

2274.12

May 15, 2020

NHDES Wetlands Bureau
29 Hazen Drive; PO Box 95
Concord, New Hampshire 03302-0095

Re: *Wetlands Permit Application*
Lee Traffic Circle Water Line Extension
Main Street/Route 155A Water Main Improvements
Lee & Durham, New Hampshire

Dear Mr. Collis Adams:

On behalf of the UNH/Durham Water System, we have enclosed a Standard Dredge and Fill Wetlands Permit Application and the \$9,030.00 application fee for the Lee Traffic Circle Water Line Extension & Main Street/Route 155A Water Main Improvements projects. The proposed work includes (1) extending a 12" water main from the existing UNH/Durham Water System to the Lee Traffic Circle area in Lee, NH and (2) water main improvements to the UNH/Durham Water System in Durham, NH. Both projects are authorized under NHDES Project No. 0038060 and are needed to provide municipal water to 14 MtBE-affected properties in Lee, NH. Approximately 22,575 SF of wetlands will be temporarily impacted as part of the proposed work.

Please contact Timothy Noble or myself with any questions, or if additional information is required. Thank you for your consideration.

Very truly yours,

~~UNDERWOOD ENGINEERS, INC.~~



Benjamin T. Dreyer, P.E.
Project Manager



Timothy K. Noble, E.I.T
Project Engineer

Encl.

cc: April Talon, Town Engineer, Town of Durham (w/ encl.)
Matt O'Keefe, Director of Energy and Utilities, UNH (w/ encl.)
Caren Rossi, Planning & Zoning Administrator, Town of Lee (w/ encl.)
Town of Lee Conservation Commission (w/ encl.)
Town of Durham Conservation Commission (w/ encl.)
Oyster River Local Advisory Committee (w/ encl.)

ph 603.436.6192
fx 603.431.4733
25 Vaughan Mall

Portsmouth, NH 03801



**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: UNH/Durham Water System

TOWN NAME: Town of Lee/Town of Durham

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

A person may request a waiver to requirements in Rules Env-Wt 100-900 to accommodate situations where strict adherence to the requirements would not be in the best interests of the public or the environment. A person may also request a waiver of standard for existing dwellings over water pursuant to RSA 482-A:26, III (b). For more information, please consult the [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 Resource 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? Yes No. If yes, provide the following information:

- Does the project qualify for an Impact Classification Adjustment or a Project-Type Exception (See Env-Wt 407.02 and Env-Wt 407.04)? Yes No
- Protected species or habitat? Yes No. If yes, species or habitat name(s): Northern Long-eared Bat; Small Whorled Pogonia
- NHB Project ID #: NHB19-2103; NHB19-2102
- Bog? Yes No
- Floodplain wetland contiguous to a tier 3 or higher watercourse? Yes No
- Designated Prime Wetland or duly-established 100-foot buffer? Yes No
- Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone? Yes No

Is the property within a Designated River corridor? Yes No. If yes, provide the following information:

- Name of Local River Management Advisory Committee (LAC): Oyster River Local Advisory Committee
- A copy of the application was sent to the LAC on Month: 5 Day: 11 Year: 2020

For stream crossing projects, provide watershed size: N/A

For dredging projects, is the subject property contaminated? Yes No
If yes, list contaminant: N/A

Is there potential to impact impaired waters, class A waters, or outstanding resource waters? Yes No

irm@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

www.des.nh.gov

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" in the space provided below.			
This permit application addresses the proposed temporary impacts to jurisdictional wetland areas for 2 projects areas. Both project areas are authorized under NHDES Project No. 0038060 and are needed to provide municipal water to MtBE-affected properties in Lee, NH. Therefore, impacts associated with both projects are addressed in this application.			
Project Area A (Lee Traffic Circle Water Main Extension) - A 12" water transmission main extension (~8,600 linear feet) is proposed from the Lee Well (UNH/Durham Water System) off Angell Rd. to the Lee Traffic Circle area to provide drinking water to 14 MtBE-affected properties in Lee, NH.			
Project Area B (UNH Water Main Improvements - Main St./Route 155A - It is proposed to replace the existing 10" water main with a 12" water main on Main St. from West Edge Dr. to Mast Rd. (~1,200 linear feet). The existing water main has been identified as a hydraulic restriction that would limit service to the Lee Traffic Circle area.			
SECTION 3 - PROJECT LOCATION			
Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.			
ADDRESS: Lee - Concord Rd. (Route 4); Durham - Main St.		TOWN/CITY: Lee and Durham	
TAX MAP/BLOCK/LOT/UNIT: Lee - multiple, see attached; Durham - Tax Map 13-3-1UNH			
US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: Lee - Dube Brook; Durham - College Brook <input type="checkbox"/> N/A			
(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places):		43.14948° North 15970.99° 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: UNH/Durham Water System			
MAILING ADDRESS: 100 Stone Quarry Drive			
TOWN/CITY: Durham		STATE: NH	ZIP CODE: 03824
EMAIL ADDRESS: atalon@ci.durham.nh.us		FAX: 603-868-8063	PHONE: 603-868-5578
ELECTRONIC COMMUNICATION: By initialing here: <u>AT</u> , I hereby authorize NHDES to communicate all matters relative to this application electronically.			
SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c))			
<input type="checkbox"/> N/A			
LAST NAME, FIRST NAME, M.I.: Noble, Timothy, K.			
COMPANY NAME: Underwood Engineers, Inc.		MAILING ADDRESS: 25 Vaughan Mall	
TOWN/CITY: Portsmouth		STATE: NH	ZIP CODE: 03801
EMAIL ADDRESS: tnoble@underwoodengineers.com	FAX: 603-431-4733	PHONE: 603-436-6192	

ELECTRONIC COMMUNICATION: By initialing here TKN, 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: [REDACTED]

MAILING ADDRESS: [REDACTED]

TOWN/CITY: [REDACTED] STATE: [REDACTED] ZIP CODE: [REDACTED]

EMAIL ADDRESS: [REDACTED] FAX: [REDACTED] PHONE: [REDACTED]

ELECTRONIC COMMUNICATION: By initialing here [REDACTED], 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 - All jurisdictional wetland areas have been delineated and classified by Marc Jacobs, Certified Wetland and Soil Scientist. See attached project site plans and Wetland Functional Assessment for additional detail/information.

Env-Wt 500 - The applicable resource-specific criteria for this Chapter is Part Env-Wt 521 Utility Projects in Public Right-of-Way. Refer to the completed Projects in Public Right-of-Way Project-Specific Worksheet for Standard Application.

Env-Wt 600 - N/A

Env-Wt 700 - N/A

Env-Wt 900 - N/A

SECTION 8 - AVOIDANCE AND MINIMIZATION

Impacts within wetland jurisdiction must be avoided to the maximum extent practicable (Env-Wt 313.03(a)). If all impacts cannot be avoided, a functional assessment is required for minor and major projects (Env-Wt 311.03(b)(10)). 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](#).

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

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: Day: Year:

N/A - Mitigation is not required

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

Have you submitted a compensatory mitigation proposal that meets the requirements of Env-Wt 800 for all permanent impacts that will remain after avoidance and minimization demonstration? Yes No

N/A - 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 required permitting).

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/ivers, 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	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	8,000	<input type="text"/>	<input type="checkbox"/>
	Scrub-shrub Wetland	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	3,575	<input type="text"/>	<input type="checkbox"/>
	Emergent Wetland	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	11,000	<input type="text"/>	<input type="checkbox"/>
	Wet Meadow	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
	Vernal Pool	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
	Designated Prime Wetland	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
	Duly-established 100-foot Prime Wetland Buffer	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
Surface Water	Intermittent / Ephemeral* Stream	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
	Perennial Stream or River	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
	Lake / Pond	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
	Docking - Lake / Pond	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
	Docking - River	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
B	Bank - Intermittent Stream	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

	Bank - Perennial Stream / River			<input type="checkbox"/>			<input type="checkbox"/>
	Bank/shoreline - Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
Tidal	Tidal Waters			<input type="checkbox"/>			<input type="checkbox"/>
	Tidal Marsh			<input type="checkbox"/>			<input type="checkbox"/>
	Sand Dune			<input type="checkbox"/>			<input type="checkbox"/>
	Undeveloped Tidal Buffer Zone (TBZ)			<input type="checkbox"/>			<input type="checkbox"/>
	Previously-developed TBZ			<input type="checkbox"/>			<input type="checkbox"/>
	Docking - Tidal Water			<input type="checkbox"/>			<input type="checkbox"/>
TOTAL					22,575		

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):	22,575 SF	× \$0.40 =	\$ 9,030
Seasonal docking structure:	SF	× \$2.00 =	\$
Permanent docking structure:	SF	× \$4.00 =	\$
Projects proposing shoreline structures (including docks) add \$400 =			\$
Total =			\$ 9,030

The application fee for minor or major impact is the above calculated total or \$400, whichever is greater = \$ 9,030

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: AI	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials: AP	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: AI	<p>The signer understands that:</p> <ul style="list-style-type: none"> • The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: <ol style="list-style-type: none"> 1. Deny the application. 2. Revoke any approval that is granted based on the information. And 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 trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.
Initials: AI	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 SIGNATURE (Env-Wt 311.04(d); Env-Wt 311.11)

SIGNATURE (OWNER): <i>[Signature]</i>	PRINT NAME LEGIBLY: Aprutaon	DATE: 5/20/20
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER): [Redacted]	PRINT NAME LEGIBLY: [Redacted]	DATE: [Redacted]
SIGNATURE (AGENT, IF APPLICABLE): <i>[Signature]</i>	PRINT NAME LEGIBLY: Timothy Noble	DATE: 5/20/20

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: <i>[Signature]</i>	PRINT NAME LEGIBLY: Elizabeth Stone
TOWN/CITY: Lee	DATE: 5-20-2020

DIRECTIONS FOR TOWN/CITY CLERK:

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

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

DIRECTIONS FOR APPLICANT:

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

Signature page for Town of Lee Clerk

SIGNATURE (OWNER): <i>[Signature]</i>	PRINT NAME LEGIBLY: Helen Talon	DATE: 5/20/20
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER): [Redacted]	PRINT NAME LEGIBLY: [Redacted]	DATE: [Redacted]
SIGNATURE (AGENT, IF APPLICABLE): <i>[Signature]</i>	PRINT NAME LEGIBLY: Timothy Noble	DATE: 5/20/20

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: <i>[Signature]</i>	PRINT NAME LEGIBLY: Corne Pitt	
TOWN/CITY: Durham	DATE: 5/20/20	

DIRECTIONS FOR TOWN/CITY CLERK:

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

1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
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DIRECTIONS FOR APPLICANT:

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Signature page for Town of Durham Clerk

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Attachments

- A. Application Attachment A: Minor and Major Projects
- B. Pre-Application Meeting Notes
- C. C-1: Lee Traffic Circle Water Line Extension Plans
C-2: Main St./Route 155A Water Main Improvements Plans
 - Full size plans enclosed separately
- D. US Army Corps of Engineers “Appendix B, Regional General Permits (GPs), Required Information and Corps Secondary Impacts Checklist”
 - NHB DataCheck results/Wildlife Service IPAC review for each project area
 - Transmittal cover letter for Request for Project Review by the New Hampshire Division of Historical Resources
- E. Notification Letters to Impacted Properties and Abutting Properties
- F. Utility Projects; Projects in Public Right-of-Way Project-Specific Worksheet for Standard Application
- G. Town Tax Map Figures with Approximate Wetland Impacts
- H. Avoidance and Minimization Checklist
- I. Wetland Functional Assessment
 - Enclosed separately
- J. USGS Maps
- K. Easements
- L. NHDOT Use and Occupancy Agreement Template

1. Project Narrative

1.1. Project Background/Introduction

The Town of Durham and the University of New Hampshire, through the NHDES MtBE program, are advancing a final design for the Lee Traffic Circle Water Line Extension and improvements to the UNH/Durham Water System. The Lee Traffic Circle Water Line Extension project and water system improvements at Main Street/Route 155A both consist of temporary impacts to jurisdictional wetland areas. Although these two projects are located in different municipalities, they are both authorized under NHDES Project No. 0038060 and both are needed to adequately provide municipal water service to the 14 MtBE-Affected properties in Lee, NH. For this reason, both projects are included in the same Standard Dredge and Fill Wetlands Permit Application for review as one (1) project. A pre-application meeting was held on January 16th, 2020 with the NHDES Wetlands Bureau to review application requirements for the project and NHDES supported the approach. The meeting notes for the pre-application are enclosed with the permit application (*Attachment B*). The waterline extension will provide drinking water to 14 MtBE-Affected properties in Lee.

1.2. Project Description

1.2.1. Lee Traffic Circle Water Line Extension

The proposed work includes constructing a new 12” ductile iron water transmission main along NH Route 4 from the Lee Well on Angell Road to the Lee Traffic Circle (~8,600 LF).

1.2.1.1. Route Description

- Proposed tie-in to the existing water main on Angell Road (UNH/Durham Water System)
- Proposed water main alignment is off the south side of Route 4 from STA 1+00 to STA 60+30
- Proposed water main alignment crosses from the south side to the north side of Route 4 at STA 60+50
- Proposed water main alignment is off the north side of Route 4 from STA 60+90 to STA 81+70
- Proposed water main alignment is off the west side of Route 125 from STA 209+00 to STA 211+00
- Parameters considered during design phase to determine the water main alignment include:
 - Wetland impacts
 - Pavement impacts
 - Utility poles
 - Private property easements
 - Embankment slopes

- Tree clearing

1.2.1.2. NHDOT Design Considerations

NHDOT has requested that the following criteria be implemented into the design:

- NHDOT Utility Accommodation Manual guidelines
- Proposed water main alignment should be as far from off the edge of pavement as possible and on the edge of the ROW
- Roadway crossings be completed using trenchless installation methods
- Minimize impacts to the existing pavement
- Minimize impacts to drainage (structures, pipe, and ditch lines)

1.2.1.3. NHDES Wetlands Impacts/Design Considerations

- The proposed water main alignment will have temporary impacts to eight (8) jurisdictional wetland areas
- All temporarily impacted wetland areas have a functional value of less than three (3)
- The Dube Brook (STA 51+50) has a functional value of 12. It is proposed to cross beneath the Dube Brook using trenchless installation methods to avoid any impacts to the brook.
- It is also proposed to avoid wetland impacts from STA 15+30 to STA 26+70 by using trenchless installation methods
- Where impacts to wetlands are unavoidable, the project will implement the following construction measures:
 - Excavate, segregate, and stockpile the existing top 12” - 18” of soils separately and re-use them for the top 12”-18” after backfilling the trench.
 - “Wildlife friendly” erosion matting without welded plastic will be used where applicable. It will be specified for contractors to provide products from the NHDOT Qualified Products List.
 - Contractor will be required to provide a dewatering plan as part of their Storm Water Pollution Prevention Plan (SWPPP) submittal, including discharge locations with pump discharge sediment traps (such as hay bales and crushed stone).

1.2.2. Main Street/Route 155A Water Main Improvements

The existing 10” water main on Main St/Route 155A between West Edge Drive and Mast Road has been identified as a hydraulic restriction for the UNH/Durham Water System. Improvements are needed to adequately provide water service to the 14 MtBE-affected properties in Lee, NH. It is proposed to abandon the existing 10” water main and install a 12” ductile iron water main (~1,200 LF).

The proposed 12” water main is to be installed approximately 5-ft from the existing 10” water main. The existing 10” water main will be abandoned in place. Impacts for the proposed work include temporary wetland impacts, utility crossings, and utility pole impacts. Wetland impacts include crossing College Brook and the adjacent wetlands. The impacted wetland area has a functional value of 3. It is proposed to implement construction sheeting and bypass pumping with a discharge sediment trap while constructing the water main across College Brook. The contractor will be required to submit a College Brook crossing plan for approval by the Engineer prior to construction. The construction measures noted in the section above will also be implemented to reduce the impacts to jurisdictional wetland areas.

2. Application Checklist Requirements

2.1. Env-Wt 311.05 – Required Project Plans:

See *Attachment C-1* (Lee Traffic Circle Water Line Extension) and *Attachment C-2* (Main St./Route 155A Water Main Improvements) for required project plans.

2.2. Permit Conditions Required for All Permits – Env-Wt 307

2.2.1. *Env-Wt 307.02 – Requirements for Coverage Under State General Permits:*

Refer to *Attachment D* for US Army Corps of Engineers “Appendix B, Regional General Permits (GPs), Required Information and Corps Secondary Impacts Checklist”. The following materials required by “Appendix B” are also enclosed within *Attachment D*:

- NHB DataCheck results/Wildlife Service IPAC review for each project area
- Section 106 Historical/Archeological Resource Review – transmittal cover letter for Request for Project Review by the New Hampshire Division of Historical Resources

2.2.2. *Env-Wt 307.03 – Protection of Water Quality Required:*

Refer the enclosed project plans (*Attachment C*), specifically the general notes sheet (*Sheet 1 – both plan sets*) and details sheets for proposed measures required by the contractor for water quality control and as summarized below:

- Obtain a NPDES General Permit for Construction Activities
- Prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) and a Notice of Intent (NOI) to fulfill project requirements
- All work shall be completed in conformance with the latest edition of the Storm Water Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire
- SWPPP observation and monitoring

2.2.3. *Env-Wt 307.04 – Protection of Fisheries and Breeding Areas Required:*

Per IPAC determination results and correspondence with NH Fish and Game, there is potential presence of the American Brook Lamprey, American Eel, Banded Sunfish, Blanding’s Turtle, Wood Turtle, and Spotted Turtle in the proximity of the Dube Brook. To avoid any impacts to the Dube Brook and related wildlife, directional drilling methods are proposed at the brook crossing. Proposed drilling pits are located more than 100-ft from the limits of the brook. In addition, double erosion control measures are proposed to be installed down-gradient from the proposed drilling pits to prevent sediment transport from construction activities. In addition, the following, as requested by NH Fish and Game, will be added to the final construction documents:

- Note in the plans that reads: “If spotted, wood, or Blanding’s turtles are found laying eggs in the work area, please contact Melissa Dupoeralski (cell: 603-479-1129) or Josh Megyesy (cell: 978-578-0802 or office: 603-271-1125) for further instructions.”

- The “Seeking Reports of Rare Turtles” flyer provided by Fish and Game on 4/21/2020 will be provided in the contract documents as an appendix with instructions for the contractor to post the flyer throughout the work area.

2.2.4. *Env-Wt 307.05 – Protection Against Invasive Species Required:*

As determined by the Wetland Functional Assessment, dated March 11, 2020, completed by Marc Jacobs, Certified Wetland & Soil Scientist, there are invasive species present in the project area. In order to provide appropriate containment and disposal measures in work areas containing invasive plant species, the final construction documents will require the contractor to submit an “Invasive Species Control and Management Plan”, as specified under NHDOT Item 697.11. In addition, final construction documents will include NHDOT’s “Best Management Practices for the Control of Invasive and Noxious Plant Species” manual, dated 9/18/2018, as an appendix.

2.2.5. *Env-Wt 307.06 – Protection of Rare, Threatened, or Endangered Species and Critical Habitat:*

As required by the US Army Corps of Engineers “Appendix B, Regional General Permits (GPs), Required Information and Corps Secondary Impacts Checklist” a NHB DataCheck was completed for both project areas (Lee and Durham). Refer to *Attachment D* for the DataChecks and follow-up correspondence regarding the measures taken for protection of rare, threatened, or endangered species and critical habitats.

2.2.6. *Env-Wt 307.07 – Consistency Required with Shoreland Water Quality Protection Act:*

N/A

2.2.7. *Env-Wt 307.08 – Protection of Designated Prime Wetlands and Duly-Established 100-Foot Buffers:*

N/A

2.2.8. *Env-Wt 307.09 – Shoreline Structures:*

N/A

2.2.9. *Env-Wt 307.10 – Dredging Activity Conditions:*

N/A

2.2.10. *Env-Wt 307.11 – Filling Activity Conditions:*

N/A

2.2.11. Env-Wt 307.12 – Restoring Temporary Impacts; Site Stabilization:

Refer to the project plans (*Attachment C*), specifically the general notes sheet (*Sheet 1 – both plan sets*) and Water Details for specified temporary impact and site stabilization measures and as summarized below:

- Contractor shall loam, seed, and mulch all cut slopes immediately following final grading. Temporary seeding and mulch shall be applied at all unvegetated areas that will be exposed for a period exceeding twenty (20) days.
- For temporary wetlands impact areas, contractor shall excavate, segregate, and stockpile the existing top 12” - 18” of soils separately and re-use them for the top 12”-18” after backfilling the trench.

2.2.12. Env-Wt 307.13 – Property Line Setbacks:

See enclosed certified mail letters (*Attachment E*) sent to properties with proposed wetland impacts and to properties that abut proposed wetland impacts. See Section 2.8 for a summary of impacted and abutting properties. Please also note the following:

- Because the project generally takes place within the Route 4 ROW, abutter notification letters have not been sent to NHDOT. Following design approval by NHDOT, the UNH/Durham Water System will obtain a NHDOT Use and Occupancy Agreement for the work within the ROW.
- Notification letters were not sent to UNH because the UNH/Durham Water System is the “Applicant” for the application.

2.2.13. Env-Wt 307.14 – Rock Removal:

N/A

2.2.14. Env-Wt 307.15 – Use of Heavy Equipment in Wetlands:

Final construction documents will specify that the contractor shall not stage, repair, or maintain heavy equipment in jurisdictional wetland areas.

2.2.15. Env-Wt 307.16 – Adherence to Approved Plans Required:

Final construction documents will include the approved wetlands application in an appendix to the Project Manual. Permit will be signed by the contractor and owner at the beginning of the project and be posted on-site.

2.2.16. Env-Wt 307.17 – Unpermitted Activities:

N/A

2.2.17. Env-Wt 307.18 – Reports:

Final construction documents will require the contractor to submit the following plans/reports by a Certified Erosion Sediment and Storm Water Inspector (CESSWI):

- A construction monitoring plan for erosion control with inspection reports and water quality reports
- A report that describes the monitoring conducted and date(s) of inspections, and includes photos showing the extent of jurisdictional impacts, areas of restoration, and progress of any plantings
- A report that describes the stability of and status of stream or wetland systems, including a description of any necessary adjustments
- A schedule and description of measures to be taken during construction and after completion of the project

2.3. Compensatory Mitigation Requirements:

N/A

2.4. Env-Wt 311.09 – Required Resource-Specific Information:

N/A

2.5. Project Specific Information required by Env-Wt 500 – Project-Specific Requirements

The applicable project-specific section for this project is Part Env-Wt 521 – Utility Projects in Public Right-of-Way. Refer to the Utility Projects; Projects in Public Right-of-Way Project-Specific Worksheet (*Attachment F*) for Standard Application enclosed for considerations taken to meet the criteria and requirements for Env-Wt 521.

2.6. Project Specific Information required by Env-Wt 600 – Coastal Lands and Tidal Waters/Wetlands:

N/A

2.7. Project Specific Information required by Env-Wt 900 – Stream Crossings; Certified Culvert Maintainer Program:

N/A

2.8. Wetland Impact Subject Property/Abutter Property Summary Tables

Refer to *Attachment G* for town tax maps showing location of jurisdictional wetland impacts with abutter summary tables pasted on the associated tax maps.

2.8.1. Lee Traffic Circle Water Line Extension

The following table summarizes abutting properties to the proposed jurisdictional wetland impacts in order from east to west of the project area.

Tax Map	Lot	Owner Name	Owner Mailing Address	Wetland Impacts w/in 10' of Subject Property	Abutter to Impact	Impact on Property
5	02-0000	Kenneth J. & Alida Rothwell	PO Box 124 Durham, NH 03824-0124		x	
5	02-0200	Kenneth J. & Alida Rothwell	PO Box 124 Durham, NH 03824-0124		x	
5	ROW	NHDOT District 6	PO Box 740 Durham, NH 03825			x
5	06-0000	Town of Lee	7 Mast Rd. Lee, NH 03861		x	
5	3-100	Peter M. Johnson Richard S. Baker	155 Concord Road Lee NH 03861		x	
4	ROW	NHDOT District 6	PO Box 740 Durham, NH 03825			x
4	8-500	Karen Gould Cohen c/o Herbert S. Cohen	55-4 Commercial Wharf Boston, MA 02110	x		
4	8-400	Karen Gould Cohen	55-4 Commercial Wharf Boston, MA 02110			x
4	8-300	Lee/Route 4 Realty Trust Robert D. Sullivan, Trustee	41 Accord Park Drive Norwell, MA 02061	x		
4	8-200	Lee/Route 4 Realty Trust Robert D. Sullivan, Trustee	41 Accord Park Drive Norwell, MA 02061	x		
4	06-0000	Pearl Peters	23 Old Mill Rd. Lee, NH 03861		x	
7	ROW	NHDOT District 6	PO Box 740 Durham, NH 03825	x		
7	8-200	56 Concord Road Lee, LLC Jose Salema	780 Portsmouth Avenue Greenland, NH 03840	x		
7	8-100	Lee Circle Development LLC	13 Jana Road Salem, NH 03079			x
7	6-100	Michael Gambino Crescent Group LLC	PO Box 10177 Bedford, NH 03110	x		
7	4-0	GTM Investments LLC	438 Commons Drive Bridgeton, ME 04009			x
7	4-1	GTM Investments LLC	438 Commons Drive Bridgeton, ME 04009		x	
7	02-0000	Kenneth C. & Karen R. Brisson	79 Meadowbrook Dr. Barrington, NH 03825		x	



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7	05-0000	Ronald William Kennard	164 Stepping Stones Rd. Lee, NH 03861		x	
7	06-0200	Aranosian Oil Co., Inc. c/o Floyd Hayes III, Vice President	557 No. State St. Concord, NH 03301		x	
7	06-0300	Crescent Group, LLC; Michael Gambino	PO Box 10177 Bedford, NH 03110		x	
7	07-0000	GCT Realty Holdings LLC	25 Hobbs Road Lee, NH 03861		x	
7	08-0000	Concord Road Realty	13 Jana Road Salem, NH 03079		x	
7	09-0000	Northern Lee Properties, LLC	125 Calef Highway Lee, NH 03861		x	

2.8.2. Main Street/Route 155A Water Main Improvements

Tax Map	Lot	Owner Name	Owner Mailing Address	Wetland Impacts w/in 10' of Subject Property	Abutter to Impact	Impact on Property
13	3-1UNH	University of New Hampshire	Office of the President Thompson Hall Durham, NH 03824			x
13	1-UNH	University of New Hampshire	Office of the President Thompson Hall Durham, NH 03825		x	
13	3-UNH	University of New Hampshire	Office of the President Thompson Hall Durham, NH 03826		x	
13	9-0	Woodward-Legard Family Rev Trust	62 Stage Road Nottingham, NH 03291		x	

2.9. Project Design Considerations Required by Env-Wt 313.03 – Avoidance and Minimization

Refer to enclosed “Attachment A: Minor and Major Projects” worksheet (*Attachment A*) and “Avoidance and Minimization Checklist” (*Attachment H*) for project design considerations required by Env-Wt 313.03.

2.10. Env-Wt 311.06 (b) – Dated and Labeled Color Photographs

Refer to the enclosed Wetland Functional Assessment report (*Attachment I*), dated March 11, 2020, completed by Marc Jacobs, Certified Wetland & Soil Scientist, for dated and labeled color photographs for all jurisdictional wetland areas with proposed impacts. Note that the report identifies all wetlands within the project areas, but not all wetlands identified have proposed impacts. Wetlands with no proposed impacts can be identified in section “2.0 Existing Conditions” of the report, where notes have been added in blue text boxes, by Underwood Engineers.

2.11. Env-Wt 311.06 (c) – US Geological Survey (USGS) Maps

Refer to the enclosed USGS maps (*Attachment J*) for each project area.

2.12. Env-Wt 311.06 (d) – Work Sequence, Including Pre-Construction Through Post-Construction, and the Relative Timing and Progression of All Work

Refer to the project plans (*Attachment C*), specifically Note 13 of the General Notes list (*Sheet 1 – both plan sets*) for work sequence information.

2.13. Easements Required by Env-Wt 311.06 (f)

The tables below summarize the subject properties where jurisdictional wetland impacts are proposed. Easements for the properties are enclosed (*Attachment K*). Please note the following:

- For the proposed water main installation within the Route 4 ROW, in place of an easement, an NHDOT Use and Occupancy Agreement (UOA) is enclosed (*Attachment L*). Following design approval by NHDOT, the UNH/Durham Water System will obtain a NHDOT Use and Occupancy Agreement for the proposed work and future system maintenance/repair within the ROW.
- An easement is not required for work within Lot 13-1UNH because the proposed water main will be jointly owned by UNH and the Town of Durham (UNH/Durham Water System).

2.13.1. Lee Traffic Circle Water Line Extension

Tax Map	Lot	Owner Name	Owner Mailing Address
4, 7	Route 4 ROW	NHDOT District 6	PO Box 740 Durham, NH 03825
4	8-400	Karen Gould Cohen	55-4 Commercial Wharf Boston, MA 02110
7	8-100	Lee Circle Development LLC	13 Jana Road Salem, NH 03079
7	4-0	GTM Investments LLC	438 Commons Drive Bridgeton, ME 04009

2.13.2. Main Street/Route 155A Water Main Improvements

Tax Map	Lot	Owner Name	Owner Mailing Address
13	3-1UNH	University of New Hampshire	Office of the President Thompson Hall Durham, NH 03824

2.14. NHB Memo, Results, Recommendations, and Follow-Up Correspondence

Refer to enclosed US Army Corps of Engineers “Appendix B” (*Attachment D*) for required NHB memo, results, recommendations, and follow-up correspondence with NHB and NH Fish and Game.



2.15. Env-Wt 311.06 (h) – Local Conservation Commission Review

The Town of Lee and the Town of Durham conservation commissions have been cc'd (w/ encl.) on the wetlands permit application transmittal letter, dated 5/15/20, addressed to the NHDES Wetlands Bureau for project review. Comments received following review from the conservation commissions will be addressed in the project design and will be forwarded to NHDES Wetlands Bureau for their records.

2.16. Env-Wt 311.06 (i) – Local River Management Advisory Committee Review

The Oyster River Local Advisory Committee (ORLAC) has been cc'd (w/ encl.) on the wetlands permit application transmittal letter, dated 5/15/20, addressed to the NHDES Wetlands Bureau for project review. Comments received following review from ORLAC will be addressed in the project design and will be forwarded to NHDES Wetlands Bureau for their records.

2.17. Env-Wt 311.06 (j) – State General Permit Information

Refer to enclosed US Army Corps of Engineers “Appendix B” (*Attachment D*).

2.18. Env-Wt 311.12 – After-the-Fact Applications:

N/A

2.19. Env-Wt 600 – Coastal Resource Worksheet:

N/A

2.20. Env-Wt 700 – Prime Wetlands Information:

N/A

2.21. Env-Wt 900 – Stream Crossing Worksheet:

N/A

2.22. Env-Wt 311.07 – Demonstration of Avoidance and Minimization

Refer to enclosed “Attachment A: Minor and Major Projects” worksheet and “Avoidance and Minimization Checklist” (*Attachment A*).

2.23. Env-Wt 311.10 – Attachment A: Minor and Major Projects

Refer to enclosed “Attachment A: Minor and Major Projects” worksheet (*Attachment A*).

2.24. Env-Wt 311.01 – Functional Assessment

Refer to the enclosed Wetland Functional Assessment report (*Attachment D*), dated March 11, 2020, completed by Marc Jacobs, Certified Wetland & Soil Scientist. Note that the report identifies all wetlands within the project areas, but not all wetlands identified have proposed impacts. Wetlands with no proposed impacts can be identified in section “2.0 Existing Conditions” of the report, where notes have been added in blue text boxes, by Underwood Engineers.