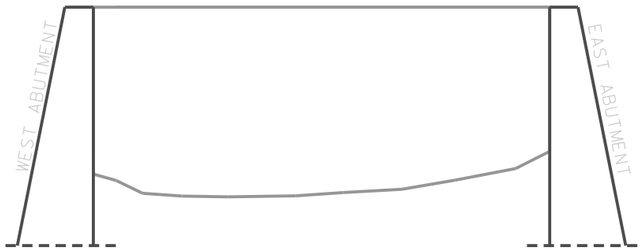
FILE NUMBER

REVISIONS AFTER PROPOSAL	BY	DATE		BY	DATE
			DESIGNED		
			DRAWN	JPJ	4/2022
			QUANTITIES	JPJ	4/2022
			ISSUE DATE		
			REV. DATE		

CHECKED
CHECKED
CHECKED

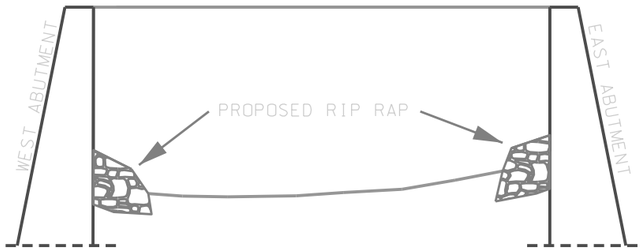
SHEET SCALE	FISCAL YEAR	CREW	SHEET NO.	TOTAL SHEETS
AS NOTED		7		5

EXISTING

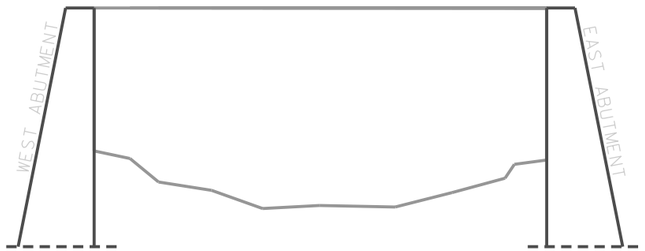


SECTION B-B

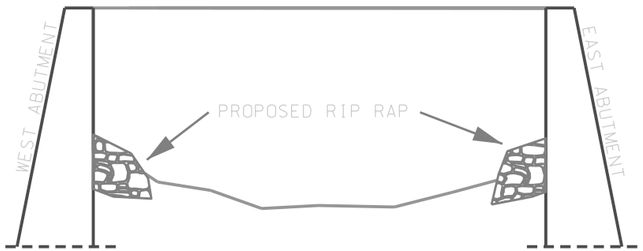
PROPOSED



SECTION B-B



SECTION A-A



SECTION A-A

CHANNEL CROSS SECTIONS

SCALE: 1/2"=1'

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE MAINTENANCE

TOWN TROY BRIDGE NO. 101-088 STATE PROJECT 43900

LOCATION MILL STREET OVER MILL BROOK

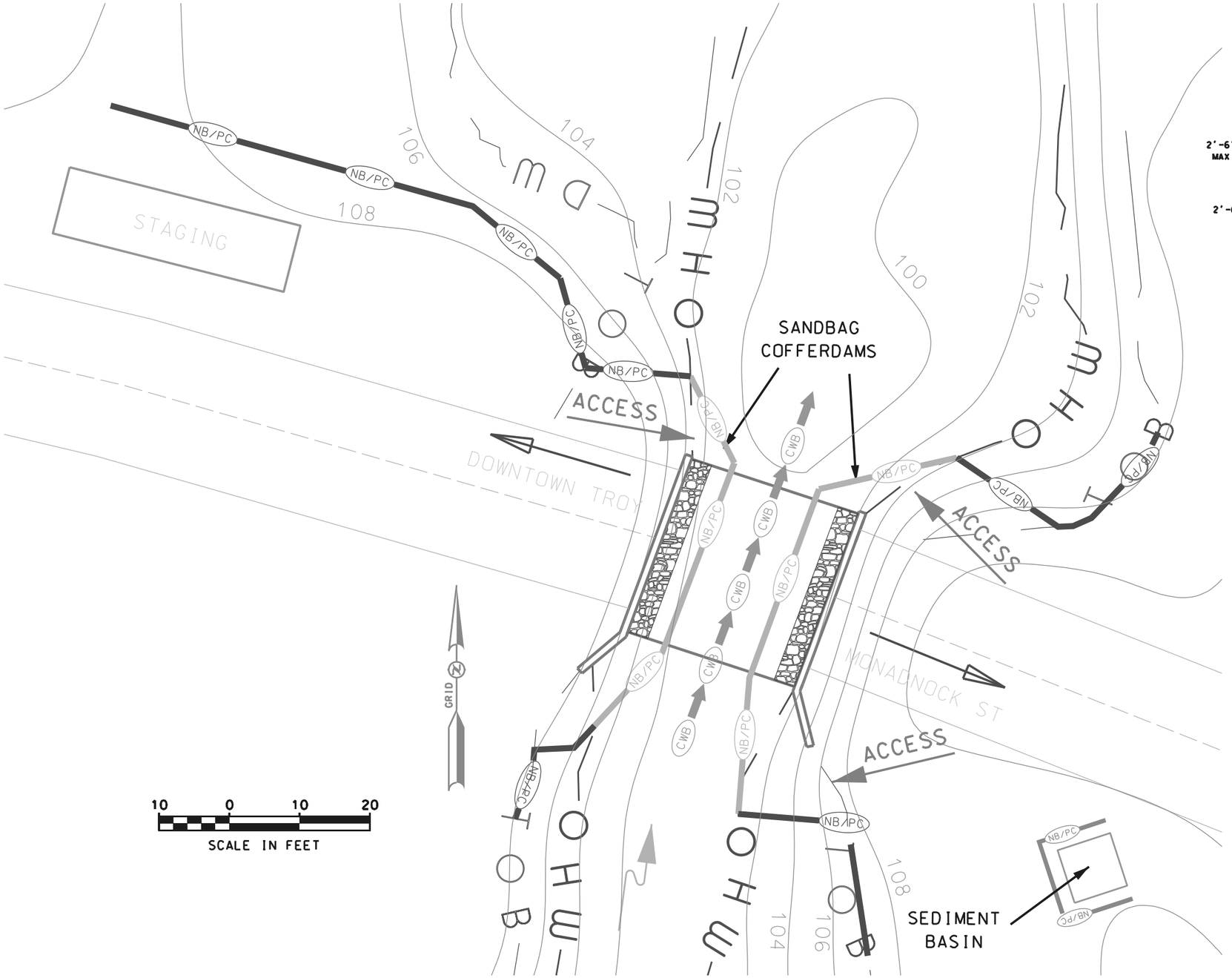
EXISTING AND PROPOSED CHANNEL CROSS SECTIONS

BRIDGE SHEET 4 OF 5

FILE NUMBER

REVISIONS AFTER PROPOSAL	BY	DATE		BY	DATE
			DESIGNED		CHECKED	
			DRAWN	JPJ	4/2022	CHECKED	
			QUANTITIES	JPJ	4/2022	CHECKED	

SHEET SCALE	ISSUE DATE	FISCAL YEAR	CREW	SHEET NO.	TOTAL SHEETS
AS NOTED	REV. DATE		7	4	5



10 0 10 20

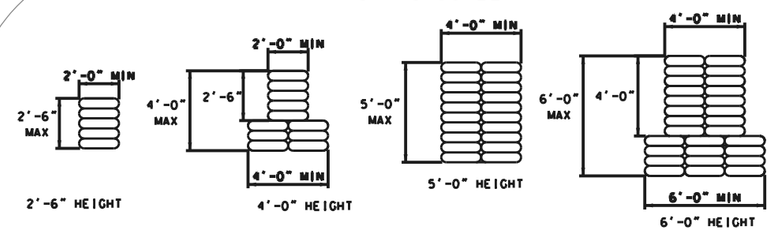
SCALE IN FEET

EROSION CONTROL PLAN

SCALE: 1/16" = 1'

COFFERDAM DETAILS

NOT TO SCALE



EROSION CONTROL PLAN LEGEND

PERIMETER CONTROL
- SILT FENCE
- EROSION CONTROL MIX BERM
- EROSION CONTROL MIX SOX
- TURBIDITY CURTAIN
- SHEET PILE
- COFFER DAM

NATURAL BUFFER/PERIMETER CONTROL
- SILT FENCE
- EROSION CONTROL MIX BERM
- EROSION CONTROL MIX SOX
- TURBIDITY CURTAIN
- SHEET PILE
- COFFER DAM

CHANNEL PROTECTION
- STONE CHECK DAMS
- STRAW WATTLES
- CHANNEL MATTING
- CLASS D EROSION STONE
- CLASS C STONE

CLEAN WATER BYPASS
- PUMP THROUGH PIPE
- DRAIN THROUGH PIPE OR CHANNEL

NOTES:
1) WORK WILL TAKE PLACE DURING LOW FLOW CONDITIONS. ANTICIPATED MAXIMUM FLOW DURING CONSTRUCTION IS 125 CFS
2) SANDBAG COFFERDAMS WILL BE CONSTRUCTED ACCORDING TO TYPICAL DETAIL. WE ANTICIPATE A MAXIMUM HEIGHT OF 4' AND A WIDTH OF 4'
3) SUMPS WILL BE LOCATED JUST INSIDE THE WORK AREA AND BE LARGE ENOUGH TO ACCOMMODATE A 3 INCH PUMP DISCHARGING INTO A DEWATERING BASIN
4) DOUBLE BMPS WILL BE USED FOR PERIMETER CONTROLS
5) ELEVATIONS ARE SITE RELATIVE. NO GEODETIC DATUM REFERENCED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE MAINTENANCE

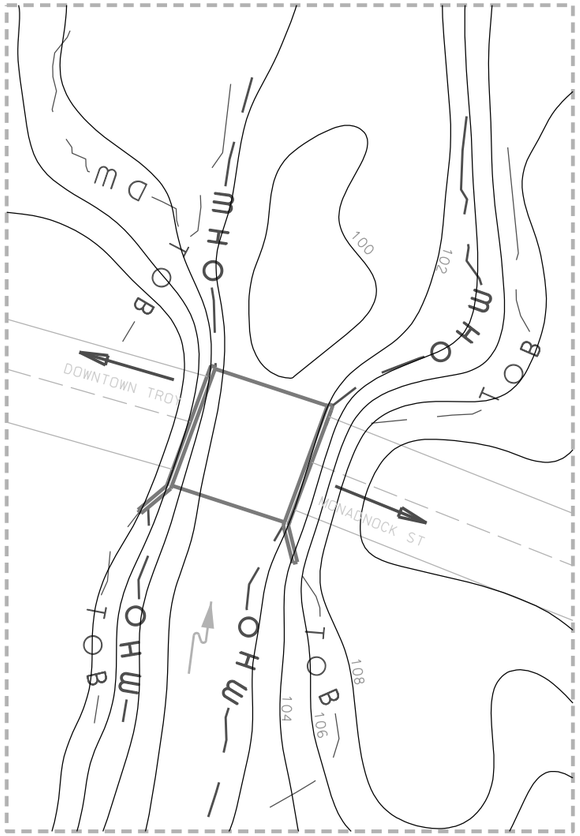
TOWN TROY BRIDGE NO. 101-088 STATE PROJECT 43900
LOCATION MILL STREET OVER MILL BROOK

EROSION CONTROL PLAN — BRIDGE SHEET 5 OF 5

REVISIONS AFTER PROPOSAL	BY	DATE		BY	DATE
			DESIGNED		CHECKED	
			DRAWN JPJ	4/2022	CHECKED	
			QUANTITIES JPJ	4/2022	CHECKED	

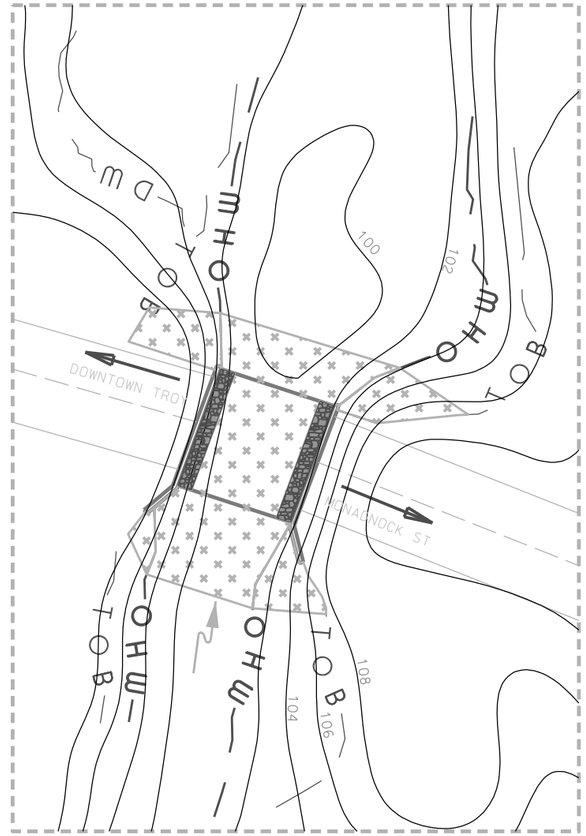
FILE NUMBER

SHEET SCALE	ISSUE DATE	FISCAL YEAR	CREW	SHEET NO.	TOTAL SHEETS
AS NOTED	REV. DATE		7	2	5



PRE CONSTRUCTION CONTOURS

SCALE: 1/32"=1'



POST CONSTRUCTION CONTOURS

SCALE: 1/32"=1'

GRID N

NOTES:
1) ELEVATIONS ARE SITE RELATIVE. NO GEODETIC DATUM REFERENCED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE MAINTENANCE

TOWN TROY BRIDGE NO. 101-088 STATE PROJECT 43900

LOCATION MILL STREET OVER MILL BROOK

2 FT CONTOURS

BRIDGE SHEET 3 OF 5

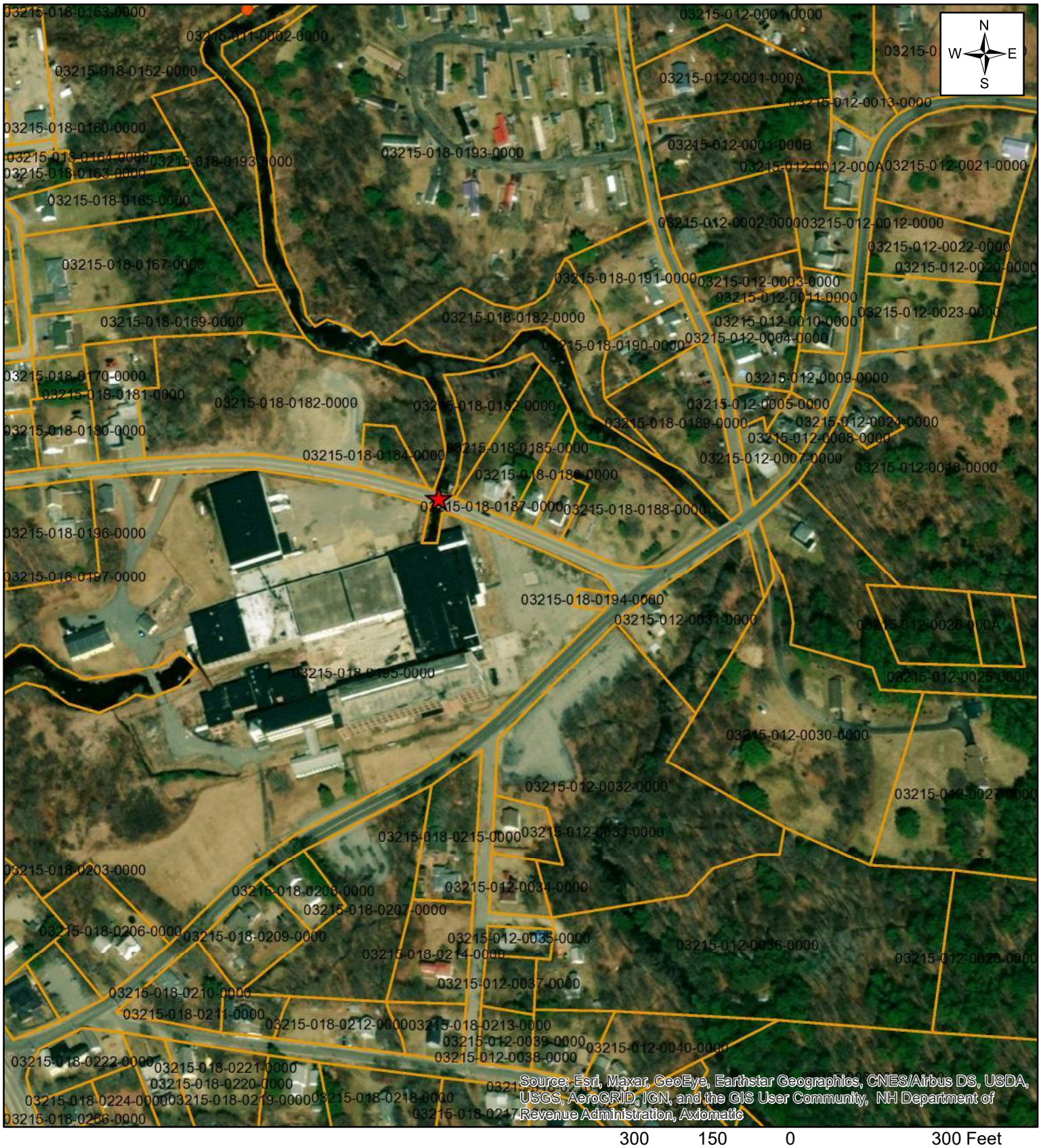
FILE NUMBER

REVISIONS AFTER PROPOSAL		BY	DATE		BY	DATE
		DESIGNED			CHECKED	
		DRAWN	JPJ	4/2022	CHECKED	
		QUANTITIES	JPJ	4/2022	CHECKED	
		ISSUE DATE		FISCAL YEAR	CREW	SHEET NO.
		REV. DATE			7	3

SHEET SCALE AS NOTED

TOTAL SHEETS 5

Troy, 43900



300 150 0 300 Feet

Legend

- Fish_survey_presence_absence_data
- Project_Location

Map depicting bridge101/088 on Mill Street over Mil Tail Race

Map created by: K. Ryan on 3/23/22

Source: S:\Environment\PROJECTS\Troy\43900

1:3,000

New Hampshire DOT Department of Transportation

Bridge Repairs and Bridge Construction

Bridge Owners are not required to consult the Coast Guard regarding the following:

1. Repairs to a bridge that do not alter the clearances, type of structure, or any integral part of the substructure or superstructures or navigation conditions, but which consist only in the replacement of worn or obsolete parts.

   If there is doubt as to whether this provision applies, the bridge owner should consult with the Coast Guard. 33 CFR 115.40. Repairs which permanently alter the horizontal or vertical clearance of the bridge do not qualify for this provision. Note: the Coast Guard should be notified 90 days in advance if the work will inhibit the navigation of vessels through the bridge.

2. Bridges to be constructed across reaches of waterways not actually navigated other than by logs, log rafts, rowboats, canoes and small motorboats in accordance with 33 CFR 115.70(a).

   Bridge owners with doubt whether this provision applies should contact the First Coast Guard District Bridge Program. The term "small motorboats" means rowboats, canoes and other similar craft with outboard motors. It does not include sailing or cabin cruiser craft. 33 CFR 115.70. Note: the Coast Guard should be notified 90 days in advance if the work will inhibit the navigation of vessels through the bridge.

If neither of the above provisions apply the bridge owner should consult with the Coast Guard before planning the work. Bridge owners should provide the information addressed in the attached document. The process of obtaining a Coast Guard Bridge will take in excess of 6-9 months.

For bridge projects funded in whole or in part by the Federal Highways Administration, the FHWA will consult with the Coast Guard regarding whether a permit is required. The Coast Guard should always be consulted prior to work on a bridge, other than repairs pursuant to 33 CFR 115.40 (see above), if the Coast Guard, Army Corps of Engineers, or the previous Department of War has issued a permit for the bridge.

Drawbridges

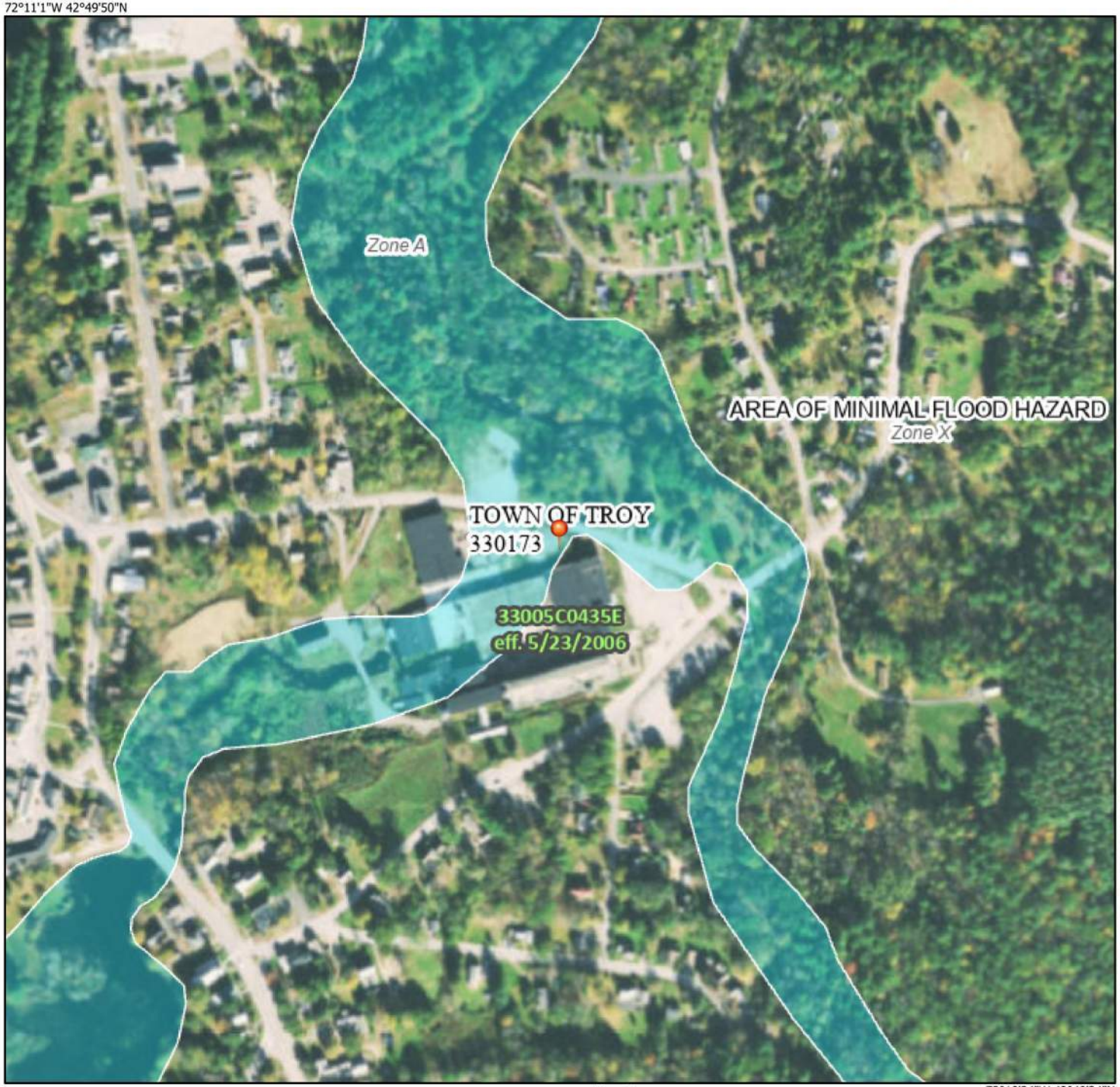
When a drawbridge unexpectedly becomes inoperable, or should be immediately rendered inoperable because of the mechanical failure or structural defect, the owner must notify the Coast Guard of the closure without delay and give the reasons for the emergency closure and an estimated time when the bridge will be returned to operating conditions. Repair work must be performed with all due speed to return the drawbridge to operations as soon as possible.

Jeffrey Stieb
Senior Bridge Management Specialist
First Coast Guard District – Boston
1-781-901-0348 (c)

National Flood Hazard Layer FIRMette

FEMA

72°11'1"W 42°49'50"N



72°10'24"W 42°49'24"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

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

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

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

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/31/2022 at 11:27 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

New Hampshire Department of
BUSINESS AND
ECONOMIC AFFAIRS

MEMORANDUM

TO: Kerry Ryan, Environmental Manager, NHDOT, Bureau of Environment.
FROM: Katie Nelson, Principal Planner, Office of Planning and Development
State National Flood Insurance Program Assistant Coordinator
DATE: May 5, 2022
SUBJECT: NHDOT Project: Troy 43900

I am writing in reference to your May 4, 2022 email regarding the above-referenced project's impact on floodplain areas. I have reviewed the contents of your email, which include a project description, topographic map, a wetland impact plan, and a FEMA FIRMette of the project area.

It appears that the project area is in a special flood hazard area (SFHA) designated as Zone A on the Flood Insurance Rate Map (FIRM).

Since the State of New Hampshire is a participant of the National Flood Insurance Program (NFIP), any development occurring in a special flood hazard area should meet at least the minimum NFIP requirements contained in 44 CFR and the requirements in the flood provisions of the State Building Code. Development is defined under the NFIP as "any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials."

For development proposed in Zone A, best judgment should be used in determining if further study is necessary. If the proposed project will not present a new obstruction to flood flows or alter drainage, then additional coordination is likely not necessary.

If you need further assistance, please contact me at 603-271-1755 or at kathryn.o.nelson@livefree.nh.gov.

100 North Main Street, Suite 100
Concord, New Hampshire 03301
603.271.2341
visitnh.gov nheconomy.com choosenh.com