CITY OF DOVER

DOVER CONSERVATION COMMISSION – AGENDA

Meeting Type: Regular Meeting
Meeting Location: City Council Conference Room - 288 Central Avenue Dover NH
Meeting Date: Monday, February 12, 2024
Meeting Time: **5:30 pm**

1. **CALL TO ORDER AND ROLL CALL**

2. **ANNUAL NOMINATIONS AND ELECTION OF OFFICERS FOR 2024**

3. **CITIZEN'S FORUM**

4. **APPROVAL OF THE PRIOR MEETING MINUTES** – January 8, 2024

5. **OLD BUSINESS**

6. **NEW BUSINESS**
   - **A.** Conditional Use Permit for Public Service of New Hampshire, Assessor's Map 24, Lot 133, Map N, Lots 23, 22C-8, and Map K, Lots 4-C and 2, zoned CWD, R-12, located at the Transmission line ROW - Cocheco Street to Penny Lane. Proposal is a R169 utility transmission line structure replacement project creating 19,734 square feet of temporary impact to the Conservation District.
   - **B.** Conditional Use Permit for Public Service of New Hampshire, Assessor's Map K, Lots 1-A-0, 1-A-1, 1-B-0, Map N, Lots 18-1, 18-OP1, 18-6, and 19-5, zoned R-40, located at Transmission line ROW- McKone Lane to Eagan Drive. Proposal is a R169 utility transmission line structure replacement project creating 742 square feet of temporary wetland impact and 1,515 square feet of temporary impact to the Conservation District.
   - **C.** Conditional Use Permit for Public Service of New Hampshire, Assessor's Map N, Lots 19-A, 19-B, 19-C, Map K, Lots 6-C, 6-E, Map M, Lots 3, 3-A, 3-B, zoned R-40, located at Transmission Line ROW- end of Falcon Drive to Back Road. Proposal is a R169 utility transmission line structure replacement project creating 23,279 square feet of temporary wetland impact and 29,941 square feet of permanent impact to the wetland buffer.
   - **D.** Conditional Use Permit for Public Service of New Hampshire, Assessor's Map M, Lots 105, 105-1, 105-2, 100-A, 92-B, 93-B, zoned R-40, located at Transmission Line ROW-245 Back Road to Cullen Bay Road Proposal is a R169 utility transmission line structure replacement project creating 3,188 square feet of temporary wetland impact.
   - **E.** Conditional Use Permit for Public Service of New Hampshire, Assessor's Map M, Lots 91-C, 92-A, 92-H, 104, zoned R-40, located at Transmission Line ROW- Cullen Bay Road to Cocheco River. Proposal is a R169 utility transmission line structure replacement project creating 29,676 square feet of temporary wetland impact.
   - **F.** Natural Resources Inventory Project Update
   - **G.** Conservation and Open Space Chapter Update

7. **REPORT FROM THE CHAIR**
   - **A.** Review of Correspondence Received From NH Department of Environmental Services

8. **OTHER BUSINESS**
   - **A.** Update from Forest Management Subcommittee

9. **ADJOURNMENT**

CITY OF DOVER

DOVER CONSERVATION COMMISSION – MINUTES

Meeting Type:	Regular Meeting
Meeting Location:	City Council Conference Room - 288 Central Avenue, Dover, NH
Meeting Date:	Monday, January 8, 2024
Meeting Time:	**5:30 pm**

MEMBERS PRESENT: Steve Fellows (Vice Chair), Abigail Lyon, Kristen Murphy, Amy Kramer Perry, Jake Geddes, Jay Aube
Absent (Excused):, Bill Hunt (Chair), Robert Atwood
Absent (Unexcused):
STAFF PRESENT: Jackson Kaspari – Resilience Manager
OTHERS PRESENT: Councilor Williams, Autumn Scott (Virtual), Donna Benton- Director of Community Development

1. CALL TO ORDER AND ROLL CALL
The meeting was convened at 5:30 PM.

2. ANNUAL NOMINATIONS AND ELECTION OF OFFICERS FOR 2024
Tabled to the February meeting

3. CITIZENS' FORUM
None

4. OLD BUSINESS:
None

5. APPROVAL OF THE PRIOR MEETING MINUTES – December 11, 2023
A. Lyon moved to approve the minutes of December 11th as submitted. A. Kramer Perry seconded. Vote: 3 yes, 2 abstain

6. NEW BUSINESS:

A. Conservation Fund Request for Staff Administrative Costs

Donna Benton, Planning and Community Development Director was present to make the request. She noted this is a yearly request.

Jay Aube arrived at this time.

Discussion occurred confirming the requested funds are available in the fund.

A. Lyon moved to authorize the use of $100,000 from the Conservation Fund for staff administrative costs. J. Geddes seconded. Vote: 6 yes.

B. Natural Resources Inventory Project Update
The goal of the project is to develop an inventory of Dover's natural resources to be used as a tool for land use boards and staff to utilize.
Autumn Scott, Strafford Regional Planning Commission updated and discussed the following with the Commission:

DRAFT

- Descriptions of Maps created
    - Asked the members to review the maps and decide how they want the information displayed on the Conservation Land Map (ownership/ publicly accessible or not etc.)
    - Would the members like a Forest Soils Map?

Discussion occurred about how frequently an NRI would be updated.
Autumn showed each map, and some questions and ideas were clarified by members.

She asked for the members to look through the maps in the next week and provide feedback so the maps can be updated by the February meeting.

- Public Survey-Sample survey questions were provided
    - Asked for feedback on the questions, keeping in mind the goal is to find out how people are using natural resources in the community and how aware they are of them.

Some questions were discussed/ feedback given.

C. Letter of Support for NOAA Climate Resilience Regional Challenge Proposal
J. Kaspari informed the members of a project involving replacement of the Sixth St bridge. He initially thought a letter of support from the Commission would be beneficial as it is a mitigation priority for the committee. He has since learned from the project partners that they are envisioning letters of collaboration coming from the project managers.

A. Lyon gave additional information about the project as a whole. The timeline was also reviewed.

D. Conservation and Open Space Chapter Steering Committee
J. Kaspari noted that folks are needed for the steering committee and a Conservation Commission member would be ideal. He noted the other member criteria.

7. REPORT FROM THE CHAIR

A. Review of Correspondence Received from NH Department of Environmental Services

J. Kaspari noted they've received a wetlands permit notification regarding repair of a docking station.

8. OTHER BUSINESS

A. Update from Forest Management Subcommittee

S. Fellows reported on the latest discussion topics

- Potential pocket forest at Garrison School
- Street tree plantings for 2024

J. Kaspari noted UNH has accepted the Urban Forestry Fellow proposal and the job is posted.

9. ADJOURNMENT

J. Aube moved to adjourn. A Lyon seconded. Vote: 6 yes.
The meeting was adjourned at 6:27 PM.

DRAFT

R169 Structure Replacement Project
Dover, New Hampshire

Conditional Use Permit Application

Part 1 of 5

December 22, 2023

Prepared for:

Public Service Company of New Hampshire d/b/a Eversource Energy
13 Legends Drive
Hooksett, NH 03106

Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: Public Service Company of NH d/b/a Eversource Energy Telephone # 603-634-2243

Address of Applicant: 13 Legends Drive, Hooksett, NH 03106

E-Mail Address: Travis.Yandow@Eversource.com

Name of Property Owner (if different from applicant): same as above Telephone # same as above

Address of Property Owner: same as above

PROPERTY INFORMATION

Assessor's Map # 830-267 Lot(s) # N0023-000000

Address of Property: Existing R169 transmission line ROW--84 Cocheco St., Dover, NH to 184 Houde Rd., Eliot, ME

Zoning District(s) R-40, R-12, CWD Overlay District(s) Wetland Protection and Conservation

Rural Residential, Medium Density, Residential, Urban Density Multi Residential, Cocheco Waterfront District

Existing Use of Property: Electric transmission line ROW

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☒ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

Impact Area 1/Sheet 1: Eversource is proposing to replace two structures (27 and 28) along their existing R169 utility transmission line in Dover. These wooden structures require replacement due to age, cracking, leaning, and/or woodpecker damage. The existing structures will be replaced with new weathering steel structures to provide a more reliable electrical infrastructure. The work pads for both structures proposed occur partially within the Conservation District and partially within the Wetland Protection District for the Cocheco River. In the Wetland District, 5,526 square feet of temporary impact is proposed in the buffer as a result of construction of the two work pads. In the Conservation District, 19,734 of temporary impact is proposed in the buffer as a result of the upland disturbance of the work pads and connecting access road. These areas will require pre-construction installation of erosion/sediment control BMPs and monitoring throughout for effectiveness. The area around the pads and the connecting road will be re-graded and restored with native topsoil spread over disturbed areas and re-seeded. See attached application narrative and supporting documents for more details.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: NHDES: Alteration of Terrain; Wetlands Utility Statutory Permit by Notification; Shoreland Permit by Notification; USACE Pre-application Construction Notification; USACE Section 408 Variance to Fed. Navigation Project.

Name of Professional That Prepared Plans: Tom Tetreau, NH Certified Wetland Scientist

Address 30 Park Drive, Topsham, ME 04086 Telephone #: 207-504-7231

Professional License #: 283 E-mail address: tom.tetreau@stantec.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 12/20/2023

Signature of Applicant (if different from owner): _____ Date: _____

Signature of Agent: _____ Date: 12/20/2023

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 12/20/2023

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS
Multiple		Kurt Nelson, Eversource Energy	13 Legends Drive, Hooksett, NH 03106

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS
Tom Tetreau, NH Certified Wetland Scientist	Stantec	30 Park Drive, Topsham, ME 04086

Conservation Easement Holder:

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

Stantec Consulting Services Inc.
30 Park Drive, Topsham ME 04086-1737

December 22, 2023

Project/File: 195602676

Attention: Donna Benton
Planning Director
288 Central Avenue
Dover, NH 03820
d.benton@dover.nh.gov

Reference: Conditional Use Permit Application, Eversource Energy, R169 Structure Replacement Project, Dover, New Hampshire

Dear Ms. Benton and Planning Board Members,

On behalf of the Public Service of New Hampshire d/b/a Eversource Energy (Eversource), Stantec Consulting Services Inc. is filing five Conditional Use Permit (CUP) applications for necessary structure replacements as part of the R169 Structure Replacement Project (Project) in the City of Dover. Eversource has identified 18 existing structures along the existing R169 transmission line right-of-way (ROW) in Dover that require replacement due to deterioration from age, cracking, leaning, rot, and/or woodpecker damage.

Portions of the proposed Project are located within the Conservation District and the Wetlands Protection District, as described in the Dover Zoning Ordinance, Articles 170-27 and 170-27.1, respectively. CUPs may be granted within utility ROWs in the Conservation District in accordance with Article 170-27 Section C (1), and in the Wetlands Protection District in accordance with Article 170-27.1 Section F (1):

> "Article 170-27 Section C (1): *Conditional Use Permits may be granted by the PLANNING BOARD for the following uses within the* ***Conservation District****: (1) STREETs, roads and other access ways and utility rights-of-way, communications equipment, easements, including power lines and pipe lines, if essential to the productive use of land not so zoned and if so located and constructed as to minimize any detrimental impact of such uses upon the wetlands or other environmentally sensitive areas, where it is physically impossible to locate such ways over land not so zoned."*
>
> "Article 170-27.1 Section F (1): *Conditional use approval may be granted by the PLANNING BOARD (RSA 674:21II) after proper public notice and public hearing, for construction within the* ***Wetland Protection District*** *or buffer. Said construction may include but is not limited to, a road or other accessway, utility right-of-way, communication lines, power lines and pipelines, STRUCTUREs, and parking LOTs provided that the proposed construction complies with the following standards [emphasis added.]*

Therefore, Eversource is requesting the CUPs for activities and temporary impacts to wetland buffer areas within the Conservation District and the Wetlands Protection District and has outlined compliance with City of Dover zoning standards in the attached project narrative, which is being submitted in accordance with Articles 170-27 and 170-27.1 of the zoning ordinance. These five CUP applications (one per project map sheet) are being submitted, in total, for approximately 19,734 square feet (0.45 acres) of temporary tidal

Reference: Conditional Use Permit Application, Eversource Energy, R169 Structure Replacement Project

buffer resource impacts (to be restored) and 1,515 square feet (0.03 acres) of temporary stream buffer resource impacts (timber matting) in the Conservation District. In the Wetland Protection District, the following impacts are anticipated: approximately 56,885 square feet (1.31 acres) of temporary wetland impacts (matting), 26,838 square feet (0.62 acres) of temporary impacts within wetland buffers (matting), and 29,941 square feet (0.69 acres) of permanent impacts within upland wetland buffer areas for gravel access road and work pad construction.

The proposed work is for direct “in-kind” replacements of cracked and damaged poles, and no new pole locations are proposed within the R169 ROW in Dover. New structures will be in the same general footprint as existing and do not represent a significant footprint expansion within the Conservation District and the Wetlands Protection District or consist of substantial disturbances beyond those historically created by the transmission line. Disturbed areas will be protected with erosion and sediment control measures, and strategies will be implemented to stabilize and allow for re-vegetation of exposed soils.

This submittal includes a digital copy of each of the five CUP application packages. The filing fee of $1,000 ($200 per application x 5 CUP applications [one per project map sheet]) is included in the online submittal with this application. We understand that the City of Dover will calculate and invoice for abutter and notice fees; therefore, we have assumed these fees will be paid at a later date and have not included them with this application.

Additional state and federal wetland and shoreland permit applications are being prepared and submitted for the Project. Permit approvals will be forwarded to the City of Dover as required and/or requested.

Sincerely,

STANTEC CONSULTING SERVICES INC.

Jess S. Hunt
Senior Associate, Environmental Services
Phone: (603) 557-4662
jessica.hunt@stantec.com

Andrew Ackerman
Senior Environmental Scientist, Environmental Services
Phone: (603-413-7731
andrew.ackerman@stantec.com

Attachment: Conditional Use Permit Applications

cc. Travis Yandow and Kurt Nelson, Eversource

Conditional Use Permit Application

R169 Structure Replacement Project
Dover, New Hampshire

December 22, 2023

Prepared for:

Public Service Company of New Hampshire d/b/a Eversource Energy
13 Legends Drive
Hooksett, NH 03106

Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

Table of Contents

1.0 PROJECT INTRODUCTION AND PURPOSE 1

2.0 EXISTING CONDITONS 2

3.0 PROJECT DESCRIPTION AND PROPOSED CONDITIONS 3
3.1 LINE REBUILD: STRUCTURE REPLACEMENT, CONDUCTOR AND OPGW REPLACEMENT 3
3.2 ACCESS 4
3.2.1 Road Construction 4
3.2.2 Wetland and Upland Temporary Matting 4
3.2.3 Work Pad Construction 5
3.3 CONSTRUCTION SEQUENCE 5
3.4 BEST MANAGEMENT PRACTICES 6
3.4.1 Erosion and Sedimentation Control 6
3.4.2 Invasive Species Control Plan 6
3.4.3 Construction Observation and Post Construction Monitoring 6

4.0 OVERLAY ZONING DISTRICT IMPACTS AND ACTIVITIES 7
4.1 WETLAND PROTECTION DISTRICT 8
4.2 CONSERVATION DISTRICT 11
4.3 IMPACT AREAS 13
4.3.1 Impact Area 1 13
4.3.2 Impact Area 2 14
4.3.3 Impact Area 3 14
4.3.4 Impact Area 4 14
4.3.5 Impact Area 5 14

LIST OF FIGURES

Figure 1 USGS Site Location

R169 – Dover CUP Permit Map Set, Dover, NH

LIST OF APPENDICES

APPENDIX A WETLAND DELINEATION REPORT

1.0 PROJECT INTRODUCTION AND PURPOSE

Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource) owns and maintains the R169 electrical transmission line that passes through Dover, New Hampshire. Eversource has identified 19 existing wooden structures that need to be replaced on the R169 line (18 in Dover, New Hampshire, and 1 in Eliot, Maine) due to age, cracking, leaning, rot, and/or woodpecker damage, which constitutes the proposed R169 Structure Replacement Project (Project). The existing wooden structures will be replaced with new, steel structures that adhere to current safety and electrical codes to provide more reliable electrical infrastructure.

The R169 Line right-of-way (ROW) begins at the Three Rivers Substation in Eliot adjacent to the Piscataqua River and traverses westerly over the river into Dover, then continues westerly through Dover approximately 3 miles for the remainder of the length of the transmission line to the Dover Substation.

Chapter 170 of the local Zoning Ordinance of the City of Dover, New Hampshire, establishes regulations and guides appropriate use of land. The existing utility ROW and proposed structure replacement activities in Dover bisect various city zoning districts, including the Rural Residential (R-40), Medium Density Residential (R-12), and Urban Density Multi Residential (RM-U) zoning districts and the Cocheco Waterfront District (CWD). The ROW and proposed Project activities also intersect two natural resource protection overlay districts—the Conservation District (per Article 170-27) and the Wetland Protection District (per Article 170-27.1). The purpose of these two overlay districts is to avoid and minimize development impacts to, and similarly conserve, local rivers, streams, wetlands, and flood-prone or steep, erosion-prone areas of Dover. The Project has taken into consideration each the objectives of these overlay districts in the development of construction plans and activities around the identified sensitive resources.

The proposed Project activities require a Conditional Use Permit (CUP) from the City of Dover (hereafter, City) Planning Board for those activities that occur within the Conservation District and the Wetland Protection District per the City's Local Zoning Ordinance (as amended, September 2022) and subsequent guidance from the City Planning and Community Development Department. This CUP application presents the applicable information associated with the Project. In addition to the 18 proposed replacement structures in Dover, Eversource previously identified five utility structures for replacement along the R169 line. A CUP application (#406-22) for the replacement of those five structures was submitted to the City in July 2022 and approved by the Planning Board on July 21, 2022. Replacement of those five structures has been completed.

In accordance with NH RSA 482-A:3 XV, routine utility maintenance work is exempt from the standard NH wetland permit process. However, Eversource is required to submit a Utility Maintenance Activity Statutory Permit-by-Notification, Shoreland Permit-by-Notification, and Alteration of Terrain permit application to the New Hampshire Department of Environmental Services (NHDES) to cover the temporary wetland impact associated with use of timber matting within wetlands required to

complete the proposed structure replacement work, impacts within the developed portions of the Protected Shoreland of the Cocheco River, and proposed upland ground disturbance.

2.0 EXISTING CONDITONS

The existing cleared R169 ROW varies from approximately 100 feet (ft) in most areas to 250 ft wide where the ROW is shared with additional transmission lines near the Piscataqua River. The Project ROW consists of Eversource fee-owned property or Eversource-controlled easements. From the Piscataqua River to the Dover Substation, the ROW traverses westerly through forested, residential, and agricultural landscapes. The ROW primarily crosses rural areas and local roads, as well as the Cocheco River and the Piscataqua River. The topography varies from flat lowlands and fields to undulating hills and steep side slopes. Elevations range from 0 to 90 ft above mean sea level. Soils within the ROW consist primarily of loam and silty loam (see attached CUP plans).

The open upland natural communities in the ROW consist of early successional shrub, sapling, and herbaceous species. Characteristic woody vegetation includes gray birch (*Betula populifolia*), quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), sheep-laurel (*Kalmia angustifolia*), late lowbush blueberry (*Vaccinium angustifolium*), white meadowsweet (*Spiraea alba*), Allegheny blackberry (*Rubus allegheniensis*), American hazelnut (*Corylus americana*), red oak (*Quercus rubra*), and red raspberry (*Rubus idaeus*). Commonly observed herbaceous vegetation in the ROW includes little Canada mayflower (*Maianthemum canadense*), wrinkle-leaf goldenrod (*Solidago rugosa*), Canada goldenrod (*Solidago canadensis*), bracken fern (*Pteridium aquilinum*), hay-scented fern (*Dennstaedtia punctilobula*), wild strawberry (*Fragaria virginiana*), bristly dewberry (*Rubus hispidus*), Kentucky blue grass (*Poa pratensis*), and other common grass and wildflower species. Non-native invasive species such as rambler rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), Morrow's honeysuckle (*Lonicera morrowii*), and glossy false buckthorn (*Frangula alnus*) are present in moderate abundance.

Stantec consulted with the New Hampshire Natural Heritage Bureau, the New Hampshire Fish and Game Department, and the US Fish and Wildlife Service as required for NHDES and US Army Corps of Engineers (USACE) permitting. There were three state-listed wildlife species, three state-listed plant species, and three federally listed wildlife species noted in the vicinity of the Project. Eversource proposes to follow agency recommendations and permit conditions as part of this Project and will conduct recommended surveys as needed.

One potential vernal pool and 23 wetlands were identified within the ROW during a delineation conducted by Stantec (Tom Tetreau, New Hampshire Certified Wetland Scientist #283) in June 2023; results of the wetland survey can be found in Appendix A.

The 307 transmission line ROW intersects the R169 ROW from the south near proposed structure 6 to the Piscataqua River; the nearby 307 line ROW will be utilized for access only. Existing access roads traverse portions of both ROWs. These access roads are unpaved with mostly a loamy sand base with occasional stretches consisting of previously installed stone. The access roads are generally 8 to 12 ft wide in most areas.

Routine vegetation maintenance is performed along the R169 ROW on an approximate 4- to 5-year cycle. The last vegetation maintenance was performed along portions of the R169 ROW in summer 2023. Trees and shrubs capable of growing to heights that could interfere with conductors are trimmed and allowed to regenerate until the next maintenance cycle. Prior to the start of construction, areas around proposed access roads and pads will need additional mowing within the ROW.

3.0 PROJECT DESCRIPTION AND PROPOSED CONDITIONS

3.1 LINE REBUILD: STRUCTURE REPLACEMENT, CONDUCTOR AND OPGW REPLACEMENT

The proposed Project includes replacement of 18 existing wooden transmission line structures along the R169 line in Dover. The replacement (new) structures will be within 10 ft of the previous structure location, with two exceptions: proposed structure 13 will be approximately 140 ft from the existing structure location to avoid wetland and impacts, and proposed structure 20 will be approximately 40 ft from the existing location. A majority of the new structures will be approximately 5 to 10 ft taller than the previous structures to comply with current electrical standards. The one structure proposed for a reduction in height is structure 27, within the shoreland of the Cocheco River, which will be reduced from the current 135 ft to 120 ft. The shorter structure allows for a reduced construction footprint and minimizes potential impacts to the sensitive shoreland area.

The structure replacement process consists of drilling holes near the existing structures and installing a caisson, also referred to as a can, below the ground surface. The new structure is installed in the can and backfilled with clean, suitable rock or gravel material. Spoils produced from drilling the hole will be disposed of in an approved upland location away from wetland areas and will be stabilized with an appropriate conservation/contractor's seed mix and weed-free straw mulch. Some replacement structures may require anchors. Anchors will be installed by excavating trenches, installing concrete block anchors, and backfilling trenches. If soil conditions allow, screw anchors may be installed to minimize ground disturbance. Temporary swamp mats (i.e., matting) will be utilized to access structures located within delineated wetlands or wetland areas that must be crossed for access. Mats will also be used on some occasions to minimize impacts to maintained yards or farmed upland areas. Once the new structure is installed and stable, the wires from the old structure will be transferred to the new structure. Old structures will be cut and removed from the ground in upland locations. To minimize ground disturbance, old structures in wetlands are typically cut flush with the ground surface. In some cases, the bottom of the old structure may be able to be pulled from the wetland with minimal disturbance to the wetland. All construction materials and old structure pieces will be removed and disposed of off-site at an approved disposal facility.

Following completion of the structure replacement and wire work, temporary timber construction mats will be removed. Disturbed wetland areas will be restored and stabilized with weed-free straw mulch. Temporarily disturbed upland areas will also be restored and stabilized through seeding and mulching. Permanently disturbed wetland buffer areas will remain as permanent features. Seed and mulch will be

applied along the shoulders and side slopes of the access roads as necessary and the established access roads will be left in place, with the exception of the area around proposed structures 27 and 28, which will be entirely restored. The work pads and new access road between proposed structures 27 and 28 will be re-contoured to the existing grade, covered with topsoil that was stockpiled during the initial grading, and stabilized with seed and mulch.

Minor tree clearing is proposed as maintenance within the existing access road off Cocheco Street and within the existing ROW near proposed structures 27 and 28 as part of the Project. The Project will submit a Protected Shoreland Permit by Notification to address proposed selectively cut trees in the upland shoreland areas.

3.2 ACCESS

The proposed Project utilizes existing access roads within the R169 line ROW and existing access within the 307 line ROW wherever possible. The majority of the existing access roads are made up of dirt or gravel areas and are proposed to be improved, as necessary, through the addition of clean stone as part of the Project to allow for construction vehicle access. Proposed access roads are shown on the attached map set. Access road entrances are located off local roadways and utilize existing entrances wherever possible. Driveways permits are not anticipated to be required from the City. There are no state-owned roads in the project area; therefore, temporary driveway permits from the New Hampshire Department of Transportation will not be required for construction. The proposed access roads were sited to minimize ground disturbance and temporary wetland impacts to the greatest extent practicable while providing safe and efficient access to the existing structures. Timber matting will be used to cross all wetland and stream resources that cannot be avoided completely.

3.2.1 Road Construction

Proposed upland access road improvements include construction of approximately 12- to 16-ft-wide gravel and stone roads within the ROW and in some cases adjacent to the ROW. The roads will provide access to existing utility structures for replacement activities. The improved access roads will provide reliable, permanent access to utility infrastructure during future maintenance or emergency repairs. Where possible, the proposed access roads will be located on top of existing dirt roads or trails. If no existing routes are available or suitable, a new road will be constructed. Minor grading may be necessary to remove large boulders and create a flat surface for the new rock or gravel.

Project plans require tree removal along the widening the existing access road off Cocheco Street to proposed structures 27 and 28 to a width of 12 ft to accommodate equipment for the structure replacements. Tree removal at this location will occur within the existing utility ROW and along the existing access road on Eversource property and will be conducted between November 1 and April 14 to avoid potential impacts to federally listed wildlife species if present.

3.2.2 Wetland and Upland Temporary Matting

Access through maintained fields and private property within uplands and delineated wetlands in the Project area will utilize temporary timber construction mats to minimize ground disturbance and prevent

rutting. Where necessary in overly saturated conditions, runners (mats placed parallel to the direction of travel) will be placed on the wetland surface prior to setting the top, perpendicular layer of mats. This will help reduce settling and overall wetland disturbance.

3.2.3 Work Pad Construction

The proposed Project includes construction of 18 structure replacement work pads approximately 100 ft by 100 ft each, with some exceptions. With the exception of work pads located within wetlands, upland work pads will be constructed using clean stone. The work pads will be top dressed with compacted 1.5- to 3-inch-diameter clean stone. After the structure replacement work is complete, restoration of upland work pads will consist of utilizing stockpiled topsoil to reduce work pads to approximately 30 ft by 60 ft. Restored areas will be stabilized with seed and mulch. Proposed work pads located in wetland areas will be constructed using temporary timber construction mats and will be removed upon completion of the work.

3.3 CONSTRUCTION SEQUENCE

The general Project construction sequence will be:

1. Installation of appropriate signage along public roads near construction entrances;
2. Installation of erosion control devices, as needed;
    a. Erosion control practices will follow the *Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetland and Waterbodies in New Hampshire* (Utility BMP Manual) published by the New Hampshire Department of Natural and Cultural Resources (March 2019).
3. Placement of construction mats in wetlands for access roads and work pads;
4. Grading and improvements of upland access roads and work pads;
5. Stabilization (seed and mulch) of exposed soils on created side slopes;
6. Replacement of structures:
    a. Drill new structure holes;
    b. Install new poles and structure components;
    c. Transfer electrical lines from old structure to new structure; and
    d. Remove and haul away old structure.
7. Clean up excess/stockpiled material at work pads;
8. Smoothing/grading upland work pads and stabilizing and restoring with seed and mulch as necessary;
9. Removing construction mats from wetland areas and stabilizing/restoring disturbed wetland areas with weed-free straw mulch; and

10. Stabilization, restoration, and clean up staging areas and entrance points.

Provided necessary permits are in place and to the extent possible, work would begin in April 2024 and continue through fall 2024. Entrances, access roads, and work pads will be created prior to structure replacement work. New structure holes will likely be drilled prior to mobilization of structure replacement equipment (cranes, bucket trucks). Installing new poles and transferring wires will be completed prior to moving on to the next structure. Multiple structure replacement crews may be working in different areas to expedite the process. Removal of mats and restoration will occur as individual work areas are completed.

3.4 BEST MANAGEMENT PRACTICES

3.4.1 Erosion and Sedimentation Control

Work will be conducted in accordance with the Utility BMP Manual. Following these BMPs will minimize and avoid impacts to wetland and stream resources and the surrounding upland areas to the greatest extent practicable.

Perimeter erosion controls consisting of silt fence, straw wattles, mulch, and straw bales will be installed as necessary around the work areas to minimize potential impacts to adjacent resource areas. Water bars, also known as diversion ditches, will be installed along access roads with steep slopes, where necessary, to prevent water from traveling long distances down the road causing erosion. Water bars will direct water off the road into adjacent upland areas. Exposed soil created during construction will be stabilized with seed and mulch as soon as possible after active work in the area is complete. No equipment or material will be stored within wetland areas.

3.4.2 Invasive Species Control Plan

Due to the developed landscape surrounding the majority of the R169 line, invasive plant species occur within the ROW and were observed during field surveys. Contractors will follow the invasive species recommendations in the Utility BMP Manual to help prevent the spread of invasive species, including inspection and cleaning of equipment and contractor training. Equipment, including construction mats, brought to the Project area will be inspected by the contractor and/or environmental monitor, and if plant material or soil is present, the equipment will be cleaned and dried prior to use on the Project. Contractors will be familiar with identification of common invasive species and will be required to clean mats and equipment prior to their use elsewhere. If possible and without increasing wetland impacts, the contractors may also make slight shifts in access roads or work pads to avoid invasive species locations.

3.4.3 Construction Observation and Post Construction Monitoring

During construction, Eversource will contract an environmental monitor to perform routine construction observation visits. The environmental monitor will inspect the Project area for compliance with the Utility BMP Manual and applicable Project permits and conditions. Construction observation visits will occur at least once per week and/or after a significant rainfall (0.5 inches or greater) or snow melt event. Under the National Pollutant Discharge Elimination System, Eversource will file a Notice of Intent and

Stormwater Pollution Prevention Plan (SWPPP) under the U.S. Environmental Protection Agency's Construction General Permit. Construction observation visits and associated reporting will follow the SWPPP and Construction General Permit guidelines and be performed by a qualified individual familiar with the SWPPP, Utility BMP Manual, and Project specific permit conditions.

A series of post-construction monitoring visits in the Project area will be performed by a qualified environmental scientist to document that disturbed areas are properly stabilized and vegetation is beginning to regrow. Site restoration will be considered successful when there is at least 85% cover by native or non-invasive herbaceous plant species within the restored portions of the ROW, including restored wetland areas. This does not include gravel work pads or access roads that existed prior to construction or were created during construction, with the exception of the gravel work pads and road for proposed structures 27 and 28, which will be restored to natural grade, topsoil spread, and stabilized with seed and mulch. The environmental scientist will prepare a report following each post-construction monitoring visit that includes representative photographs and corrective actions (if applicable). Once the disturbed uplands and temporarily impacted wetlands within the Project area are determined to be permanently stabilized, post-construction monitoring will be considered complete, and a Notice of Termination will be filed under the U.S. Environmental Protection Agency's Construction General Permit.

4.0 OVERLAY ZONING DISTRICT IMPACTS AND ACTIVITIES

The ROW and proposed Project activities intersect natural resource protection overlay districts in Dover, including the Conservation District and the Wetland Protection District. The following summarizes the Project-specific components in the respective overlay districts.

Proposed temporary impacts to wetlands were minimized to the maximum extent practical during project planning. This included modifications to ROW access, reducing the size and positioning of the proposed utility poles, the utilization of timber matting and/or tracked equipment, and the location and orientation of work pads. Timber matting will be installed to completely span streams, where necessary, to avoid impacts to the stream bed and banks.

For the purposes of this CUP, resource impacts have been divided into 5 Impact Areas and corresponding map sheets, as shown per wetland and stream in the attached map set and in Table 1. Given the overlapping overlay districts and associated buffers, impacts were quantified in Table 1 below by direct resource impact and overlay district buffer impacts. The district buffers were established by taking the farthest buffer (such as when a stream channel is encompassed by a surrounding wetland, the larger Conservation District buffer was used).

Table 1: City of Dover Proposed Wetland Protection and Conservation District Impacts

District	Resource Impacts (SF)	Impact Area 1 (Map Sheet 1)	Impact Area 2 (Map Sheet 2)	Impact Area 3 (Map Sheet 3)	Impact Area 4 (Map Sheet 4)	Impact Area 5 (Map Sheet 5)
Wetland Protection District	Temporary Wetland Impact	-	742	23,279	3,188	29,676
	Temporary Wetland Buffer Impact	5,526	1,802	16,716	1,852	942
	Permanent Wetl and Buffer Impact*	-	-	29,941	-	-
Conservation District	Temporary Area Subject to Tidal Action Buffer Impact	19,734	-	-	-	-
	Temporary Stream Resource Buffer Impact	-	1,515	-	-	-
Overlapping Districts		5,526	773	-	-	-
	Total	**25,260**	**4,059**	**69,936**	**5,040**	**30,618**

*Based on 12-ft disturbance area for new gravel access
Overlapping Districts are illustrative of how much districts overlap and not part of total for each Map Sheet.

4.1 WETLAND PROTECTION DISTRICT

The Wetland Protection District includes all areas of wetlands and 50-ft wetland buffers, as defined in Dover Zoning Ordinance, Article 170-27.1. Project activities subject to a CUP that are within the Wetland Protection District are limited to temporary placement of timber mats in wetlands and at stream crossings and the creation of stone work pads and access road improvements in wetland buffer areas. New structures will be placed in the same general location as the existing structures, as described in section 3.1 above. The proposed access roads were sited along existing roads or trails wherever possible.

The Project will meet the following Wetland Protection District standards for Conditional Use Approval, as outlined in the Dover Zoning Ordinance, Article 170-27.1F(1).

(a) *Practicable Alternative: There is no practicable alternative that would have a less adverse impact on the area.*

The Project site is an existing transmission line within a utility ROW. The proposed structure replacement work is necessary to maintain reliability and safe operation of the existing R169 line. Alternative locations would require creation of a new ROW, and increased impacts to resources and the surrounding landscape and were not considered. The replacement structures must be located on the alignment of the existing transmission line and must be located within the existing ROW. The Project has been designed to reduce the footprint of the construction as much as

possible. For example, the proposed access route between structures 14 and 15 was designed to utilize a narrow upland area on the south side of the ROW to minimize wetland impacts as much as possible while maintaining required clearances for working equipment from overhead wires and adjacent tree lines. For example, in addition to reducing the height and footprint of proposed structure 27 near the Cocheco River, the Project proposes to move access roads to uplands where possible, completely restore impacted areas adjacent to the Cocheco River, smooth/grade upland work pads, and stabilize and restore with seed and mulch as necessary.

Upland work pads, other than those near the Cocheco River, are typically restored to an approximately 30-ft by 60-ft size. Topsoil pushed to the sides during the initial construction will be used to cover the work pads. Exposed soils will be stabilized with seed and mulch. Temporary construction mats will be removed from wetland areas as soon as work is complete and wetland areas will be stabilized/restored with weed-free straw mulch, if necessary. Matting will be removed in a similar manner to how it was installed.

(b) *Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative.*

The proposed structure replacements have been designed to avoid permanent fill and loss of wetland and stream areas by utilizing upland areas as much as possible and using temporary construction mats. The mats will result in minimal temporary disturbance of the shrub and herbaceous vegetation underneath, but the vegetation is expected to quickly recover following removal of the construction mats after construction is complete. Mats will be used to span streams and will not disturb streambanks or modify hydrology.

Wetlands will be protected from stormwater runoff through erosion and sedimentation control measures, and exposed soils will be stabilized in accordance with the measures discussed in Section 3.4.1. Additionally, appropriate siltation prevention measures will be implemented and inspected during construction and post-construction to prevent erosion, siltation, and turbidity. The erosion control methods and materials will follow the Utility BMP Manual. Perimeter controls (silt fence, straw bales, straw wattles, etc.) will be installed along the limits of work to protect adjacent resources and off-site area. If necessary, other BMPs including stone check dams and dewatering basins will be used to control and treat stormwater and prevent runoff to abutting or downslope properties.

The tidal wetland, wetland W02 associated with the Cocheco River, will be completely avoided by construction activities. Work will occur within the adjacent upland only, and erosion and sedimentation controls will be installed prior to ground disturbance to protect the wetland and river.

(c) *Minimization: Any unavoidable impacts have been minimized. No reasonable Alternative to the proposed construction exists which does not impact a wetland or which has less detrimental impact on a wetland. Design, construction and maintenance methods will be*



prepared by a registered engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade.

The Project is designed to replace existing infrastructure in an existing and maintained utility ROW. The Project does not propose any permanent impacts directly to surface waters or wetlands. Areas where district buffers are impacted have been reduced by using upland matting adjacent to wetlands in some areas and by reducing the overall footprint of structure work pads in others. Additionally, where ground disturbance and work area construction will occur near wetlands, appropriate erosion prevention measures will be implemented during construction and post-construction to prevent the migration of sediment laden runoff from reaching the adjacent wetlands. These areas will be inspected regularly for correct installation and to confirm that they remain effective erosion prevention measures.

The erosion control prevention and sediment control methods and materials will follow the Utility BMP Manual. Perimeter controls (silt fence, straw bales, straw wattles, etc.) will be used to protect adjacent resources and off-site areas. If necessary, other BMPs including stone check dams and dewatering basins will be used to control and treat stormwater and prevent runoff to abutting or downstream properties.

Temporary wetland and wetland buffer impacts will be avoided and minimized by following the Utility BMP Manual. This includes:

- Using wooden construction mats to support machinery in wetlands;
- Removing and restoring temporary impacts to wetlands, if necessary;
- Smoothing rutted areas, seeding as required, and mulching with weed-free straw;
- Using erosion and sediment controls as needed where ground disturbing activities are adjacent to wetland areas;
- Requiring contractors to follow practices outlined in the Utility BMP Manual to help prevent the spread of invasive species; and
- Conducting weekly inspections to monitor compliance with minimization measures and providing any site restoration recommendations as needed.

The new structure locations and associated structure components were designed by Eversource's engineers. Work and access roads were designed based on the results of the wetland delineation performed by a New Hampshire Certified Wetland Scientist and a constructability field review by Eversource engineers and construction personnel.

(d) Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review.

The Project will require temporary matting impacts to wetlands but will not result in permanent loss of any wetland area or permanent alterations to the wetland hydrology or associated vegetation; therefore, a compensatory mitigation plan is not proposed for the work in any of the

five Impact Areas. Additionally, the applicant has consulted with the NHDES Wetlands Bureau, which has concurred with the minimum impact determination for the R169 Project.

(e) *Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below.*

A Wetlands Utility Maintenance Activity SPN will be submitted for the Project. On November 16, 2023, Eversource met with the NHDES Wetlands Bureau and the USACE. During this meeting, a determination was made that the Project qualified for a 'minimum impact' since there are no permanent impacts to delineated wetlands, vernal pools, streams or other sensitive resources associated with the Project and Eversource will minimize temporary impacts and restore permanent upland impacts. The SPN application and NHDES and USACE permit approvals will be forwarded to the City as required and/or requested. Additional pending approvals are listed in Section 4.2 below.

4.2 CONSERVATION DISTRICT

The Conservation District includes water bodies, rivers, streams, swamps and marshes subject to tidal action and those areas within a minimum of 100 ft of each, as defined in Dover Zoning Ordinance, Article 170-27. The Conservation District also includes specific lots as defined in Article 170-27, as well as areas with slopes 20% and more than 2,000 square feet (sf) of contiguous area, neither of which is located within the Project area. Project activities subject to a CUP that are within the Conservation District are limited to temporary placement of timber mats at stream crossings and creation of stone work pads and access road improvements in river and stream buffer areas. New structures will be placed in the same general location as the existing structures. The proposed access roads were sited along existing roads or trails wherever possible.

The Project will meet the following Conservation District standards for Conditional Use Approval, as outlined in the Dover Zoning Ordinance, Article 170-27.C(2).

(a) The APPLICANT shall demonstrate that the proposed use is essential to the productive use of land not in the district; is located and constructed to minimize any detrimental impact of such use upon the surface waters or other environmentally sensitive areas, where it is physically impossible to locate such use on land not in the district; and economic advantage alone shall not be deemed a sufficient reason for such proposed use.

Approval of this CUP application would allow Eversource to maintain critical infrastructure necessary to provide the public with reliable electricity. The existing structures and line are currently located within the Conservation District and would remain as such following the structure replacements. The proposed Project is in the public's interest (versus economic advantage to Eversource) because the structure replacements will allow for the continued supply of reliable electricity to Eversource's customers. The avoidance and minimization efforts described above in section 4.1 for the Wetland Protection District also apply to the Conservation District.

(b) *A soil erosion and sedimentation control plan is submitted and followed to verify the planned avoidance of sediment pollutant runoff to bodies of water. This plan will address the following (if applicable), but should not be limited to:*

(i) stabilization of exposed soils and soil stockpiles;
(ii) protection of steep slopes from erosion;
(iii) construction site waste management;
(iv) inspection and maintenance of runoff control measures (BMPs);
(v) minimization of land clearing;
(vi) stabilization of drainage ways;
(vii) installation of perimeter controls;
(viii) installation of sediment trapping devices; and
(ix) storm drain inlet protection.

Erosion and sedimentation control practices will follow the Utility BMP Manual). Typical erosion and sedimentation controls devices used within the ROW may consist of silt fence, straw wattles, stone check dams, and/or hay and weed-free straw mulch stabilization. Erosion and sedimentation control notes and details are included on the attached map set. Approximate locations of erosion and sedimentation controls are shown around proposed work areas and access roads on the attached map set. Installation and maintenance of erosion and sedimentation controls will occur throughout the construction phase of the project. The controls will be inspected regularly by Eversource's contractors and environmental monitors and maintained and/or replaced as needed. Additional details are provided in sections 3.3 and 3.4 above.

(c) Necessary state and federal approvals have been applied for. Said permits shall be received prior to the issuance of the Conditional Use Permit by the Planning and Community Development Department.

Regulatory permits, approvals, and notifications required for the proposed Project are summarized below. The City will be provided copies of permit approvals when they are received. Given the review periods associated with some of the required permits, Eversource requests that the City condition approval of the CUP so that permit may be provided as they are received, rather than prior to the issuance of the CUP. The following state and federal permits are anticipated to be required for the Project:

- NHDES Utility Statutory Permit by Notification (submitted)
- NHDES Protected Shoreland Permit by Notification (pending submission)
- NHDES Alteration of Terrian Permit (submitted)
- USACE Pre-Construction Notification (pending submission)
- USACE Section 408 Variance Approval (pending)

(d) *A written review by the Conservation Commission of the environmental effects of the proposed use upon the area in question has been submitted. The Commission's review shall address the following, but is not limited to:*

(i) attempted avoidance of the impact;

(ii) minimization of the impact;

(iii) planned mitigation of the effects of the impact; and

(iv) efficacy of the soil erosion and sedimentation control plan.

Watercourses and surface waters have been avoided to the extent possible, and no alterations of banks or natural geomorphology are proposed. Temporary construction mats will be used to bridge, and avoid, stream areas; mats will be removed following construction. Conditions or requests for information related to environmental effects made by the local Conservation Commission will be documented and applied to the project where feasible.

4.3 IMPACT AREAS

Anticipated temporary and permanent impacts within the Conservation District and Wetland Protection District are summarized by Impact Area in Table 1 and described per area below. Each area corresponds with respective map sheets (Impact Area 1 corresponds with Map Sheet 1, etc.) in the attached CUP permit map set. Temporary impacts include timber matting and areas that will be restored post-construction, and permanent impacts within buffers are for gravel access road and work pad construction. Most of the impacts across the five impact areas (Map Sheets 1–5) occur in the Wetland Protection District and of those impacts 64% are temporary; the remaining 36% are permanent impacts in upland wetland buffer areas (see Impact Area discussions below for more details).

4.3.1 Impact Area 1

Within the Wetland Protection District, anticipated impacts in Impact Area 1 include approximately 5,526 sf of temporary impacts within wetland buffer areas of wetland W02 (overlaps 100% with areas subject to tidal action in the Conservation District), and approximately 19,734 sf of temporary impacts within the buffer area of areas subject to tidal action in the Conservation District. These temporary impacts associated with the creation of access roads and work pad construction are necessary to complete the replacement of proposed structures 27 and 28. Disturbances associated with these structure replacements will be fully restored once construction is complete, and no permanent impacts are anticipated in either District.

Impacts were avoided and minimized to the greatest extent practicable by minimizing the length of the new access road, locating access roads and work pads outside of wetland boundaries and wetland buffers, where possible, utilizing existing disturbances/access roads, and reducing the construction footprint and restoring areas along the Cocheco River shoreland that are within the Wetland Protection and Conservation Districts.

4.3.2 Impact Area 2

Within the Wetland Protection District, anticipated impacts in Impact Area 2 include approximately 742 sf of temporary wetland impacts (i.e., timber matting) and approximately 1,802 sf of temporary impacts in wetland buffer areas to cross wetland W11 and stream S04 along the access route between proposed structures 18 and 19. Within the Conservation District, approximately 1,515 sf of temporary impacts in stream buffer areas are anticipated. Overlapping buffer areas include approximately 773 sf of temporary impacts. Areas within and surrounding the Districts are existing fields and residential areas, and temporary upland matting will be used to avoid ground disturbance at the landowner's request. No permanent impacts are anticipated within either District.

4.3.3 Impact Area 3

Within the Wetland Protection District, anticipated impacts in Impact Area 3 include approximately 23,279 sf of temporary wetland impact (i.e., timber matting), approximately 16,716 sf of temporary impact in wetland buffer areas, and approximately 29,941 sf of permanent impact in wetland buffer areas to create the access road and work areas associated with proposed structures 13 through 18, across wetlands W12 through W16.

Impact Area 3 is the only Impact Area on the R169 line where upland buffer area impacts are proposed to be permanent (see Table 1 and Map Sheet 3 of 5). The permanent impacts are a result of the proposed 100-ft by 100-ft gravel work pads around proposed structures 14, 15, 16, and 18. In the case of the pads at proposed structures 14, 15, and 18, a portion of the 100-ft by 100-ft pad area will be gravel, with the remaining pad area constructed using temporary wetland matting. In these three locations, it is likely that the temporary matting will cover an even greater proportion of the pad area. Proposed structure 16 is the sole location where the entire pad is proposed to be gravel, and this location is entirely upland. No temporary or permanent impacts are anticipated within the Conservation District in Impact Area 3.

4.3.4 Impact Area 4

Within the Wetland Protection District, anticipated impacts in Impact Area 4 include approximately 3,188 sf of temporary wetland impact (i.e., timber matting) and approximately 1,852 sf of temporary impact in wetland buffer areas. Temporary impacts to wetlands and buffers include access across wetland W17 between proposed structures 9 and 10, and work areas and access in wetland W18 at proposed structure 7; no permanent impacts are anticipated due to landowner requests to use upland matting to protect existing field areas. No Conservation Districts are present in Impact Area 4.

4.3.5 Impact Area 5

Within the Wetland Protection District, anticipated impacts in Impact Area 5 include approximately 29,676 sf of temporary wetland impact (i.e., timber matting) and approximately 942 sf of temporary impact in wetland buffer areas to create work areas and access in wetland W18 associated with proposed structure 6; no permanent impacts are proposed. The Project will utilize an existing gravel access road from the 307 line ROW to proposed structure 6 to traverse through the Conservation Districts associated with

streams S05, S06, and S07 to avoid temporary and permanent impacts within those buffers. No work is proposed within the Conservation District associated with the Piscataqua River.

PHOTOGRAPHS

R169 STRUCTURE REPLACEMENT PROJECT
CUP APPLICATION - REPRESENTATIVE PHOTOGRAPHS

December 22, 2023



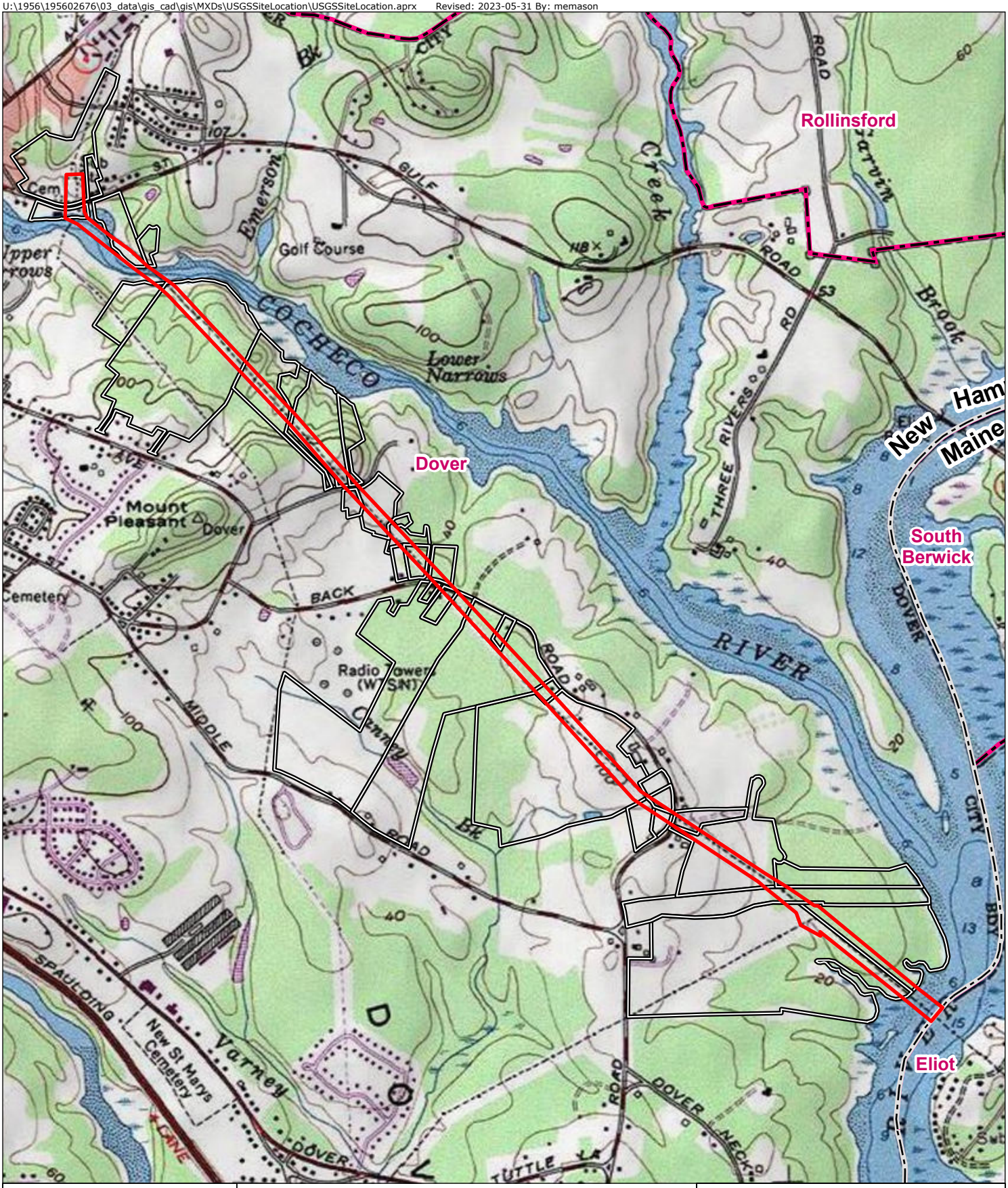
Photo 1. View of Cocheco River and structure 26 from east bank below proposed structure 27. Stantec. June 8, 2023.



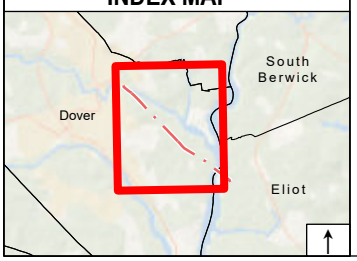
Photo 2. Representative view of the Cocheco River from tidal flats below proposed structure 28. View is northwest to Dover Substation, Dover, NH. Stantec. June 8, 2023.

FIGURES

U:\1956\195602676\03_data\gis_cad\gis\MXDs\USGSSiteLocation\USGSSiteLocation.aprx Revised: 2023-05-31 By: memason



INDEX MAP



Legend

- Approximate Project Limits
- Municipal Boundary
- State Boundary
- Abutting Parcel Boundary

N

1 inch = 1,500 Feet

0 750 1,500 Feet

EVERSOURCE ENERGY

Dover to Eliot (R169)
Structure Replacement Project

Date: May 31, 2023

Figure 1
USGS Location Map

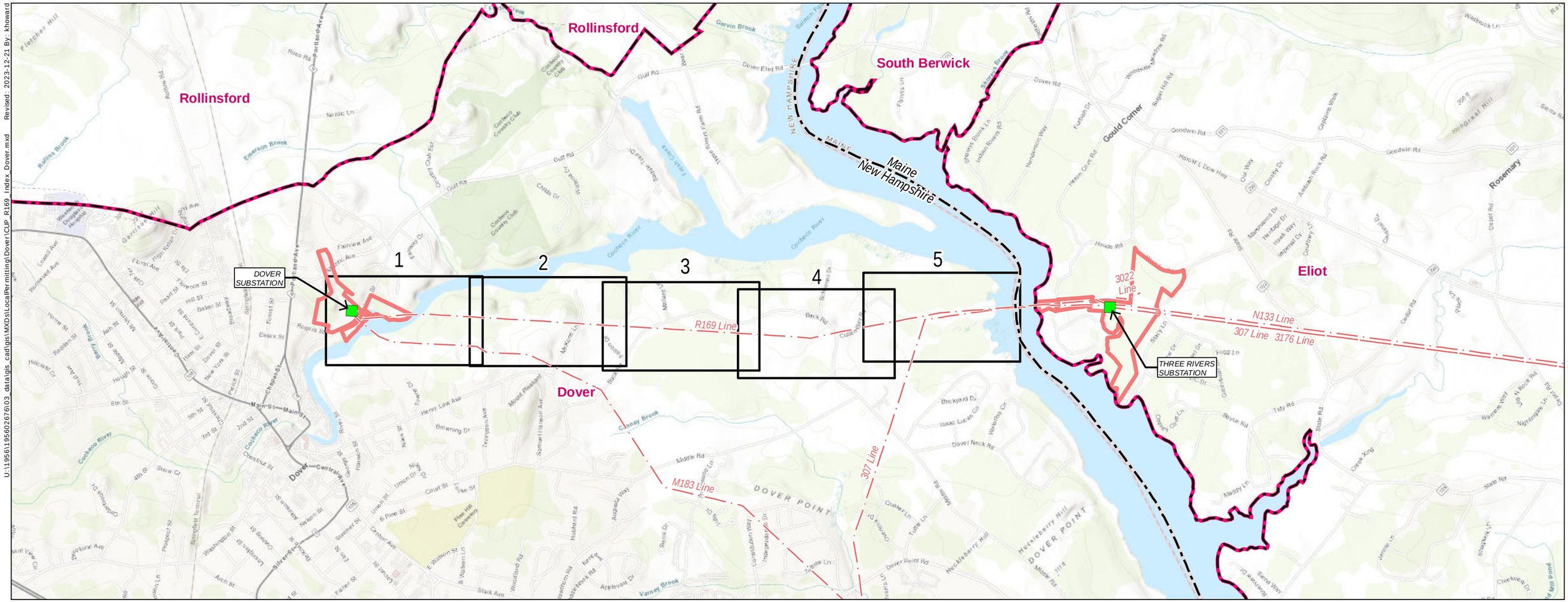
R169 Line - Structure Replacement Project

Dover, NH

Environmental Resources Map

Dover CUP Permit Map Set

Date: December 21, 2023



Legend

Substation | Municipal Boundary | State Boundary | Map Sheet | Eversource Owned Property

PREPARED FOR:

EVERSOURCE ENERGY

107 Selden Street
Berlin, CT 06037

N

0 2,000 4,000 Feet

INDEX OF FIGURES

Title Sheet / Index Map
Map Sheets 1-5

PREPARED BY:

Stantec

30 Park Drive
Topsham, ME 04086

Temporary Wetland Impact (SF)	Temporary Wetland Protection District Impact (SF)	Temporary Conservation District Impact (SF)	Permanent Wetland Protection District Impact (SF)	Permanent Conservation District Impact (SF)
-	5,526	19,734	-	-

UTILIZE EXISTING STREAM CROSSING NO IMPACT.

EXISTING ACCESS WILL RECEIVE MINOR GRADING AND TOP DRESSING

AREAS BETWEEN 50'-150' OF THE REFERENCE LINE OF THE COCHECO RIVER ARE REGULATED PER THE PROTECTED SHORELAND-WOODLAND BUFFER

WORK AREAS ASSOCIATED WITH STRUCTURES 27 AND 28 WILL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS ONCE CONSTRUCTION IS COMPLETE

AREAS WITHIN 50' OF THE REFERENCE LINE OF THE COCHECO RIVER (I.E. WETLAND PROTECTION DISTRICT) ARE REGULATED PER THE PROTECTED SHORELAND-WATERFRONT BUFFER

GERRY'S LANE

COCHECO STREET

Cocheco River

Cocheco River Wildlife Management Area

Dover

Dover Substation

R169 Line

M183 Line

W01-PEM

W02-E2EM

W03-PFO

S01

W04-PSS

W05-PSS

W06-PEM

PVP01

CS

830-269
Tax Map ID: 25067-000000
Leroy W Jones
88 Cocheco Street

830-270
Tax Map ID: 24132-000000
Public Service Company of New Hampshire (Eversource)
Cocheco Street

830-267
Tax Map ID: N0023-000000
Public Service Company of New Hampshire (Eversource)
Cocheco Street

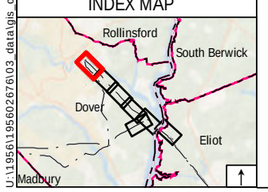
831-026
Tax Map ID: N0022-C00008
Robert A Pruyn Trustee
10 Gerry's Lane

830-268
Tax Map ID: 24133-000000
Public Service Company of New Hampshire (Eversource)
75 Cocheco Street

830-263
Tax Map ID: K0004-C00000
City of Dover
Henry Law Avenue

830-262
Tax Map ID: K0002-000000
State of New Hampshire
Henry Law Avenue

INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Sediment Control Barrier (Typ.)
- Stone Work Pad
- Temporary Wetland Construction Matting
- Temporary Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 830 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
- Potential Vernal Pool Extent
- 50' Potential Vernal Pool Buffer
- FEMA 100-Year Flood Zone
- FEMA Floodway
- -GAS- Approximate Gas Pipeline
- Fence
- Stonewall
- 2' Contour
- 10' Contour
- NHDES 250' Protected Shoreland
- Conservation District
- Wetland Protection District

1 inch = 200 feet
0 50 100 200 Feet

Map Notes:
Coordinate System: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet
Data source: Eversource easement lines, structures, transmission lines provided by Eversource Energy. Wetlands, watercourses, and potential vernal pools delineated and verified by Stantec June 2023. Additional sources include: FEMA, NH Granit, Maine Geolibrary
Basemap: 2021 National Agriculture Imagery Program (NAIP) aerial imagery.

STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

R169 Line Structure Replacement
Dover CUP Permit Map Set

Dover, NH | MAP SHEET 1 of 5

Date: December 21, 2023

Stantec

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APPENDICES

Appendix A WETLAND DELINEATION REPORT

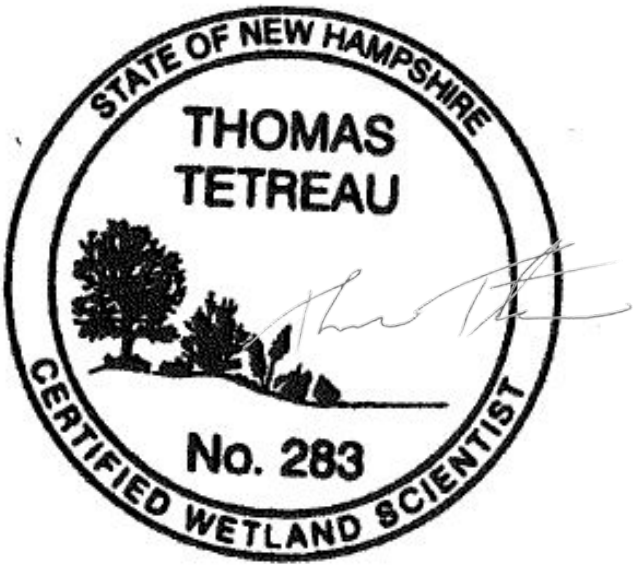
Wetland and Watercourse Delineation and Functional Assessment Report: R169 Structure Replacement Project

Dover, New Hampshire, and Eliot, Maine

September 14, 2023

Prepared for:

Eversource Energy
13 Legends Drive
Hooksett, NH 03106



Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

Table of Contents

1.0 INTRODUCTION 1

2.0 METHODS 1
2.1 WETLAND AND WATERCOURSE DELINEATION 1
2.2 FUNCTIONAL ASSESSMENT 2

3.0 RESULTS 3
3.1 GENERAL SITE DESCRIPTION 3
3.2 WETLAND AND WATERCOURSE DELINEATION 3
3.3 FUNCTIONAL ASSESSMENT 7

LIST OF TABLES

Table 1. Summary of Delineated Wetlands 4
Table 2. Summary of Delineated Streams 6
Table 3. Summary of Identified Vernal Pools 7
Table 4. Summary of Functional Assessment 8

LIST OF FIGURES

Permit Map Set

LIST OF APPENDICES

Appendix A Representative Photographs
Appendix B Corps Wetland Determination Data Forms (provided upon request)
Appendix C Wetlands Functional Assessment Worksheets (provided upon request)
Appendix D Observed Wildlife

1.0 INTRODUCTION

Eversource Energy (Eversource) proposes to replace approximately 20 existing transmission line structures located within the full length of the R169 Line, totaling approximately 3 miles of combined transmission line right-of-way (ROW) in Dover, New Hampshire and Eliot, Maine (Project Site; see attached Draft Map Set). Of the 20 structures proposed to be replaced, 19 are located in Dover and 1 is located in Eliot. Stantec Consulting Services Inc. (Stantec) was contracted to conduct wetland and watercourse delineations and a wetland functional assessment of the Project Site to support federal, state, and local natural resource permitting.

Stantec conducted on-site delineations within the existing ROW between June 8 and June 9, 2023. The delineations were conducted by Tom Tetreau, New Hampshire Certified Wetland Scientist #283. This report includes descriptions of the wetland and watercourse delineation methods and results.

2.0 METHODS

2.1 WETLAND AND WATERCOURSE DELINEATION

The R169 Line was previously delineated over 5 years ago, and the spatial data of these previously delineated wetlands and watercourses were used to aid in the 2023 wetland and watercourse delineation.

Wetland boundaries under local, state, and federal jurisdiction were determined using the technical criteria described in the U.S. Army Corps of Engineers (Corps) *Corps of Engineers Wetlands Delineation Manual*[1] and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regional Supplement.*[2] Wetland communities were classified according to the *Classification of Wetlands and Deepwater Habitats of the United States.*[3] Hydric soil determinations were made in accordance with the Corps wetland delineation manuals and the *Field Indicators for Identifying Hydric Soils in New England (Version 4).*[4]

Wetland boundaries anticipated to meet state, federal, and local jurisdictional criteria were located using a Global Positioning System (GPS) receiver capable of submeter accuracy. The previously delineated

[1] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
[2] U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[3] Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.
[4] New England Hydric Soils Technical Committee. 2017. Field Indicators for Identifying Hydric Soils in New England (Version 4).

wetland boundaries were confirmed using the GPS, with revisions to the boundaries located with the GPS as necessary.

Watercourses (e.g., streams) identified during the delineations were identified based on the definitions in NHDES Certified Administrative Rules Env-Wt 406.04, as well as the technical guidance available from the Corps on the identification of an Ordinary High Water Mark.[5] The top of each bank was mapped for streams typically over 6 feet wide, and the centerline was mapped for streams with top of bank widths up to 6 feet wide. Data was collected on flow regime, top of bank, band depth, Ordinary High Water Mark widths, dominant substrates, and evidence of biological use. GPS data were used to produce the attached map set.

The wetland delineation occurred outside the appropriate identification period for vernal pool indicator species; therefore, potential vernal pools were identified and evaluated in accordance with the *Identification and Documentation of Vernal Pools in New Hampshire.*[6] Potential vernal pools were primarily identified based on their physical characteristics and landscape position, and the presence of vernal pool indicator species, if observed. Observations of approximate size, hydrology, and evidence of disturbance were recorded. The boundaries of the potential vernal pools were located with GPS receivers, and photographs were taken of each vernal pool identified.

Priority Resource Areas (PRA), as defined in Env-Wt 103.66, were identified based on field observations and use of the Wetlands Permit Planning Tool.[7] PRAs identified along the R169 Line consisted of wetlands contiguous with tier 3 streams, tidal wetlands, and undeveloped tidal buffer zones.

2.2 FUNCTIONAL ASSESSMENT

Stantec performed a wetland functional assessment of the delineated wetlands and watercourses in accordance with New Hampshire Wetland Rules (Env-Wt 311.10). Wetland functions and values were qualitatively evaluated through direct field observation and a review of existing public data resources following the New Hampshire Method for evaluating the Ecological Integrity of the Wetlands and Streams (RSA 482-A:2, XI) and Corps *Highway Methodology Workbook Supplement.*[8] Information was collected to prepare Corps Wetland Determination Data Forms and Wetlands Functional Assessment Worksheets. Full assessments of Ecological Integrity using the New Hampshire Method is based on a series of desktop and field assessments and results in a numerical Functional Value Index for each wetland. Due to the length of the Project area, the abundance of wetlands, and the anticipated wetland impacts associated with the Project (temporary timber matting), Stantec evaluated the Ecological Integrity of each wetland using a qualitative value of low, medium, and high that considered the condition of the wetland

[5] U.S. Army Corps of Engineers. 2005. Regulatory Guidance Letter: Ordinary High Water Mark Identification. December 8, 2005. No. 05-05.

[6] Marchand, M. 2016. *Identifying and Documenting Vernal Pools in New Hampshire*. Third Edition, New Hampshire Fish and Game Department, Nongame and Endangered Wildlife Program.

[7] https://nhdeswppt.unh.edu/, accessed June 2023.

[8] U.S. Army Corps of Engineers. 1999. The Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach. U.S. Army Corps of Engineers. New England Division. 32pp. NAEEP-360-1-30a.

relative to human-caused stressors, diversity of native vegetation, and presence of natural processes. This modified method allowed for a more consistent and streamlined approach when completing the required Wetlands Functional Assessment Worksheets. The temporary impact area (matting) listed on the Wetlands Functional Assessment Worksheets is approximate based on preliminary mapping and Project design and represents the greatest amount of impact likely to occur. Temporary wetland impacts will be minimized throughout the permitting and design process, and some of these wetland impact areas may decrease.

3.0 RESULTS

3.1 GENERAL SITE DESCRIPTION

The R169 Line is an existing transmission line that traverses forested, residential, and agricultural landscapes between the Dover Substation in Dover and the Three Rivers Substation in Eliot. The open transmission line is approximately 100 feet wide in most areas, with wider stretches, up to 250-feet wide, containing additional transmission lines in the areas around the Piscataqua River crossing. The ROW primarily crosses rural areas and town roads, as well as the Cocheco River and the Piscataqua River. The topography varies from flat lowlands and fields to undulating hills and steep side slopes. Elevations generally range between 0 and 90 feet above mean sea level.

The open upland natural communities consist of early successional shrub, sapling, and herbaceous species. Characteristic woody vegetation includes gray birch (*Betula populifolia*), quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), sheep-laurel (*Kalmia angustifolia*), late lowbush blueberry (*Vaccinium angustifolium*), white meadowsweet (*Spiraea alba*), Allegheny blackberry (*Rubus allegheniensis*), American hazelnut (*Corylus americana*), red oak (*Quercus rubra*), and red raspberry (*Rubus idaeus*). Commonly observed herbaceous vegetation included little Canada mayflower (*Maianthemum canadense*), wrinkle-leaf goldenrod (*Solidago rugosa*), Canada goldenrod (*Solidago canadensis*), bracken fern (*Pteridium aquilinum*), hay-scented fern (*Dennstaedtia punctilobula*), wild strawberry (*fragaria virginiana*), bristly dewberry (*Rubus hispidus*), Kentucky blue grass (*Poa pratensis*), and other common grass and wildflower species. Non-native invasive species abundance was moderate compared to native vegetation and included rambler rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), Morrow's honeysuckle (*Lonicera morrowii*), and glossy false buckthorn (*Frangula alnus*). Soils within the ROW consisted primarily of loam and silty loam.

3.2 WETLAND AND WATERCOURSE DELINEATION

The wetland and watercourse delineations were conducted on June 8 and June 9, 2023, under appropriate conditions during the growing season. A total of 23 wetlands, 9 unnamed watercourses, and the Cocheco River and Piscataqua River were delineated. In addition, one potential vernal pool was surveyed. The locations of the delineated wetlands, watercourses, and potential vernal pool are included on the attached Draft Map Set. Tables 1, 2, and 3 summarize the delineated wetlands, watercourses, and potential vernal pool, respectively. Representative site photographs are provided in Appendix A. Representative Corps Wetland Determination Forms are included in Appendix B.



Table 1. Summary of Delineated Wetlands

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W001	PEM	Trees: None Saplings/Shrubs: None Herbs: broad-leaf cat-tail (*Typha latifolia*), lamp rush (*Juncus effusus*), cottongrass bulrush (*Scirpus cyperinus*), sensitive fern *(Onoclea sensibilis*), uptight sedge (*Carex stricta*)	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	Ditch excavation around existing substation
W002	E2EM	Trees: none Saplings/Shrubs: none Herbs: saltwater cord grass (*Spartina alterniflora*), eastern grasswort (*Lilaeopsis chinesis*)	F3: Depleted Matrix	A1: Surface Water A2: High Water Table A3: Saturation	Yes - Tidal	Tidal wetland associated with Cocheco River. Rare plant species observed.
W003	PFO	Trees: Norway maple (*Acer plantanoides*) Saplings/Shrubs: speckled alder (*Alnus incana*) Herbs: sensitive fern, lamp rush	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	Yes – within 100-feet of tidal areas	Stream S01 flows through wetland and into the Cocecho River.
W004	PSS	Trees: None Saplings/Shrubs: speckled alder Herbs: broad-leaf cat-tail, sensitive fern	F3: Depleted Matrix	A2: High Water Table A3: Saturation	Yes – within 100-feet of tidal areas	
W005	PSS/PEM	Trees: None Saplings/Shrubs: speckled alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	
W006	PEM	Trees: none Saplings/Shrubs: red maple, speckled alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush, reed canary grass (*Phalaris arundinacea*), spotted touch-me-not (*Impatiens capensis*)	F3: Depleted Matrix	A3: Saturation	No	Contains potential vernal pool PVP01.
W007	PSS	Trees: none Saplings/Shrubs: speckled alder Herbs: sensitive fern, lamp rush, spotted touch-me-not, bluejoint (*Calamagrostis canadensis*), woodland horsetail (*Equisetum sylvaticum*)	F3: Depleted Matrix	A3: Saturation	No	Contains stream S02.
W008	PEM	Trees: none Saplings/Shrubs: speckled alder Herbs: broad-leaf cat-tail, sensitive fern, uptight sedge	F3: Depleted Matrix	A3: Saturation	No	Contains stream S03.
W009	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, spotted touch-me-not, purple loosestrife (*Lythrum salicaria*)	F3: Depleted Matrix	A3: Saturation	No	

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W010	PEM/PSS	Trees: none Saplings/Shrubs: speckled alder Herbs: sensitive fern, lamp rush, woodland horsetail, bluejoint, reed canary grass	F3: Depleted Matrix	A3: Saturation	No	
W011	PSS	Trees: none Saplings/Shrubs: speckled alder, common winterberry (*Ilex verticilata*) Herbs: nodding sedge (*Carex gynandra*), sensitive fern, spotted touch-me-not, reed canary grass	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	Contains stream S04.
W012	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation	No	
W013	PEM	Trees: none Saplings/Shrubs: alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush, skunk-cabbage (*Symplocarpus foetidus*)	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	
W014	PEM/PSS	Trees: none Saplings/Shrubs: red maple, speckled alder, common winterberry Herbs: sensitive fern, lamp rush, broad-leaf cat-tail, reed canary grass, wrinkle-leaf goldenrod	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	
W015	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, steeplebush, wrinkle-leaf goldenrod, lamp rush	F3: Depleted Matrix	A3: Saturation	No	Portion of wetland within maintained lawn/yard area.
W016	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, uptight sedge, fowl manna grass (*Glyceria striata*), greater bladder sedge (*Carex intumescens*)	F3: Depleted Matrix	A3: Saturation	No	
W017	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, reed canary grass	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	
W018	PSS/PEM	Trees: none Saplings/Shrubs: broad-leaf meadowsweet (*Spiraea latifolia*), coastal sweet pepperbush (*Clethra alnifolia*), speckled alder, common winterberry Herbs: sensitive fern, lamp rush, bluejoint, blue iris (*Iris versicolor)*	F3: Depleted Matrix	A3: Saturation	No	Portion of wetland is mowed hay field. Contains stream S05.

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W019	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, broad-leaf cat-tail, necklace sedge (*Carex projecta*)	F3: Depleted Matrix	A3: Saturation	No	
W020	PEM/PSS	Trees: none Saplings/Shrubs: pussy willow (*Salix discolor*) Herbs: sensitive fern, bluejoint, reed canary grass, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation	No	
W021	PEM	Trees: none Saplings/Shrubs: speckled alder Herbs: lamp rush, sensitive fern, cottongrass bulrush	F3: Depleted Matrix	A3: Saturation B10: Wetland drainage patterns	No (Maine)	Adjacent to Piscataqua River. Portions within mowed lawn/yard area.
W022	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, woodland horsetail, cottongrass bulrush	F3: Depleted Matrix	A3: Saturation	No (Maine	
W023	PSS/PEM	Trees: none Saplings/Shrubs: broad-leaf meadowsweet, speckled alder, common winterberry Herbs: sensitive fern, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No (Maine)	

[1] PEM = Palustrine Emergent, PSS = Palustrine Scrub-shrub, PUB = Palustrine Unconsolidated Bottom, PFO = Palustrine Forested, E2EM = Estuarine Intertidal Emergent

Table 2. Summary of Delineated Streams

Stream Identifier	Flow Type	Bankfull Width (ft)	Ordinary High Water Mark Width (ft)	Dominant Substrates	Additional notes
S01	Perennial	4-6	4-6	Sand, gravel, silt	Flows south through W03, into the Cocheco River
Cocheco River	Perennial/Tidal	200+	200+	Silt, gravel, mud	
S02	Intermittent	2-3	2-3	Silt, gravel	Flows across ROW toward Cocheco River
S03	Perennial	8	8	Cobbles, gravel, boulders	Flows across ROW toward Cocheco River
S04	Perennial	4	4	Silt, gravel	Flows through wetland W11 in residence area
S05	Intermittent	4	4	Silt, gravel	Flows from wetland W18 towards Piscataqua River
Piscataqua River	Perennial/Tidal	850+	850+	Silt, gravel, mud	
S06	Intermittent	3	3	Sand, silt, gravel	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S07	Intermittent	4	4	Gravel, cobbles	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S08	Intermittent	4	4	Silt, gravel, cobbles	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S09	Ephemeral	4	5	Sand, gravel	Originates from culvert under existing road, likely only flows during heavy rain

Table 3. Summary of Identified Vernal Pools

VP Identifier	Estimated Hydroperiod	Indicator Species	Comments
PVP01	Semi-permanent	Unknown adult frogs observed	Potential old excavation adjacent to pipeline crossing of the transmission line ROW. Approximately 50-foot diameter and 1 to 2 feet deep with mucky substrate.

3.3 FUNCTIONAL ASSESSMENT

Table 4 summarizes the results of the wetland functional assessment. In general, wetlands within the Project area provide a variety of functions and values. Nutrient Trapping / Retention & Transformation, Sediment Trapping, and Wetland-dependent Wildlife Habitat were the most common functions along with Groundwater Recharge and Flood Storage.

Wetlands Functional Assessment Worksheets for wetlands proposed to be impacted by temporary timber matting are included in Appendix C. Potential vernal pools and streams were considered when performing the functional assessment of impacted wetlands, but since no impacts are proposed to potential vernal pools and streams, a full assessment of these features was not included in the Wetlands Functional Assessment Worksheets. The list of observed wildlife is included in Appendix D, and Table 1 above includes the observed vegetation.

Table 4. Summary of Functional Assessment

Wetland Resource Identifier	Wetland Functions and Values[1]													
	1 Ecological Integrity[2]	2 Educational Potential	3 Fish and Aquatic Life Habitat	4 Flood Storage	5 Groundwater Recharge	6 Noteworthiness	7 Nutrient Trapping / Retention & Transformation	8 Production Export	9 Scenic Quality	10 Sediment Trapping	11 Shoreline Anchoring	12 Uniqueness/ Heritage	13 Wetland-based Recreation	14 Wetland-dependent Wildlife Habitat
W001	Low			X			P	X		X				
W002	High		P	P		P	P	X		X	P	X		X
W003	Moderate			P			X	X		X	X			X
W004	Moderate			P			X	X		X	P			X
W005	Moderate			P	X		X	X		X				X
W006	Moderate				P		X	X		X				P
W007	Moderate			X	P		X	X		X	P			X
W008	Moderate			X	P		X	X		X	P			X
W009	Low				P		X	X		X				X
W010	Moderate			X	P		X	X		X				X
W011	Moderate		X	X	X		X	X		X	P			X
W012	Low				X		P	X		X				X
W013	Moderate			X	X		P	X		X				X
W014	Moderate			X	X		P	P		X				X
W015	Low				X		X	X		P				X
W016	Low				X		P	X		X				X
W017	Moderate						X	P		X				X
W018	Moderate			X	X		P	X		X				X
W019	Low						P	X		P				X
W020	Low						P	X		P				X
W021	N/A, Maine			P	X		X	X		P				X
W022	N/A, Maine				X		X	X		P				X
W023	N/A, Maine			X	P	X	X	X		P				X

X = Function observed within wetland, P = Principal Function

[1] Corps Highway Methodology Workbook Supplement

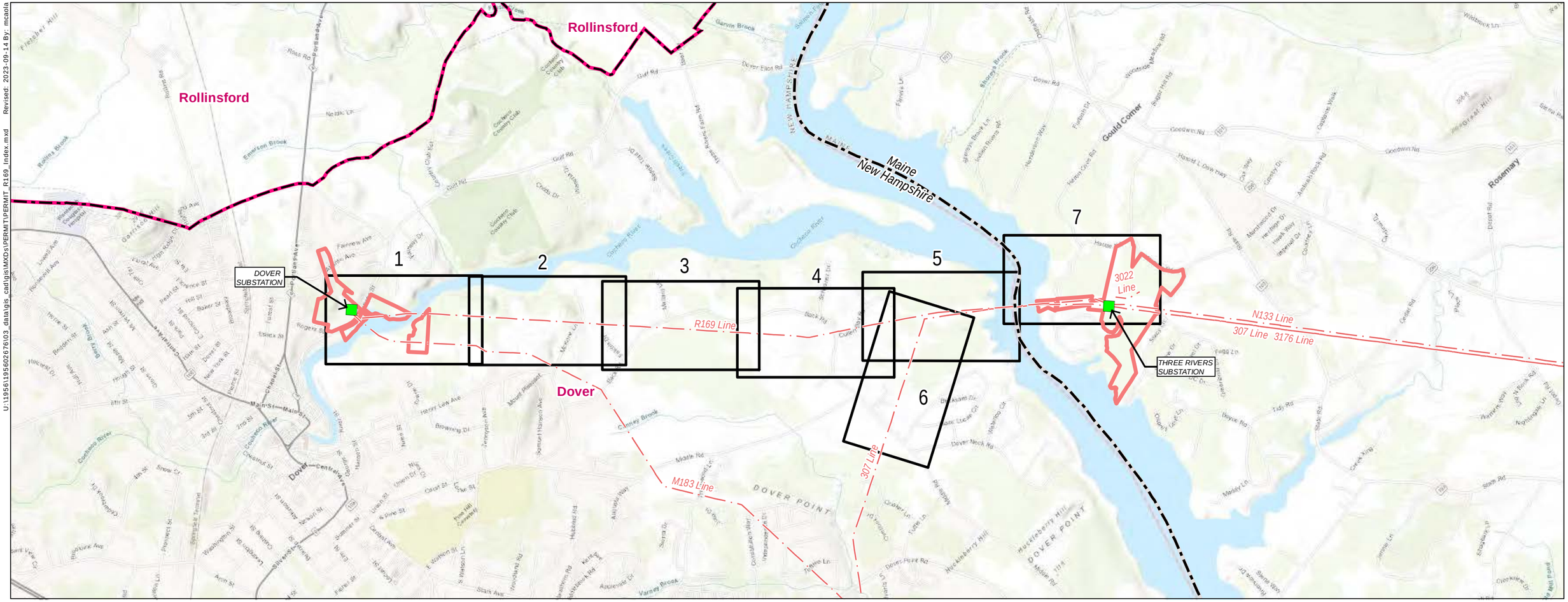
[2] Method for the Comparative Evaluation of Nontidal Wetlands in New Hampshire

FIGURES

R169 Line - Structure Replacement Project

Dover, NH and Eliot, ME
Environmental Resources Map
PERMIT Map Set
Date: September 14, 2023

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Legend

Substation | Municipal Boundary | State Boundary | Map Sheet | Eversource Owned Property

N

0 2,000 4,000 Feet

PREPARED FOR:

EVERSOURCE ENERGY

107 Selden Street
Berlin, CT 06037

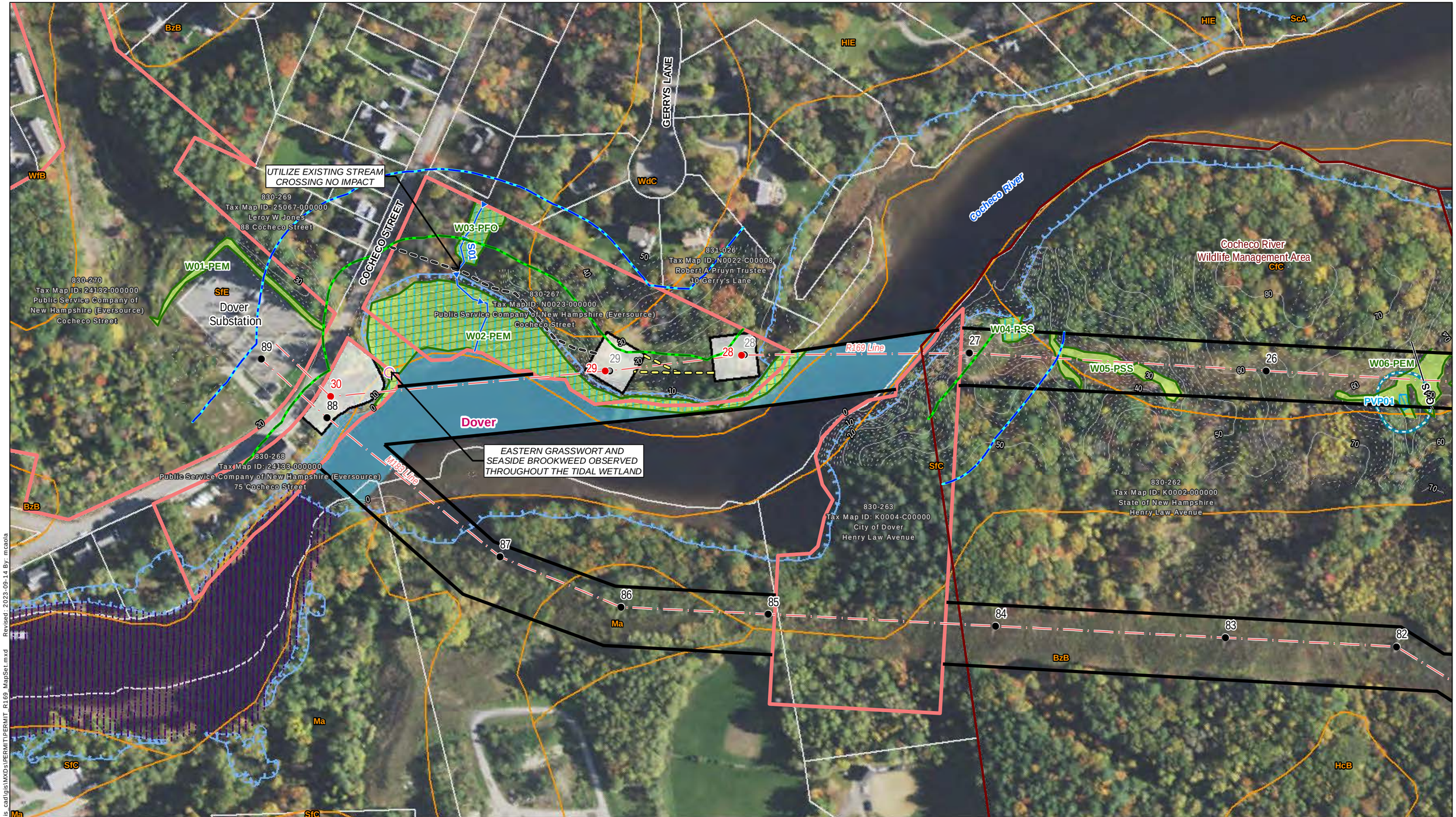
INDEX OF FIGURES

Title Sheet / Index Map
NRCS Soils Table
Map Sheets 1-7

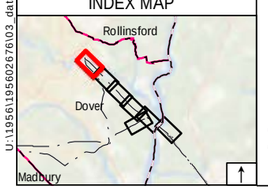
PREPARED BY:

Stantec

30 Park Drive
Topsham, ME 04086



INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 830 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
- Potential Vernal Pool Extent
- 50' Potential Vernal Pool Buffer
- 250' Protected Shoreland
- 100' Tidal Buffer Zone
- FEMA 100-Year Flood Zone
- FEMA Floodway
- NRCS Soil Unit Boundary
- -GAS- Approximate Gas Pipeline
- Fence
- Stonewall
- 2' Contour
- 10' Contour
- Gate
- Culvert

This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.

1 inch = 200 feet
0 50 100 200 Feet

Map Notes:
Coordinate System: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet
Data source: Eversource easement lines, structures, transmission lines, and wetlands/watercourses provided by Eversource Energy. Additional sources include: FEMA, NH Granit, Maine Geolibrary
Basemap: 2021 National Agriculture Imagery Program (NAIP) aerial imagery

STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

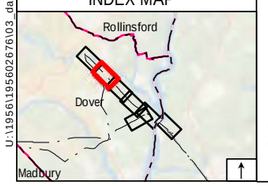
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 1 of 7
Date: September 14, 2023	Stantec

U:\19560\19560267\603_data\gis_cad\gis\MXDs\PERMIT\PERMIT_R169_MapSet.mxd Revised: 2023-09-14 By: mcaola

Dover
Cocheco River
Cocheco River Wildlife Management Area
831-022
Tax Map ID: N0018-001000
State of New Hampshire
McKone Lane
831-024
Tax Map ID: K0001-A00000
Robert Swanson
38 McKone Lane
831-025
Tax Map ID: K0001-A00001
State of New Hampshire
McKone Lane
831-023
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McKone Lane
830-262
Tax Map ID: K0002-000000
State of New Hampshire
Henry Law Avenue
831-020
Tax Map ID: N0018-006000
Daniel & Jacqueline Ayer Revocable Trusts
McKone Lane
831-019
Tax Map ID: N0018-014000
Brianna Dichter
10 Whiteley Drive
831-018
Tax Map ID: N0018-000OP1
One Home Builders II LLC
Eagan Drive
831-021
Tax Map ID: N0019-005000
Anthony P Ayer
47 McKone Lane
831-017
Tax Map ID: N0019-A00000
Elaine M Thurston
174 Back Road
WHITELEY DRIVE
EAGAN DRIVE
MCKONE LANE
FALCON DRIVE
BACKROAD
W06-PEM
PVP01
W07-PSS
W08-PEM
W09-PEM
W10-PEM
W11-PSS
SPAN STREAM NO IMPACT
CONFIGURE WORK PADS TO AVOID EXISTING STONEWALL
UTILIZE EXISTING BREACH IN STONEWALL
STONEWALL TO BE REMOVED AND REBUILT AFTER CONSTRUCTION
UTILIZE EXISTING PAVED DRIVEWAY
TEMPORARY WETLAND IMPACT: +/-742 SQ.FT.
R169 Line
M183 Line
ScA
HeD
HcC
SfC
WfB
HcB
DeA
HcD
CfC
CsD
CsB
WfC
HdD
BzB
HdC
HcB
ScB
HdB
WdB
82
81
80
79
78
8.5
25
24
23
22
21
20

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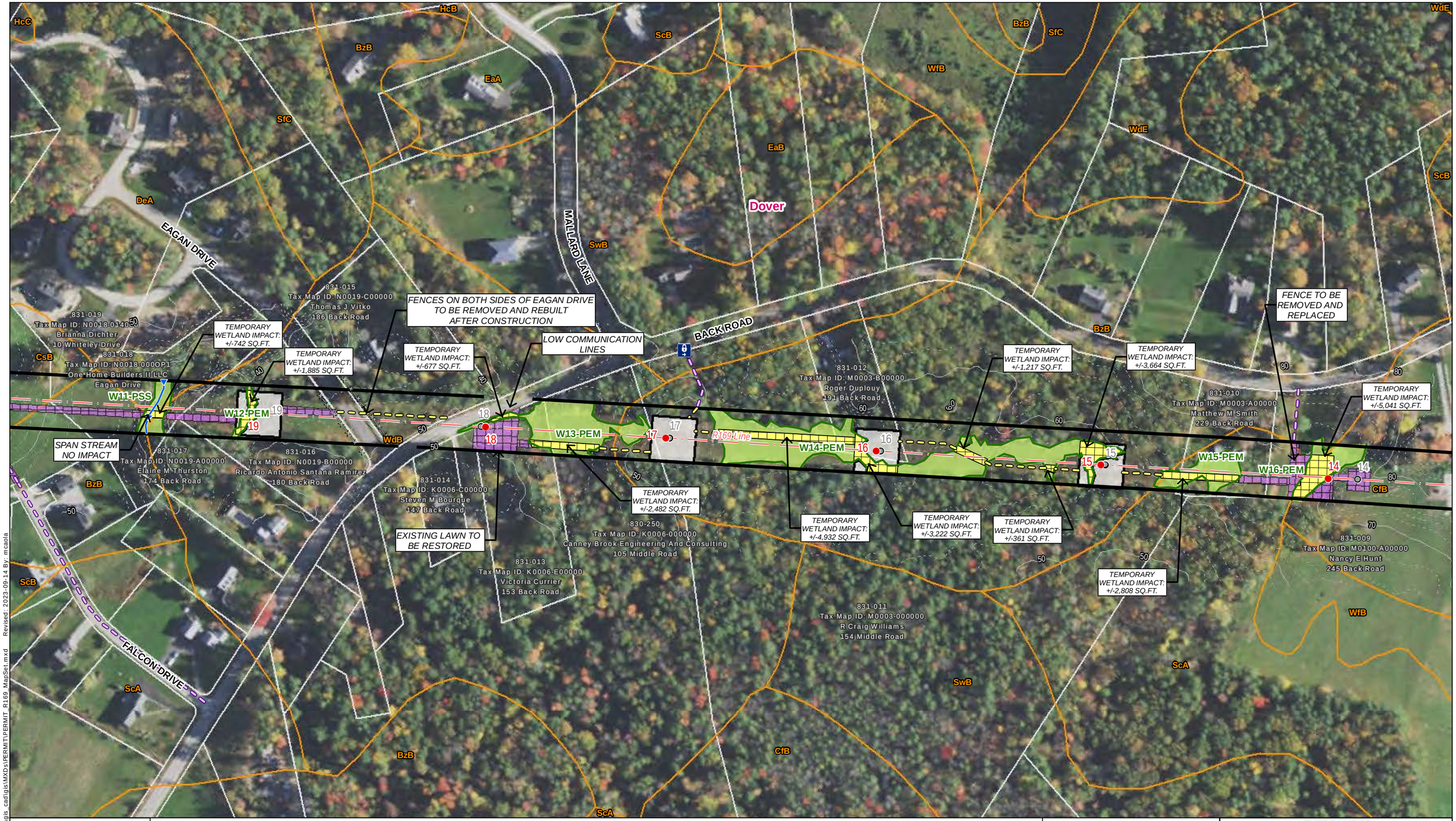
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THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

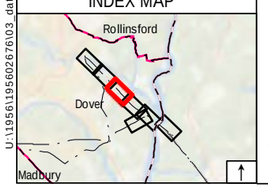
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 2 of 7
Date: September 14, 2023	Stantec

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INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
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- Eversource Owned Property
- State Owned Property
- Parcel Boundary
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1 inch = 200 feet
0 50 100 200 Feet

Map Notes:
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Basemap: 2021 National Agriculture Imagery Program (NAIP) aerial imagery

STATE OF NEW HAMPSHIRE
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Dover, NH	MAP SHEET 3 of 7
Date: September 14, 2023	Stantec

U:\11956\11956026761\03_data\gis_cad\gis\MXDs\PERMIT\PERMIT_R169_MapSet.mxd Revised: 2023-09-14 By: mcaola

FENCE TO BE REMOVED AND REPLACED

TEMPORARY WETLAND IMPACT: +/-926 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-1,452 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-810 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-3,188 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-6,840 SQ.FT.

ACCESS FROM BACK ROAD

EXISTING LAWN TO BE RESTORED

SCHOONER DRIVE

CULLEN BAY ROAD

BACK ROAD

Dover

R169 Line

W16-PEM

W17-PEM

W18-PSS

831-008
Tax Map ID: M0100-B00000
Gregory W Hunt
295 Back Road

831-007
Tax Map ID: M0105-002000
Christopher D Berg
303 Back Road

831-004
Tax Map ID: M0093-B00000
Nancy Magiaras
362 Back Road

831-003
Tax Map ID: M0092-B00000
Cullen Bay Homeowners Association
Cullen Bay Road

831-005
Tax Map ID: M0105-000000
Eric W Thompson
321 Back Road

831-009
Tax Map ID: M0100-A00000
Nancy E Hunt
245 Back Road

831-006
Tax Map ID: M0105-001000
William C & Nancy Hunt Trustees
Back Road

831-001
Tax Map ID: M0092-A00000
Patricia Langs
Back Road

829-138
Tax Map ID: M0091-A00000
Townsquare Media Portsmouth LLC
292 Middle Road

WdE WdB BzB ScB CfB HcB WfB ScA SwB SfC HcC

INDEX MAP

Rollinsford
Dover
Madbury

Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 830 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
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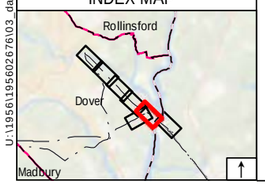
Dover, NH	MAP SHEET 4 of 7
Date: September 14, 2023	Stantec

U:\11956\19560267\6\03_data\gis_cad\gis\MXDs\PERMIT\PERMIT_R169_MapSet.mxd Revised: 2023-09-14 By: mcaola

SfC
HaA
WdB
SfC
WfB
SfC
DeB
CULLEN BAY ROAD
CULLEN BAY ROAD
Dover
Piscataqua River
Maine
New Hampshire
829-139
Tax Map ID: M0104-000000
Alan G. Dexter Trustee
Back River Road
831-001
Tax Map ID: M0092-A00000
Patricia Langs
Back Road
WdB
TEMPORARY WETLAND IMPACT: +/-2,022 SQ.FT.
831-002
Tax Map ID: M0092-H00000
Marie V Hebert Trustee
Cullen Bay Road
ScB
TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.
831-003
Tax Map ID: M0092-B00000
Cullen Bay Homeowners Association
Cullen Bay Road
W18-PSS
S05
R169 Line
307 Line
SPAN STREAM AND WETLAND NO IMPACT
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WdE
S06
WdC
ScA
BzB
S07
WfC
Ta
EaB
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U:\1956\195602676\03_data\gis_cad\gis\MXDs\PERMIT\PERMIT_R169_MapSet.mxd Revised: 2023-09-14 By: mcaola

INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 330 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
- Potential Vernal Pool Extent
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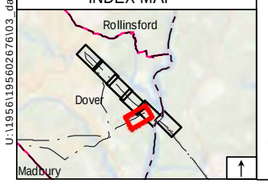
EVERSOURCE ENERGY

R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 5 of 7
Date: September 14, 2023	Stantec



INDEX MAP



Legend

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- Existing Right-of-Way (ROW)
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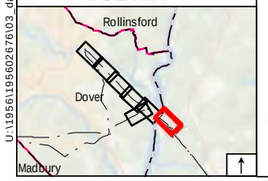
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Dover, NH	MAP SHEET 6 of 7
Date: September 14, 2023	Stantec

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STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

R169 Line Structure Replacement
PERMIT Map Set

Dover, NH and Eliot, ME	MAP SHEET 7 of 7
Date: September 14, 2023	Stantec

U:\11956\19560276\03_data\gis_cad\gis\MXDs\PERMIT\PERMIT_R169_MapSet.mxd Revised: 2023-09-14 By: mcaola

APPENDICES

Appendix A REPRESENTATIVE PHOTOGRAPHS



Photo 1. Representative view of the Cocheco River from structure 30. Stantec, June 8, 2023.



Photo 2. Representative view of the Cocheco River from Structure 29. Stantec, June 8, 2023.



Photo 3. Stream S01 flowing into Cocheco River near structure 29. Stantec, June 8, 2023.



Photo 4. Representative view of Cocheco River from structure 28. Stantec, June 8, 2023.



Photo 5. Representative view of the ROW and Wetland W05. Stantec, June 8, 2023.



Photo 6. Potential vernal pool PVP01, near structure 25. Stantec, June 8, 2023.



Photo 7. Representative view of the ROW and wetland W10 near structure 23. Stantec, June 8, 2023.



Photo 8. Representative view of the ROW and wetland W13 near structure 18. Stantec, June 8, 2023.



Photo 9. Representative view of the ROW and wetland in active pasture area near structure 14. Stantec, June 8, 2023.



Photo 10. Representative view of the ROW and open field side of wetland W18, near structure 8. Stantec, June 8, 2023.



Photo 11. Stream S05 in wetland W18 near junction of R169 and 307 line ROWs. Stantec, June 8, 2023.



Photo 12. Representative view of the ROW at the Piscataqua River, structure 5. Stantec, June 8, 2023.



Photo 13. Wetland W19 and existing access along 307 line ROW. Stantec, June 8, 2023.



Photo 14. Representative view of the ROW and wetland W21, near structure 4. Stantec, June 8, 2023.



Photo 15. Representative view of the ROW and wetland W23, near structure 3. Stantec, June 8, 2023.



Photo 16. Structure 2, near the Three Rivers Substation. Stantec, June 8, 2023.

Appendix B CORPS WETLAND DETERMINATION DATA FORMS

(Provided upon request)

Appendix C WETLANDS FUNCTIONAL ASSESSMENT WORKSHEETS

(Provided upon request)

Appendix D OBSERVED WILDLIFE

Common Name	Species Name
American crow	*Corvus brachyrhynchos*
Osprey	*Pandion haliaetus*
Eastern chipmunk	*Tamias striatus*
Red-tailed hawk	*Buteo jamaicensis*
White-tailed deer	*Odocoileus virginianus*
Wild turkey	*Meleagris gallopavo*

R169 Structure Replacement Project
Dover, New Hampshire

Conditional Use Permit Application

Part 2 of 5

December 22, 2023

Prepared for:

Public Service Company of New Hampshire d/b/a Eversource Energy
13 Legends Drive
Hooksett, NH 03106

Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: Public Service Company of NH d/b/a Eversource Energy Telephone # 603-634-2243

Address of Applicant: 13 Legends Drive, Hooksett, NH 03106

E-Mail Address: Travis.Yandow@Eversource.com

Name of Property Owner (if different from applicant): same as above Telephone # same as above

Address of Property Owner: same as above

PROPERTY INFORMATION

Assessor's Map # 830-267 Lot(s) # K0001-A00001

Address of Property: Existing R169 transmission line ROW--McKone Lane to Eagan Drive, Dover, NH

Zoning District(s) R-40, R-12, CWD Overlay District(s) Wetland Protection and Conservation

Rural Residential, Medium Density, Residential, Urban Density Multi Residential, Cocheco Waterfront District

Existing Use of Property: Electric transmission line ROW

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☒ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

Impact Area 2/Sheet 2: Eversource is proposing to replace four structures (19, 20, 21, and 22) along their existing R169 transmission line ROW in Dover. This segment of the ROW traverses a low density residential pasture and a large forested area south of Back Road. The old wooden structures require replacement due to age, cracking, leaning, and/or woodpecker damage. The existing structures will be replaced with new weathering steel structures to provide a more reliable electrical infrastructure. In Impact Area 2, the only impacts are associated with matting needed to bridge a perennial stream (S04). This results in a temporary wetland impact over the stream itself, as well as minor, temporary wetland buffer impacts on either side of the stream, and because perennial streams are also a resource of concern within the Conservation District, there are minor temporary impacts associated with the stream buffer for S04. In the Wetland Protection District, 742 square feet of temporary impact occurs in wetlands (timber matting), and 1,802 square feet of temporary impact is proposed in the buffer. In the Conservation District, 1,515 square feet of temporary impact is proposed in the buffer as a result of the matting. There will be no ground disturbance in these areas as matting will be utilized on both sides of the stream. However, where needed, there will be pre-construction installation of erosion/sediment control BMPs and monitoring for effectiveness. See attached application narrative and supporting documents for more details.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: NHDES: Alteration of Terrain; Wetlands Utility Statutory Permit by Notification; Shoreland Permit by Notification; USACE Pre-application Construction Notification; USACE Section 408 Variance to Fed. Navigation Project.

Name of Professional That Prepared Plans: Tom Tetreau, NH Certified Wetland Scientist

Address 30 Park Drive, Topsham, ME 04086 Telephone #: 207-504-7231

Professional License #: 283 E-mail address: tom.tetreau@stantec.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 12/20/2023

Signature of Applicant (if different from owner): _____ Date: _____

Signature of Agent: _____ Date: 12/20/2023

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 12/20/2023

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS
Multiple		Kurt Nelson, Eversource Energy	13 Legends Drive, Hooksett, NH 03106

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS
Tom Tetreau, NH Certified Wetland Scientist	Stantec	30 Park Drive, Topsham, ME 04086

Conservation Easement Holder:

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

Stantec Consulting Services Inc.
30 Park Drive, Topsham ME 04086-1737

December 22, 2023

Project/File: 195602676

Attention: Donna Benton
Planning Director
288 Central Avenue
Dover, NH 03820
d.benton@dover.nh.gov

Reference: Conditional Use Permit Application, Eversource Energy, R169 Structure Replacement Project, Dover, New Hampshire

Dear Ms. Benton and Planning Board Members,

On behalf of the Public Service of New Hampshire d/b/a Eversource Energy (Eversource), Stantec Consulting Services Inc. is filing five Conditional Use Permit (CUP) applications for necessary structure replacements as part of the R169 Structure Replacement Project (Project) in the City of Dover. Eversource has identified 18 existing structures along the existing R169 transmission line right-of-way (ROW) in Dover that require replacement due to deterioration from age, cracking, leaning, rot, and/or woodpecker damage.

Portions of the proposed Project are located within the Conservation District and the Wetlands Protection District, as described in the Dover Zoning Ordinance, Articles 170-27 and 170-27.1, respectively. CUPs may be granted within utility ROWs in the Conservation District in accordance with Article 170-27 Section C (1), and in the Wetlands Protection District in accordance with Article 170-27.1 Section F (1):

> "Article 170-27 Section C (1): *Conditional Use Permits may be granted by the PLANNING BOARD for the following uses within the* ***Conservation District****: (1) STREETs, roads and other access ways and utility rights-of-way, communications equipment, easements, including power lines and pipe lines, if essential to the productive use of land not so zoned and if so located and constructed as to minimize any detrimental impact of such uses upon the wetlands or other environmentally sensitive areas, where it is physically impossible to locate such ways over land not so zoned."*
>
> "Article 170-27.1 Section F (1): *Conditional use approval may be granted by the PLANNING BOARD (RSA 674:21II) after proper public notice and public hearing, for construction within the* ***Wetland Protection District*** *or buffer. Said construction may include but is not limited to, a road or other accessway, utility right-of-way, communication lines, power lines and pipelines, STRUCTUREs, and parking LOTs provided that the proposed construction complies with the following standards [emphasis added.]*

Therefore, Eversource is requesting the CUPs for activities and temporary impacts to wetland buffer areas within the Conservation District and the Wetlands Protection District and has outlined compliance with City of Dover zoning standards in the attached project narrative, which is being submitted in accordance with Articles 170-27 and 170-27.1 of the zoning ordinance. These five CUP applications (one per project map sheet) are being submitted, in total, for approximately 19,734 square feet (0.45 acres) of temporary tidal

Reference: Conditional Use Permit Application, Eversource Energy, R169 Structure Replacement Project

buffer resource impacts (to be restored) and 1,515 square feet (0.03 acres) of temporary stream buffer resource impacts (timber matting) in the Conservation District. In the Wetland Protection District, the following impacts are anticipated: approximately 56,885 square feet (1.31 acres) of temporary wetland impacts (matting), 26,838 square feet (0.62 acres) of temporary impacts within wetland buffers (matting), and 29,941 square feet (0.69 acres) of permanent impacts within upland wetland buffer areas for gravel access road and work pad construction.

The proposed work is for direct “in-kind” replacements of cracked and damaged poles, and no new pole locations are proposed within the R169 ROW in Dover. New structures will be in the same general footprint as existing and do not represent a significant footprint expansion within the Conservation District and the Wetlands Protection District or consist of substantial disturbances beyond those historically created by the transmission line. Disturbed areas will be protected with erosion and sediment control measures, and strategies will be implemented to stabilize and allow for re-vegetation of exposed soils.

This submittal includes a digital copy of each of the five CUP application packages. The filing fee of $1,000 ($200 per application x 5 CUP applications [one per project map sheet]) is included in the online submittal with this application. We understand that the City of Dover will calculate and invoice for abutter and notice fees; therefore, we have assumed these fees will be paid at a later date and have not included them with this application.

Additional state and federal wetland and shoreland permit applications are being prepared and submitted for the Project. Permit approvals will be forwarded to the City of Dover as required and/or requested.

Sincerely,

STANTEC CONSULTING SERVICES INC.

Jess S. Hunt
Senior Associate, Environmental Services
Phone: (603) 557-4662
jessica.hunt@stantec.com

Andrew Ackerman
Senior Environmental Scientist, Environmental Services
Phone: (603-413-7731
andrew.ackerman@stantec.com

Attachment: Conditional Use Permit Applications

cc. Travis Yandow and Kurt Nelson, Eversource

Conditional Use Permit Application

R169 Structure Replacement Project
Dover, New Hampshire

December 22, 2023

Prepared for:

Public Service Company of New Hampshire d/b/a Eversource Energy
13 Legends Drive
Hooksett, NH 03106

Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

Table of Contents

1.0 PROJECT INTRODUCTION AND PURPOSE 1

2.0 EXISTING CONDITONS 2

3.0 PROJECT DESCRIPTION AND PROPOSED CONDITIONS 3
3.1 LINE REBUILD: STRUCTURE REPLACEMENT, CONDUCTOR AND OPGW REPLACEMENT 3
3.2 ACCESS 4
3.2.1 Road Construction 4
3.2.2 Wetland and Upland Temporary Matting 4
3.2.3 Work Pad Construction 5
3.3 CONSTRUCTION SEQUENCE 5
3.4 BEST MANAGEMENT PRACTICES 6
3.4.1 Erosion and Sedimentation Control 6
3.4.2 Invasive Species Control Plan 6
3.4.3 Construction Observation and Post Construction Monitoring 6

4.0 OVERLAY ZONING DISTRICT IMPACTS AND ACTIVITIES 7
4.1 WETLAND PROTECTION DISTRICT 8
4.2 CONSERVATION DISTRICT 11
4.3 IMPACT AREAS 13
4.3.1 Impact Area 1 13
4.3.2 Impact Area 2 14
4.3.3 Impact Area 3 14
4.3.4 Impact Area 4 14
4.3.5 Impact Area 5 14

LIST OF FIGURES

Figure 1 USGS Site Location

R169 – Dover CUP Permit Map Set, Dover, NH

LIST OF APPENDICES

APPENDIX A WETLAND DELINEATION REPORT

1.0 PROJECT INTRODUCTION AND PURPOSE

Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource) owns and maintains the R169 electrical transmission line that passes through Dover, New Hampshire. Eversource has identified 19 existing wooden structures that need to be replaced on the R169 line (18 in Dover, New Hampshire, and 1 in Eliot, Maine) due to age, cracking, leaning, rot, and/or woodpecker damage, which constitutes the proposed R169 Structure Replacement Project (Project). The existing wooden structures will be replaced with new, steel structures that adhere to current safety and electrical codes to provide more reliable electrical infrastructure.

The R169 Line right-of-way (ROW) begins at the Three Rivers Substation in Eliot adjacent to the Piscataqua River and traverses westerly over the river into Dover, then continues westerly through Dover approximately 3 miles for the remainder of the length of the transmission line to the Dover Substation.

Chapter 170 of the local Zoning Ordinance of the City of Dover, New Hampshire, establishes regulations and guides appropriate use of land. The existing utility ROW and proposed structure replacement activities in Dover bisect various city zoning districts, including the Rural Residential (R-40), Medium Density Residential (R-12), and Urban Density Multi Residential (RM-U) zoning districts and the Cocheco Waterfront District (CWD). The ROW and proposed Project activities also intersect two natural resource protection overlay districts—the Conservation District (per Article 170-27) and the Wetland Protection District (per Article 170-27.1). The purpose of these two overlay districts is to avoid and minimize development impacts to, and similarly conserve, local rivers, streams, wetlands, and flood-prone or steep, erosion-prone areas of Dover. The Project has taken into consideration each the objectives of these overlay districts in the development of construction plans and activities around the identified sensitive resources.

The proposed Project activities require a Conditional Use Permit (CUP) from the City of Dover (hereafter, City) Planning Board for those activities that occur within the Conservation District and the Wetland Protection District per the City's Local Zoning Ordinance (as amended, September 2022) and subsequent guidance from the City Planning and Community Development Department. This CUP application presents the applicable information associated with the Project. In addition to the 18 proposed replacement structures in Dover, Eversource previously identified five utility structures for replacement along the R169 line. A CUP application (#406-22) for the replacement of those five structures was submitted to the City in July 2022 and approved by the Planning Board on July 21, 2022. Replacement of those five structures has been completed.

In accordance with NH RSA 482-A:3 XV, routine utility maintenance work is exempt from the standard NH wetland permit process. However, Eversource is required to submit a Utility Maintenance Activity Statutory Permit-by-Notification, Shoreland Permit-by-Notification, and Alteration of Terrain permit application to the New Hampshire Department of Environmental Services (NHDES) to cover the temporary wetland impact associated with use of timber matting within wetlands required to

complete the proposed structure replacement work, impacts within the developed portions of the Protected Shoreland of the Cocheco River, and proposed upland ground disturbance.

2.0 EXISTING CONDITONS

The existing cleared R169 ROW varies from approximately 100 feet (ft) in most areas to 250 ft wide where the ROW is shared with additional transmission lines near the Piscataqua River. The Project ROW consists of Eversource fee-owned property or Eversource-controlled easements. From the Piscataqua River to the Dover Substation, the ROW traverses westerly through forested, residential, and agricultural landscapes. The ROW primarily crosses rural areas and local roads, as well as the Cocheco River and the Piscataqua River. The topography varies from flat lowlands and fields to undulating hills and steep side slopes. Elevations range from 0 to 90 ft above mean sea level. Soils within the ROW consist primarily of loam and silty loam (see attached CUP plans).

The open upland natural communities in the ROW consist of early successional shrub, sapling, and herbaceous species. Characteristic woody vegetation includes gray birch (*Betula populifolia*), quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), sheep-laurel (*Kalmia angustifolia*), late lowbush blueberry (*Vaccinium angustifolium*), white meadowsweet (*Spiraea alba*), Allegheny blackberry (*Rubus allegheniensis*), American hazelnut (*Corylus americana*), red oak (*Quercus rubra*), and red raspberry (*Rubus idaeus*). Commonly observed herbaceous vegetation in the ROW includes little Canada mayflower (*Maianthemum canadense*), wrinkle-leaf goldenrod (*Solidago rugosa*), Canada goldenrod (*Solidago canadensis*), bracken fern (*Pteridium aquilinum*), hay-scented fern (*Dennstaedtia punctilobula*), wild strawberry (*Fragaria virginiana*), bristly dewberry (*Rubus hispidus*), Kentucky blue grass (*Poa pratensis*), and other common grass and wildflower species. Non-native invasive species such as rambler rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), Morrow's honeysuckle (*Lonicera morrowii*), and glossy false buckthorn (*Frangula alnus*) are present in moderate abundance.

Stantec consulted with the New Hampshire Natural Heritage Bureau, the New Hampshire Fish and Game Department, and the US Fish and Wildlife Service as required for NHDES and US Army Corps of Engineers (USACE) permitting. There were three state-listed wildlife species, three state-listed plant species, and three federally listed wildlife species noted in the vicinity of the Project. Eversource proposes to follow agency recommendations and permit conditions as part of this Project and will conduct recommended surveys as needed.

One potential vernal pool and 23 wetlands were identified within the ROW during a delineation conducted by Stantec (Tom Tetreau, New Hampshire Certified Wetland Scientist #283) in June 2023; results of the wetland survey can be found in Appendix A.

The 307 transmission line ROW intersects the R169 ROW from the south near proposed structure 6 to the Piscataqua River; the nearby 307 line ROW will be utilized for access only. Existing access roads traverse portions of both ROWs. These access roads are unpaved with mostly a loamy sand base with occasional stretches consisting of previously installed stone. The access roads are generally 8 to 12 ft wide in most areas.

Routine vegetation maintenance is performed along the R169 ROW on an approximate 4- to 5-year cycle. The last vegetation maintenance was performed along portions of the R169 ROW in summer 2023. Trees and shrubs capable of growing to heights that could interfere with conductors are trimmed and allowed to regenerate until the next maintenance cycle. Prior to the start of construction, areas around proposed access roads and pads will need additional mowing within the ROW.

3.0 PROJECT DESCRIPTION AND PROPOSED CONDITIONS

3.1 LINE REBUILD: STRUCTURE REPLACEMENT, CONDUCTOR AND OPGW REPLACEMENT

The proposed Project includes replacement of 18 existing wooden transmission line structures along the R169 line in Dover. The replacement (new) structures will be within 10 ft of the previous structure location, with two exceptions: proposed structure 13 will be approximately 140 ft from the existing structure location to avoid wetland and impacts, and proposed structure 20 will be approximately 40 ft from the existing location. A majority of the new structures will be approximately 5 to 10 ft taller than the previous structures to comply with current electrical standards. The one structure proposed for a reduction in height is structure 27, within the shoreland of the Cocheco River, which will be reduced from the current 135 ft to 120 ft. The shorter structure allows for a reduced construction footprint and minimizes potential impacts to the sensitive shoreland area.

The structure replacement process consists of drilling holes near the existing structures and installing a caisson, also referred to as a can, below the ground surface. The new structure is installed in the can and backfilled with clean, suitable rock or gravel material. Spoils produced from drilling the hole will be disposed of in an approved upland location away from wetland areas and will be stabilized with an appropriate conservation/contractor's seed mix and weed-free straw mulch. Some replacement structures may require anchors. Anchors will be installed by excavating trenches, installing concrete block anchors, and backfilling trenches. If soil conditions allow, screw anchors may be installed to minimize ground disturbance. Temporary swamp mats (i.e., matting) will be utilized to access structures located within delineated wetlands or wetland areas that must be crossed for access. Mats will also be used on some occasions to minimize impacts to maintained yards or farmed upland areas. Once the new structure is installed and stable, the wires from the old structure will be transferred to the new structure. Old structures will be cut and removed from the ground in upland locations. To minimize ground disturbance, old structures in wetlands are typically cut flush with the ground surface. In some cases, the bottom of the old structure may be able to be pulled from the wetland with minimal disturbance to the wetland. All construction materials and old structure pieces will be removed and disposed of off-site at an approved disposal facility.

Following completion of the structure replacement and wire work, temporary timber construction mats will be removed. Disturbed wetland areas will be restored and stabilized with weed-free straw mulch. Temporarily disturbed upland areas will also be restored and stabilized through seeding and mulching. Permanently disturbed wetland buffer areas will remain as permanent features. Seed and mulch will be

applied along the shoulders and side slopes of the access roads as necessary and the established access roads will be left in place, with the exception of the area around proposed structures 27 and 28, which will be entirely restored. The work pads and new access road between proposed structures 27 and 28 will be re-contoured to the existing grade, covered with topsoil that was stockpiled during the initial grading, and stabilized with seed and mulch.

Minor tree clearing is proposed as maintenance within the existing access road off Cocheco Street and within the existing ROW near proposed structures 27 and 28 as part of the Project. The Project will submit a Protected Shoreland Permit by Notification to address proposed selectively cut trees in the upland shoreland areas.

3.2 ACCESS

The proposed Project utilizes existing access roads within the R169 line ROW and existing access within the 307 line ROW wherever possible. The majority of the existing access roads are made up of dirt or gravel areas and are proposed to be improved, as necessary, through the addition of clean stone as part of the Project to allow for construction vehicle access. Proposed access roads are shown on the attached map set. Access road entrances are located off local roadways and utilize existing entrances wherever possible. Driveways permits are not anticipated to be required from the City. There are no state-owned roads in the project area; therefore, temporary driveway permits from the New Hampshire Department of Transportation will not be required for construction. The proposed access roads were sited to minimize ground disturbance and temporary wetland impacts to the greatest extent practicable while providing safe and efficient access to the existing structures. Timber matting will be used to cross all wetland and stream resources that cannot be avoided completely.

3.2.1 Road Construction

Proposed upland access road improvements include construction of approximately 12- to 16-ft-wide gravel and stone roads within the ROW and in some cases adjacent to the ROW. The roads will provide access to existing utility structures for replacement activities. The improved access roads will provide reliable, permanent access to utility infrastructure during future maintenance or emergency repairs. Where possible, the proposed access roads will be located on top of existing dirt roads or trails. If no existing routes are available or suitable, a new road will be constructed. Minor grading may be necessary to remove large boulders and create a flat surface for the new rock or gravel.

Project plans require tree removal along the widening the existing access road off Cocheco Street to proposed structures 27 and 28 to a width of 12 ft to accommodate equipment for the structure replacements. Tree removal at this location will occur within the existing utility ROW and along the existing access road on Eversource property and will be conducted between November 1 and April 14 to avoid potential impacts to federally listed wildlife species if present.

3.2.2 Wetland and Upland Temporary Matting

Access through maintained fields and private property within uplands and delineated wetlands in the Project area will utilize temporary timber construction mats to minimize ground disturbance and prevent

rutting. Where necessary in overly saturated conditions, runners (mats placed parallel to the direction of travel) will be placed on the wetland surface prior to setting the top, perpendicular layer of mats. This will help reduce settling and overall wetland disturbance.

3.2.3 Work Pad Construction

The proposed Project includes construction of 18 structure replacement work pads approximately 100 ft by 100 ft each, with some exceptions. With the exception of work pads located within wetlands, upland work pads will be constructed using clean stone. The work pads will be top dressed with compacted 1.5- to 3-inch-diameter clean stone. After the structure replacement work is complete, restoration of upland work pads will consist of utilizing stockpiled topsoil to reduce work pads to approximately 30 ft by 60 ft. Restored areas will be stabilized with seed and mulch. Proposed work pads located in wetland areas will be constructed using temporary timber construction mats and will be removed upon completion of the work.

3.3 CONSTRUCTION SEQUENCE

The general Project construction sequence will be:

1. Installation of appropriate signage along public roads near construction entrances;
2. Installation of erosion control devices, as needed;
    a. Erosion control practices will follow the *Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetland and Waterbodies in New Hampshire* (Utility BMP Manual) published by the New Hampshire Department of Natural and Cultural Resources (March 2019).
3. Placement of construction mats in wetlands for access roads and work pads;
4. Grading and improvements of upland access roads and work pads;
5. Stabilization (seed and mulch) of exposed soils on created side slopes;
6. Replacement of structures:
    a. Drill new structure holes;
    b. Install new poles and structure components;
    c. Transfer electrical lines from old structure to new structure; and
    d. Remove and haul away old structure.
7. Clean up excess/stockpiled material at work pads;
8. Smoothing/grading upland work pads and stabilizing and restoring with seed and mulch as necessary;
9. Removing construction mats from wetland areas and stabilizing/restoring disturbed wetland areas with weed-free straw mulch; and

10. Stabilization, restoration, and clean up staging areas and entrance points.

Provided necessary permits are in place and to the extent possible, work would begin in April 2024 and continue through fall 2024. Entrances, access roads, and work pads will be created prior to structure replacement work. New structure holes will likely be drilled prior to mobilization of structure replacement equipment (cranes, bucket trucks). Installing new poles and transferring wires will be completed prior to moving on to the next structure. Multiple structure replacement crews may be working in different areas to expedite the process. Removal of mats and restoration will occur as individual work areas are completed.

3.4 BEST MANAGEMENT PRACTICES

3.4.1 Erosion and Sedimentation Control

Work will be conducted in accordance with the Utility BMP Manual. Following these BMPs will minimize and avoid impacts to wetland and stream resources and the surrounding upland areas to the greatest extent practicable.

Perimeter erosion controls consisting of silt fence, straw wattles, mulch, and straw bales will be installed as necessary around the work areas to minimize potential impacts to adjacent resource areas. Water bars, also known as diversion ditches, will be installed along access roads with steep slopes, where necessary, to prevent water from traveling long distances down the road causing erosion. Water bars will direct water off the road into adjacent upland areas. Exposed soil created during construction will be stabilized with seed and mulch as soon as possible after active work in the area is complete. No equipment or material will be stored within wetland areas.

3.4.2 Invasive Species Control Plan

Due to the developed landscape surrounding the majority of the R169 line, invasive plant species occur within the ROW and were observed during field surveys. Contractors will follow the invasive species recommendations in the Utility BMP Manual to help prevent the spread of invasive species, including inspection and cleaning of equipment and contractor training. Equipment, including construction mats, brought to the Project area will be inspected by the contractor and/or environmental monitor, and if plant material or soil is present, the equipment will be cleaned and dried prior to use on the Project. Contractors will be familiar with identification of common invasive species and will be required to clean mats and equipment prior to their use elsewhere. If possible and without increasing wetland impacts, the contractors may also make slight shifts in access roads or work pads to avoid invasive species locations.

3.4.3 Construction Observation and Post Construction Monitoring

During construction, Eversource will contract an environmental monitor to perform routine construction observation visits. The environmental monitor will inspect the Project area for compliance with the Utility BMP Manual and applicable Project permits and conditions. Construction observation visits will occur at least once per week and/or after a significant rainfall (0.5 inches or greater) or snow melt event. Under the National Pollutant Discharge Elimination System, Eversource will file a Notice of Intent and

Stormwater Pollution Prevention Plan (SWPPP) under the U.S. Environmental Protection Agency's Construction General Permit. Construction observation visits and associated reporting will follow the SWPPP and Construction General Permit guidelines and be performed by a qualified individual familiar with the SWPPP, Utility BMP Manual, and Project specific permit conditions.

A series of post-construction monitoring visits in the Project area will be performed by a qualified environmental scientist to document that disturbed areas are properly stabilized and vegetation is beginning to regrow. Site restoration will be considered successful when there is at least 85% cover by native or non-invasive herbaceous plant species within the restored portions of the ROW, including restored wetland areas. This does not include gravel work pads or access roads that existed prior to construction or were created during construction, with the exception of the gravel work pads and road for proposed structures 27 and 28, which will be restored to natural grade, topsoil spread, and stabilized with seed and mulch. The environmental scientist will prepare a report following each post-construction monitoring visit that includes representative photographs and corrective actions (if applicable). Once the disturbed uplands and temporarily impacted wetlands within the Project area are determined to be permanently stabilized, post-construction monitoring will be considered complete, and a Notice of Termination will be filed under the U.S. Environmental Protection Agency's Construction General Permit.

4.0 OVERLAY ZONING DISTRICT IMPACTS AND ACTIVITIES

The ROW and proposed Project activities intersect natural resource protection overlay districts in Dover, including the Conservation District and the Wetland Protection District. The following summarizes the Project-specific components in the respective overlay districts.

Proposed temporary impacts to wetlands were minimized to the maximum extent practical during project planning. This included modifications to ROW access, reducing the size and positioning of the proposed utility poles, the utilization of timber matting and/or tracked equipment, and the location and orientation of work pads. Timber matting will be installed to completely span streams, where necessary, to avoid impacts to the stream bed and banks.

For the purposes of this CUP, resource impacts have been divided into 5 Impact Areas and corresponding map sheets, as shown per wetland and stream in the attached map set and in Table 1. Given the overlapping overlay districts and associated buffers, impacts were quantified in Table 1 below by direct resource impact and overlay district buffer impacts. The district buffers were established by taking the farthest buffer (such as when a stream channel is encompassed by a surrounding wetland, the larger Conservation District buffer was used).

Table 1: City of Dover Proposed Wetland Protection and Conservation District Impacts

District	Resource Impacts (SF)	Impact Area 1 (Map Sheet 1)	Impact Area 2 (Map Sheet 2)	Impact Area 3 (Map Sheet 3)	Impact Area 4 (Map Sheet 4)	Impact Area 5 (Map Sheet 5)
Wetland Protection District	Temporary Wetland Impact	-	742	23,279	3,188	29,676
	Temporary Wetland Buffer Impact	5,526	1,802	16,716	1,852	942
	Permanent Wetl and Buffer Impact*	-	-	29,941	-	-
Conservation District	Temporary Area Subject to Tidal Action Buffer Impact	19,734	-	-	-	-
	Temporary Stream Resource Buffer Impact	-	1,515	-	-	-
Overlapping Districts		5,526	773	-	-	-
	Total	**25,260**	**4,059**	**69,936**	**5,040**	**30,618**

*Based on 12-ft disturbance area for new gravel access
Overlapping Districts are illustrative of how much districts overlap and not part of total for each Map Sheet.

4.1 WETLAND PROTECTION DISTRICT

The Wetland Protection District includes all areas of wetlands and 50-ft wetland buffers, as defined in Dover Zoning Ordinance, Article 170-27.1. Project activities subject to a CUP that are within the Wetland Protection District are limited to temporary placement of timber mats in wetlands and at stream crossings and the creation of stone work pads and access road improvements in wetland buffer areas. New structures will be placed in the same general location as the existing structures, as described in section 3.1 above. The proposed access roads were sited along existing roads or trails wherever possible.

The Project will meet the following Wetland Protection District standards for Conditional Use Approval, as outlined in the Dover Zoning Ordinance, Article 170-27.1F(1).

(a) *Practicable Alternative: There is no practicable alternative that would have a less adverse impact on the area.*

The Project site is an existing transmission line within a utility ROW. The proposed structure replacement work is necessary to maintain reliability and safe operation of the existing R169 line. Alternative locations would require creation of a new ROW, and increased impacts to resources and the surrounding landscape and were not considered. The replacement structures must be located on the alignment of the existing transmission line and must be located within the existing ROW. The Project has been designed to reduce the footprint of the construction as much as

possible. For example, the proposed access route between structures 14 and 15 was designed to utilize a narrow upland area on the south side of the ROW to minimize wetland impacts as much as possible while maintaining required clearances for working equipment from overhead wires and adjacent tree lines. For example, in addition to reducing the height and footprint of proposed structure 27 near the Cocheco River, the Project proposes to move access roads to uplands where possible, completely restore impacted areas adjacent to the Cocheco River, smooth/grade upland work pads, and stabilize and restore with seed and mulch as necessary.

Upland work pads, other than those near the Cocheco River, are typically restored to an approximately 30-ft by 60-ft size. Topsoil pushed to the sides during the initial construction will be used to cover the work pads. Exposed soils will be stabilized with seed and mulch. Temporary construction mats will be removed from wetland areas as soon as work is complete and wetland areas will be stabilized/restored with weed-free straw mulch, if necessary. Matting will be removed in a similar manner to how it was installed.

(b) *Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative.*

The proposed structure replacements have been designed to avoid permanent fill and loss of wetland and stream areas by utilizing upland areas as much as possible and using temporary construction mats. The mats will result in minimal temporary disturbance of the shrub and herbaceous vegetation underneath, but the vegetation is expected to quickly recover following removal of the construction mats after construction is complete. Mats will be used to span streams and will not disturb streambanks or modify hydrology.

Wetlands will be protected from stormwater runoff through erosion and sedimentation control measures, and exposed soils will be stabilized in accordance with the measures discussed in Section 3.4.1. Additionally, appropriate siltation prevention measures will be implemented and inspected during construction and post-construction to prevent erosion, siltation, and turbidity. The erosion control methods and materials will follow the Utility BMP Manual. Perimeter controls (silt fence, straw bales, straw wattles, etc.) will be installed along the limits of work to protect adjacent resources and off-site area. If necessary, other BMPs including stone check dams and dewatering basins will be used to control and treat stormwater and prevent runoff to abutting or downslope properties.

The tidal wetland, wetland W02 associated with the Cocheco River, will be completely avoided by construction activities. Work will occur within the adjacent upland only, and erosion and sedimentation controls will be installed prior to ground disturbance to protect the wetland and river.

(c) *Minimization: Any unavoidable impacts have been minimized. No reasonable Alternative to the proposed construction exists which does not impact a wetland or which has less detrimental impact on a wetland. Design, construction and maintenance methods will be*



prepared by a registered engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade.

The Project is designed to replace existing infrastructure in an existing and maintained utility ROW. The Project does not propose any permanent impacts directly to surface waters or wetlands. Areas where district buffers are impacted have been reduced by using upland matting adjacent to wetlands in some areas and by reducing the overall footprint of structure work pads in others. Additionally, where ground disturbance and work area construction will occur near wetlands, appropriate erosion prevention measures will be implemented during construction and post-construction to prevent the migration of sediment laden runoff from reaching the adjacent wetlands. These areas will be inspected regularly for correct installation and to confirm that they remain effective erosion prevention measures.

The erosion control prevention and sediment control methods and materials will follow the Utility BMP Manual. Perimeter controls (silt fence, straw bales, straw wattles, etc.) will be used to protect adjacent resources and off-site areas. If necessary, other BMPs including stone check dams and dewatering basins will be used to control and treat stormwater and prevent runoff to abutting or downstream properties.

Temporary wetland and wetland buffer impacts will be avoided and minimized by following the Utility BMP Manual. This includes:

- Using wooden construction mats to support machinery in wetlands;
- Removing and restoring temporary impacts to wetlands, if necessary;
- Smoothing rutted areas, seeding as required, and mulching with weed-free straw;
- Using erosion and sediment controls as needed where ground disturbing activities are adjacent to wetland areas;
- Requiring contractors to follow practices outlined in the Utility BMP Manual to help prevent the spread of invasive species; and
- Conducting weekly inspections to monitor compliance with minimization measures and providing any site restoration recommendations as needed.

The new structure locations and associated structure components were designed by Eversource's engineers. Work and access roads were designed based on the results of the wetland delineation performed by a New Hampshire Certified Wetland Scientist and a constructability field review by Eversource engineers and construction personnel.

(d) Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review.

The Project will require temporary matting impacts to wetlands but will not result in permanent loss of any wetland area or permanent alterations to the wetland hydrology or associated vegetation; therefore, a compensatory mitigation plan is not proposed for the work in any of the

five Impact Areas. Additionally, the applicant has consulted with the NHDES Wetlands Bureau, which has concurred with the minimum impact determination for the R169 Project.

(e) *Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below.*

A Wetlands Utility Maintenance Activity SPN will be submitted for the Project. On November 16, 2023, Eversource met with the NHDES Wetlands Bureau and the USACE. During this meeting, a determination was made that the Project qualified for a 'minimum impact' since there are no permanent impacts to delineated wetlands, vernal pools, streams or other sensitive resources associated with the Project and Eversource will minimize temporary impacts and restore permanent upland impacts. The SPN application and NHDES and USACE permit approvals will be forwarded to the City as required and/or requested. Additional pending approvals are listed in Section 4.2 below.

4.2 CONSERVATION DISTRICT

The Conservation District includes water bodies, rivers, streams, swamps and marshes subject to tidal action and those areas within a minimum of 100 ft of each, as defined in Dover Zoning Ordinance, Article 170-27. The Conservation District also includes specific lots as defined in Article 170-27, as well as areas with slopes 20% and more than 2,000 square feet (sf) of contiguous area, neither of which is located within the Project area. Project activities subject to a CUP that are within the Conservation District are limited to temporary placement of timber mats at stream crossings and creation of stone work pads and access road improvements in river and stream buffer areas. New structures will be placed in the same general location as the existing structures. The proposed access roads were sited along existing roads or trails wherever possible.

The Project will meet the following Conservation District standards for Conditional Use Approval, as outlined in the Dover Zoning Ordinance, Article 170-27.C(2).

(a) The APPLICANT shall demonstrate that the proposed use is essential to the productive use of land not in the district; is located and constructed to minimize any detrimental impact of such use upon the surface waters or other environmentally sensitive areas, where it is physically impossible to locate such use on land not in the district; and economic advantage alone shall not be deemed a sufficient reason for such proposed use.

Approval of this CUP application would allow Eversource to maintain critical infrastructure necessary to provide the public with reliable electricity. The existing structures and line are currently located within the Conservation District and would remain as such following the structure replacements. The proposed Project is in the public's interest (versus economic advantage to Eversource) because the structure replacements will allow for the continued supply of reliable electricity to Eversource's customers. The avoidance and minimization efforts described above in section 4.1 for the Wetland Protection District also apply to the Conservation District.

(b) *A soil erosion and sedimentation control plan is submitted and followed to verify the planned avoidance of sediment pollutant runoff to bodies of water. This plan will address the following (if applicable), but should not be limited to:*

(i) stabilization of exposed soils and soil stockpiles;
(ii) protection of steep slopes from erosion;
(iii) construction site waste management;
(iv) inspection and maintenance of runoff control measures (BMPs);
(v) minimization of land clearing;
(vi) stabilization of drainage ways;
(vii) installation of perimeter controls;
(viii) installation of sediment trapping devices; and
(ix) storm drain inlet protection.

Erosion and sedimentation control practices will follow the Utility BMP Manual). Typical erosion and sedimentation controls devices used within the ROW may consist of silt fence, straw wattles, stone check dams, and/or hay and weed-free straw mulch stabilization. Erosion and sedimentation control notes and details are included on the attached map set. Approximate locations of erosion and sedimentation controls are shown around proposed work areas and access roads on the attached map set. Installation and maintenance of erosion and sedimentation controls will occur throughout the construction phase of the project. The controls will be inspected regularly by Eversource's contractors and environmental monitors and maintained and/or replaced as needed. Additional details are provided in sections 3.3 and 3.4 above.

(c) Necessary state and federal approvals have been applied for. Said permits shall be received prior to the issuance of the Conditional Use Permit by the Planning and Community Development Department.

Regulatory permits, approvals, and notifications required for the proposed Project are summarized below. The City will be provided copies of permit approvals when they are received. Given the review periods associated with some of the required permits, Eversource requests that the City condition approval of the CUP so that permit may be provided as they are received, rather than prior to the issuance of the CUP. The following state and federal permits are anticipated to be required for the Project:

- NHDES Utility Statutory Permit by Notification (submitted)
- NHDES Protected Shoreland Permit by Notification (pending submission)
- NHDES Alteration of Terrian Permit (submitted)
- USACE Pre-Construction Notification (pending submission)
- USACE Section 408 Variance Approval (pending)

(d) *A written review by the Conservation Commission of the environmental effects of the proposed use upon the area in question has been submitted. The Commission's review shall address the following, but is not limited to:*

(i) attempted avoidance of the impact;

(ii) minimization of the impact;

(iii) planned mitigation of the effects of the impact; and

(iv) efficacy of the soil erosion and sedimentation control plan.

Watercourses and surface waters have been avoided to the extent possible, and no alterations of banks or natural geomorphology are proposed. Temporary construction mats will be used to bridge, and avoid, stream areas; mats will be removed following construction. Conditions or requests for information related to environmental effects made by the local Conservation Commission will be documented and applied to the project where feasible.

4.3 IMPACT AREAS

Anticipated temporary and permanent impacts within the Conservation District and Wetland Protection District are summarized by Impact Area in Table 1 and described per area below. Each area corresponds with respective map sheets (Impact Area 1 corresponds with Map Sheet 1, etc.) in the attached CUP permit map set. Temporary impacts include timber matting and areas that will be restored post-construction, and permanent impacts within buffers are for gravel access road and work pad construction. Most of the impacts across the five impact areas (Map Sheets 1–5) occur in the Wetland Protection District and of those impacts 64% are temporary; the remaining 36% are permanent impacts in upland wetland buffer areas (see Impact Area discussions below for more details).

4.3.1 Impact Area 1

Within the Wetland Protection District, anticipated impacts in Impact Area 1 include approximately 5,526 sf of temporary impacts within wetland buffer areas of wetland W02 (overlaps 100% with areas subject to tidal action in the Conservation District), and approximately 19,734 sf of temporary impacts within the buffer area of areas subject to tidal action in the Conservation District. These temporary impacts associated with the creation of access roads and work pad construction are necessary to complete the replacement of proposed structures 27 and 28. Disturbances associated with these structure replacements will be fully restored once construction is complete, and no permanent impacts are anticipated in either District.

Impacts were avoided and minimized to the greatest extent practicable by minimizing the length of the new access road, locating access roads and work pads outside of wetland boundaries and wetland buffers, where possible, utilizing existing disturbances/access roads, and reducing the construction footprint and restoring areas along the Cocheco River shoreland that are within the Wetland Protection and Conservation Districts.

4.3.2 Impact Area 2

Within the Wetland Protection District, anticipated impacts in Impact Area 2 include approximately 742 sf of temporary wetland impacts (i.e., timber matting) and approximately 1,802 sf of temporary impacts in wetland buffer areas to cross wetland W11 and stream S04 along the access route between proposed structures 18 and 19. Within the Conservation District, approximately 1,515 sf of temporary impacts in stream buffer areas are anticipated. Overlapping buffer areas include approximately 773 sf of temporary impacts. Areas within and surrounding the Districts are existing fields and residential areas, and temporary upland matting will be used to avoid ground disturbance at the landowner's request. No permanent impacts are anticipated within either District.

4.3.3 Impact Area 3

Within the Wetland Protection District, anticipated impacts in Impact Area 3 include approximately 23,279 sf of temporary wetland impact (i.e., timber matting), approximately 16,716 sf of temporary impact in wetland buffer areas, and approximately 29,941 sf of permanent impact in wetland buffer areas to create the access road and work areas associated with proposed structures 13 through 18, across wetlands W12 through W16.

Impact Area 3 is the only Impact Area on the R169 line where upland buffer area impacts are proposed to be permanent (see Table 1 and Map Sheet 3 of 5). The permanent impacts are a result of the proposed 100-ft by 100-ft gravel work pads around proposed structures 14, 15, 16, and 18. In the case of the pads at proposed structures 14, 15, and 18, a portion of the 100-ft by 100-ft pad area will be gravel, with the remaining pad area constructed using temporary wetland matting. In these three locations, it is likely that the temporary matting will cover an even greater proportion of the pad area. Proposed structure 16 is the sole location where the entire pad is proposed to be gravel, and this location is entirely upland. No temporary or permanent impacts are anticipated within the Conservation District in Impact Area 3.

4.3.4 Impact Area 4

Within the Wetland Protection District, anticipated impacts in Impact Area 4 include approximately 3,188 sf of temporary wetland impact (i.e., timber matting) and approximately 1,852 sf of temporary impact in wetland buffer areas. Temporary impacts to wetlands and buffers include access across wetland W17 between proposed structures 9 and 10, and work areas and access in wetland W18 at proposed structure 7; no permanent impacts are anticipated due to landowner requests to use upland matting to protect existing field areas. No Conservation Districts are present in Impact Area 4.

4.3.5 Impact Area 5

Within the Wetland Protection District, anticipated impacts in Impact Area 5 include approximately 29,676 sf of temporary wetland impact (i.e., timber matting) and approximately 942 sf of temporary impact in wetland buffer areas to create work areas and access in wetland W18 associated with proposed structure 6; no permanent impacts are proposed. The Project will utilize an existing gravel access road from the 307 line ROW to proposed structure 6 to traverse through the Conservation Districts associated with

streams S05, S06, and S07 to avoid temporary and permanent impacts within those buffers. No work is proposed within the Conservation District associated with the Piscataqua River.

PHOTOGRAPHS

R169 STRUCTURE REPLACEMENT PROJECT
CUP APPLICATION - REPRESENTATIVE PHOTOGRAPHS

December 22, 2023



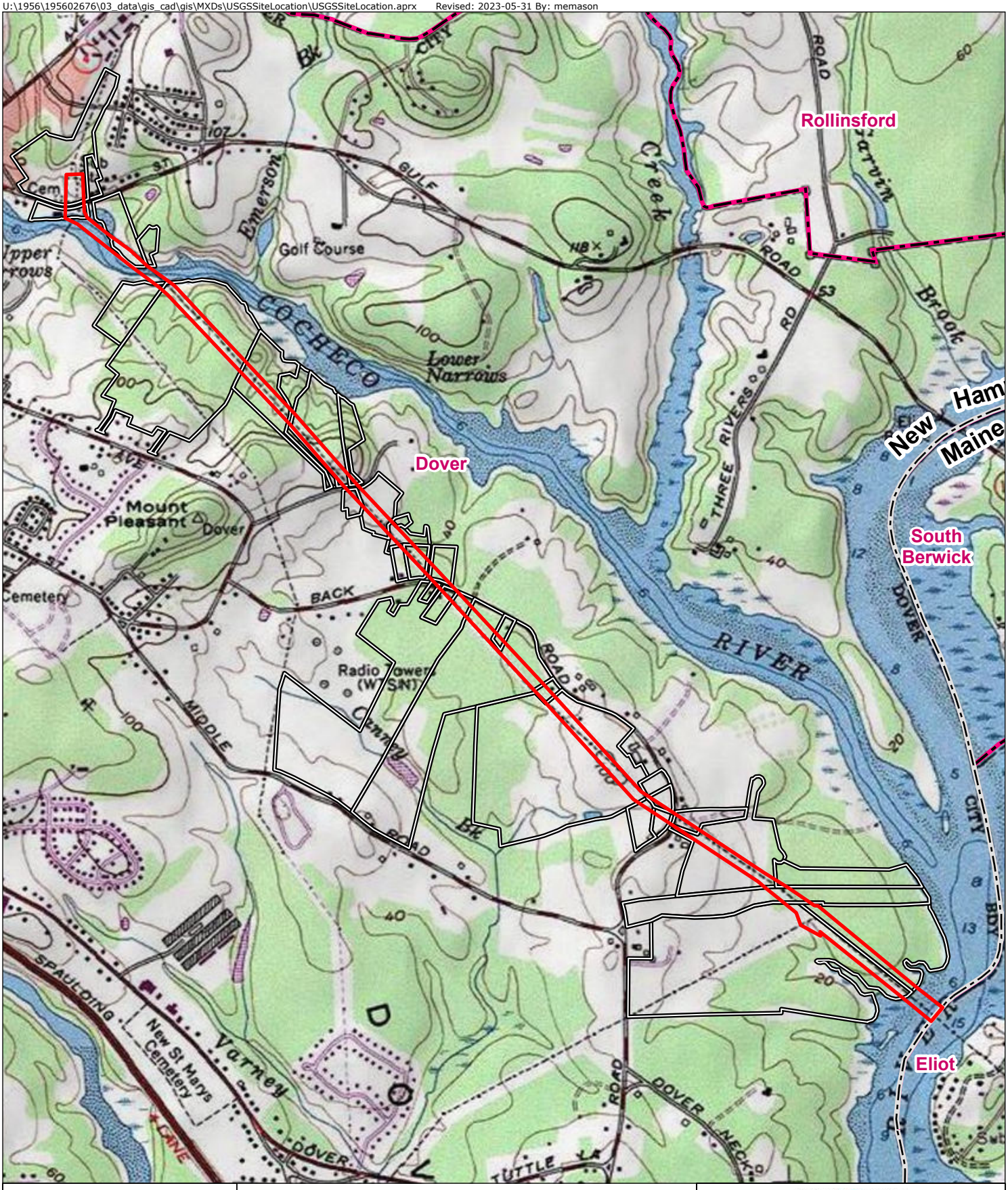
Photo 1. Representative view of upland area near proposed structure 20, above McKone Lane. Stantec. June 9, 2023.



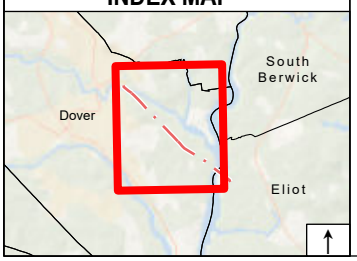
Photo 2. Representative view northwest near proposed structure 22 and wetland W05. Stantec. June 9, 2023.

FIGURES

U:\1956\195602676\03_data\gis_cad\gis\MXDs\USGSSiteLocation\USGSSiteLocation.aprx Revised: 2023-05-31 By: memason



INDEX MAP



Legend

- Approximate Project Limits
- Municipal Boundary
- State Boundary
- Abutting Parcel Boundary

N

1 inch = 1,500 Feet

0 750 1,500 Feet

EVERSOURCE ENERGY

Dover to Eliot (R169)
Structure Replacement Project

Date: May 31, 2023

Figure 1
USGS Location Map

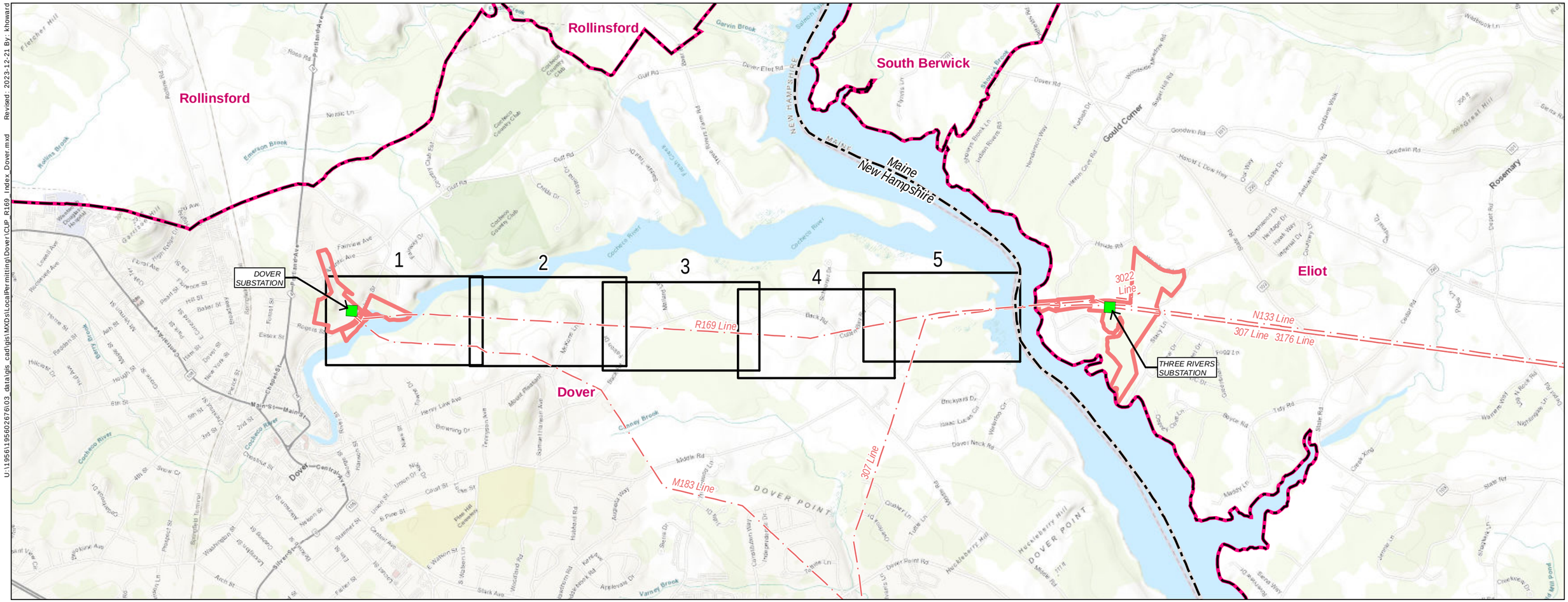
R169 Line - Structure Replacement Project

Dover, NH

Environmental Resources Map

Dover CUP Permit Map Set

Date: December 21, 2023



Legend

Substation | Municipal Boundary | State Boundary | Map Sheet | Eversource Owned Property

PREPARED FOR:

EVERSOURCE ENERGY

107 Selden Street
Berlin, CT 06037

N

0 2,000 4,000 Feet

INDEX OF FIGURES

Title Sheet / Index Map
Map Sheets 1-5

PREPARED BY:

Stantec

30 Park Drive
Topsham, ME 04086

Temporary Wetland Impact (SF)	Temporary Wetland Protection District Impact (SF)	Temporary Conservation District Impact (SF)	Permanent Wetland Protection District Impact (SF)	Permanent Conservation District Impact (SF)
742	1,802	1,515	-	-

Cocheco River

Cocheco River Wildlife Management Area

831-024
Tax Map ID: K0001-A00000
Robert Swanson
38 McKone Lane

831-025
Tax Map ID: K0001-A00001
State of New Hampshire
McKone Lane

831-022
Tax Map ID: N0018-001000
State of New Hampshire
McKone Lane

831-023
Tax Map ID: K0001-B00000
State of New Hampshire
McKone Lane

830-262
Tax Map ID: K0002-000000
State of New Hampshire
Henry Law Avenue

831-020
Tax Map ID: N0018-006000
Daniel & Jacqueline Ayer Revocable Trusts
McKone Lane

831-019
Tax Map ID: N0018-014000
Brianna Dichter
10 Whiteley Drive

831-018
Tax Map ID: N0018-000OP1
One Home Builders II LLC
Eagan Drive

831-021
Tax Map ID: N0019-005000
Anthony P Ayer
47 McKone Lane

831-017
Tax Map ID: N0019-A00000
Elaine M Thurston
174 Back Road

WHITELEY DRIVE

EAGAN DRIVE

MCKONE LANE

FALCON DRIVE

BACKROAD

W06-PEM
PVP01
GAS
W07-PSS
S02
S03
W08-PEM
W09-PEM
W10-PEM
W11-PSS
S04
Dover
R169 Line
M183 Line

CONFIGURE WORK PADS TO AVOID EXISTING STONEWALL

UTILIZE EXISTING BREACH IN STONEWALL

PERMISSION REQUIRED FOR OFF-ROW ACCESS

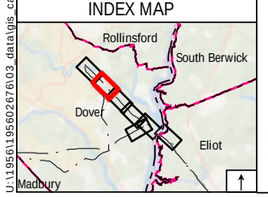
TEMPORARY WETLAND IMPACT: +/-742 SQ.FT.

SPAN STREAM NO IMPACT

UTILIZE EXISTING PAVED DRIVEWAY

STONEWALL TO BE REMOVED AND REBUILT AFTER CONSTRUCTION

INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Sediment Control Barrier (Typ.)
- Stone Work Pad
- Temporary Wetland Construction Matting
- Temporary Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 880 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
- Potential Vernal Pool Extent
- 50' Potential Vernal Pool Buffer
- FEMA 100-Year Flood Zone
- FEMA Floodway
- -GAS- Approximate Gas Pipeline
- Fence
- Stonewall
- 2' Contour
- 10' Contour
- NHDES 250' Protected Shoreland
- Conservation District
- Wetland Protection District

1 inch = 200 feet
0 50 100 200 Feet

Map Notes:
Coordinate System: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet
Data source: Eversource easement lines, structures, transmission lines provided by Eversource Energy. Wetlands, watercourses, and potential vernal pools delineated and verified by Stantec June 2023. Additional sources include: FEMA, NH Granit, Maine Geolibrary
Basemap: 2021 National Agriculture Imagery Program (NAIP) aerial imagery.

STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

R169 Line Structure Replacement
Dover CUP Permit Map Set

Dover, NH	MAP SHEET 2 of 5
Date: December 21, 2023	Stantec

U:\11956\119560267\03_data\gis_cad\gis\MXDs\LocalPermitting\Dover\CUP_R169_MapSet_Dover.mxd Revised: 2023-12-21 By: khoward

APPENDICES

Appendix A WETLAND DELINEATION REPORT

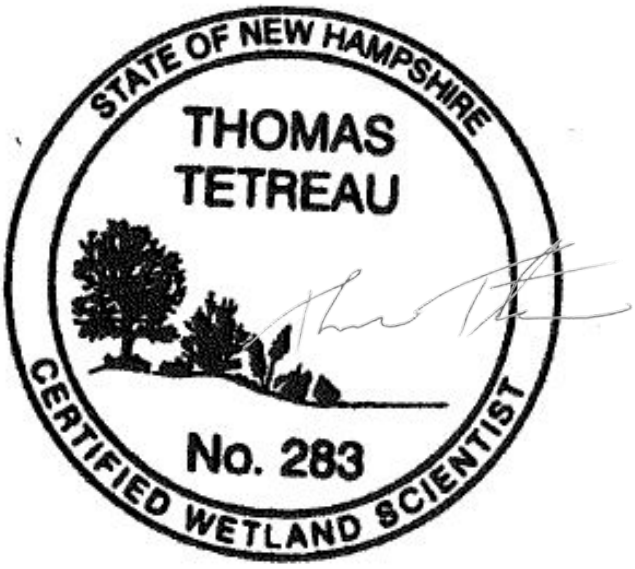
Wetland and Watercourse Delineation and Functional Assessment Report: R169 Structure Replacement Project

Dover, New Hampshire, and Eliot, Maine

September 14, 2023

Prepared for:

Eversource Energy
13 Legends Drive
Hooksett, NH 03106



Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

Table of Contents

1.0 INTRODUCTION 1

2.0 METHODS 1
2.1 WETLAND AND WATERCOURSE DELINEATION 1
2.2 FUNCTIONAL ASSESSMENT 2

3.0 RESULTS 3
3.1 GENERAL SITE DESCRIPTION 3
3.2 WETLAND AND WATERCOURSE DELINEATION 3
3.3 FUNCTIONAL ASSESSMENT 7

LIST OF TABLES

Table 1. Summary of Delineated Wetlands 4
Table 2. Summary of Delineated Streams 6
Table 3. Summary of Identified Vernal Pools 7
Table 4. Summary of Functional Assessment 8

LIST OF FIGURES

Permit Map Set

LIST OF APPENDICES

Appendix A Representative Photographs
Appendix B Corps Wetland Determination Data Forms (provided upon request)
Appendix C Wetlands Functional Assessment Worksheets (provided upon request)
Appendix D Observed Wildlife

1.0 INTRODUCTION

Eversource Energy (Eversource) proposes to replace approximately 20 existing transmission line structures located within the full length of the R169 Line, totaling approximately 3 miles of combined transmission line right-of-way (ROW) in Dover, New Hampshire and Eliot, Maine (Project Site; see attached Draft Map Set). Of the 20 structures proposed to be replaced, 19 are located in Dover and 1 is located in Eliot. Stantec Consulting Services Inc. (Stantec) was contracted to conduct wetland and watercourse delineations and a wetland functional assessment of the Project Site to support federal, state, and local natural resource permitting.

Stantec conducted on-site delineations within the existing ROW between June 8 and June 9, 2023. The delineations were conducted by Tom Tetreau, New Hampshire Certified Wetland Scientist #283. This report includes descriptions of the wetland and watercourse delineation methods and results.

2.0 METHODS

2.1 WETLAND AND WATERCOURSE DELINEATION

The R169 Line was previously delineated over 5 years ago, and the spatial data of these previously delineated wetlands and watercourses were used to aid in the 2023 wetland and watercourse delineation.

Wetland boundaries under local, state, and federal jurisdiction were determined using the technical criteria described in the U.S. Army Corps of Engineers (Corps) *Corps of Engineers Wetlands Delineation Manual*[1] and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regional Supplement.*[2] Wetland communities were classified according to the *Classification of Wetlands and Deepwater Habitats of the United States.*[3] Hydric soil determinations were made in accordance with the Corps wetland delineation manuals and the *Field Indicators for Identifying Hydric Soils in New England (Version 4).*[4]

Wetland boundaries anticipated to meet state, federal, and local jurisdictional criteria were located using a Global Positioning System (GPS) receiver capable of submeter accuracy. The previously delineated

[1] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
[2] U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[3] Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.
[4] New England Hydric Soils Technical Committee. 2017. Field Indicators for Identifying Hydric Soils in New England (Version 4).

wetland boundaries were confirmed using the GPS, with revisions to the boundaries located with the GPS as necessary.

Watercourses (e.g., streams) identified during the delineations were identified based on the definitions in NHDES Certified Administrative Rules Env-Wt 406.04, as well as the technical guidance available from the Corps on the identification of an Ordinary High Water Mark.[5] The top of each bank was mapped for streams typically over 6 feet wide, and the centerline was mapped for streams with top of bank widths up to 6 feet wide. Data was collected on flow regime, top of bank, band depth, Ordinary High Water Mark widths, dominant substrates, and evidence of biological use. GPS data were used to produce the attached map set.

The wetland delineation occurred outside the appropriate identification period for vernal pool indicator species; therefore, potential vernal pools were identified and evaluated in accordance with the *Identification and Documentation of Vernal Pools in New Hampshire.*[6] Potential vernal pools were primarily identified based on their physical characteristics and landscape position, and the presence of vernal pool indicator species, if observed. Observations of approximate size, hydrology, and evidence of disturbance were recorded. The boundaries of the potential vernal pools were located with GPS receivers, and photographs were taken of each vernal pool identified.

Priority Resource Areas (PRA), as defined in Env-Wt 103.66, were identified based on field observations and use of the Wetlands Permit Planning Tool.[7] PRAs identified along the R169 Line consisted of wetlands contiguous with tier 3 streams, tidal wetlands, and undeveloped tidal buffer zones.

2.2 FUNCTIONAL ASSESSMENT

Stantec performed a wetland functional assessment of the delineated wetlands and watercourses in accordance with New Hampshire Wetland Rules (Env-Wt 311.10). Wetland functions and values were qualitatively evaluated through direct field observation and a review of existing public data resources following the New Hampshire Method for evaluating the Ecological Integrity of the Wetlands and Streams (RSA 482-A:2, XI) and Corps *Highway Methodology Workbook Supplement.*[8] Information was collected to prepare Corps Wetland Determination Data Forms and Wetlands Functional Assessment Worksheets. Full assessments of Ecological Integrity using the New Hampshire Method is based on a series of desktop and field assessments and results in a numerical Functional Value Index for each wetland. Due to the length of the Project area, the abundance of wetlands, and the anticipated wetland impacts associated with the Project (temporary timber matting), Stantec evaluated the Ecological Integrity of each wetland using a qualitative value of low, medium, and high that considered the condition of the wetland

[5] U.S. Army Corps of Engineers. 2005. Regulatory Guidance Letter: Ordinary High Water Mark Identification. December 8, 2005. No. 05-05.

[6] Marchand, M. 2016. *Identifying and Documenting Vernal Pools in New Hampshire*. Third Edition, New Hampshire Fish and Game Department, Nongame and Endangered Wildlife Program.

[7] https://nhdeswppt.unh.edu/, accessed June 2023.

[8] U.S. Army Corps of Engineers. 1999. The Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach. U.S. Army Corps of Engineers. New England Division. 32pp. NAEEP-360-1-30a.

relative to human-caused stressors, diversity of native vegetation, and presence of natural processes. This modified method allowed for a more consistent and streamlined approach when completing the required Wetlands Functional Assessment Worksheets. The temporary impact area (matting) listed on the Wetlands Functional Assessment Worksheets is approximate based on preliminary mapping and Project design and represents the greatest amount of impact likely to occur. Temporary wetland impacts will be minimized throughout the permitting and design process, and some of these wetland impact areas may decrease.

3.0 RESULTS

3.1 GENERAL SITE DESCRIPTION

The R169 Line is an existing transmission line that traverses forested, residential, and agricultural landscapes between the Dover Substation in Dover and the Three Rivers Substation in Eliot. The open transmission line is approximately 100 feet wide in most areas, with wider stretches, up to 250-feet wide, containing additional transmission lines in the areas around the Piscataqua River crossing. The ROW primarily crosses rural areas and town roads, as well as the Cocheco River and the Piscataqua River. The topography varies from flat lowlands and fields to undulating hills and steep side slopes. Elevations generally range between 0 and 90 feet above mean sea level.

The open upland natural communities consist of early successional shrub, sapling, and herbaceous species. Characteristic woody vegetation includes gray birch (*Betula populifolia*), quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), sheep-laurel (*Kalmia angustifolia*), late lowbush blueberry (*Vaccinium angustifolium*), white meadowsweet (*Spiraea alba*), Allegheny blackberry (*Rubus allegheniensis*), American hazelnut (*Corylus americana*), red oak (*Quercus rubra*), and red raspberry (*Rubus idaeus*). Commonly observed herbaceous vegetation included little Canada mayflower (*Maianthemum canadense*), wrinkle-leaf goldenrod (*Solidago rugosa*), Canada goldenrod (*Solidago canadensis*), bracken fern (*Pteridium aquilinum*), hay-scented fern (*Dennstaedtia punctilobula*), wild strawberry (*fragaria virginiana*), bristly dewberry (*Rubus hispidus*), Kentucky blue grass (*Poa pratensis*), and other common grass and wildflower species. Non-native invasive species abundance was moderate compared to native vegetation and included rambler rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), Morrow's honeysuckle (*Lonicera morrowii*), and glossy false buckthorn (*Frangula alnus*). Soils within the ROW consisted primarily of loam and silty loam.

3.2 WETLAND AND WATERCOURSE DELINEATION

The wetland and watercourse delineations were conducted on June 8 and June 9, 2023, under appropriate conditions during the growing season. A total of 23 wetlands, 9 unnamed watercourses, and the Cocheco River and Piscataqua River were delineated. In addition, one potential vernal pool was surveyed. The locations of the delineated wetlands, watercourses, and potential vernal pool are included on the attached Draft Map Set. Tables 1, 2, and 3 summarize the delineated wetlands, watercourses, and potential vernal pool, respectively. Representative site photographs are provided in Appendix A. Representative Corps Wetland Determination Forms are included in Appendix B.



Table 1. Summary of Delineated Wetlands

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W001	PEM	Trees: None Saplings/Shrubs: None Herbs: broad-leaf cat-tail (*Typha latifolia*), lamp rush (*Juncus effusus*), cottongrass bulrush (*Scirpus cyperinus*), sensitive fern *(Onoclea sensibilis*), uptight sedge (*Carex stricta*)	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	Ditch excavation around existing substation
W002	E2EM	Trees: none Saplings/Shrubs: none Herbs: saltwater cord grass (*Spartina alterniflora*), eastern grasswort (*Lilaeopsis chinesis*)	F3: Depleted Matrix	A1: Surface Water A2: High Water Table A3: Saturation	Yes - Tidal	Tidal wetland associated with Cocheco River. Rare plant species observed.
W003	PFO	Trees: Norway maple (*Acer plantanoides*) Saplings/Shrubs: speckled alder (*Alnus incana*) Herbs: sensitive fern, lamp rush	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	Yes – within 100-feet of tidal areas	Stream S01 flows through wetland and into the Cocecho River.
W004	PSS	Trees: None Saplings/Shrubs: speckled alder Herbs: broad-leaf cat-tail, sensitive fern	F3: Depleted Matrix	A2: High Water Table A3: Saturation	Yes – within 100-feet of tidal areas	
W005	PSS/PEM	Trees: None Saplings/Shrubs: speckled alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	
W006	PEM	Trees: none Saplings/Shrubs: red maple, speckled alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush, reed canary grass (*Phalaris arundinacea*), spotted touch-me-not (*Impatiens capensis*)	F3: Depleted Matrix	A3: Saturation	No	Contains potential vernal pool PVP01.
W007	PSS	Trees: none Saplings/Shrubs: speckled alder Herbs: sensitive fern, lamp rush, spotted touch-me-not, bluejoint (*Calamagrostis canadensis*), woodland horsetail (*Equisetum sylvaticum*)	F3: Depleted Matrix	A3: Saturation	No	Contains stream S02.
W008	PEM	Trees: none Saplings/Shrubs: speckled alder Herbs: broad-leaf cat-tail, sensitive fern, uptight sedge	F3: Depleted Matrix	A3: Saturation	No	Contains stream S03.
W009	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, spotted touch-me-not, purple loosestrife (*Lythrum salicaria*)	F3: Depleted Matrix	A3: Saturation	No	

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W010	PEM/PSS	Trees: none Saplings/Shrubs: speckled alder Herbs: sensitive fern, lamp rush, woodland horsetail, bluejoint, reed canary grass	F3: Depleted Matrix	A3: Saturation	No	
W011	PSS	Trees: none Saplings/Shrubs: speckled alder, common winterberry (*Ilex verticilata*) Herbs: nodding sedge (*Carex gynandra*), sensitive fern, spotted touch-me-not, reed canary grass	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	Contains stream S04.
W012	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation	No	
W013	PEM	Trees: none Saplings/Shrubs: alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush, skunk-cabbage (*Symplocarpus foetidus*)	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	
W014	PEM/PSS	Trees: none Saplings/Shrubs: red maple, speckled alder, common winterberry Herbs: sensitive fern, lamp rush, broad-leaf cat-tail, reed canary grass, wrinkle-leaf goldenrod	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	
W015	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, steeplebush, wrinkle-leaf goldenrod, lamp rush	F3: Depleted Matrix	A3: Saturation	No	Portion of wetland within maintained lawn/yard area.
W016	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, uptight sedge, fowl manna grass (*Glyceria striata*), greater bladder sedge (*Carex intumescens*)	F3: Depleted Matrix	A3: Saturation	No	
W017	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, reed canary grass	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	
W018	PSS/PEM	Trees: none Saplings/Shrubs: broad-leaf meadowsweet (*Spiraea latifolia*), coastal sweet pepperbush (*Clethra alnifolia*), speckled alder, common winterberry Herbs: sensitive fern, lamp rush, bluejoint, blue iris (*Iris versicolor)*	F3: Depleted Matrix	A3: Saturation	No	Portion of wetland is mowed hay field. Contains stream S05.

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W019	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, broad-leaf cat-tail, necklace sedge (*Carex projecta*)	F3: Depleted Matrix	A3: Saturation	No	
W020	PEM/PSS	Trees: none Saplings/Shrubs: pussy willow (*Salix discolor*) Herbs: sensitive fern, bluejoint, reed canary grass, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation	No	
W021	PEM	Trees: none Saplings/Shrubs: speckled alder Herbs: lamp rush, sensitive fern, cottongrass bulrush	F3: Depleted Matrix	A3: Saturation B10: Wetland drainage patterns	No (Maine)	Adjacent to Piscataqua River. Portions within mowed lawn/yard area.
W022	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, woodland horsetail, cottongrass bulrush	F3: Depleted Matrix	A3: Saturation	No (Maine	
W023	PSS/PEM	Trees: none Saplings/Shrubs: broad-leaf meadowsweet, speckled alder, common winterberry Herbs: sensitive fern, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No (Maine)	

[1] PEM = Palustrine Emergent, PSS = Palustrine Scrub-shrub, PUB = Palustrine Unconsolidated Bottom, PFO = Palustrine Forested, E2EM = Estuarine Intertidal Emergent

Table 2. Summary of Delineated Streams

Stream Identifier	Flow Type	Bankfull Width (ft)	Ordinary High Water Mark Width (ft)	Dominant Substrates	Additional notes
S01	Perennial	4-6	4-6	Sand, gravel, silt	Flows south through W03, into the Cocheco River
Cocheco River	Perennial/Tidal	200+	200+	Silt, gravel, mud	
S02	Intermittent	2-3	2-3	Silt, gravel	Flows across ROW toward Cocheco River
S03	Perennial	8	8	Cobbles, gravel, boulders	Flows across ROW toward Cocheco River
S04	Perennial	4	4	Silt, gravel	Flows through wetland W11 in residence area
S05	Intermittent	4	4	Silt, gravel	Flows from wetland W18 towards Piscataqua River
Piscataqua River	Perennial/Tidal	850+	850+	Silt, gravel, mud	
S06	Intermittent	3	3	Sand, silt, gravel	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S07	Intermittent	4	4	Gravel, cobbles	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S08	Intermittent	4	4	Silt, gravel, cobbles	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S09	Ephemeral	4	5	Sand, gravel	Originates from culvert under existing road, likely only flows during heavy rain

Table 3. Summary of Identified Vernal Pools

VP Identifier	Estimated Hydroperiod	Indicator Species	Comments
PVP01	Semi-permanent	Unknown adult frogs observed	Potential old excavation adjacent to pipeline crossing of the transmission line ROW. Approximately 50-foot diameter and 1 to 2 feet deep with mucky substrate.

3.3 FUNCTIONAL ASSESSMENT

Table 4 summarizes the results of the wetland functional assessment. In general, wetlands within the Project area provide a variety of functions and values. Nutrient Trapping / Retention & Transformation, Sediment Trapping, and Wetland-dependent Wildlife Habitat were the most common functions along with Groundwater Recharge and Flood Storage.

Wetlands Functional Assessment Worksheets for wetlands proposed to be impacted by temporary timber matting are included in Appendix C. Potential vernal pools and streams were considered when performing the functional assessment of impacted wetlands, but since no impacts are proposed to potential vernal pools and streams, a full assessment of these features was not included in the Wetlands Functional Assessment Worksheets. The list of observed wildlife is included in Appendix D, and Table 1 above includes the observed vegetation.

Table 4. Summary of Functional Assessment

Wetland Resource Identifier	Wetland Functions and Values[1]													
	1 Ecological Integrity[2]	2 Educational Potential	3 Fish and Aquatic Life Habitat	4 Flood Storage	5 Groundwater Recharge	6 Noteworthiness	7 Nutrient Trapping / Retention & Transformation	8 Production Export	9 Scenic Quality	10 Sediment Trapping	11 Shoreline Anchoring	12 Uniqueness/ Heritage	13 Wetland-based Recreation	14 Wetland-dependent Wildlife Habitat
W001	Low			X			P	X		X				
W002	High		P	P		P	P	X		X	P	X		X
W003	Moderate			P			X	X		X	X			X
W004	Moderate			P			X	X		X	P			X
W005	Moderate			P	X		X	X		X				X
W006	Moderate				P		X	X		X				P
W007	Moderate			X	P		X	X		X	P			X
W008	Moderate			X	P		X	X		X	P			X
W009	Low				P		X	X		X				X
W010	Moderate			X	P		X	X		X				X
W011	Moderate		X	X	X		X	X		X	P			X
W012	Low				X		P	X		X				X
W013	Moderate			X	X		P	X		X				X
W014	Moderate			X	X		P	P		X				X
W015	Low				X		X	X		P				X
W016	Low				X		P	X		X				X
W017	Moderate						X	P		X				X
W018	Moderate			X	X		P	X		X				X
W019	Low						P	X		P				X
W020	Low						P	X		P				X
W021	N/A, Maine			P	X		X	X		P				X
W022	N/A, Maine				X		X	X		P				X
W023	N/A, Maine			X	P	X	X	X		P				X

X = Function observed within wetland, P = Principal Function

[1] Corps Highway Methodology Workbook Supplement

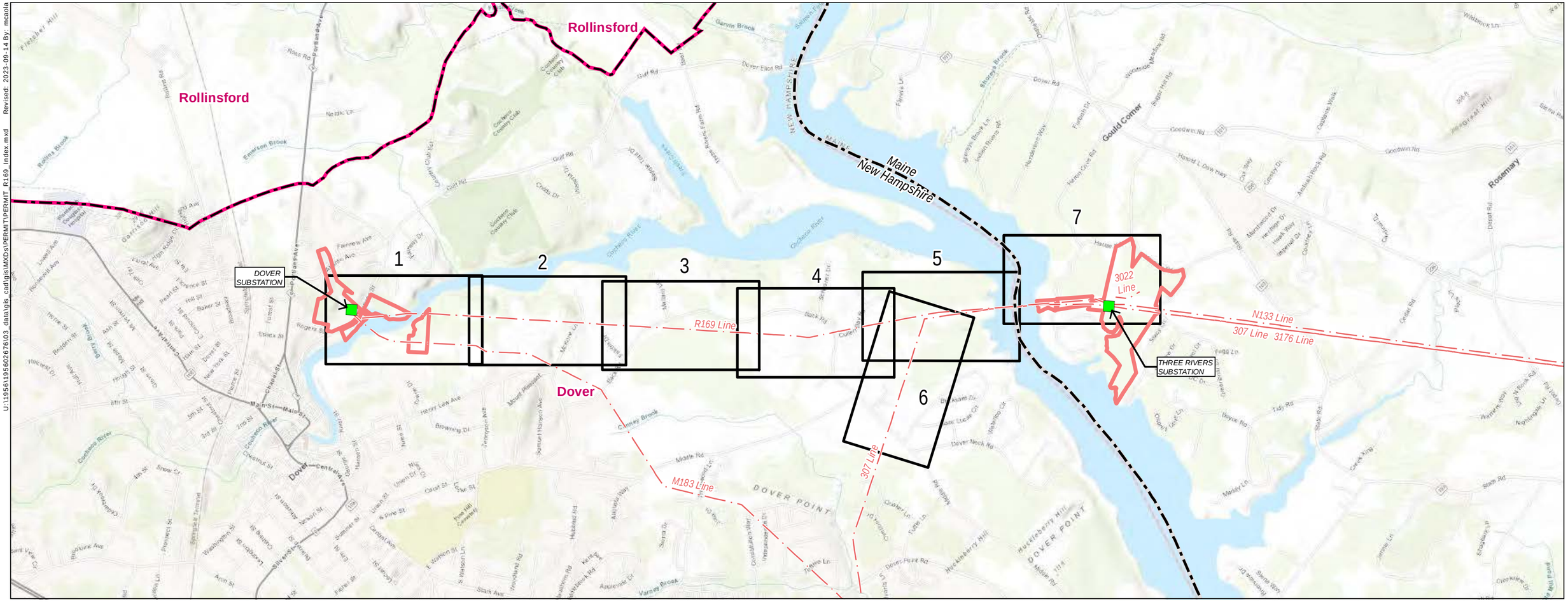
[2] Method for the Comparative Evaluation of Nontidal Wetlands in New Hampshire

FIGURES

R169 Line - Structure Replacement Project

Dover, NH and Eliot, ME
Environmental Resources Map
PERMIT Map Set
Date: September 14, 2023

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Legend

Substation | Municipal Boundary | State Boundary | Map Sheet | Eversource Owned Property

N

0 2,000 4,000 Feet

PREPARED FOR:

EVERSOURCE ENERGY

107 Selden Street
Berlin, CT 06037

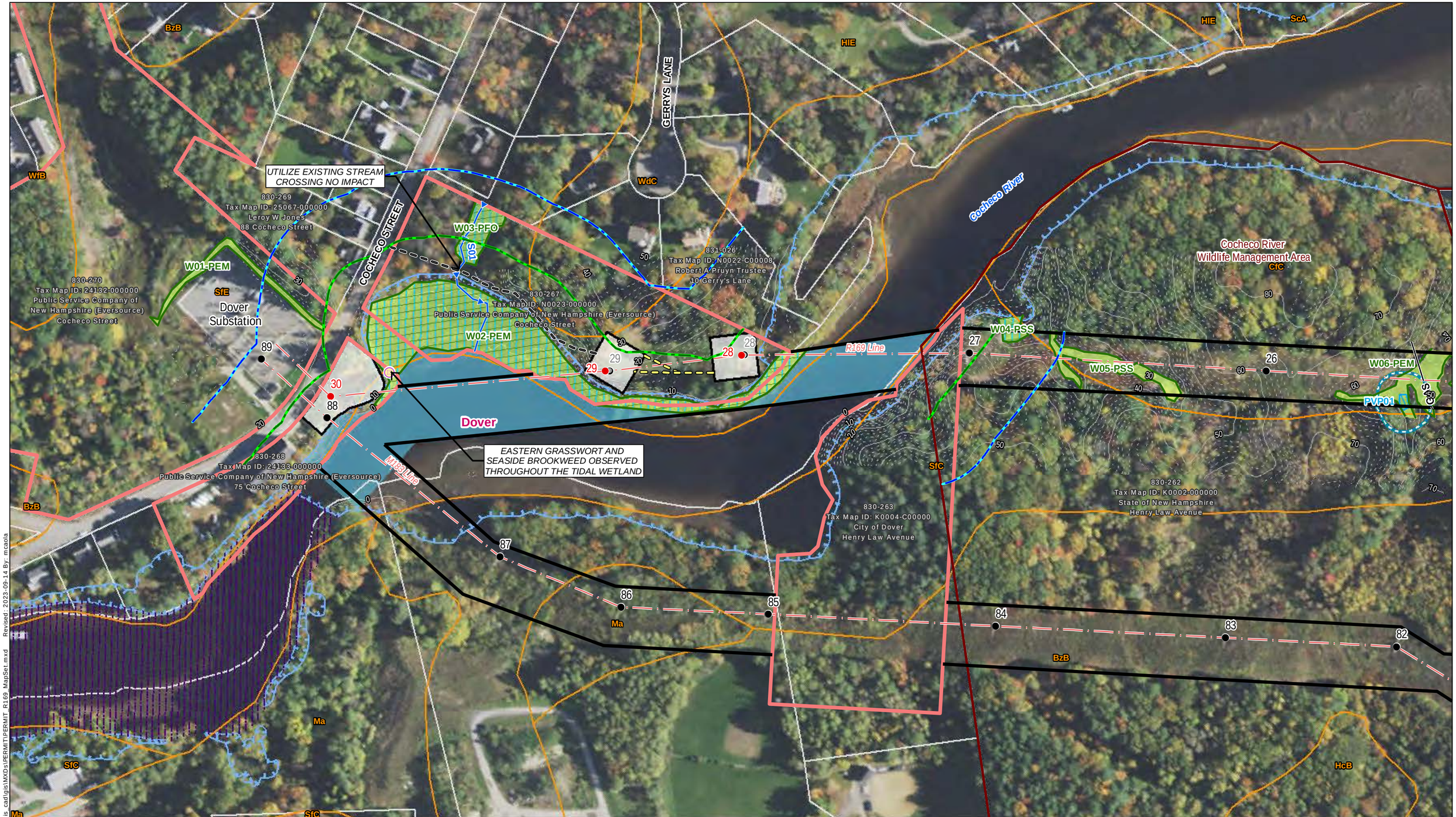
INDEX OF FIGURES

Title Sheet / Index Map
NRCS Soils Table
Map Sheets 1-7

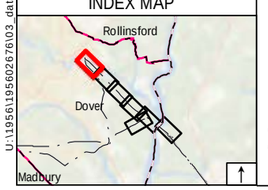
PREPARED BY:

Stantec

30 Park Drive
Topsham, ME 04086



INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
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- Stone Work Pad
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STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

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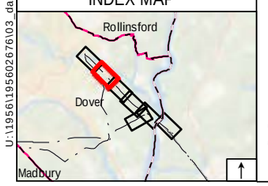
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 1 of 7
Date: September 14, 2023	Stantec

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Dover
Cocheco River
Cocheco River Wildlife Management Area
831-022
Tax Map ID: N0018-001000
State of New Hampshire
McKone Lane
831-024
Tax Map ID: K0001-A00000
Robert Swanson
38 McKone Lane
831-025
Tax Map ID: K0001-A00001
State of New Hampshire
McKone Lane
831-023
Tax Map ID: K0001-B00000
State of New Hampshire
McKone Lane
830-262
Tax Map ID: K0002-000000
State of New Hampshire
Henry Law Avenue
831-020
Tax Map ID: N0018-006000
Daniel & Jacqueline Ayer Revocable Trusts
McKone Lane
831-019
Tax Map ID: N0018-014000
Brianna Dichter
10 Whiteley Drive
831-018
Tax Map ID: N0018-000OP1
One Home Builders II LLC
Eagan Drive
831-021
Tax Map ID: N0019-005000
Anthony P Ayer
47 McKone Lane
831-017
Tax Map ID: N0019-A00000
Elaine M Thurston
174 Back Road
WHITELEY DRIVE
EAGAN DRIVE
MCKONE LANE
FALCON DRIVE
BACKROAD
W06-PEM
PVP01
W07-PSS
W08-PEM
W09-PEM
W10-PEM
W11-PSS
SPAN STREAM NO IMPACT
CONFIGURE WORK PADS TO AVOID EXISTING STONEWALL
UTILIZE EXISTING BREACH IN STONEWALL
STONEWALL TO BE REMOVED AND REBUILT AFTER CONSTRUCTION
UTILIZE EXISTING PAVED DRIVEWAY
TEMPORARY WETLAND IMPACT: +/-742 SQ.FT.
R169 Line
M183 Line
ScA
HeD
HcC
SfC
WfB
HcB
DeA
HcD
CfC
CsD
CsB
WfC
HdD
BzB
HdC
HcB
ScB
HdB
WdB
82
81
80
79
78
8.5
25
24
23
22
21
20

INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
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- Stone Work Pad
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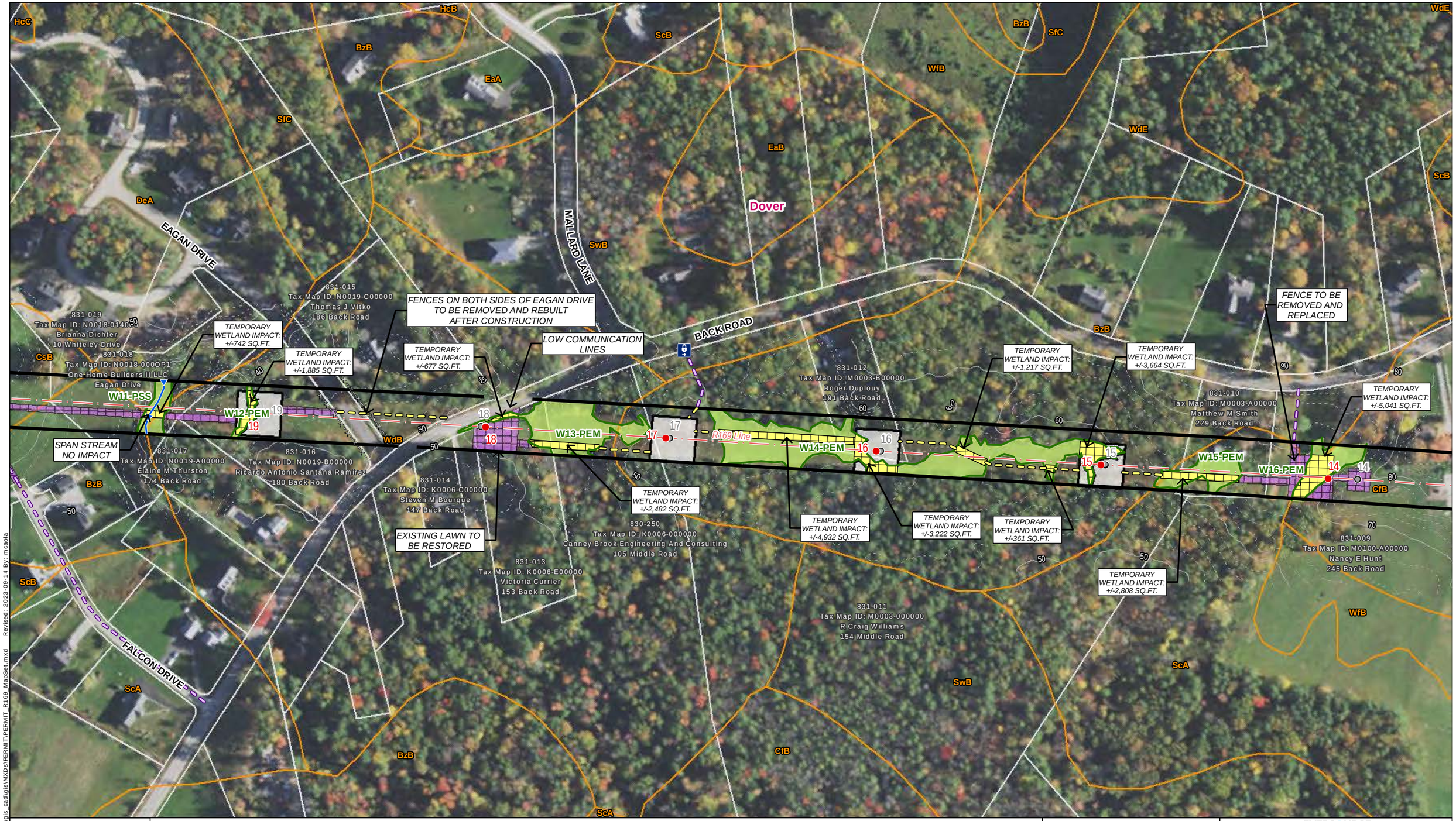
STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

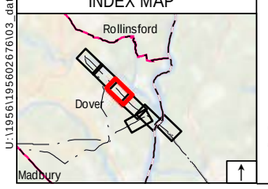
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 2 of 7
Date: September 14, 2023	Stantec

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INDEX MAP



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- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
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Dover, NH	MAP SHEET 3 of 7
Date: September 14, 2023	Stantec

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FENCE TO BE REMOVED AND REPLACED

TEMPORARY WETLAND IMPACT: +/-926 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-1,452 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-810 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-3,188 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-6,840 SQ.FT.

ACCESS FROM BACK ROAD

EXISTING LAWN TO BE RESTORED

SCHOONER DRIVE

CULLEN BAY ROAD

BACK ROAD

Dover

R169 Line

W16-PEM

W17-PEM

W18-PSS

831-008
Tax Map ID: M0100-B00000
Gregory W Hunt
295 Back Road

831-007
Tax Map ID: M0105-002000
Christopher D Berg
303 Back Road

831-004
Tax Map ID: M0093-B00000
Nancy Magiaras
362 Back Road

831-003
Tax Map ID: M0092-B00000
Cullen Bay Homeowners Association
Cullen Bay Road

831-005
Tax Map ID: M0105-000000
Eric W Thompson
321 Back Road

831-009
Tax Map ID: M0100-A00000
Nancy E Hunt
245 Back Road

831-006
Tax Map ID: M0105-001000
William C & Nancy Hunt Trustees
Back Road

831-001
Tax Map ID: M0092-A00000
Patricia Langs
Back Road

829-138
Tax Map ID: M0091-A00000
Townsquare Media Portsmouth LLC
292 Middle Road

WdE WdB BzB ScB CfB HcB WfB ScA SwB SfC HcC

INDEX MAP

Rollinsford
Dover
Madbury

Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
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- Eversource Owned Property
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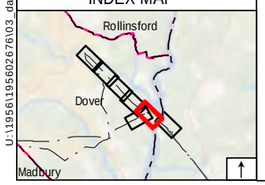
Dover, NH	MAP SHEET 4 of 7
Date: September 14, 2023	Stantec

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SfC
HaA
WdB
SfC
WfB
SfC
DeB
CULLEN BAY ROAD
CULLEN BAY ROAD
Dover
Piscataqua River
Maine
New Hampshire
829-139
Tax Map ID: M0104-000000
Alan G. Dexter Trustee
Back River Road
831-001
Tax Map ID: M0092-A00000
Patricia Langs
Back Road
WdB
TEMPORARY WETLAND IMPACT: +/-2,022 SQ.FT.
831-002
Tax Map ID: M0092-H00000
Marie V Hebert Trustee
Cullen Bay Road
ScB
TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.
831-003
Tax Map ID: M0092-B00000
Cullen Bay Homeowners Association
Cullen Bay Road
W18-PSS
S05
R169 Line
307 Line
SPAN STREAM AND WETLAND NO IMPACT
829-138
Tax Map ID: M0091-A00000
Townsquare Media Portsmouth LLC
292 Middle Road
TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.
TEMPORARY WETLAND IMPACT: +/-6,840 SQ.FT.
WdA
WdE
S06
WdC
ScA
BzB
S07
WfC
Ta
EaB
WfB

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INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 330 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
- Potential Vernal Pool Extent
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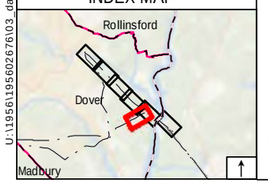
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Dover, NH	MAP SHEET 5 of 7
Date: September 14, 2023	Stantec



INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
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- Eversource Owned Property
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- Parcel Boundary
- 330 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
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- Field Delineated Wetland Boundary
- Primary Resource Area
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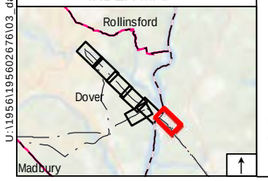
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 6 of 7
Date: September 14, 2023	Stantec

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INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
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- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
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- Parcel Boundary
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- State Boundary
- Delineated Perennial Stream
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Dover, NH and Eliot, ME	MAP SHEET 7 of 7
Date: September 14, 2023	Stantec

U:\11956\19560276\03_data\gis_cad\gis\MXDs\PERMIT\PERMIT_R169_MapSet.mxd Revised: 2023-09-14 By: mcaola

APPENDICES

Appendix A REPRESENTATIVE PHOTOGRAPHS



Photo 1. Representative view of the Cocheco River from structure 30. Stantec, June 8, 2023.



Photo 2. Representative view of the Cocheco River from Structure 29. Stantec, June 8, 2023.



Photo 3. Stream S01 flowing into Cocheco River near structure 29. Stantec, June 8, 2023.



Photo 4. Representative view of Cocheco River from structure 28. Stantec, June 8, 2023.



Photo 5. Representative view of the ROW and Wetland W05. Stantec, June 8, 2023.



Photo 6. Potential vernal pool PVP01, near structure 25. Stantec, June 8, 2023.



Photo 7. Representative view of the ROW and wetland W10 near structure 23. Stantec, June 8, 2023.



Photo 8. Representative view of the ROW and wetland W13 near structure 18. Stantec, June 8, 2023.



Photo 9. Representative view of the ROW and wetland in active pasture area near structure 14. Stantec, June 8, 2023.



Photo 10. Representative view of the ROW and open field side of wetland W18, near structure 8. Stantec, June 8, 2023.



Photo 11. Stream S05 in wetland W18 near junction of R169 and 307 line ROWs. Stantec, June 8, 2023.



Photo 12. Representative view of the ROW at the Piscataqua River, structure 5. Stantec, June 8, 2023.



Photo 13. Wetland W19 and existing access along 307 line ROW. Stantec, June 8, 2023.



Photo 14. Representative view of the ROW and wetland W21, near structure 4. Stantec, June 8, 2023.



Photo 15. Representative view of the ROW and wetland W23, near structure 3. Stantec, June 8, 2023.



Photo 16. Structure 2, near the Three Rivers Substation. Stantec, June 8, 2023.

Appendix B CORPS WETLAND DETERMINATION DATA FORMS

(Provided upon request)

Appendix C WETLANDS FUNCTIONAL ASSESSMENT WORKSHEETS

(Provided upon request)

Appendix D OBSERVED WILDLIFE

Common Name	Species Name
American crow	*Corvus brachyrhynchos*
Osprey	*Pandion haliaetus*
Eastern chipmunk	*Tamias striatus*
Red-tailed hawk	*Buteo jamaicensis*
White-tailed deer	*Odocoileus virginianus*
Wild turkey	*Meleagris gallopavo*

R169 Structure Replacement Project
Dover, New Hampshire

Conditional Use Permit Application

Part 3 of 5

December 22, 2023

Prepared for:

Public Service Company of New Hampshire d/b/a Eversource Energy
13 Legends Drive
Hooksett, NH 03106

Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: Public Service Company of NH d/b/a Eversource Energy Telephone # 603-634-2243

Address of Applicant: 13 Legends Drive, Hooksett, NH 03106

E-Mail Address: Travis.Yandow@Eversource.com

Name of Property Owner (if different from applicant): same as above Telephone # same as above

Address of Property Owner: same as above

PROPERTY INFORMATION

Assessor's Map # 831-018 Lot(s) # Multiple

Address of Property: Existing R169 transmission line ROW--end of Falcon Dr. to 245 Back Rd.

Zoning District(s) R-40, R-12, CWD Overlay District(s) Wetland Protection

Rural Residential, Medium Density, Residential, Urban Density Multi Residential, Cocheco Waterfront District

Existing Use of Property: Electric transmission line ROW

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☐ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

Impact Area 3/Sheet 3: Eversource is proposing to replace six structures (13, 14, 15, 16, 17, and 18) along their existing R169 utility transmission line in Dover. These wooden structures require replacement due to age, cracking, leaning, and/or woodpecker damage. The existing structures will be replaced with new weathering steel structures to provide a more reliable electrical infrastructure. The six new structures require construction of both work pads and access roads. In wetland areas, timber matting is used to minimize impacts of work over these sensitive resources. In Area 3, the only impacts are within the Wetland Protection District. In the Wetland District, 23,279 square feet of temporary impact is proposed in the wetland areas as a result of matting for work pads at structures 13, 14, 15, 17, and 18. Approximately 16,716 square feet of temporary impact and 29,941 square feet of permanent impact, is proposed in the wetland buffer areas as a result of the upland disturbance caused by gravel work pads and connecting access roads--primarily around structures 14, 15, and 16. These areas will likely require pre-construction erosion/sediment control BMPs, and monitoring throughout for effectiveness. The gravel area around pads will also be reduced, topsoil spread over gravel areas, and mulched and re-seeded. See attached application narrative and supporting documents for more details.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: NHDES: Alteration of Terrain; Wetlands Utility Statutory Permit by Notification; Shoreland Permit by Notification; USACE Pre-application Construction Notification; USACE Section 408 Variance to Fed. Navigation Project.

Name of Professional That Prepared Plans: Tom Tetreau, NH Certified Wetland Scientist

Address 30 Park Drive, Topsham, ME 04086 Telephone #: 207-504-7231

Professional License #: 283 E-mail address: tom.tetreau@stantec.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 12/20/2023

Signature of Applicant (if different from owner): _____ Date: _____

Signature of Agent: _____ Date: 12/20/2023

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 12/20/2023

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS
Multiple		Kurt Nelson, Eversource Energy	13 Legends Drive, Hooksett, NH 03106

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS
Tom Tetreau, NH Certified Wetland Scientist	Stantec	30 Park Drive, Topsham, ME 04086

Conservation Easement Holder:

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

Stantec Consulting Services Inc.
30 Park Drive, Topsham ME 04086-1737

December 22, 2023

Project/File: 195602676

Attention: Donna Benton
Planning Director
288 Central Avenue
Dover, NH 03820
d.benton@dover.nh.gov

Reference: Conditional Use Permit Application, Eversource Energy, R169 Structure Replacement Project, Dover, New Hampshire

Dear Ms. Benton and Planning Board Members,

On behalf of the Public Service of New Hampshire d/b/a Eversource Energy (Eversource), Stantec Consulting Services Inc. is filing five Conditional Use Permit (CUP) applications for necessary structure replacements as part of the R169 Structure Replacement Project (Project) in the City of Dover. Eversource has identified 18 existing structures along the existing R169 transmission line right-of-way (ROW) in Dover that require replacement due to deterioration from age, cracking, leaning, rot, and/or woodpecker damage.

Portions of the proposed Project are located within the Conservation District and the Wetlands Protection District, as described in the Dover Zoning Ordinance, Articles 170-27 and 170-27.1, respectively. CUPs may be granted within utility ROWs in the Conservation District in accordance with Article 170-27 Section C (1), and in the Wetlands Protection District in accordance with Article 170-27.1 Section F (1):

> "Article 170-27 Section C (1): *Conditional Use Permits may be granted by the PLANNING BOARD for the following uses within the* ***Conservation District****: (1) STREETs, roads and other access ways and utility rights-of-way, communications equipment, easements, including power lines and pipe lines, if essential to the productive use of land not so zoned and if so located and constructed as to minimize any detrimental impact of such uses upon the wetlands or other environmentally sensitive areas, where it is physically impossible to locate such ways over land not so zoned."*
>
> "Article 170-27.1 Section F (1): *Conditional use approval may be granted by the PLANNING BOARD (RSA 674:21II) after proper public notice and public hearing, for construction within the* ***Wetland Protection District*** *or buffer. Said construction may include but is not limited to, a road or other accessway, utility right-of-way, communication lines, power lines and pipelines, STRUCTUREs, and parking LOTs provided that the proposed construction complies with the following standards [emphasis added.]*

Therefore, Eversource is requesting the CUPs for activities and temporary impacts to wetland buffer areas within the Conservation District and the Wetlands Protection District and has outlined compliance with City of Dover zoning standards in the attached project narrative, which is being submitted in accordance with Articles 170-27 and 170-27.1 of the zoning ordinance. These five CUP applications (one per project map sheet) are being submitted, in total, for approximately 19,734 square feet (0.45 acres) of temporary tidal

Reference: Conditional Use Permit Application, Eversource Energy, R169 Structure Replacement Project

buffer resource impacts (to be restored) and 1,515 square feet (0.03 acres) of temporary stream buffer resource impacts (timber matting) in the Conservation District. In the Wetland Protection District, the following impacts are anticipated: approximately 56,885 square feet (1.31 acres) of temporary wetland impacts (matting), 26,838 square feet (0.62 acres) of temporary impacts within wetland buffers (matting), and 29,941 square feet (0.69 acres) of permanent impacts within upland wetland buffer areas for gravel access road and work pad construction.

The proposed work is for direct “in-kind” replacements of cracked and damaged poles, and no new pole locations are proposed within the R169 ROW in Dover. New structures will be in the same general footprint as existing and do not represent a significant footprint expansion within the Conservation District and the Wetlands Protection District or consist of substantial disturbances beyond those historically created by the transmission line. Disturbed areas will be protected with erosion and sediment control measures, and strategies will be implemented to stabilize and allow for re-vegetation of exposed soils.

This submittal includes a digital copy of each of the five CUP application packages. The filing fee of $1,000 ($200 per application x 5 CUP applications [one per project map sheet]) is included in the online submittal with this application. We understand that the City of Dover will calculate and invoice for abutter and notice fees; therefore, we have assumed these fees will be paid at a later date and have not included them with this application.

Additional state and federal wetland and shoreland permit applications are being prepared and submitted for the Project. Permit approvals will be forwarded to the City of Dover as required and/or requested.

Sincerely,

STANTEC CONSULTING SERVICES INC.

Jess S. Hunt
Senior Associate, Environmental Services
Phone: (603) 557-4662
jessica.hunt@stantec.com

Andrew Ackerman
Senior Environmental Scientist, Environmental Services
Phone: (603-413-7731
andrew.ackerman@stantec.com

Attachment: Conditional Use Permit Applications

cc. Travis Yandow and Kurt Nelson, Eversource

Conditional Use Permit Application

R169 Structure Replacement Project
Dover, New Hampshire

December 22, 2023

Prepared for:

Public Service Company of New Hampshire d/b/a Eversource Energy
13 Legends Drive
Hooksett, NH 03106

Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

Table of Contents

1.0 PROJECT INTRODUCTION AND PURPOSE 1

2.0 EXISTING CONDITONS 2

3.0 PROJECT DESCRIPTION AND PROPOSED CONDITIONS 3
3.1 LINE REBUILD: STRUCTURE REPLACEMENT, CONDUCTOR AND OPGW REPLACEMENT 3
3.2 ACCESS 4
3.2.1 Road Construction 4
3.2.2 Wetland and Upland Temporary Matting 4
3.2.3 Work Pad Construction 5
3.3 CONSTRUCTION SEQUENCE 5
3.4 BEST MANAGEMENT PRACTICES 6
3.4.1 Erosion and Sedimentation Control 6
3.4.2 Invasive Species Control Plan 6
3.4.3 Construction Observation and Post Construction Monitoring 6

4.0 OVERLAY ZONING DISTRICT IMPACTS AND ACTIVITIES 7
4.1 WETLAND PROTECTION DISTRICT 8
4.2 CONSERVATION DISTRICT 11
4.3 IMPACT AREAS 13
4.3.1 Impact Area 1 13
4.3.2 Impact Area 2 14
4.3.3 Impact Area 3 14
4.3.4 Impact Area 4 14
4.3.5 Impact Area 5 14

LIST OF FIGURES

Figure 1 USGS Site Location

R169 – Dover CUP Permit Map Set, Dover, NH

LIST OF APPENDICES

APPENDIX A WETLAND DELINEATION REPORT

1.0 PROJECT INTRODUCTION AND PURPOSE

Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource) owns and maintains the R169 electrical transmission line that passes through Dover, New Hampshire. Eversource has identified 19 existing wooden structures that need to be replaced on the R169 line (18 in Dover, New Hampshire, and 1 in Eliot, Maine) due to age, cracking, leaning, rot, and/or woodpecker damage, which constitutes the proposed R169 Structure Replacement Project (Project). The existing wooden structures will be replaced with new, steel structures that adhere to current safety and electrical codes to provide more reliable electrical infrastructure.

The R169 Line right-of-way (ROW) begins at the Three Rivers Substation in Eliot adjacent to the Piscataqua River and traverses westerly over the river into Dover, then continues westerly through Dover approximately 3 miles for the remainder of the length of the transmission line to the Dover Substation.

Chapter 170 of the local Zoning Ordinance of the City of Dover, New Hampshire, establishes regulations and guides appropriate use of land. The existing utility ROW and proposed structure replacement activities in Dover bisect various city zoning districts, including the Rural Residential (R-40), Medium Density Residential (R-12), and Urban Density Multi Residential (RM-U) zoning districts and the Cocheco Waterfront District (CWD). The ROW and proposed Project activities also intersect two natural resource protection overlay districts—the Conservation District (per Article 170-27) and the Wetland Protection District (per Article 170-27.1). The purpose of these two overlay districts is to avoid and minimize development impacts to, and similarly conserve, local rivers, streams, wetlands, and flood-prone or steep, erosion-prone areas of Dover. The Project has taken into consideration each the objectives of these overlay districts in the development of construction plans and activities around the identified sensitive resources.

The proposed Project activities require a Conditional Use Permit (CUP) from the City of Dover (hereafter, City) Planning Board for those activities that occur within the Conservation District and the Wetland Protection District per the City's Local Zoning Ordinance (as amended, September 2022) and subsequent guidance from the City Planning and Community Development Department. This CUP application presents the applicable information associated with the Project. In addition to the 18 proposed replacement structures in Dover, Eversource previously identified five utility structures for replacement along the R169 line. A CUP application (#406-22) for the replacement of those five structures was submitted to the City in July 2022 and approved by the Planning Board on July 21, 2022. Replacement of those five structures has been completed.

In accordance with NH RSA 482-A:3 XV, routine utility maintenance work is exempt from the standard NH wetland permit process. However, Eversource is required to submit a Utility Maintenance Activity Statutory Permit-by-Notification, Shoreland Permit-by-Notification, and Alteration of Terrain permit application to the New Hampshire Department of Environmental Services (NHDES) to cover the temporary wetland impact associated with use of timber matting within wetlands required to

complete the proposed structure replacement work, impacts within the developed portions of the Protected Shoreland of the Cocheco River, and proposed upland ground disturbance.

2.0 EXISTING CONDITONS

The existing cleared R169 ROW varies from approximately 100 feet (ft) in most areas to 250 ft wide where the ROW is shared with additional transmission lines near the Piscataqua River. The Project ROW consists of Eversource fee-owned property or Eversource-controlled easements. From the Piscataqua River to the Dover Substation, the ROW traverses westerly through forested, residential, and agricultural landscapes. The ROW primarily crosses rural areas and local roads, as well as the Cocheco River and the Piscataqua River. The topography varies from flat lowlands and fields to undulating hills and steep side slopes. Elevations range from 0 to 90 ft above mean sea level. Soils within the ROW consist primarily of loam and silty loam (see attached CUP plans).

The open upland natural communities in the ROW consist of early successional shrub, sapling, and herbaceous species. Characteristic woody vegetation includes gray birch (*Betula populifolia*), quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), sheep-laurel (*Kalmia angustifolia*), late lowbush blueberry (*Vaccinium angustifolium*), white meadowsweet (*Spiraea alba*), Allegheny blackberry (*Rubus allegheniensis*), American hazelnut (*Corylus americana*), red oak (*Quercus rubra*), and red raspberry (*Rubus idaeus*). Commonly observed herbaceous vegetation in the ROW includes little Canada mayflower (*Maianthemum canadense*), wrinkle-leaf goldenrod (*Solidago rugosa*), Canada goldenrod (*Solidago canadensis*), bracken fern (*Pteridium aquilinum*), hay-scented fern (*Dennstaedtia punctilobula*), wild strawberry (*Fragaria virginiana*), bristly dewberry (*Rubus hispidus*), Kentucky blue grass (*Poa pratensis*), and other common grass and wildflower species. Non-native invasive species such as rambler rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), Morrow's honeysuckle (*Lonicera morrowii*), and glossy false buckthorn (*Frangula alnus*) are present in moderate abundance.

Stantec consulted with the New Hampshire Natural Heritage Bureau, the New Hampshire Fish and Game Department, and the US Fish and Wildlife Service as required for NHDES and US Army Corps of Engineers (USACE) permitting. There were three state-listed wildlife species, three state-listed plant species, and three federally listed wildlife species noted in the vicinity of the Project. Eversource proposes to follow agency recommendations and permit conditions as part of this Project and will conduct recommended surveys as needed.

One potential vernal pool and 23 wetlands were identified within the ROW during a delineation conducted by Stantec (Tom Tetreau, New Hampshire Certified Wetland Scientist #283) in June 2023; results of the wetland survey can be found in Appendix A.

The 307 transmission line ROW intersects the R169 ROW from the south near proposed structure 6 to the Piscataqua River; the nearby 307 line ROW will be utilized for access only. Existing access roads traverse portions of both ROWs. These access roads are unpaved with mostly a loamy sand base with occasional stretches consisting of previously installed stone. The access roads are generally 8 to 12 ft wide in most areas.

Routine vegetation maintenance is performed along the R169 ROW on an approximate 4- to 5-year cycle. The last vegetation maintenance was performed along portions of the R169 ROW in summer 2023. Trees and shrubs capable of growing to heights that could interfere with conductors are trimmed and allowed to regenerate until the next maintenance cycle. Prior to the start of construction, areas around proposed access roads and pads will need additional mowing within the ROW.

3.0 PROJECT DESCRIPTION AND PROPOSED CONDITIONS

3.1 LINE REBUILD: STRUCTURE REPLACEMENT, CONDUCTOR AND OPGW REPLACEMENT

The proposed Project includes replacement of 18 existing wooden transmission line structures along the R169 line in Dover. The replacement (new) structures will be within 10 ft of the previous structure location, with two exceptions: proposed structure 13 will be approximately 140 ft from the existing structure location to avoid wetland and impacts, and proposed structure 20 will be approximately 40 ft from the existing location. A majority of the new structures will be approximately 5 to 10 ft taller than the previous structures to comply with current electrical standards. The one structure proposed for a reduction in height is structure 27, within the shoreland of the Cocheco River, which will be reduced from the current 135 ft to 120 ft. The shorter structure allows for a reduced construction footprint and minimizes potential impacts to the sensitive shoreland area.

The structure replacement process consists of drilling holes near the existing structures and installing a caisson, also referred to as a can, below the ground surface. The new structure is installed in the can and backfilled with clean, suitable rock or gravel material. Spoils produced from drilling the hole will be disposed of in an approved upland location away from wetland areas and will be stabilized with an appropriate conservation/contractor's seed mix and weed-free straw mulch. Some replacement structures may require anchors. Anchors will be installed by excavating trenches, installing concrete block anchors, and backfilling trenches. If soil conditions allow, screw anchors may be installed to minimize ground disturbance. Temporary swamp mats (i.e., matting) will be utilized to access structures located within delineated wetlands or wetland areas that must be crossed for access. Mats will also be used on some occasions to minimize impacts to maintained yards or farmed upland areas. Once the new structure is installed and stable, the wires from the old structure will be transferred to the new structure. Old structures will be cut and removed from the ground in upland locations. To minimize ground disturbance, old structures in wetlands are typically cut flush with the ground surface. In some cases, the bottom of the old structure may be able to be pulled from the wetland with minimal disturbance to the wetland. All construction materials and old structure pieces will be removed and disposed of off-site at an approved disposal facility.

Following completion of the structure replacement and wire work, temporary timber construction mats will be removed. Disturbed wetland areas will be restored and stabilized with weed-free straw mulch. Temporarily disturbed upland areas will also be restored and stabilized through seeding and mulching. Permanently disturbed wetland buffer areas will remain as permanent features. Seed and mulch will be

applied along the shoulders and side slopes of the access roads as necessary and the established access roads will be left in place, with the exception of the area around proposed structures 27 and 28, which will be entirely restored. The work pads and new access road between proposed structures 27 and 28 will be re-contoured to the existing grade, covered with topsoil that was stockpiled during the initial grading, and stabilized with seed and mulch.

Minor tree clearing is proposed as maintenance within the existing access road off Cocheco Street and within the existing ROW near proposed structures 27 and 28 as part of the Project. The Project will submit a Protected Shoreland Permit by Notification to address proposed selectively cut trees in the upland shoreland areas.

3.2 ACCESS

The proposed Project utilizes existing access roads within the R169 line ROW and existing access within the 307 line ROW wherever possible. The majority of the existing access roads are made up of dirt or gravel areas and are proposed to be improved, as necessary, through the addition of clean stone as part of the Project to allow for construction vehicle access. Proposed access roads are shown on the attached map set. Access road entrances are located off local roadways and utilize existing entrances wherever possible. Driveways permits are not anticipated to be required from the City. There are no state-owned roads in the project area; therefore, temporary driveway permits from the New Hampshire Department of Transportation will not be required for construction. The proposed access roads were sited to minimize ground disturbance and temporary wetland impacts to the greatest extent practicable while providing safe and efficient access to the existing structures. Timber matting will be used to cross all wetland and stream resources that cannot be avoided completely.

3.2.1 Road Construction

Proposed upland access road improvements include construction of approximately 12- to 16-ft-wide gravel and stone roads within the ROW and in some cases adjacent to the ROW. The roads will provide access to existing utility structures for replacement activities. The improved access roads will provide reliable, permanent access to utility infrastructure during future maintenance or emergency repairs. Where possible, the proposed access roads will be located on top of existing dirt roads or trails. If no existing routes are available or suitable, a new road will be constructed. Minor grading may be necessary to remove large boulders and create a flat surface for the new rock or gravel.

Project plans require tree removal along the widening the existing access road off Cocheco Street to proposed structures 27 and 28 to a width of 12 ft to accommodate equipment for the structure replacements. Tree removal at this location will occur within the existing utility ROW and along the existing access road on Eversource property and will be conducted between November 1 and April 14 to avoid potential impacts to federally listed wildlife species if present.

3.2.2 Wetland and Upland Temporary Matting

Access through maintained fields and private property within uplands and delineated wetlands in the Project area will utilize temporary timber construction mats to minimize ground disturbance and prevent

rutting. Where necessary in overly saturated conditions, runners (mats placed parallel to the direction of travel) will be placed on the wetland surface prior to setting the top, perpendicular layer of mats. This will help reduce settling and overall wetland disturbance.

3.2.3 Work Pad Construction

The proposed Project includes construction of 18 structure replacement work pads approximately 100 ft by 100 ft each, with some exceptions. With the exception of work pads located within wetlands, upland work pads will be constructed using clean stone. The work pads will be top dressed with compacted 1.5- to 3-inch-diameter clean stone. After the structure replacement work is complete, restoration of upland work pads will consist of utilizing stockpiled topsoil to reduce work pads to approximately 30 ft by 60 ft. Restored areas will be stabilized with seed and mulch. Proposed work pads located in wetland areas will be constructed using temporary timber construction mats and will be removed upon completion of the work.

3.3 CONSTRUCTION SEQUENCE

The general Project construction sequence will be:

1. Installation of appropriate signage along public roads near construction entrances;
2. Installation of erosion control devices, as needed;
    a. Erosion control practices will follow the *Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetland and Waterbodies in New Hampshire* (Utility BMP Manual) published by the New Hampshire Department of Natural and Cultural Resources (March 2019).
3. Placement of construction mats in wetlands for access roads and work pads;
4. Grading and improvements of upland access roads and work pads;
5. Stabilization (seed and mulch) of exposed soils on created side slopes;
6. Replacement of structures:
    a. Drill new structure holes;
    b. Install new poles and structure components;
    c. Transfer electrical lines from old structure to new structure; and
    d. Remove and haul away old structure.
7. Clean up excess/stockpiled material at work pads;
8. Smoothing/grading upland work pads and stabilizing and restoring with seed and mulch as necessary;
9. Removing construction mats from wetland areas and stabilizing/restoring disturbed wetland areas with weed-free straw mulch; and

10. Stabilization, restoration, and clean up staging areas and entrance points.

Provided necessary permits are in place and to the extent possible, work would begin in April 2024 and continue through fall 2024. Entrances, access roads, and work pads will be created prior to structure replacement work. New structure holes will likely be drilled prior to mobilization of structure replacement equipment (cranes, bucket trucks). Installing new poles and transferring wires will be completed prior to moving on to the next structure. Multiple structure replacement crews may be working in different areas to expedite the process. Removal of mats and restoration will occur as individual work areas are completed.

3.4 BEST MANAGEMENT PRACTICES

3.4.1 Erosion and Sedimentation Control

Work will be conducted in accordance with the Utility BMP Manual. Following these BMPs will minimize and avoid impacts to wetland and stream resources and the surrounding upland areas to the greatest extent practicable.

Perimeter erosion controls consisting of silt fence, straw wattles, mulch, and straw bales will be installed as necessary around the work areas to minimize potential impacts to adjacent resource areas. Water bars, also known as diversion ditches, will be installed along access roads with steep slopes, where necessary, to prevent water from traveling long distances down the road causing erosion. Water bars will direct water off the road into adjacent upland areas. Exposed soil created during construction will be stabilized with seed and mulch as soon as possible after active work in the area is complete. No equipment or material will be stored within wetland areas.

3.4.2 Invasive Species Control Plan

Due to the developed landscape surrounding the majority of the R169 line, invasive plant species occur within the ROW and were observed during field surveys. Contractors will follow the invasive species recommendations in the Utility BMP Manual to help prevent the spread of invasive species, including inspection and cleaning of equipment and contractor training. Equipment, including construction mats, brought to the Project area will be inspected by the contractor and/or environmental monitor, and if plant material or soil is present, the equipment will be cleaned and dried prior to use on the Project. Contractors will be familiar with identification of common invasive species and will be required to clean mats and equipment prior to their use elsewhere. If possible and without increasing wetland impacts, the contractors may also make slight shifts in access roads or work pads to avoid invasive species locations.

3.4.3 Construction Observation and Post Construction Monitoring

During construction, Eversource will contract an environmental monitor to perform routine construction observation visits. The environmental monitor will inspect the Project area for compliance with the Utility BMP Manual and applicable Project permits and conditions. Construction observation visits will occur at least once per week and/or after a significant rainfall (0.5 inches or greater) or snow melt event. Under the National Pollutant Discharge Elimination System, Eversource will file a Notice of Intent and

Stormwater Pollution Prevention Plan (SWPPP) under the U.S. Environmental Protection Agency's Construction General Permit. Construction observation visits and associated reporting will follow the SWPPP and Construction General Permit guidelines and be performed by a qualified individual familiar with the SWPPP, Utility BMP Manual, and Project specific permit conditions.

A series of post-construction monitoring visits in the Project area will be performed by a qualified environmental scientist to document that disturbed areas are properly stabilized and vegetation is beginning to regrow. Site restoration will be considered successful when there is at least 85% cover by native or non-invasive herbaceous plant species within the restored portions of the ROW, including restored wetland areas. This does not include gravel work pads or access roads that existed prior to construction or were created during construction, with the exception of the gravel work pads and road for proposed structures 27 and 28, which will be restored to natural grade, topsoil spread, and stabilized with seed and mulch. The environmental scientist will prepare a report following each post-construction monitoring visit that includes representative photographs and corrective actions (if applicable). Once the disturbed uplands and temporarily impacted wetlands within the Project area are determined to be permanently stabilized, post-construction monitoring will be considered complete, and a Notice of Termination will be filed under the U.S. Environmental Protection Agency's Construction General Permit.

4.0 OVERLAY ZONING DISTRICT IMPACTS AND ACTIVITIES

The ROW and proposed Project activities intersect natural resource protection overlay districts in Dover, including the Conservation District and the Wetland Protection District. The following summarizes the Project-specific components in the respective overlay districts.

Proposed temporary impacts to wetlands were minimized to the maximum extent practical during project planning. This included modifications to ROW access, reducing the size and positioning of the proposed utility poles, the utilization of timber matting and/or tracked equipment, and the location and orientation of work pads. Timber matting will be installed to completely span streams, where necessary, to avoid impacts to the stream bed and banks.

For the purposes of this CUP, resource impacts have been divided into 5 Impact Areas and corresponding map sheets, as shown per wetland and stream in the attached map set and in Table 1. Given the overlapping overlay districts and associated buffers, impacts were quantified in Table 1 below by direct resource impact and overlay district buffer impacts. The district buffers were established by taking the farthest buffer (such as when a stream channel is encompassed by a surrounding wetland, the larger Conservation District buffer was used).

Table 1: City of Dover Proposed Wetland Protection and Conservation District Impacts

District	Resource Impacts (SF)	Impact Area 1 (Map Sheet 1)	Impact Area 2 (Map Sheet 2)	Impact Area 3 (Map Sheet 3)	Impact Area 4 (Map Sheet 4)	Impact Area 5 (Map Sheet 5)
Wetland Protection District	Temporary Wetland Impact	-	742	23,279	3,188	29,676
	Temporary Wetland Buffer Impact	5,526	1,802	16,716	1,852	942
	Permanent Wetl and Buffer Impact*	-	-	29,941	-	-
Conservation District	Temporary Area Subject to Tidal Action Buffer Impact	19,734	-	-	-	-
	Temporary Stream Resource Buffer Impact	-	1,515	-	-	-
Overlapping Districts		5,526	773	-	-	-
	Total	**25,260**	**4,059**	**69,936**	**5,040**	**30,618**

*Based on 12-ft disturbance area for new gravel access
Overlapping Districts are illustrative of how much districts overlap and not part of total for each Map Sheet.

4.1 WETLAND PROTECTION DISTRICT

The Wetland Protection District includes all areas of wetlands and 50-ft wetland buffers, as defined in Dover Zoning Ordinance, Article 170-27.1. Project activities subject to a CUP that are within the Wetland Protection District are limited to temporary placement of timber mats in wetlands and at stream crossings and the creation of stone work pads and access road improvements in wetland buffer areas. New structures will be placed in the same general location as the existing structures, as described in section 3.1 above. The proposed access roads were sited along existing roads or trails wherever possible.

The Project will meet the following Wetland Protection District standards for Conditional Use Approval, as outlined in the Dover Zoning Ordinance, Article 170-27.1F(1).

(a) *Practicable Alternative: There is no practicable alternative that would have a less adverse impact on the area.*

The Project site is an existing transmission line within a utility ROW. The proposed structure replacement work is necessary to maintain reliability and safe operation of the existing R169 line. Alternative locations would require creation of a new ROW, and increased impacts to resources and the surrounding landscape and were not considered. The replacement structures must be located on the alignment of the existing transmission line and must be located within the existing ROW. The Project has been designed to reduce the footprint of the construction as much as

possible. For example, the proposed access route between structures 14 and 15 was designed to utilize a narrow upland area on the south side of the ROW to minimize wetland impacts as much as possible while maintaining required clearances for working equipment from overhead wires and adjacent tree lines. For example, in addition to reducing the height and footprint of proposed structure 27 near the Cocheco River, the Project proposes to move access roads to uplands where possible, completely restore impacted areas adjacent to the Cocheco River, smooth/grade upland work pads, and stabilize and restore with seed and mulch as necessary.

Upland work pads, other than those near the Cocheco River, are typically restored to an approximately 30-ft by 60-ft size. Topsoil pushed to the sides during the initial construction will be used to cover the work pads. Exposed soils will be stabilized with seed and mulch. Temporary construction mats will be removed from wetland areas as soon as work is complete and wetland areas will be stabilized/restored with weed-free straw mulch, if necessary. Matting will be removed in a similar manner to how it was installed.

(b) *Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative.*

The proposed structure replacements have been designed to avoid permanent fill and loss of wetland and stream areas by utilizing upland areas as much as possible and using temporary construction mats. The mats will result in minimal temporary disturbance of the shrub and herbaceous vegetation underneath, but the vegetation is expected to quickly recover following removal of the construction mats after construction is complete. Mats will be used to span streams and will not disturb streambanks or modify hydrology.

Wetlands will be protected from stormwater runoff through erosion and sedimentation control measures, and exposed soils will be stabilized in accordance with the measures discussed in Section 3.4.1. Additionally, appropriate siltation prevention measures will be implemented and inspected during construction and post-construction to prevent erosion, siltation, and turbidity. The erosion control methods and materials will follow the Utility BMP Manual. Perimeter controls (silt fence, straw bales, straw wattles, etc.) will be installed along the limits of work to protect adjacent resources and off-site area. If necessary, other BMPs including stone check dams and dewatering basins will be used to control and treat stormwater and prevent runoff to abutting or downslope properties.

The tidal wetland, wetland W02 associated with the Cocheco River, will be completely avoided by construction activities. Work will occur within the adjacent upland only, and erosion and sedimentation controls will be installed prior to ground disturbance to protect the wetland and river.

(c) *Minimization: Any unavoidable impacts have been minimized. No reasonable Alternative to the proposed construction exists which does not impact a wetland or which has less detrimental impact on a wetland. Design, construction and maintenance methods will be*



prepared by a registered engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade.

The Project is designed to replace existing infrastructure in an existing and maintained utility ROW. The Project does not propose any permanent impacts directly to surface waters or wetlands. Areas where district buffers are impacted have been reduced by using upland matting adjacent to wetlands in some areas and by reducing the overall footprint of structure work pads in others. Additionally, where ground disturbance and work area construction will occur near wetlands, appropriate erosion prevention measures will be implemented during construction and post-construction to prevent the migration of sediment laden runoff from reaching the adjacent wetlands. These areas will be inspected regularly for correct installation and to confirm that they remain effective erosion prevention measures.

The erosion control prevention and sediment control methods and materials will follow the Utility BMP Manual. Perimeter controls (silt fence, straw bales, straw wattles, etc.) will be used to protect adjacent resources and off-site areas. If necessary, other BMPs including stone check dams and dewatering basins will be used to control and treat stormwater and prevent runoff to abutting or downstream properties.

Temporary wetland and wetland buffer impacts will be avoided and minimized by following the Utility BMP Manual. This includes:

- Using wooden construction mats to support machinery in wetlands;
- Removing and restoring temporary impacts to wetlands, if necessary;
- Smoothing rutted areas, seeding as required, and mulching with weed-free straw;
- Using erosion and sediment controls as needed where ground disturbing activities are adjacent to wetland areas;
- Requiring contractors to follow practices outlined in the Utility BMP Manual to help prevent the spread of invasive species; and
- Conducting weekly inspections to monitor compliance with minimization measures and providing any site restoration recommendations as needed.

The new structure locations and associated structure components were designed by Eversource's engineers. Work and access roads were designed based on the results of the wetland delineation performed by a New Hampshire Certified Wetland Scientist and a constructability field review by Eversource engineers and construction personnel.

(d) Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review.

The Project will require temporary matting impacts to wetlands but will not result in permanent loss of any wetland area or permanent alterations to the wetland hydrology or associated vegetation; therefore, a compensatory mitigation plan is not proposed for the work in any of the

five Impact Areas. Additionally, the applicant has consulted with the NHDES Wetlands Bureau, which has concurred with the minimum impact determination for the R169 Project.

(e) *Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below.*

A Wetlands Utility Maintenance Activity SPN will be submitted for the Project. On November 16, 2023, Eversource met with the NHDES Wetlands Bureau and the USACE. During this meeting, a determination was made that the Project qualified for a 'minimum impact' since there are no permanent impacts to delineated wetlands, vernal pools, streams or other sensitive resources associated with the Project and Eversource will minimize temporary impacts and restore permanent upland impacts. The SPN application and NHDES and USACE permit approvals will be forwarded to the City as required and/or requested. Additional pending approvals are listed in Section 4.2 below.

4.2 CONSERVATION DISTRICT

The Conservation District includes water bodies, rivers, streams, swamps and marshes subject to tidal action and those areas within a minimum of 100 ft of each, as defined in Dover Zoning Ordinance, Article 170-27. The Conservation District also includes specific lots as defined in Article 170-27, as well as areas with slopes 20% and more than 2,000 square feet (sf) of contiguous area, neither of which is located within the Project area. Project activities subject to a CUP that are within the Conservation District are limited to temporary placement of timber mats at stream crossings and creation of stone work pads and access road improvements in river and stream buffer areas. New structures will be placed in the same general location as the existing structures. The proposed access roads were sited along existing roads or trails wherever possible.

The Project will meet the following Conservation District standards for Conditional Use Approval, as outlined in the Dover Zoning Ordinance, Article 170-27.C(2).

(a) The APPLICANT shall demonstrate that the proposed use is essential to the productive use of land not in the district; is located and constructed to minimize any detrimental impact of such use upon the surface waters or other environmentally sensitive areas, where it is physically impossible to locate such use on land not in the district; and economic advantage alone shall not be deemed a sufficient reason for such proposed use.

Approval of this CUP application would allow Eversource to maintain critical infrastructure necessary to provide the public with reliable electricity. The existing structures and line are currently located within the Conservation District and would remain as such following the structure replacements. The proposed Project is in the public's interest (versus economic advantage to Eversource) because the structure replacements will allow for the continued supply of reliable electricity to Eversource's customers. The avoidance and minimization efforts described above in section 4.1 for the Wetland Protection District also apply to the Conservation District.

(b) *A soil erosion and sedimentation control plan is submitted and followed to verify the planned avoidance of sediment pollutant runoff to bodies of water. This plan will address the following (if applicable), but should not be limited to:*

(i) stabilization of exposed soils and soil stockpiles;
(ii) protection of steep slopes from erosion;
(iii) construction site waste management;
(iv) inspection and maintenance of runoff control measures (BMPs);
(v) minimization of land clearing;
(vi) stabilization of drainage ways;
(vii) installation of perimeter controls;
(viii) installation of sediment trapping devices; and
(ix) storm drain inlet protection.

Erosion and sedimentation control practices will follow the Utility BMP Manual). Typical erosion and sedimentation controls devices used within the ROW may consist of silt fence, straw wattles, stone check dams, and/or hay and weed-free straw mulch stabilization. Erosion and sedimentation control notes and details are included on the attached map set. Approximate locations of erosion and sedimentation controls are shown around proposed work areas and access roads on the attached map set. Installation and maintenance of erosion and sedimentation controls will occur throughout the construction phase of the project. The controls will be inspected regularly by Eversource's contractors and environmental monitors and maintained and/or replaced as needed. Additional details are provided in sections 3.3 and 3.4 above.

(c) Necessary state and federal approvals have been applied for. Said permits shall be received prior to the issuance of the Conditional Use Permit by the Planning and Community Development Department.

Regulatory permits, approvals, and notifications required for the proposed Project are summarized below. The City will be provided copies of permit approvals when they are received. Given the review periods associated with some of the required permits, Eversource requests that the City condition approval of the CUP so that permit may be provided as they are received, rather than prior to the issuance of the CUP. The following state and federal permits are anticipated to be required for the Project:

- NHDES Utility Statutory Permit by Notification (submitted)
- NHDES Protected Shoreland Permit by Notification (pending submission)
- NHDES Alteration of Terrian Permit (submitted)
- USACE Pre-Construction Notification (pending submission)
- USACE Section 408 Variance Approval (pending)

(d) *A written review by the Conservation Commission of the environmental effects of the proposed use upon the area in question has been submitted. The Commission's review shall address the following, but is not limited to:*

(i) attempted avoidance of the impact;

(ii) minimization of the impact;

(iii) planned mitigation of the effects of the impact; and

(iv) efficacy of the soil erosion and sedimentation control plan.

Watercourses and surface waters have been avoided to the extent possible, and no alterations of banks or natural geomorphology are proposed. Temporary construction mats will be used to bridge, and avoid, stream areas; mats will be removed following construction. Conditions or requests for information related to environmental effects made by the local Conservation Commission will be documented and applied to the project where feasible.

4.3 IMPACT AREAS

Anticipated temporary and permanent impacts within the Conservation District and Wetland Protection District are summarized by Impact Area in Table 1 and described per area below. Each area corresponds with respective map sheets (Impact Area 1 corresponds with Map Sheet 1, etc.) in the attached CUP permit map set. Temporary impacts include timber matting and areas that will be restored post-construction, and permanent impacts within buffers are for gravel access road and work pad construction. Most of the impacts across the five impact areas (Map Sheets 1–5) occur in the Wetland Protection District and of those impacts 64% are temporary; the remaining 36% are permanent impacts in upland wetland buffer areas (see Impact Area discussions below for more details).

4.3.1 Impact Area 1

Within the Wetland Protection District, anticipated impacts in Impact Area 1 include approximately 5,526 sf of temporary impacts within wetland buffer areas of wetland W02 (overlaps 100% with areas subject to tidal action in the Conservation District), and approximately 19,734 sf of temporary impacts within the buffer area of areas subject to tidal action in the Conservation District. These temporary impacts associated with the creation of access roads and work pad construction are necessary to complete the replacement of proposed structures 27 and 28. Disturbances associated with these structure replacements will be fully restored once construction is complete, and no permanent impacts are anticipated in either District.

Impacts were avoided and minimized to the greatest extent practicable by minimizing the length of the new access road, locating access roads and work pads outside of wetland boundaries and wetland buffers, where possible, utilizing existing disturbances/access roads, and reducing the construction footprint and restoring areas along the Cocheco River shoreland that are within the Wetland Protection and Conservation Districts.

4.3.2 Impact Area 2

Within the Wetland Protection District, anticipated impacts in Impact Area 2 include approximately 742 sf of temporary wetland impacts (i.e., timber matting) and approximately 1,802 sf of temporary impacts in wetland buffer areas to cross wetland W11 and stream S04 along the access route between proposed structures 18 and 19. Within the Conservation District, approximately 1,515 sf of temporary impacts in stream buffer areas are anticipated. Overlapping buffer areas include approximately 773 sf of temporary impacts. Areas within and surrounding the Districts are existing fields and residential areas, and temporary upland matting will be used to avoid ground disturbance at the landowner's request. No permanent impacts are anticipated within either District.

4.3.3 Impact Area 3

Within the Wetland Protection District, anticipated impacts in Impact Area 3 include approximately 23,279 sf of temporary wetland impact (i.e., timber matting), approximately 16,716 sf of temporary impact in wetland buffer areas, and approximately 29,941 sf of permanent impact in wetland buffer areas to create the access road and work areas associated with proposed structures 13 through 18, across wetlands W12 through W16.

Impact Area 3 is the only Impact Area on the R169 line where upland buffer area impacts are proposed to be permanent (see Table 1 and Map Sheet 3 of 5). The permanent impacts are a result of the proposed 100-ft by 100-ft gravel work pads around proposed structures 14, 15, 16, and 18. In the case of the pads at proposed structures 14, 15, and 18, a portion of the 100-ft by 100-ft pad area will be gravel, with the remaining pad area constructed using temporary wetland matting. In these three locations, it is likely that the temporary matting will cover an even greater proportion of the pad area. Proposed structure 16 is the sole location where the entire pad is proposed to be gravel, and this location is entirely upland. No temporary or permanent impacts are anticipated within the Conservation District in Impact Area 3.

4.3.4 Impact Area 4

Within the Wetland Protection District, anticipated impacts in Impact Area 4 include approximately 3,188 sf of temporary wetland impact (i.e., timber matting) and approximately 1,852 sf of temporary impact in wetland buffer areas. Temporary impacts to wetlands and buffers include access across wetland W17 between proposed structures 9 and 10, and work areas and access in wetland W18 at proposed structure 7; no permanent impacts are anticipated due to landowner requests to use upland matting to protect existing field areas. No Conservation Districts are present in Impact Area 4.

4.3.5 Impact Area 5

Within the Wetland Protection District, anticipated impacts in Impact Area 5 include approximately 29,676 sf of temporary wetland impact (i.e., timber matting) and approximately 942 sf of temporary impact in wetland buffer areas to create work areas and access in wetland W18 associated with proposed structure 6; no permanent impacts are proposed. The Project will utilize an existing gravel access road from the 307 line ROW to proposed structure 6 to traverse through the Conservation Districts associated with

streams S05, S06, and S07 to avoid temporary and permanent impacts within those buffers. No work is proposed within the Conservation District associated with the Piscataqua River.

PHOTOGRAPHS

R169 STRUCTURE REPLACEMENT PROJECT
CUP APPLICATION - REPRESENTATIVE PHOTOGRAPHS

December 22, 2023



Photo 1. View of W14 near proposed structure 14. Stantec. June 9, 2023.



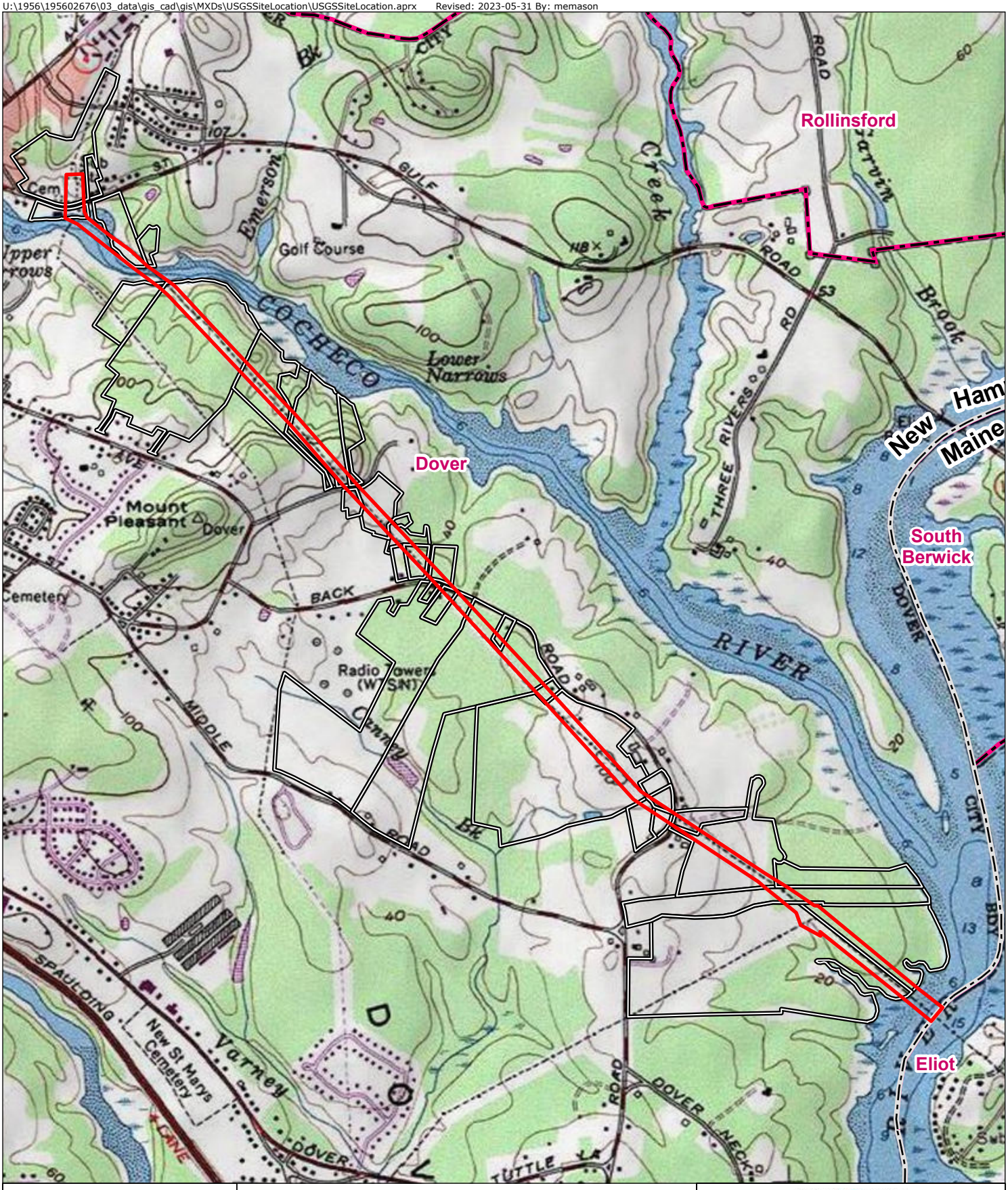
Photo 2. Representative view looking southeast to W13 and proposed structure 16. Stantec. June 9, 2023.

R169 STRUCTURE REPLACEMENT PROJECT
CUP APPLICATION - REPRESENTATIVE PHOTOGRAPHS

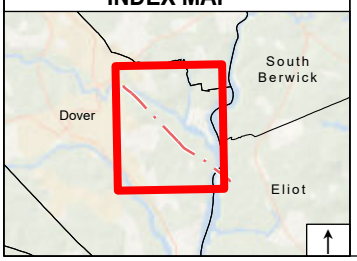
December 22, 2023

FIGURES

U:\1956\195602676\03_data\gis_cad\gis\MXDs\USGSSiteLocation\USGSSiteLocation.aprx Revised: 2023-05-31 By: memason



INDEX MAP



Legend

- Approximate Project Limits
- Municipal Boundary
- State Boundary
- Abutting Parcel Boundary

N

1 inch = 1,500 Feet

0 750 1,500 Feet

EVERSOURCE ENERGY

Dover to Eliot (R169)
Structure Replacement Project

Date: May 31, 2023

Figure 1
USGS Location Map

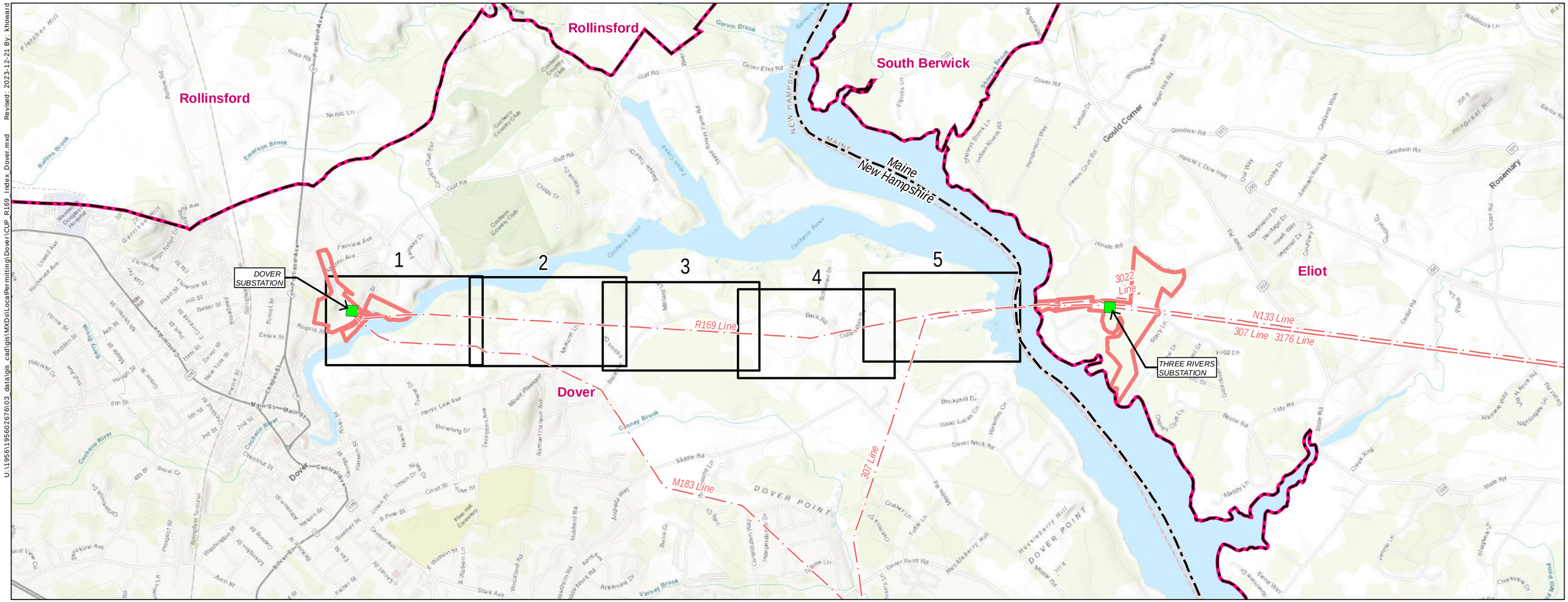
R169 Line - Structure Replacement Project

Dover, NH

Environmental Resources Map

Dover CUP Permit Map Set

Date: December 21, 2023



Legend

Substation | Municipal Boundary | State Boundary | Map Sheet | Eversource Owned Property

PREPARED FOR:

EVERSOURCE ENERGY

107 Selden Street
Berlin, CT 06037

N

0 2,000 4,000 Feet

INDEX OF FIGURES

Title Sheet / Index Map
Map Sheets 1-5

PREPARED BY:

Stantec

30 Park Drive
Topsham, ME 04086

Temporary Wetland Impact (SF)	Temporary Wetland Protection District Impact (SF)	Temporary Conservation District Impact (SF)	Permanent Wetland Protection District Impact (SF)	Permanent Conservation District Impact (SF)
23,279	16,716	-	29,941	-

EAGAN DRIVE
MALLARD LANE
BACK ROAD
FALCON DRIVE
Dover

TEMPORARY WETLAND IMPACT: +/-742 SQ.FT.
TEMPORARY WETLAND IMPACT: +/-1,369 SQ.FT.
TEMPORARY WETLAND IMPACT: +/-677 SQ.FT.
FENCES ON BOTH SIDES OF EAGAN DRIVE TO BE REMOVED AND REBUILT AFTER CONSTRUCTION
LOW COMMUNICATION LINES
TEMPORARY WETLAND IMPACT: +/-1,217 SQ.FT.
TEMPORARY WETLAND IMPACT: +/-2,763 SQ.FT.
UPLAND MATTING TO BE INSTALLED IN SPRING, REMOVED/RESTORED, AND RE-INSTALLED IN FALL FOR GROUND ACCESS TO STRUCTURE 13 FOR OPGW
FENCE TO BE REMOVED AND REPLACED
TEMPORARY WETLAND IMPACT: +/-447 SQ.FT.
SPAN STREAM NO IMPACT
TEMPORARY WETLAND IMPACT: +/-143 SQ.FT.
EXISTING LAWN TO BE RESTORED
TEMPORARY WETLAND IMPACT: +/-2,482 SQ.FT.
TEMPORARY WETLAND IMPACT: +/-5,247 SQ.FT.
TEMPORARY WETLAND IMPACT: +/-2,628 SQ.FT.
TEMPORARY WETLAND IMPACT: +/-361 SQ.FT.
TEMPORARY WETLAND IMPACT: +/-2,808 SQ.FT.
TEMPORARY WETLAND IMPACT: +/-3,136 SQ.FT.

W11-PSS
W12-PEM
W13-PEM
W14-PEM
W15-PEM
W16-PEM
R169 Line

831-019
Tax Map ID: N0018-014000
Briana Dichter
10 Whiteley Drive

831-018
Tax Map ID: N0018-000OP1
One Home Builders III LLC
Eagan Drive

831-017
Tax Map ID: N0019-A00000
Elaine M Thurston
174 Back Road

831-015
Tax Map ID: N0019-C00000
Thomas J Vitko
186 Back Road

831-016
Tax Map ID: N0019-B00000
Ricardo Antonio Santana Ramirez
180 Back Road

831-014
Tax Map ID: K0006-C00000
Steven M Bourque
147 Back Road

831-013
Tax Map ID: K0006-E00000
Victoria Currier
153 Back Road

830-250
Tax Map ID: K0006-000000
Canney Brook Engineering And Consulting
105 Middle Road

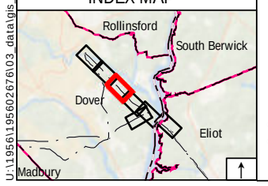
831-012
Tax Map ID: M0003-B00000
Roger Duplouy
191 Back Road

831-011
Tax Map ID: M0003-000000
R Craig Williams
154 Middle Road

831-010
Tax Map ID: M0003-A00000
Matthew M Smith
229 Back Road

831-009
Tax Map ID: M0100-A00000
Nancy E Hunt
245 Back Road

INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending
- Proposed Access
- Sediment Control Barrier (Typ.)
- Stone Work Pad
- Temporary Wetland Construction Matting
- Temporary Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 830 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource
- Open Water
- Potential Vernal Pool Extent
- 50' Potential Vernal Pool Buffer
- FEMA 100-Year Flood Zone
- FEMA Floodway
- -GAS- Approximate Gas Pipeline
- Fence
- Stonewall
- 2' Contour
- 10' Contour
- Gate
- NHDES 250' Protected Shoreland
- Conservation District
- Wetland Protection District

1 inch = 200 feet
0 50 100 200 Feet

Map Notes:
Coordinate System: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet
Data source: Eversource easement lines, structures, transmission lines provided by Eversource Energy. Wetlands, watercourses, and potential vernal pools delineated and verified by Stantec June 2023. Additional sources include: FEMA, NH Granit, Maine GeoLibrary
Basemap: 2021 National Agriculture Imagery Program (NAIP) aerial imagery.

STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

R169 Line Structure Replacement
Dover CUP Permit Map Set

Dover, NH	MAP SHEET 3 of 5
Date: December 21, 2023	Stantec

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APPENDICES

Appendix A WETLAND DELINEATION REPORT

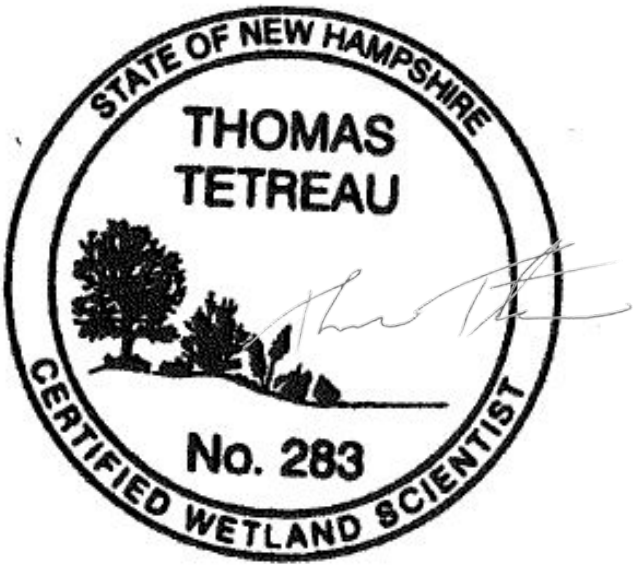
Wetland and Watercourse Delineation and Functional Assessment Report: R169 Structure Replacement Project

Dover, New Hampshire, and Eliot, Maine

September 14, 2023

Prepared for:

Eversource Energy
13 Legends Drive
Hooksett, NH 03106



Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

Table of Contents

1.0 INTRODUCTION 1

2.0 METHODS 1
2.1 WETLAND AND WATERCOURSE DELINEATION 1
2.2 FUNCTIONAL ASSESSMENT 2

3.0 RESULTS 3
3.1 GENERAL SITE DESCRIPTION 3
3.2 WETLAND AND WATERCOURSE DELINEATION 3
3.3 FUNCTIONAL ASSESSMENT 7

LIST OF TABLES

Table 1. Summary of Delineated Wetlands 4
Table 2. Summary of Delineated Streams 6
Table 3. Summary of Identified Vernal Pools 7
Table 4. Summary of Functional Assessment 8

LIST OF FIGURES

Permit Map Set

LIST OF APPENDICES

Appendix A Representative Photographs
Appendix B Corps Wetland Determination Data Forms (provided upon request)
Appendix C Wetlands Functional Assessment Worksheets (provided upon request)
Appendix D Observed Wildlife

1.0 INTRODUCTION

Eversource Energy (Eversource) proposes to replace approximately 20 existing transmission line structures located within the full length of the R169 Line, totaling approximately 3 miles of combined transmission line right-of-way (ROW) in Dover, New Hampshire and Eliot, Maine (Project Site; see attached Draft Map Set). Of the 20 structures proposed to be replaced, 19 are located in Dover and 1 is located in Eliot. Stantec Consulting Services Inc. (Stantec) was contracted to conduct wetland and watercourse delineations and a wetland functional assessment of the Project Site to support federal, state, and local natural resource permitting.

Stantec conducted on-site delineations within the existing ROW between June 8 and June 9, 2023. The delineations were conducted by Tom Tetreau, New Hampshire Certified Wetland Scientist #283. This report includes descriptions of the wetland and watercourse delineation methods and results.

2.0 METHODS

2.1 WETLAND AND WATERCOURSE DELINEATION

The R169 Line was previously delineated over 5 years ago, and the spatial data of these previously delineated wetlands and watercourses were used to aid in the 2023 wetland and watercourse delineation.

Wetland boundaries under local, state, and federal jurisdiction were determined using the technical criteria described in the U.S. Army Corps of Engineers (Corps) *Corps of Engineers Wetlands Delineation Manual*[1] and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regional Supplement.*[2] Wetland communities were classified according to the *Classification of Wetlands and Deepwater Habitats of the United States.*[3] Hydric soil determinations were made in accordance with the Corps wetland delineation manuals and the *Field Indicators for Identifying Hydric Soils in New England (Version 4).*[4]

Wetland boundaries anticipated to meet state, federal, and local jurisdictional criteria were located using a Global Positioning System (GPS) receiver capable of submeter accuracy. The previously delineated

[1] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
[2] U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[3] Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.
[4] New England Hydric Soils Technical Committee. 2017. Field Indicators for Identifying Hydric Soils in New England (Version 4).

wetland boundaries were confirmed using the GPS, with revisions to the boundaries located with the GPS as necessary.

Watercourses (e.g., streams) identified during the delineations were identified based on the definitions in NHDES Certified Administrative Rules Env-Wt 406.04, as well as the technical guidance available from the Corps on the identification of an Ordinary High Water Mark.[5] The top of each bank was mapped for streams typically over 6 feet wide, and the centerline was mapped for streams with top of bank widths up to 6 feet wide. Data was collected on flow regime, top of bank, band depth, Ordinary High Water Mark widths, dominant substrates, and evidence of biological use. GPS data were used to produce the attached map set.

The wetland delineation occurred outside the appropriate identification period for vernal pool indicator species; therefore, potential vernal pools were identified and evaluated in accordance with the *Identification and Documentation of Vernal Pools in New Hampshire.*[6] Potential vernal pools were primarily identified based on their physical characteristics and landscape position, and the presence of vernal pool indicator species, if observed. Observations of approximate size, hydrology, and evidence of disturbance were recorded. The boundaries of the potential vernal pools were located with GPS receivers, and photographs were taken of each vernal pool identified.

Priority Resource Areas (PRA), as defined in Env-Wt 103.66, were identified based on field observations and use of the Wetlands Permit Planning Tool.[7] PRAs identified along the R169 Line consisted of wetlands contiguous with tier 3 streams, tidal wetlands, and undeveloped tidal buffer zones.

2.2 FUNCTIONAL ASSESSMENT

Stantec performed a wetland functional assessment of the delineated wetlands and watercourses in accordance with New Hampshire Wetland Rules (Env-Wt 311.10). Wetland functions and values were qualitatively evaluated through direct field observation and a review of existing public data resources following the New Hampshire Method for evaluating the Ecological Integrity of the Wetlands and Streams (RSA 482-A:2, XI) and Corps *Highway Methodology Workbook Supplement.*[8] Information was collected to prepare Corps Wetland Determination Data Forms and Wetlands Functional Assessment Worksheets. Full assessments of Ecological Integrity using the New Hampshire Method is based on a series of desktop and field assessments and results in a numerical Functional Value Index for each wetland. Due to the length of the Project area, the abundance of wetlands, and the anticipated wetland impacts associated with the Project (temporary timber matting), Stantec evaluated the Ecological Integrity of each wetland using a qualitative value of low, medium, and high that considered the condition of the wetland

[5] U.S. Army Corps of Engineers. 2005. Regulatory Guidance Letter: Ordinary High Water Mark Identification. December 8, 2005. No. 05-05.

[6] Marchand, M. 2016. *Identifying and Documenting Vernal Pools in New Hampshire*. Third Edition, New Hampshire Fish and Game Department, Nongame and Endangered Wildlife Program.

[7] https://nhdeswppt.unh.edu/, accessed June 2023.

[8] U.S. Army Corps of Engineers. 1999. The Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach. U.S. Army Corps of Engineers. New England Division. 32pp. NAEEP-360-1-30a.

relative to human-caused stressors, diversity of native vegetation, and presence of natural processes. This modified method allowed for a more consistent and streamlined approach when completing the required Wetlands Functional Assessment Worksheets. The temporary impact area (matting) listed on the Wetlands Functional Assessment Worksheets is approximate based on preliminary mapping and Project design and represents the greatest amount of impact likely to occur. Temporary wetland impacts will be minimized throughout the permitting and design process, and some of these wetland impact areas may decrease.

3.0 RESULTS

3.1 GENERAL SITE DESCRIPTION

The R169 Line is an existing transmission line that traverses forested, residential, and agricultural landscapes between the Dover Substation in Dover and the Three Rivers Substation in Eliot. The open transmission line is approximately 100 feet wide in most areas, with wider stretches, up to 250-feet wide, containing additional transmission lines in the areas around the Piscataqua River crossing. The ROW primarily crosses rural areas and town roads, as well as the Cocheco River and the Piscataqua River. The topography varies from flat lowlands and fields to undulating hills and steep side slopes. Elevations generally range between 0 and 90 feet above mean sea level.

The open upland natural communities consist of early successional shrub, sapling, and herbaceous species. Characteristic woody vegetation includes gray birch (*Betula populifolia*), quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), sheep-laurel (*Kalmia angustifolia*), late lowbush blueberry (*Vaccinium angustifolium*), white meadowsweet (*Spiraea alba*), Allegheny blackberry (*Rubus allegheniensis*), American hazelnut (*Corylus americana*), red oak (*Quercus rubra*), and red raspberry (*Rubus idaeus*). Commonly observed herbaceous vegetation included little Canada mayflower (*Maianthemum canadense*), wrinkle-leaf goldenrod (*Solidago rugosa*), Canada goldenrod (*Solidago canadensis*), bracken fern (*Pteridium aquilinum*), hay-scented fern (*Dennstaedtia punctilobula*), wild strawberry (*fragaria virginiana*), bristly dewberry (*Rubus hispidus*), Kentucky blue grass (*Poa pratensis*), and other common grass and wildflower species. Non-native invasive species abundance was moderate compared to native vegetation and included rambler rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), Morrow's honeysuckle (*Lonicera morrowii*), and glossy false buckthorn (*Frangula alnus*). Soils within the ROW consisted primarily of loam and silty loam.

3.2 WETLAND AND WATERCOURSE DELINEATION

The wetland and watercourse delineations were conducted on June 8 and June 9, 2023, under appropriate conditions during the growing season. A total of 23 wetlands, 9 unnamed watercourses, and the Cocheco River and Piscataqua River were delineated. In addition, one potential vernal pool was surveyed. The locations of the delineated wetlands, watercourses, and potential vernal pool are included on the attached Draft Map Set. Tables 1, 2, and 3 summarize the delineated wetlands, watercourses, and potential vernal pool, respectively. Representative site photographs are provided in Appendix A. Representative Corps Wetland Determination Forms are included in Appendix B.



Table 1. Summary of Delineated Wetlands

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W001	PEM	Trees: None Saplings/Shrubs: None Herbs: broad-leaf cat-tail (*Typha latifolia*), lamp rush (*Juncus effusus*), cottongrass bulrush (*Scirpus cyperinus*), sensitive fern *(Onoclea sensibilis*), uptight sedge (*Carex stricta*)	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	Ditch excavation around existing substation
W002	E2EM	Trees: none Saplings/Shrubs: none Herbs: saltwater cord grass (*Spartina alterniflora*), eastern grasswort (*Lilaeopsis chinesis*)	F3: Depleted Matrix	A1: Surface Water A2: High Water Table A3: Saturation	Yes - Tidal	Tidal wetland associated with Cocheco River. Rare plant species observed.
W003	PFO	Trees: Norway maple (*Acer plantanoides*) Saplings/Shrubs: speckled alder (*Alnus incana*) Herbs: sensitive fern, lamp rush	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	Yes – within 100-feet of tidal areas	Stream S01 flows through wetland and into the Cocecho River.
W004	PSS	Trees: None Saplings/Shrubs: speckled alder Herbs: broad-leaf cat-tail, sensitive fern	F3: Depleted Matrix	A2: High Water Table A3: Saturation	Yes – within 100-feet of tidal areas	
W005	PSS/PEM	Trees: None Saplings/Shrubs: speckled alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	
W006	PEM	Trees: none Saplings/Shrubs: red maple, speckled alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush, reed canary grass (*Phalaris arundinacea*), spotted touch-me-not (*Impatiens capensis*)	F3: Depleted Matrix	A3: Saturation	No	Contains potential vernal pool PVP01.
W007	PSS	Trees: none Saplings/Shrubs: speckled alder Herbs: sensitive fern, lamp rush, spotted touch-me-not, bluejoint (*Calamagrostis canadensis*), woodland horsetail (*Equisetum sylvaticum*)	F3: Depleted Matrix	A3: Saturation	No	Contains stream S02.
W008	PEM	Trees: none Saplings/Shrubs: speckled alder Herbs: broad-leaf cat-tail, sensitive fern, uptight sedge	F3: Depleted Matrix	A3: Saturation	No	Contains stream S03.
W009	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, spotted touch-me-not, purple loosestrife (*Lythrum salicaria*)	F3: Depleted Matrix	A3: Saturation	No	

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W010	PEM/PSS	Trees: none Saplings/Shrubs: speckled alder Herbs: sensitive fern, lamp rush, woodland horsetail, bluejoint, reed canary grass	F3: Depleted Matrix	A3: Saturation	No	
W011	PSS	Trees: none Saplings/Shrubs: speckled alder, common winterberry (*Ilex verticilata*) Herbs: nodding sedge (*Carex gynandra*), sensitive fern, spotted touch-me-not, reed canary grass	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	Contains stream S04.
W012	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation	No	
W013	PEM	Trees: none Saplings/Shrubs: alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush, skunk-cabbage (*Symplocarpus foetidus*)	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	
W014	PEM/PSS	Trees: none Saplings/Shrubs: red maple, speckled alder, common winterberry Herbs: sensitive fern, lamp rush, broad-leaf cat-tail, reed canary grass, wrinkle-leaf goldenrod	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	
W015	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, steeplebush, wrinkle-leaf goldenrod, lamp rush	F3: Depleted Matrix	A3: Saturation	No	Portion of wetland within maintained lawn/yard area.
W016	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, uptight sedge, fowl manna grass (*Glyceria striata*), greater bladder sedge (*Carex intumescens*)	F3: Depleted Matrix	A3: Saturation	No	
W017	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, reed canary grass	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	
W018	PSS/PEM	Trees: none Saplings/Shrubs: broad-leaf meadowsweet (*Spiraea latifolia*), coastal sweet pepperbush (*Clethra alnifolia*), speckled alder, common winterberry Herbs: sensitive fern, lamp rush, bluejoint, blue iris (*Iris versicolor)*	F3: Depleted Matrix	A3: Saturation	No	Portion of wetland is mowed hay field. Contains stream S05.

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W019	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, broad-leaf cat-tail, necklace sedge (*Carex projecta*)	F3: Depleted Matrix	A3: Saturation	No	
W020	PEM/PSS	Trees: none Saplings/Shrubs: pussy willow (*Salix discolor*) Herbs: sensitive fern, bluejoint, reed canary grass, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation	No	
W021	PEM	Trees: none Saplings/Shrubs: speckled alder Herbs: lamp rush, sensitive fern, cottongrass bulrush	F3: Depleted Matrix	A3: Saturation B10: Wetland drainage patterns	No (Maine)	Adjacent to Piscataqua River. Portions within mowed lawn/yard area.
W022	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, woodland horsetail, cottongrass bulrush	F3: Depleted Matrix	A3: Saturation	No (Maine	
W023	PSS/PEM	Trees: none Saplings/Shrubs: broad-leaf meadowsweet, speckled alder, common winterberry Herbs: sensitive fern, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No (Maine)	

[1] PEM = Palustrine Emergent, PSS = Palustrine Scrub-shrub, PUB = Palustrine Unconsolidated Bottom, PFO = Palustrine Forested, E2EM = Estuarine Intertidal Emergent

Table 2. Summary of Delineated Streams

Stream Identifier	Flow Type	Bankfull Width (ft)	Ordinary High Water Mark Width (ft)	Dominant Substrates	Additional notes
S01	Perennial	4-6	4-6	Sand, gravel, silt	Flows south through W03, into the Cocheco River
Cocheco River	Perennial/Tidal	200+	200+	Silt, gravel, mud	
S02	Intermittent	2-3	2-3	Silt, gravel	Flows across ROW toward Cocheco River
S03	Perennial	8	8	Cobbles, gravel, boulders	Flows across ROW toward Cocheco River
S04	Perennial	4	4	Silt, gravel	Flows through wetland W11 in residence area
S05	Intermittent	4	4	Silt, gravel	Flows from wetland W18 towards Piscataqua River
Piscataqua River	Perennial/Tidal	850+	850+	Silt, gravel, mud	
S06	Intermittent	3	3	Sand, silt, gravel	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S07	Intermittent	4	4	Gravel, cobbles	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S08	Intermittent	4	4	Silt, gravel, cobbles	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S09	Ephemeral	4	5	Sand, gravel	Originates from culvert under existing road, likely only flows during heavy rain

Table 3. Summary of Identified Vernal Pools

VP Identifier	Estimated Hydroperiod	Indicator Species	Comments
PVP01	Semi-permanent	Unknown adult frogs observed	Potential old excavation adjacent to pipeline crossing of the transmission line ROW. Approximately 50-foot diameter and 1 to 2 feet deep with mucky substrate.

3.3 FUNCTIONAL ASSESSMENT

Table 4 summarizes the results of the wetland functional assessment. In general, wetlands within the Project area provide a variety of functions and values. Nutrient Trapping / Retention & Transformation, Sediment Trapping, and Wetland-dependent Wildlife Habitat were the most common functions along with Groundwater Recharge and Flood Storage.

Wetlands Functional Assessment Worksheets for wetlands proposed to be impacted by temporary timber matting are included in Appendix C. Potential vernal pools and streams were considered when performing the functional assessment of impacted wetlands, but since no impacts are proposed to potential vernal pools and streams, a full assessment of these features was not included in the Wetlands Functional Assessment Worksheets. The list of observed wildlife is included in Appendix D, and Table 1 above includes the observed vegetation.

Table 4. Summary of Functional Assessment

Wetland Resource Identifier	Wetland Functions and Values[1]													
	1 Ecological Integrity[2]	2 Educational Potential	3 Fish and Aquatic Life Habitat	4 Flood Storage	5 Groundwater Recharge	6 Noteworthiness	7 Nutrient Trapping / Retention & Transformation	8 Production Export	9 Scenic Quality	10 Sediment Trapping	11 Shoreline Anchoring	12 Uniqueness/ Heritage	13 Wetland-based Recreation	14 Wetland-dependent Wildlife Habitat
W001	Low			X			P	X		X				
W002	High		P	P		P	P	X		X	P	X		X
W003	Moderate			P			X	X		X	X			X
W004	Moderate			P			X	X		X	P			X
W005	Moderate			P	X		X	X		X				X
W006	Moderate				P		X	X		X				P
W007	Moderate			X	P		X	X		X	P			X
W008	Moderate			X	P		X	X		X	P			X
W009	Low				P		X	X		X				X
W010	Moderate			X	P		X	X		X				X
W011	Moderate		X	X	X		X	X		X	P			X
W012	Low				X		P	X		X				X
W013	Moderate			X	X		P	X		X				X
W014	Moderate			X	X		P	P		X				X
W015	Low				X		X	X		P				X
W016	Low				X		P	X		X				X
W017	Moderate						X	P		X				X
W018	Moderate			X	X		P	X		X				X
W019	Low						P	X		P				X
W020	Low						P	X		P				X
W021	N/A, Maine			P	X		X	X		P				X
W022	N/A, Maine				X		X	X		P				X
W023	N/A, Maine			X	P	X	X	X		P				X

X = Function observed within wetland, P = Principal Function

[1] Corps Highway Methodology Workbook Supplement

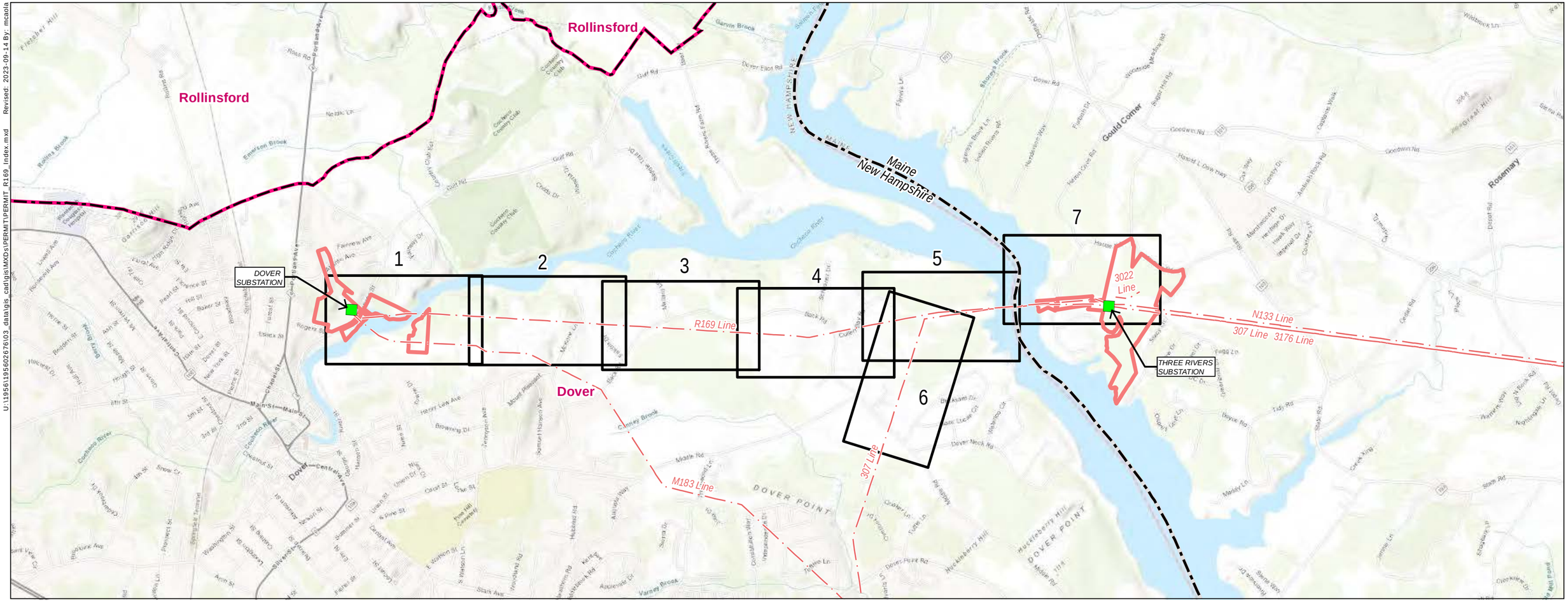
[2] Method for the Comparative Evaluation of Nontidal Wetlands in New Hampshire

FIGURES

R169 Line - Structure Replacement Project

Dover, NH and Eliot, ME
Environmental Resources Map
PERMIT Map Set
Date: September 14, 2023

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Legend

Substation | Municipal Boundary | State Boundary | Map Sheet | Eversource Owned Property

N

0 2,000 4,000 Feet

PREPARED FOR:

EVERSOURCE ENERGY

107 Selden Street
Berlin, CT 06037

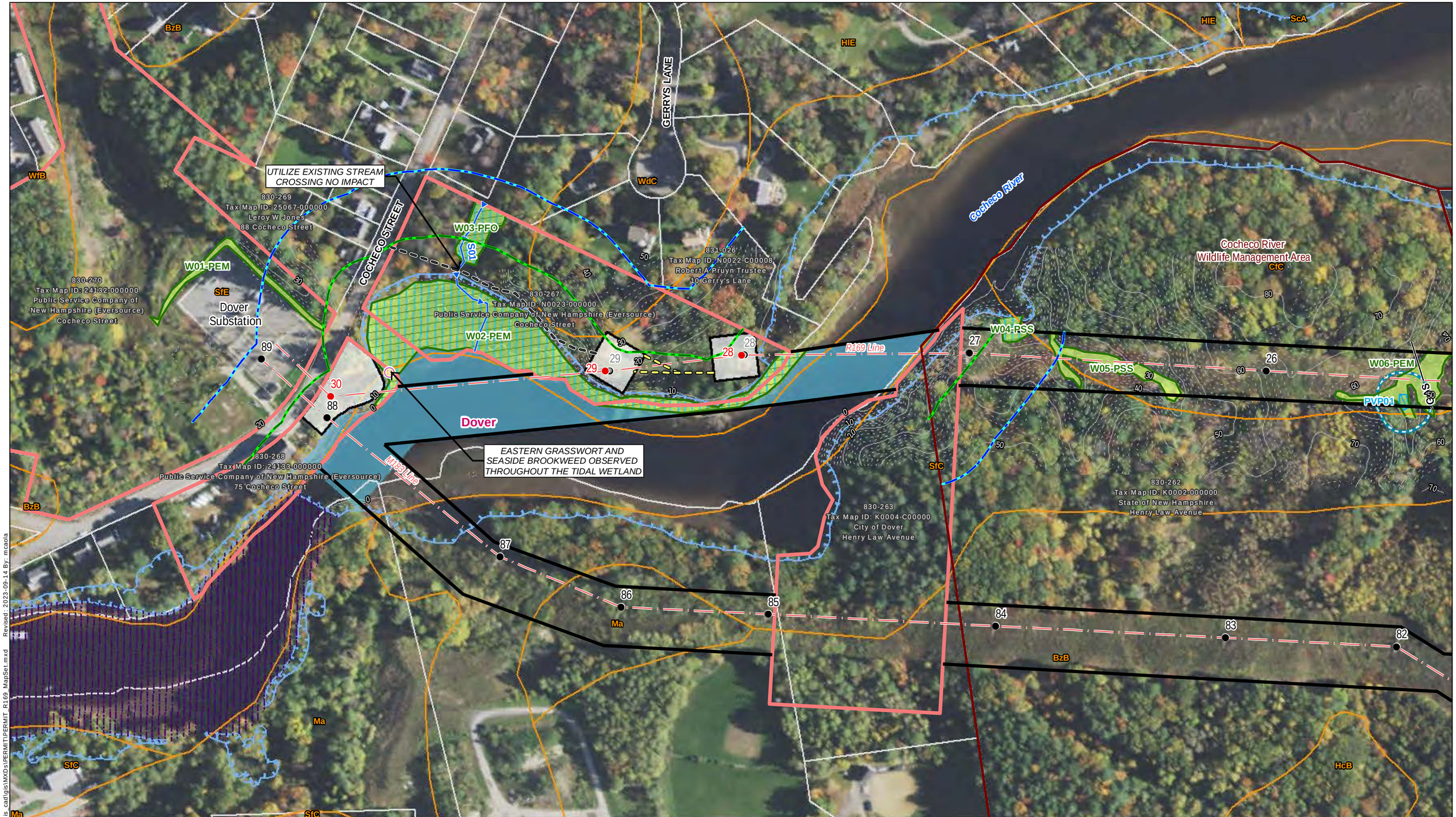
INDEX OF FIGURES

Title Sheet / Index Map
NRCS Soils Table
Map Sheets 1-7

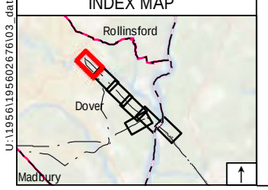
PREPARED BY:

Stantec

30 Park Drive
Topsham, ME 04086



INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 830 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
- Potential Vernal Pool Extent
- 50' Potential Vernal Pool Buffer
- 250' Protected Shoreland
- 100' Tidal Buffer Zone
- FEMA 100-Year Flood Zone
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1 inch = 200 feet
0 50 100 200 Feet

Map Notes:
Coordinate System: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet
Data source: Eversource easement lines, structures, transmission lines, and wetlands/watercourses provided by Eversource Energy. Additional sources include: FEMA, NH Granit, Maine Geolibrary
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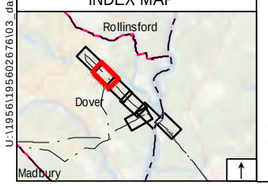
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 1 of 7
Date: September 14, 2023	Stantec

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Dover
Cocheco River
Cocheco River Wildlife Management Area
831-022
Tax Map ID: N0018-001000
State of New Hampshire
McKone Lane
831-024
Tax Map ID: K0001-A00000
Robert Swanson
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831-025
Tax Map ID: K0001-A00001
State of New Hampshire
McKone Lane
831-023
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830-262
Tax Map ID: K0002-000000
State of New Hampshire
Henry Law Avenue
831-020
Tax Map ID: N0018-006000
Daniel & Jacqueline Ayer Revocable Trusts
McKone Lane
831-019
Tax Map ID: N0018-014000
Brianna Dichter
10 Whiteley Drive
831-018
Tax Map ID: N0018-000OP1
One Home Builders II LLC
Eagan Drive
831-021
Tax Map ID: N0019-005000
Anthony P Ayer
47 McKone Lane
831-017
Tax Map ID: N0019-A00000
Elaine M Thurston
174 Back Road
WHITELEY DRIVE
EAGAN DRIVE
MCKONE LANE
FALCON DRIVE
BACKROAD
W06-PEM
PVP01
W07-PSS
W08-PEM
W09-PEM
W10-PEM
W11-PSS
SPAN STREAM NO IMPACT
CONFIGURE WORK PADS TO AVOID EXISTING STONEWALL
UTILIZE EXISTING BREACH IN STONEWALL
STONEWALL TO BE REMOVED AND REBUILT AFTER CONSTRUCTION
UTILIZE EXISTING PAVED DRIVEWAY
TEMPORARY WETLAND IMPACT: +/-742 SQ.FT.
R169 Line
M183 Line
ScA
HeD
HcC
SfC
WfB
HcB
DeA
HcD
CfC
CsD
CsB
WfC
HdD
BzB
HdC
HcB
ScB
HdB
WdB
82
81
80
79
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25
24
23
22
21
20

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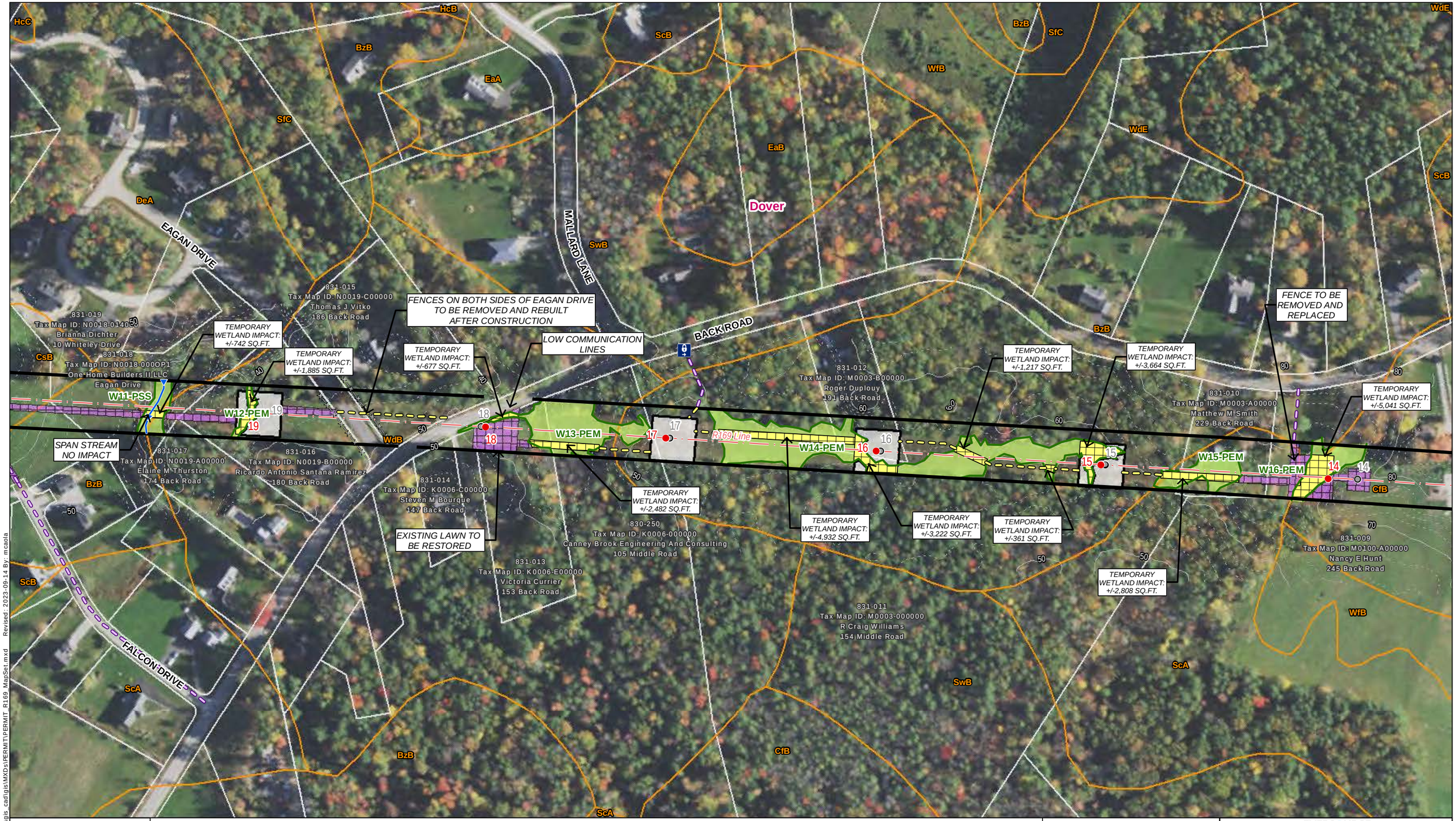
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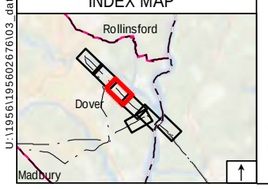
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 2 of 7
Date: September 14, 2023	Stantec

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CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 3 of 7
Date: September 14, 2023	Stantec

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FENCE TO BE REMOVED AND REPLACED

TEMPORARY WETLAND IMPACT: +/-926 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-1,452 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-810 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-3,188 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-6,840 SQ.FT.

ACCESS FROM BACK ROAD

EXISTING LAWN TO BE RESTORED

SCHOONER DRIVE

CULLEN BAY ROAD

BACK ROAD

Dover

R169 Line

W16-PEM

W17-PEM

W18-PSS

831-008
Tax Map ID: M0100-B00000
Gregory W Hunt
295 Back Road

831-007
Tax Map ID: M0105-002000
Christopher D Berg
303 Back Road

831-004
Tax Map ID: M0093-B00000
Nancy Magiaras
362 Back Road

831-003
Tax Map ID: M0092-B00000
Cullen Bay Homeowners Association
Cullen Bay Road

831-005
Tax Map ID: M0105-000000
Eric W Thompson
321 Back Road

831-009
Tax Map ID: M0100-A00000
Nancy E Hunt
245 Back Road

831-006
Tax Map ID: M0105-001000
William C & Nancy Hunt Trustees
Back Road

831-001
Tax Map ID: M0092-A00000
Patricia Langs
Back Road

829-138
Tax Map ID: M0091-A00000
Townsquare Media Portsmouth LLC
292 Middle Road

WdE WdB BzB ScB CfB HcB WfB ScA SwB SfC HcC

INDEX MAP

Rollinsford
Dover
Madbury

Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
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- Stone Work Pad
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- Upland Construction Matting
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- State Owned Property
- Parcel Boundary
- 830 Abutter Number
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- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
- Potential Vernal Pool Extent
- 50' Potential Vernal Pool Buffer
- 250' Protected Shoreland
- 100' Tidal Buffer Zone
- FEMA 100-Year Flood Zone
- FEMA Floodway
- NRCS Soil Unit Boundary
- -GAS- Approximate Gas Pipeline
- Fence
- Stonewall
- 2' Contour
- 10' Contour
- Gate
- Culvert

This mapping product has been created to comply with submittal requirements to obtain certain regulatory approvals and, as such, there is no reliance on the information contained herein for any other purpose.

1 inch = 200 feet
0 50 100 200 Feet

Map Notes:
Coordinate System: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet
Data source: Eversource easement lines, structures, transmission lines, and wetlands/watercourses provided by Eversource Energy. Additional sources include: FEMA, NH Granit, Maine Geolibrary
Basemap: 2021 National Agriculture Imagery Program (NAIP) aerial imagery

STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

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R169 Line Structure Replacement
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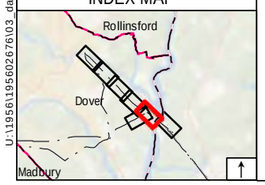
Dover, NH	MAP SHEET 4 of 7
Date: September 14, 2023	Stantec

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SfC
HaA
WdB
SfC
WfB
SfC
DeB
CULLEN BAY ROAD
CULLEN BAY ROAD
Dover
Piscataqua River
Maine
New Hampshire
829-139
Tax Map ID: M0104-000000
Alan G. Dexter Trustee
Back River Road
831-001
Tax Map ID: M0092-A00000
Patricia Langs
Back Road
WdB
TEMPORARY WETLAND IMPACT: +/-2,022 SQ.FT.
831-002
Tax Map ID: M0092-H00000
Marie V Hebert Trustee
Cullen Bay Road
ScB
TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.
831-003
Tax Map ID: M0092-B00000
Cullen Bay Homeowners Association
Cullen Bay Road
W18-PSS
S05
R169 Line
307 Line
SPAN STREAM AND WETLAND NO IMPACT
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WdA
WdE
S06
WdC
ScA
BzB
S07
WfC
Ta
EaB
WfB

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INDEX MAP



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- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
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- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 330 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
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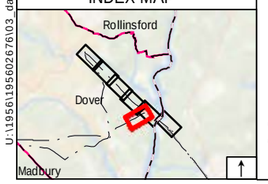
EVERSOURCE ENERGY

R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 5 of 7
Date: September 14, 2023	Stantec



INDEX MAP



Legend

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- Existing Right-of-Way (ROW)
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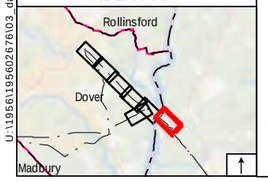
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 6 of 7
Date: September 14, 2023	Stantec

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STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

R169 Line Structure Replacement
PERMIT Map Set

Dover, NH and Eliot, ME	MAP SHEET 7 of 7
Date: September 14, 2023	Stantec

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APPENDICES

Appendix A REPRESENTATIVE PHOTOGRAPHS



Photo 1. Representative view of the Cocheco River from structure 30. Stantec, June 8, 2023.



Photo 2. Representative view of the Cocheco River from Structure 29. Stantec, June 8, 2023.



Photo 3. Stream S01 flowing into Cocheco River near structure 29. Stantec, June 8, 2023.



Photo 4. Representative view of Cocheco River from structure 28. Stantec, June 8, 2023.



Photo 5. Representative view of the ROW and Wetland W05. Stantec, June 8, 2023.



Photo 6. Potential vernal pool PVP01, near structure 25. Stantec, June 8, 2023.



Photo 7. Representative view of the ROW and wetland W10 near structure 23. Stantec, June 8, 2023.



Photo 8. Representative view of the ROW and wetland W13 near structure 18. Stantec, June 8, 2023.



Photo 9. Representative view of the ROW and wetland in active pasture area near structure 14. Stantec, June 8, 2023.



Photo 10. Representative view of the ROW and open field side of wetland W18, near structure 8. Stantec, June 8, 2023.



Photo 11. Stream S05 in wetland W18 near junction of R169 and 307 line ROWs. Stantec, June 8, 2023.



Photo 12. Representative view of the ROW at the Piscataqua River, structure 5. Stantec, June 8, 2023.



Photo 13. Wetland W19 and existing access along 307 line ROW. Stantec, June 8, 2023.



Photo 14. Representative view of the ROW and wetland W21, near structure 4. Stantec, June 8, 2023.



Photo 15. Representative view of the ROW and wetland W23, near structure 3. Stantec, June 8, 2023.



Photo 16. Structure 2, near the Three Rivers Substation. Stantec, June 8, 2023.

Appendix B CORPS WETLAND DETERMINATION DATA FORMS

(Provided upon request)

Appendix C WETLANDS FUNCTIONAL ASSESSMENT WORKSHEETS

(Provided upon request)

Appendix D OBSERVED WILDLIFE

Common Name	Species Name
American crow	*Corvus brachyrhynchos*
Osprey	*Pandion haliaetus*
Eastern chipmunk	*Tamias striatus*
Red-tailed hawk	*Buteo jamaicensis*
White-tailed deer	*Odocoileus virginianus*
Wild turkey	*Meleagris gallopavo*

R169 Structure Replacement Project
Dover, New Hampshire

Conditional Use Permit Application

Part 4 of 5

December 22, 2023

Prepared for:

Public Service Company of New Hampshire d/b/a Eversource Energy
13 Legends Drive
Hooksett, NH 03106

Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: Public Service Company of NH d/b/a Eversource Energy Telephone # 603-634-2243

Address of Applicant: 13 Legends Drive, Hooksett, NH 03106

E-Mail Address: Travis.Yandow@Eversource.com

Name of Property Owner (if different from applicant): same as above Telephone # same as above

Address of Property Owner: same as above

PROPERTY INFORMATION

Assessor's Map # 831-009 Lot(s) # Multiple

Address of Property: Existing R169 transmission line ROW--245 Back Rd to Cullen Bay Rd

Zoning District(s) R-40, R-12, CWD Overlay District(s) Wetland Protection

Rural Residential, Medium Density, Residential, Urban Density Multi Residential, Cocheco Waterfront District

Existing Use of Property: Electric transmission line ROW

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☐ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

Impact Area 4/Sheet 4: Eversource is proposing to replace five structures (7, 8, 9, 11, and 12) along their existing R169 utility transmission line in Dover as it traverse pastures south and west of Back Rd then crosses at Cullen Bay Rd and continues southeasterly. These wooden structures require replacement due to age, cracking, leaning, and/or woodpecker damage. The existing structures will be replaced with new weathering steel structures to provide a more reliable electrical infrastructure. The five new structures require construction of both work pads and access roads. In wetland areas or fields, timber matting is used to minimize impact of work over these sensitive resources. In Area 4, as a result of the productive pasture land at four of the five structures, matting will be utilized to minimize ground impacts within the ROW and off-ROW. Structure 7 is entirely within a delineated wetland and, therefore, the work pad will also be completely matted. The only impacts in this area are within the Wetland Protection District. In the Wetland District, 3,188 square feet of temporary impact is proposed in the wetland areas as a result of matting at structure 7. Approximately 1,852 square feet of temporary impact is proposed in the wetland buffer areas as a result of the upland matting needed to protect farmland. When needed, these areas will require pre-construction installation of

erosion/sediment control BMPs and monitoring throughout for effectiveness. See attached application narrative and supporting documents for more details.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: NHDES: Alteration of Terrain; Wetlands Utility Statutory Permit by Notification; Shoreland Permit by Notification; USACE Pre-application Construction Notification; USACE Section 408 Variance to Fed. Navigation Project.

Name of Professional That Prepared Plans: Tom Tetreau, NH Certified Wetland Scientist

Address 30 Park Drive, Topsham, ME 04086 Telephone #: 207-504-7231

Professional License #: 283 E-mail address: tom.tetreau@stantec.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 12/20/2023

Signature of Applicant (if different from owner): _____ Date: _____

Signature of Agent: _____ Date: 12/20/2023

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 12/20/2023

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS
Multiple		Kurt Nelson, Eversource Energy	13 Legends Drive, Hooksett, NH 03106

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS
Tom Tetreau, NH Certified Wetland Scientist	Stantec	30 Park Drive, Topsham, ME 04086

Conservation Easement Holder:

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

Stantec Consulting Services Inc.
30 Park Drive, Topsham ME 04086-1737

December 22, 2023

Project/File: 195602676

Attention: Donna Benton
Planning Director
288 Central Avenue
Dover, NH 03820
d.benton@dover.nh.gov

Reference: Conditional Use Permit Application, Eversource Energy, R169 Structure Replacement Project, Dover, New Hampshire

Dear Ms. Benton and Planning Board Members,

On behalf of the Public Service of New Hampshire d/b/a Eversource Energy (Eversource), Stantec Consulting Services Inc. is filing five Conditional Use Permit (CUP) applications for necessary structure replacements as part of the R169 Structure Replacement Project (Project) in the City of Dover. Eversource has identified 18 existing structures along the existing R169 transmission line right-of-way (ROW) in Dover that require replacement due to deterioration from age, cracking, leaning, rot, and/or woodpecker damage.

Portions of the proposed Project are located within the Conservation District and the Wetlands Protection District, as described in the Dover Zoning Ordinance, Articles 170-27 and 170-27.1, respectively. CUPs may be granted within utility ROWs in the Conservation District in accordance with Article 170-27 Section C (1), and in the Wetlands Protection District in accordance with Article 170-27.1 Section F (1):

> "Article 170-27 Section C (1): *Conditional Use Permits may be granted by the PLANNING BOARD for the following uses within the* ***Conservation District****: (1) STREETs, roads and other access ways and utility rights-of-way, communications equipment, easements, including power lines and pipe lines, if essential to the productive use of land not so zoned and if so located and constructed as to minimize any detrimental impact of such uses upon the wetlands or other environmentally sensitive areas, where it is physically impossible to locate such ways over land not so zoned."*
>
> "Article 170-27.1 Section F (1): *Conditional use approval may be granted by the PLANNING BOARD (RSA 674:21II) after proper public notice and public hearing, for construction within the* ***Wetland Protection District*** *or buffer. Said construction may include but is not limited to, a road or other accessway, utility right-of-way, communication lines, power lines and pipelines, STRUCTUREs, and parking LOTs provided that the proposed construction complies with the following standards [emphasis added.]*

Therefore, Eversource is requesting the CUPs for activities and temporary impacts to wetland buffer areas within the Conservation District and the Wetlands Protection District and has outlined compliance with City of Dover zoning standards in the attached project narrative, which is being submitted in accordance with Articles 170-27 and 170-27.1 of the zoning ordinance. These five CUP applications (one per project map sheet) are being submitted, in total, for approximately 19,734 square feet (0.45 acres) of temporary tidal

Reference: Conditional Use Permit Application, Eversource Energy, R169 Structure Replacement Project

buffer resource impacts (to be restored) and 1,515 square feet (0.03 acres) of temporary stream buffer resource impacts (timber matting) in the Conservation District. In the Wetland Protection District, the following impacts are anticipated: approximately 56,885 square feet (1.31 acres) of temporary wetland impacts (matting), 26,838 square feet (0.62 acres) of temporary impacts within wetland buffers (matting), and 29,941 square feet (0.69 acres) of permanent impacts within upland wetland buffer areas for gravel access road and work pad construction.

The proposed work is for direct “in-kind” replacements of cracked and damaged poles, and no new pole locations are proposed within the R169 ROW in Dover. New structures will be in the same general footprint as existing and do not represent a significant footprint expansion within the Conservation District and the Wetlands Protection District or consist of substantial disturbances beyond those historically created by the transmission line. Disturbed areas will be protected with erosion and sediment control measures, and strategies will be implemented to stabilize and allow for re-vegetation of exposed soils.

This submittal includes a digital copy of each of the five CUP application packages. The filing fee of $1,000 ($200 per application x 5 CUP applications [one per project map sheet]) is included in the online submittal with this application. We understand that the City of Dover will calculate and invoice for abutter and notice fees; therefore, we have assumed these fees will be paid at a later date and have not included them with this application.

Additional state and federal wetland and shoreland permit applications are being prepared and submitted for the Project. Permit approvals will be forwarded to the City of Dover as required and/or requested.

Sincerely,

STANTEC CONSULTING SERVICES INC.

Jess S. Hunt
Senior Associate, Environmental Services
Phone: (603) 557-4662
jessica.hunt@stantec.com

Andrew Ackerman
Senior Environmental Scientist, Environmental Services
Phone: (603-413-7731
andrew.ackerman@stantec.com

Attachment: Conditional Use Permit Applications

cc. Travis Yandow and Kurt Nelson, Eversource

Conditional Use Permit Application

R169 Structure Replacement Project
Dover, New Hampshire

December 22, 2023

Prepared for:

Public Service Company of New Hampshire d/b/a Eversource Energy
13 Legends Drive
Hooksett, NH 03106

Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

Table of Contents

1.0 PROJECT INTRODUCTION AND PURPOSE 1

2.0 EXISTING CONDITONS 2

3.0 PROJECT DESCRIPTION AND PROPOSED CONDITIONS 3
3.1 LINE REBUILD: STRUCTURE REPLACEMENT, CONDUCTOR AND OPGW REPLACEMENT 3
3.2 ACCESS 4
3.2.1 Road Construction 4
3.2.2 Wetland and Upland Temporary Matting 4
3.2.3 Work Pad Construction 5
3.3 CONSTRUCTION SEQUENCE 5
3.4 BEST MANAGEMENT PRACTICES 6
3.4.1 Erosion and Sedimentation Control 6
3.4.2 Invasive Species Control Plan 6
3.4.3 Construction Observation and Post Construction Monitoring 6

4.0 OVERLAY ZONING DISTRICT IMPACTS AND ACTIVITIES 7
4.1 WETLAND PROTECTION DISTRICT 8
4.2 CONSERVATION DISTRICT 11
4.3 IMPACT AREAS 13
4.3.1 Impact Area 1 13
4.3.2 Impact Area 2 14
4.3.3 Impact Area 3 14
4.3.4 Impact Area 4 14
4.3.5 Impact Area 5 14

LIST OF FIGURES

Figure 1 USGS Site Location

R169 – Dover CUP Permit Map Set, Dover, NH

LIST OF APPENDICES

APPENDIX A WETLAND DELINEATION REPORT

1.0 PROJECT INTRODUCTION AND PURPOSE

Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource) owns and maintains the R169 electrical transmission line that passes through Dover, New Hampshire. Eversource has identified 19 existing wooden structures that need to be replaced on the R169 line (18 in Dover, New Hampshire, and 1 in Eliot, Maine) due to age, cracking, leaning, rot, and/or woodpecker damage, which constitutes the proposed R169 Structure Replacement Project (Project). The existing wooden structures will be replaced with new, steel structures that adhere to current safety and electrical codes to provide more reliable electrical infrastructure.

The R169 Line right-of-way (ROW) begins at the Three Rivers Substation in Eliot adjacent to the Piscataqua River and traverses westerly over the river into Dover, then continues westerly through Dover approximately 3 miles for the remainder of the length of the transmission line to the Dover Substation.

Chapter 170 of the local Zoning Ordinance of the City of Dover, New Hampshire, establishes regulations and guides appropriate use of land. The existing utility ROW and proposed structure replacement activities in Dover bisect various city zoning districts, including the Rural Residential (R-40), Medium Density Residential (R-12), and Urban Density Multi Residential (RM-U) zoning districts and the Cocheco Waterfront District (CWD). The ROW and proposed Project activities also intersect two natural resource protection overlay districts—the Conservation District (per Article 170-27) and the Wetland Protection District (per Article 170-27.1). The purpose of these two overlay districts is to avoid and minimize development impacts to, and similarly conserve, local rivers, streams, wetlands, and flood-prone or steep, erosion-prone areas of Dover. The Project has taken into consideration each the objectives of these overlay districts in the development of construction plans and activities around the identified sensitive resources.

The proposed Project activities require a Conditional Use Permit (CUP) from the City of Dover (hereafter, City) Planning Board for those activities that occur within the Conservation District and the Wetland Protection District per the City's Local Zoning Ordinance (as amended, September 2022) and subsequent guidance from the City Planning and Community Development Department. This CUP application presents the applicable information associated with the Project. In addition to the 18 proposed replacement structures in Dover, Eversource previously identified five utility structures for replacement along the R169 line. A CUP application (#406-22) for the replacement of those five structures was submitted to the City in July 2022 and approved by the Planning Board on July 21, 2022. Replacement of those five structures has been completed.

In accordance with NH RSA 482-A:3 XV, routine utility maintenance work is exempt from the standard NH wetland permit process. However, Eversource is required to submit a Utility Maintenance Activity Statutory Permit-by-Notification, Shoreland Permit-by-Notification, and Alteration of Terrain permit application to the New Hampshire Department of Environmental Services (NHDES) to cover the temporary wetland impact associated with use of timber matting within wetlands required to

complete the proposed structure replacement work, impacts within the developed portions of the Protected Shoreland of the Cocheco River, and proposed upland ground disturbance.

2.0 EXISTING CONDITONS

The existing cleared R169 ROW varies from approximately 100 feet (ft) in most areas to 250 ft wide where the ROW is shared with additional transmission lines near the Piscataqua River. The Project ROW consists of Eversource fee-owned property or Eversource-controlled easements. From the Piscataqua River to the Dover Substation, the ROW traverses westerly through forested, residential, and agricultural landscapes. The ROW primarily crosses rural areas and local roads, as well as the Cocheco River and the Piscataqua River. The topography varies from flat lowlands and fields to undulating hills and steep side slopes. Elevations range from 0 to 90 ft above mean sea level. Soils within the ROW consist primarily of loam and silty loam (see attached CUP plans).

The open upland natural communities in the ROW consist of early successional shrub, sapling, and herbaceous species. Characteristic woody vegetation includes gray birch (*Betula populifolia*), quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), sheep-laurel (*Kalmia angustifolia*), late lowbush blueberry (*Vaccinium angustifolium*), white meadowsweet (*Spiraea alba*), Allegheny blackberry (*Rubus allegheniensis*), American hazelnut (*Corylus americana*), red oak (*Quercus rubra*), and red raspberry (*Rubus idaeus*). Commonly observed herbaceous vegetation in the ROW includes little Canada mayflower (*Maianthemum canadense*), wrinkle-leaf goldenrod (*Solidago rugosa*), Canada goldenrod (*Solidago canadensis*), bracken fern (*Pteridium aquilinum*), hay-scented fern (*Dennstaedtia punctilobula*), wild strawberry (*Fragaria virginiana*), bristly dewberry (*Rubus hispidus*), Kentucky blue grass (*Poa pratensis*), and other common grass and wildflower species. Non-native invasive species such as rambler rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), Morrow's honeysuckle (*Lonicera morrowii*), and glossy false buckthorn (*Frangula alnus*) are present in moderate abundance.

Stantec consulted with the New Hampshire Natural Heritage Bureau, the New Hampshire Fish and Game Department, and the US Fish and Wildlife Service as required for NHDES and US Army Corps of Engineers (USACE) permitting. There were three state-listed wildlife species, three state-listed plant species, and three federally listed wildlife species noted in the vicinity of the Project. Eversource proposes to follow agency recommendations and permit conditions as part of this Project and will conduct recommended surveys as needed.

One potential vernal pool and 23 wetlands were identified within the ROW during a delineation conducted by Stantec (Tom Tetreau, New Hampshire Certified Wetland Scientist #283) in June 2023; results of the wetland survey can be found in Appendix A.

The 307 transmission line ROW intersects the R169 ROW from the south near proposed structure 6 to the Piscataqua River; the nearby 307 line ROW will be utilized for access only. Existing access roads traverse portions of both ROWs. These access roads are unpaved with mostly a loamy sand base with occasional stretches consisting of previously installed stone. The access roads are generally 8 to 12 ft wide in most areas.

Routine vegetation maintenance is performed along the R169 ROW on an approximate 4- to 5-year cycle. The last vegetation maintenance was performed along portions of the R169 ROW in summer 2023. Trees and shrubs capable of growing to heights that could interfere with conductors are trimmed and allowed to regenerate until the next maintenance cycle. Prior to the start of construction, areas around proposed access roads and pads will need additional mowing within the ROW.

3.0 PROJECT DESCRIPTION AND PROPOSED CONDITIONS

3.1 LINE REBUILD: STRUCTURE REPLACEMENT, CONDUCTOR AND OPGW REPLACEMENT

The proposed Project includes replacement of 18 existing wooden transmission line structures along the R169 line in Dover. The replacement (new) structures will be within 10 ft of the previous structure location, with two exceptions: proposed structure 13 will be approximately 140 ft from the existing structure location to avoid wetland and impacts, and proposed structure 20 will be approximately 40 ft from the existing location. A majority of the new structures will be approximately 5 to 10 ft taller than the previous structures to comply with current electrical standards. The one structure proposed for a reduction in height is structure 27, within the shoreland of the Cocheco River, which will be reduced from the current 135 ft to 120 ft. The shorter structure allows for a reduced construction footprint and minimizes potential impacts to the sensitive shoreland area.

The structure replacement process consists of drilling holes near the existing structures and installing a caisson, also referred to as a can, below the ground surface. The new structure is installed in the can and backfilled with clean, suitable rock or gravel material. Spoils produced from drilling the hole will be disposed of in an approved upland location away from wetland areas and will be stabilized with an appropriate conservation/contractor's seed mix and weed-free straw mulch. Some replacement structures may require anchors. Anchors will be installed by excavating trenches, installing concrete block anchors, and backfilling trenches. If soil conditions allow, screw anchors may be installed to minimize ground disturbance. Temporary swamp mats (i.e., matting) will be utilized to access structures located within delineated wetlands or wetland areas that must be crossed for access. Mats will also be used on some occasions to minimize impacts to maintained yards or farmed upland areas. Once the new structure is installed and stable, the wires from the old structure will be transferred to the new structure. Old structures will be cut and removed from the ground in upland locations. To minimize ground disturbance, old structures in wetlands are typically cut flush with the ground surface. In some cases, the bottom of the old structure may be able to be pulled from the wetland with minimal disturbance to the wetland. All construction materials and old structure pieces will be removed and disposed of off-site at an approved disposal facility.

Following completion of the structure replacement and wire work, temporary timber construction mats will be removed. Disturbed wetland areas will be restored and stabilized with weed-free straw mulch. Temporarily disturbed upland areas will also be restored and stabilized through seeding and mulching. Permanently disturbed wetland buffer areas will remain as permanent features. Seed and mulch will be

applied along the shoulders and side slopes of the access roads as necessary and the established access roads will be left in place, with the exception of the area around proposed structures 27 and 28, which will be entirely restored. The work pads and new access road between proposed structures 27 and 28 will be re-contoured to the existing grade, covered with topsoil that was stockpiled during the initial grading, and stabilized with seed and mulch.

Minor tree clearing is proposed as maintenance within the existing access road off Cocheco Street and within the existing ROW near proposed structures 27 and 28 as part of the Project. The Project will submit a Protected Shoreland Permit by Notification to address proposed selectively cut trees in the upland shoreland areas.

3.2 ACCESS

The proposed Project utilizes existing access roads within the R169 line ROW and existing access within the 307 line ROW wherever possible. The majority of the existing access roads are made up of dirt or gravel areas and are proposed to be improved, as necessary, through the addition of clean stone as part of the Project to allow for construction vehicle access. Proposed access roads are shown on the attached map set. Access road entrances are located off local roadways and utilize existing entrances wherever possible. Driveways permits are not anticipated to be required from the City. There are no state-owned roads in the project area; therefore, temporary driveway permits from the New Hampshire Department of Transportation will not be required for construction. The proposed access roads were sited to minimize ground disturbance and temporary wetland impacts to the greatest extent practicable while providing safe and efficient access to the existing structures. Timber matting will be used to cross all wetland and stream resources that cannot be avoided completely.

3.2.1 Road Construction

Proposed upland access road improvements include construction of approximately 12- to 16-ft-wide gravel and stone roads within the ROW and in some cases adjacent to the ROW. The roads will provide access to existing utility structures for replacement activities. The improved access roads will provide reliable, permanent access to utility infrastructure during future maintenance or emergency repairs. Where possible, the proposed access roads will be located on top of existing dirt roads or trails. If no existing routes are available or suitable, a new road will be constructed. Minor grading may be necessary to remove large boulders and create a flat surface for the new rock or gravel.

Project plans require tree removal along the widening the existing access road off Cocheco Street to proposed structures 27 and 28 to a width of 12 ft to accommodate equipment for the structure replacements. Tree removal at this location will occur within the existing utility ROW and along the existing access road on Eversource property and will be conducted between November 1 and April 14 to avoid potential impacts to federally listed wildlife species if present.

3.2.2 Wetland and Upland Temporary Matting

Access through maintained fields and private property within uplands and delineated wetlands in the Project area will utilize temporary timber construction mats to minimize ground disturbance and prevent

rutting. Where necessary in overly saturated conditions, runners (mats placed parallel to the direction of travel) will be placed on the wetland surface prior to setting the top, perpendicular layer of mats. This will help reduce settling and overall wetland disturbance.

3.2.3 Work Pad Construction

The proposed Project includes construction of 18 structure replacement work pads approximately 100 ft by 100 ft each, with some exceptions. With the exception of work pads located within wetlands, upland work pads will be constructed using clean stone. The work pads will be top dressed with compacted 1.5- to 3-inch-diameter clean stone. After the structure replacement work is complete, restoration of upland work pads will consist of utilizing stockpiled topsoil to reduce work pads to approximately 30 ft by 60 ft. Restored areas will be stabilized with seed and mulch. Proposed work pads located in wetland areas will be constructed using temporary timber construction mats and will be removed upon completion of the work.

3.3 CONSTRUCTION SEQUENCE

The general Project construction sequence will be:

1. Installation of appropriate signage along public roads near construction entrances;
2. Installation of erosion control devices, as needed;
    a. Erosion control practices will follow the *Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetland and Waterbodies in New Hampshire* (Utility BMP Manual) published by the New Hampshire Department of Natural and Cultural Resources (March 2019).
3. Placement of construction mats in wetlands for access roads and work pads;
4. Grading and improvements of upland access roads and work pads;
5. Stabilization (seed and mulch) of exposed soils on created side slopes;
6. Replacement of structures:
    a. Drill new structure holes;
    b. Install new poles and structure components;
    c. Transfer electrical lines from old structure to new structure; and
    d. Remove and haul away old structure.
7. Clean up excess/stockpiled material at work pads;
8. Smoothing/grading upland work pads and stabilizing and restoring with seed and mulch as necessary;
9. Removing construction mats from wetland areas and stabilizing/restoring disturbed wetland areas with weed-free straw mulch; and

10. Stabilization, restoration, and clean up staging areas and entrance points.

Provided necessary permits are in place and to the extent possible, work would begin in April 2024 and continue through fall 2024. Entrances, access roads, and work pads will be created prior to structure replacement work. New structure holes will likely be drilled prior to mobilization of structure replacement equipment (cranes, bucket trucks). Installing new poles and transferring wires will be completed prior to moving on to the next structure. Multiple structure replacement crews may be working in different areas to expedite the process. Removal of mats and restoration will occur as individual work areas are completed.

3.4 BEST MANAGEMENT PRACTICES

3.4.1 Erosion and Sedimentation Control

Work will be conducted in accordance with the Utility BMP Manual. Following these BMPs will minimize and avoid impacts to wetland and stream resources and the surrounding upland areas to the greatest extent practicable.

Perimeter erosion controls consisting of silt fence, straw wattles, mulch, and straw bales will be installed as necessary around the work areas to minimize potential impacts to adjacent resource areas. Water bars, also known as diversion ditches, will be installed along access roads with steep slopes, where necessary, to prevent water from traveling long distances down the road causing erosion. Water bars will direct water off the road into adjacent upland areas. Exposed soil created during construction will be stabilized with seed and mulch as soon as possible after active work in the area is complete. No equipment or material will be stored within wetland areas.

3.4.2 Invasive Species Control Plan

Due to the developed landscape surrounding the majority of the R169 line, invasive plant species occur within the ROW and were observed during field surveys. Contractors will follow the invasive species recommendations in the Utility BMP Manual to help prevent the spread of invasive species, including inspection and cleaning of equipment and contractor training. Equipment, including construction mats, brought to the Project area will be inspected by the contractor and/or environmental monitor, and if plant material or soil is present, the equipment will be cleaned and dried prior to use on the Project. Contractors will be familiar with identification of common invasive species and will be required to clean mats and equipment prior to their use elsewhere. If possible and without increasing wetland impacts, the contractors may also make slight shifts in access roads or work pads to avoid invasive species locations.

3.4.3 Construction Observation and Post Construction Monitoring

During construction, Eversource will contract an environmental monitor to perform routine construction observation visits. The environmental monitor will inspect the Project area for compliance with the Utility BMP Manual and applicable Project permits and conditions. Construction observation visits will occur at least once per week and/or after a significant rainfall (0.5 inches or greater) or snow melt event. Under the National Pollutant Discharge Elimination System, Eversource will file a Notice of Intent and

Stormwater Pollution Prevention Plan (SWPPP) under the U.S. Environmental Protection Agency's Construction General Permit. Construction observation visits and associated reporting will follow the SWPPP and Construction General Permit guidelines and be performed by a qualified individual familiar with the SWPPP, Utility BMP Manual, and Project specific permit conditions.

A series of post-construction monitoring visits in the Project area will be performed by a qualified environmental scientist to document that disturbed areas are properly stabilized and vegetation is beginning to regrow. Site restoration will be considered successful when there is at least 85% cover by native or non-invasive herbaceous plant species within the restored portions of the ROW, including restored wetland areas. This does not include gravel work pads or access roads that existed prior to construction or were created during construction, with the exception of the gravel work pads and road for proposed structures 27 and 28, which will be restored to natural grade, topsoil spread, and stabilized with seed and mulch. The environmental scientist will prepare a report following each post-construction monitoring visit that includes representative photographs and corrective actions (if applicable). Once the disturbed uplands and temporarily impacted wetlands within the Project area are determined to be permanently stabilized, post-construction monitoring will be considered complete, and a Notice of Termination will be filed under the U.S. Environmental Protection Agency's Construction General Permit.

4.0 OVERLAY ZONING DISTRICT IMPACTS AND ACTIVITIES

The ROW and proposed Project activities intersect natural resource protection overlay districts in Dover, including the Conservation District and the Wetland Protection District. The following summarizes the Project-specific components in the respective overlay districts.

Proposed temporary impacts to wetlands were minimized to the maximum extent practical during project planning. This included modifications to ROW access, reducing the size and positioning of the proposed utility poles, the utilization of timber matting and/or tracked equipment, and the location and orientation of work pads. Timber matting will be installed to completely span streams, where necessary, to avoid impacts to the stream bed and banks.

For the purposes of this CUP, resource impacts have been divided into 5 Impact Areas and corresponding map sheets, as shown per wetland and stream in the attached map set and in Table 1. Given the overlapping overlay districts and associated buffers, impacts were quantified in Table 1 below by direct resource impact and overlay district buffer impacts. The district buffers were established by taking the farthest buffer (such as when a stream channel is encompassed by a surrounding wetland, the larger Conservation District buffer was used).

Table 1: City of Dover Proposed Wetland Protection and Conservation District Impacts

District	Resource Impacts (SF)	Impact Area 1 (Map Sheet 1)	Impact Area 2 (Map Sheet 2)	Impact Area 3 (Map Sheet 3)	Impact Area 4 (Map Sheet 4)	Impact Area 5 (Map Sheet 5)
Wetland Protection District	Temporary Wetland Impact	-	742	23,279	3,188	29,676
	Temporary Wetland Buffer Impact	5,526	1,802	16,716	1,852	942
	Permanent Wetl and Buffer Impact*	-	-	29,941	-	-
Conservation District	Temporary Area Subject to Tidal Action Buffer Impact	19,734	-	-	-	-
	Temporary Stream Resource Buffer Impact	-	1,515	-	-	-
Overlapping Districts		5,526	773	-	-	-
	Total	**25,260**	**4,059**	**69,936**	**5,040**	**30,618**

*Based on 12-ft disturbance area for new gravel access
Overlapping Districts are illustrative of how much districts overlap and not part of total for each Map Sheet.

4.1 WETLAND PROTECTION DISTRICT

The Wetland Protection District includes all areas of wetlands and 50-ft wetland buffers, as defined in Dover Zoning Ordinance, Article 170-27.1. Project activities subject to a CUP that are within the Wetland Protection District are limited to temporary placement of timber mats in wetlands and at stream crossings and the creation of stone work pads and access road improvements in wetland buffer areas. New structures will be placed in the same general location as the existing structures, as described in section 3.1 above. The proposed access roads were sited along existing roads or trails wherever possible.

The Project will meet the following Wetland Protection District standards for Conditional Use Approval, as outlined in the Dover Zoning Ordinance, Article 170-27.1F(1).

(a) *Practicable Alternative: There is no practicable alternative that would have a less adverse impact on the area.*

The Project site is an existing transmission line within a utility ROW. The proposed structure replacement work is necessary to maintain reliability and safe operation of the existing R169 line. Alternative locations would require creation of a new ROW, and increased impacts to resources and the surrounding landscape and were not considered. The replacement structures must be located on the alignment of the existing transmission line and must be located within the existing ROW. The Project has been designed to reduce the footprint of the construction as much as

possible. For example, the proposed access route between structures 14 and 15 was designed to utilize a narrow upland area on the south side of the ROW to minimize wetland impacts as much as possible while maintaining required clearances for working equipment from overhead wires and adjacent tree lines. For example, in addition to reducing the height and footprint of proposed structure 27 near the Cocheco River, the Project proposes to move access roads to uplands where possible, completely restore impacted areas adjacent to the Cocheco River, smooth/grade upland work pads, and stabilize and restore with seed and mulch as necessary.

Upland work pads, other than those near the Cocheco River, are typically restored to an approximately 30-ft by 60-ft size. Topsoil pushed to the sides during the initial construction will be used to cover the work pads. Exposed soils will be stabilized with seed and mulch. Temporary construction mats will be removed from wetland areas as soon as work is complete and wetland areas will be stabilized/restored with weed-free straw mulch, if necessary. Matting will be removed in a similar manner to how it was installed.

(b) *Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative.*

The proposed structure replacements have been designed to avoid permanent fill and loss of wetland and stream areas by utilizing upland areas as much as possible and using temporary construction mats. The mats will result in minimal temporary disturbance of the shrub and herbaceous vegetation underneath, but the vegetation is expected to quickly recover following removal of the construction mats after construction is complete. Mats will be used to span streams and will not disturb streambanks or modify hydrology.

Wetlands will be protected from stormwater runoff through erosion and sedimentation control measures, and exposed soils will be stabilized in accordance with the measures discussed in Section 3.4.1. Additionally, appropriate siltation prevention measures will be implemented and inspected during construction and post-construction to prevent erosion, siltation, and turbidity. The erosion control methods and materials will follow the Utility BMP Manual. Perimeter controls (silt fence, straw bales, straw wattles, etc.) will be installed along the limits of work to protect adjacent resources and off-site area. If necessary, other BMPs including stone check dams and dewatering basins will be used to control and treat stormwater and prevent runoff to abutting or downslope properties.

The tidal wetland, wetland W02 associated with the Cocheco River, will be completely avoided by construction activities. Work will occur within the adjacent upland only, and erosion and sedimentation controls will be installed prior to ground disturbance to protect the wetland and river.

(c) *Minimization: Any unavoidable impacts have been minimized. No reasonable Alternative to the proposed construction exists which does not impact a wetland or which has less detrimental impact on a wetland. Design, construction and maintenance methods will be*



prepared by a registered engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade.

The Project is designed to replace existing infrastructure in an existing and maintained utility ROW. The Project does not propose any permanent impacts directly to surface waters or wetlands. Areas where district buffers are impacted have been reduced by using upland matting adjacent to wetlands in some areas and by reducing the overall footprint of structure work pads in others. Additionally, where ground disturbance and work area construction will occur near wetlands, appropriate erosion prevention measures will be implemented during construction and post-construction to prevent the migration of sediment laden runoff from reaching the adjacent wetlands. These areas will be inspected regularly for correct installation and to confirm that they remain effective erosion prevention measures.

The erosion control prevention and sediment control methods and materials will follow the Utility BMP Manual. Perimeter controls (silt fence, straw bales, straw wattles, etc.) will be used to protect adjacent resources and off-site areas. If necessary, other BMPs including stone check dams and dewatering basins will be used to control and treat stormwater and prevent runoff to abutting or downstream properties.

Temporary wetland and wetland buffer impacts will be avoided and minimized by following the Utility BMP Manual. This includes:

- Using wooden construction mats to support machinery in wetlands;
- Removing and restoring temporary impacts to wetlands, if necessary;
- Smoothing rutted areas, seeding as required, and mulching with weed-free straw;
- Using erosion and sediment controls as needed where ground disturbing activities are adjacent to wetland areas;
- Requiring contractors to follow practices outlined in the Utility BMP Manual to help prevent the spread of invasive species; and
- Conducting weekly inspections to monitor compliance with minimization measures and providing any site restoration recommendations as needed.

The new structure locations and associated structure components were designed by Eversource's engineers. Work and access roads were designed based on the results of the wetland delineation performed by a New Hampshire Certified Wetland Scientist and a constructability field review by Eversource engineers and construction personnel.

(d) Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review.

The Project will require temporary matting impacts to wetlands but will not result in permanent loss of any wetland area or permanent alterations to the wetland hydrology or associated vegetation; therefore, a compensatory mitigation plan is not proposed for the work in any of the

five Impact Areas. Additionally, the applicant has consulted with the NHDES Wetlands Bureau, which has concurred with the minimum impact determination for the R169 Project.

(e) *Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below.*

A Wetlands Utility Maintenance Activity SPN will be submitted for the Project. On November 16, 2023, Eversource met with the NHDES Wetlands Bureau and the USACE. During this meeting, a determination was made that the Project qualified for a 'minimum impact' since there are no permanent impacts to delineated wetlands, vernal pools, streams or other sensitive resources associated with the Project and Eversource will minimize temporary impacts and restore permanent upland impacts. The SPN application and NHDES and USACE permit approvals will be forwarded to the City as required and/or requested. Additional pending approvals are listed in Section 4.2 below.

4.2 CONSERVATION DISTRICT

The Conservation District includes water bodies, rivers, streams, swamps and marshes subject to tidal action and those areas within a minimum of 100 ft of each, as defined in Dover Zoning Ordinance, Article 170-27. The Conservation District also includes specific lots as defined in Article 170-27, as well as areas with slopes 20% and more than 2,000 square feet (sf) of contiguous area, neither of which is located within the Project area. Project activities subject to a CUP that are within the Conservation District are limited to temporary placement of timber mats at stream crossings and creation of stone work pads and access road improvements in river and stream buffer areas. New structures will be placed in the same general location as the existing structures. The proposed access roads were sited along existing roads or trails wherever possible.

The Project will meet the following Conservation District standards for Conditional Use Approval, as outlined in the Dover Zoning Ordinance, Article 170-27.C(2).

(a) The APPLICANT shall demonstrate that the proposed use is essential to the productive use of land not in the district; is located and constructed to minimize any detrimental impact of such use upon the surface waters or other environmentally sensitive areas, where it is physically impossible to locate such use on land not in the district; and economic advantage alone shall not be deemed a sufficient reason for such proposed use.

Approval of this CUP application would allow Eversource to maintain critical infrastructure necessary to provide the public with reliable electricity. The existing structures and line are currently located within the Conservation District and would remain as such following the structure replacements. The proposed Project is in the public's interest (versus economic advantage to Eversource) because the structure replacements will allow for the continued supply of reliable electricity to Eversource's customers. The avoidance and minimization efforts described above in section 4.1 for the Wetland Protection District also apply to the Conservation District.

(b) *A soil erosion and sedimentation control plan is submitted and followed to verify the planned avoidance of sediment pollutant runoff to bodies of water. This plan will address the following (if applicable), but should not be limited to:*

(i) stabilization of exposed soils and soil stockpiles;
(ii) protection of steep slopes from erosion;
(iii) construction site waste management;
(iv) inspection and maintenance of runoff control measures (BMPs);
(v) minimization of land clearing;
(vi) stabilization of drainage ways;
(vii) installation of perimeter controls;
(viii) installation of sediment trapping devices; and
(ix) storm drain inlet protection.

Erosion and sedimentation control practices will follow the Utility BMP Manual). Typical erosion and sedimentation controls devices used within the ROW may consist of silt fence, straw wattles, stone check dams, and/or hay and weed-free straw mulch stabilization. Erosion and sedimentation control notes and details are included on the attached map set. Approximate locations of erosion and sedimentation controls are shown around proposed work areas and access roads on the attached map set. Installation and maintenance of erosion and sedimentation controls will occur throughout the construction phase of the project. The controls will be inspected regularly by Eversource's contractors and environmental monitors and maintained and/or replaced as needed. Additional details are provided in sections 3.3 and 3.4 above.

(c) Necessary state and federal approvals have been applied for. Said permits shall be received prior to the issuance of the Conditional Use Permit by the Planning and Community Development Department.

Regulatory permits, approvals, and notifications required for the proposed Project are summarized below. The City will be provided copies of permit approvals when they are received. Given the review periods associated with some of the required permits, Eversource requests that the City condition approval of the CUP so that permit may be provided as they are received, rather than prior to the issuance of the CUP. The following state and federal permits are anticipated to be required for the Project:

- NHDES Utility Statutory Permit by Notification (submitted)
- NHDES Protected Shoreland Permit by Notification (pending submission)
- NHDES Alteration of Terrian Permit (submitted)
- USACE Pre-Construction Notification (pending submission)
- USACE Section 408 Variance Approval (pending)

(d) *A written review by the Conservation Commission of the environmental effects of the proposed use upon the area in question has been submitted. The Commission's review shall address the following, but is not limited to:*

(i) attempted avoidance of the impact;

(ii) minimization of the impact;

(iii) planned mitigation of the effects of the impact; and

(iv) efficacy of the soil erosion and sedimentation control plan.

Watercourses and surface waters have been avoided to the extent possible, and no alterations of banks or natural geomorphology are proposed. Temporary construction mats will be used to bridge, and avoid, stream areas; mats will be removed following construction. Conditions or requests for information related to environmental effects made by the local Conservation Commission will be documented and applied to the project where feasible.

4.3 IMPACT AREAS

Anticipated temporary and permanent impacts within the Conservation District and Wetland Protection District are summarized by Impact Area in Table 1 and described per area below. Each area corresponds with respective map sheets (Impact Area 1 corresponds with Map Sheet 1, etc.) in the attached CUP permit map set. Temporary impacts include timber matting and areas that will be restored post-construction, and permanent impacts within buffers are for gravel access road and work pad construction. Most of the impacts across the five impact areas (Map Sheets 1–5) occur in the Wetland Protection District and of those impacts 64% are temporary; the remaining 36% are permanent impacts in upland wetland buffer areas (see Impact Area discussions below for more details).

4.3.1 Impact Area 1

Within the Wetland Protection District, anticipated impacts in Impact Area 1 include approximately 5,526 sf of temporary impacts within wetland buffer areas of wetland W02 (overlaps 100% with areas subject to tidal action in the Conservation District), and approximately 19,734 sf of temporary impacts within the buffer area of areas subject to tidal action in the Conservation District. These temporary impacts associated with the creation of access roads and work pad construction are necessary to complete the replacement of proposed structures 27 and 28. Disturbances associated with these structure replacements will be fully restored once construction is complete, and no permanent impacts are anticipated in either District.

Impacts were avoided and minimized to the greatest extent practicable by minimizing the length of the new access road, locating access roads and work pads outside of wetland boundaries and wetland buffers, where possible, utilizing existing disturbances/access roads, and reducing the construction footprint and restoring areas along the Cocheco River shoreland that are within the Wetland Protection and Conservation Districts.

4.3.2 Impact Area 2

Within the Wetland Protection District, anticipated impacts in Impact Area 2 include approximately 742 sf of temporary wetland impacts (i.e., timber matting) and approximately 1,802 sf of temporary impacts in wetland buffer areas to cross wetland W11 and stream S04 along the access route between proposed structures 18 and 19. Within the Conservation District, approximately 1,515 sf of temporary impacts in stream buffer areas are anticipated. Overlapping buffer areas include approximately 773 sf of temporary impacts. Areas within and surrounding the Districts are existing fields and residential areas, and temporary upland matting will be used to avoid ground disturbance at the landowner's request. No permanent impacts are anticipated within either District.

4.3.3 Impact Area 3

Within the Wetland Protection District, anticipated impacts in Impact Area 3 include approximately 23,279 sf of temporary wetland impact (i.e., timber matting), approximately 16,716 sf of temporary impact in wetland buffer areas, and approximately 29,941 sf of permanent impact in wetland buffer areas to create the access road and work areas associated with proposed structures 13 through 18, across wetlands W12 through W16.

Impact Area 3 is the only Impact Area on the R169 line where upland buffer area impacts are proposed to be permanent (see Table 1 and Map Sheet 3 of 5). The permanent impacts are a result of the proposed 100-ft by 100-ft gravel work pads around proposed structures 14, 15, 16, and 18. In the case of the pads at proposed structures 14, 15, and 18, a portion of the 100-ft by 100-ft pad area will be gravel, with the remaining pad area constructed using temporary wetland matting. In these three locations, it is likely that the temporary matting will cover an even greater proportion of the pad area. Proposed structure 16 is the sole location where the entire pad is proposed to be gravel, and this location is entirely upland. No temporary or permanent impacts are anticipated within the Conservation District in Impact Area 3.

4.3.4 Impact Area 4

Within the Wetland Protection District, anticipated impacts in Impact Area 4 include approximately 3,188 sf of temporary wetland impact (i.e., timber matting) and approximately 1,852 sf of temporary impact in wetland buffer areas. Temporary impacts to wetlands and buffers include access across wetland W17 between proposed structures 9 and 10, and work areas and access in wetland W18 at proposed structure 7; no permanent impacts are anticipated due to landowner requests to use upland matting to protect existing field areas. No Conservation Districts are present in Impact Area 4.

4.3.5 Impact Area 5

Within the Wetland Protection District, anticipated impacts in Impact Area 5 include approximately 29,676 sf of temporary wetland impact (i.e., timber matting) and approximately 942 sf of temporary impact in wetland buffer areas to create work areas and access in wetland W18 associated with proposed structure 6; no permanent impacts are proposed. The Project will utilize an existing gravel access road from the 307 line ROW to proposed structure 6 to traverse through the Conservation Districts associated with

streams S05, S06, and S07 to avoid temporary and permanent impacts within those buffers. No work is proposed within the Conservation District associated with the Piscataqua River.

PHOTOGRAPHS

R169 STRUCTURE REPLACEMENT PROJECT
CUP APPLICATION - REPRESENTATIVE PHOTOGRAPHS

December 22, 2023



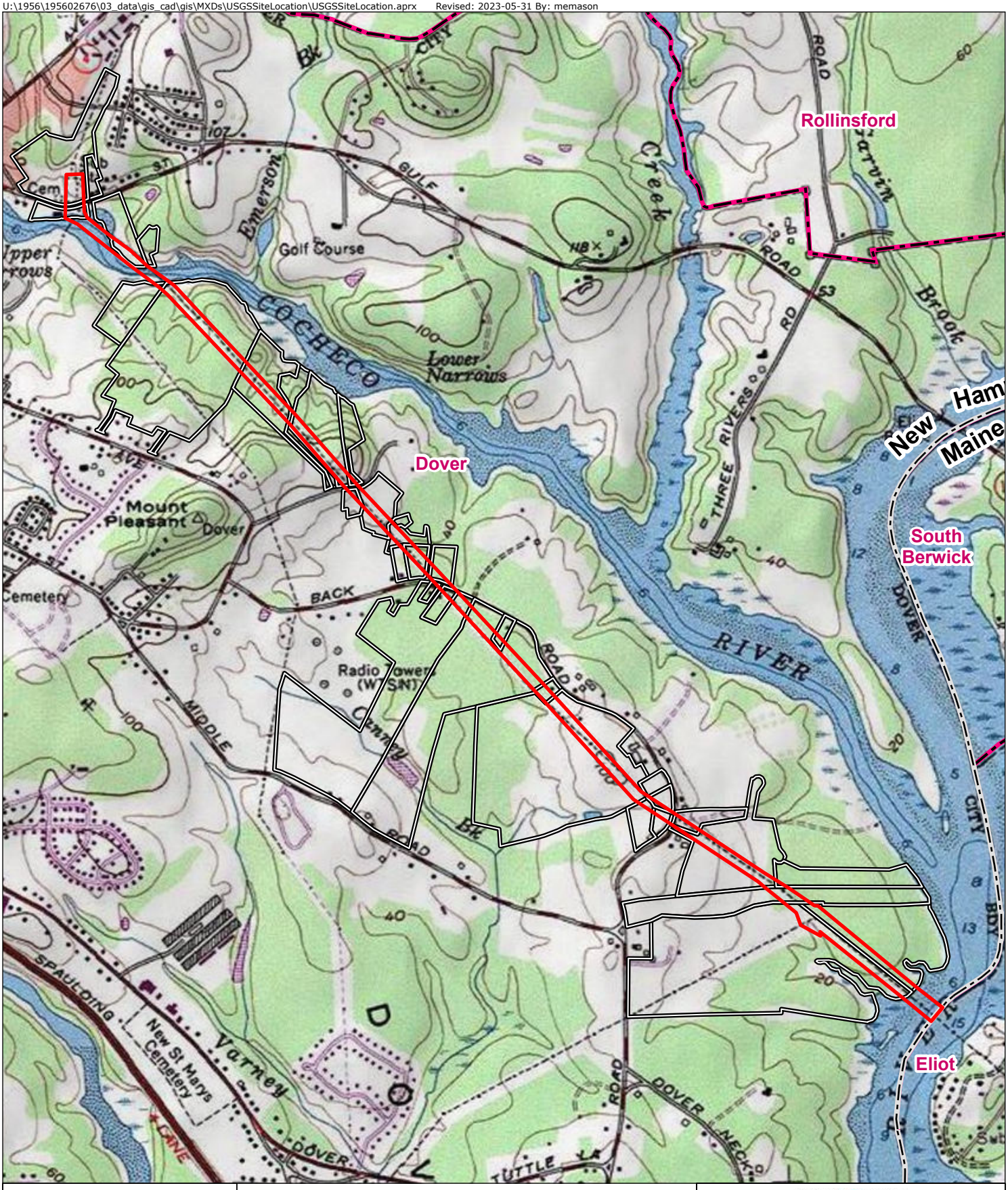
Photo 1. Representative view of the ROW and wetland W17 in active pasture area looking northwest to proposed structure 10. Stantec. June 9, 2023.



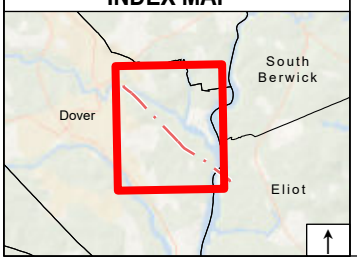
Photo 2. Representative view of the ROW and wetland W18. View west to proposed structures 7 and 8. Stantec. June 8, 2023.

FIGURES

U:\1956\195602676\03_data\gis_cad\gis\MXDs\USGSSiteLocation\USGSSiteLocation.aprx Revised: 2023-05-31 By: memason



INDEX MAP



Legend

- Approximate Project Limits
- Municipal Boundary
- State Boundary
- Abutting Parcel Boundary

N

1 inch = 1,500 Feet

0 750 1,500 Feet

EVERSOURCE ENERGY

Dover to Eliot (R169)
Structure Replacement Project

Date: May 31, 2023

Figure 1
USGS Location Map

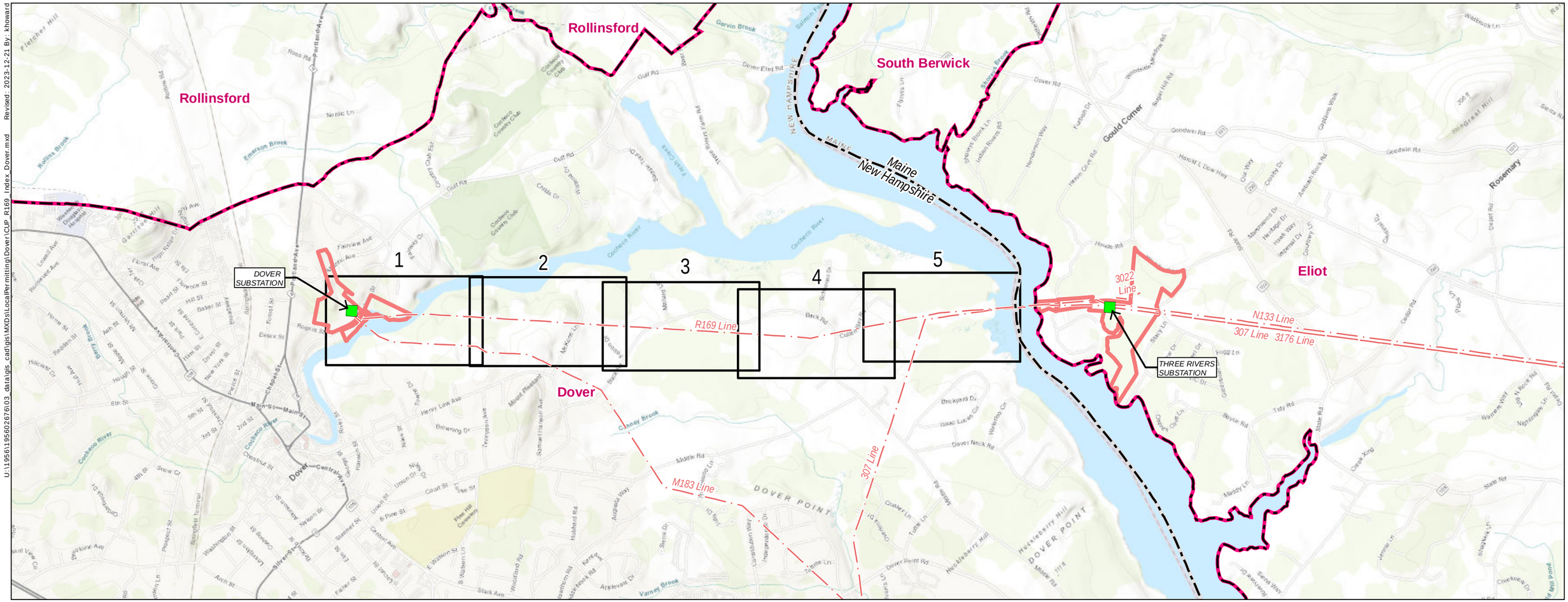
R169 Line - Structure Replacement Project

Dover, NH

Environmental Resources Map

Dover CUP Permit Map Set

Date: December 21, 2023



Legend

Substation | Municipal Boundary | State Boundary | Map Sheet | Eversource Owned Property

PREPARED FOR:

EVERSOURCE ENERGY

107 Selden Street
Berlin, CT 06037

N

0 2,000 4,000 Feet

INDEX OF FIGURES

Title Sheet / Index Map
Map Sheets 1-5

PREPARED BY:

Stantec

30 Park Drive
Topsham, ME 04086

Temporary Wetland Impact (SF)	Temporary Wetland Protection District Impact (SF)	Temporary Conservation District Impact (SF)	Permanent Wetland Protection District Impact (SF)	Permanent Conservation District Impact (SF)
3,188	1,852	-	-	-

FENCE TO BE REMOVED AND REPLACED

OFF-ROW ACCESS (PERMISSION REQUIRED) TO BE USED AS BUCKET TRUCK ACCESS TO STRUCTURES 10, 11, AND 12 FOR OPGW WORK. ACCESS ROAD MATTING IN FIELD TO BE RE-INSTALLED IF SOFT CONDITIONS ARE PRESENT

EXISTING VINEYARD CROP TO BE AVOIDED

ABOVE GROUND WATER UTILITY RISER IN ROW TO BE AVOIDED

TEMPORARY WETLAND IMPACT: +/-3,188 SQ.FT.

ACCESS FROM BACK ROAD

EXISTING LAWN TO BE RESTORED

SCHOONER DRIVE

BACK ROAD

CULLEN BAY ROAD

Dover

W16-PE

W17-PEM

W18-PSS

R169 Line

831-008
Tax Map ID: M0100-B00000
Gregory W Hunt
295 Back Road

831-007
Tax Map ID: M0105-002000
Christopher D Berg
303 Back Road

831-004
Tax Map ID: M0093-B00000
Nancy Magiaras
362 Back Road

831-003
Tax Map ID: M0092-B00000
Cullen Bay Homeowners Association
Cullen Bay Road

831-005
Tax Map ID: M0105-000000
Eric W Thompson
321 Back Road

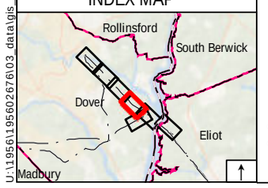
831-009
Tax Map ID: M0100-A00000
Nancy E Hunt
245 Back Road

831-006
Tax Map ID: M0105-001000
William C & Nancy Hunt Trustees
Back Road

831-001
Tax Map ID: M0092-A00000
Patricia Langs
Back Road

829-138
Tax Map ID: M0091-A00000
Townsquare Media Portsmouth LLC
292 Middle Road

INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending
- Proposed Access
- Sediment Control Barrier (Typ.)
- Stone Work Pad
- Temporary Wetland Construction Matting
- Temporary Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 330 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource
- Open Water
- Potential Vernal Pool Extent
- 50' Potential Vernal Pool Buffer
- FEMA 100-Year Flood Zone
- FEMA Floodway
- -GAS- Approximate Gas Pipeline
- Fence
- Stonewall
- 2' Contour
- 10' Contour
- NHDES 250' Protected Shoreland
- Conservation District
- Wetland Protection District

1 inch = 200 feet
0 50 100 200 Feet

Map Notes:
Coordinate System: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet
Data source: Eversource easement lines, structures, transmission lines provided by Eversource Energy. Wetlands, watercourses, and potential vernal pools delineated and verified by Stantec June 2023. Additional sources include: FEMA, NH Granit, Maine Geolibrary
Basemap: 2021 National Agriculture Imagery Program (NAIP) aerial imagery.

STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

R169 Line Structure Replacement
Dover CUP Permit Map Set

Dover, NH	MAP SHEET 4 of 5
Date: December 21, 2023	Stantec

U:\11956\119560267\6\03_data\gis_cad\gis\MXDs\LocalPermitting\Dover1CUP_R169_MapSet_Dover1.mxd Revised: 2023-12-21 By: khoward

APPENDICES

Appendix A WETLAND DELINEATION REPORT

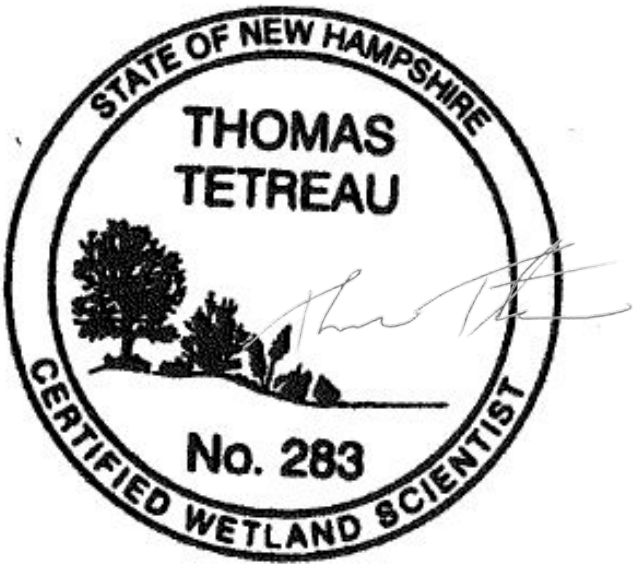
Wetland and Watercourse Delineation and Functional Assessment Report: R169 Structure Replacement Project

Dover, New Hampshire, and Eliot, Maine

September 14, 2023

Prepared for:

Eversource Energy
13 Legends Drive
Hooksett, NH 03106



Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

Table of Contents

1.0 INTRODUCTION 1

2.0 METHODS 1
2.1 WETLAND AND WATERCOURSE DELINEATION 1
2.2 FUNCTIONAL ASSESSMENT 2

3.0 RESULTS 3
3.1 GENERAL SITE DESCRIPTION 3
3.2 WETLAND AND WATERCOURSE DELINEATION 3
3.3 FUNCTIONAL ASSESSMENT 7

LIST OF TABLES

Table 1. Summary of Delineated Wetlands 4
Table 2. Summary of Delineated Streams 6
Table 3. Summary of Identified Vernal Pools 7
Table 4. Summary of Functional Assessment 8

LIST OF FIGURES

Permit Map Set

LIST OF APPENDICES

Appendix A Representative Photographs
Appendix B Corps Wetland Determination Data Forms (provided upon request)
Appendix C Wetlands Functional Assessment Worksheets (provided upon request)
Appendix D Observed Wildlife

1.0 INTRODUCTION

Eversource Energy (Eversource) proposes to replace approximately 20 existing transmission line structures located within the full length of the R169 Line, totaling approximately 3 miles of combined transmission line right-of-way (ROW) in Dover, New Hampshire and Eliot, Maine (Project Site; see attached Draft Map Set). Of the 20 structures proposed to be replaced, 19 are located in Dover and 1 is located in Eliot. Stantec Consulting Services Inc. (Stantec) was contracted to conduct wetland and watercourse delineations and a wetland functional assessment of the Project Site to support federal, state, and local natural resource permitting.

Stantec conducted on-site delineations within the existing ROW between June 8 and June 9, 2023. The delineations were conducted by Tom Tetreau, New Hampshire Certified Wetland Scientist #283. This report includes descriptions of the wetland and watercourse delineation methods and results.

2.0 METHODS

2.1 WETLAND AND WATERCOURSE DELINEATION

The R169 Line was previously delineated over 5 years ago, and the spatial data of these previously delineated wetlands and watercourses were used to aid in the 2023 wetland and watercourse delineation.

Wetland boundaries under local, state, and federal jurisdiction were determined using the technical criteria described in the U.S. Army Corps of Engineers (Corps) *Corps of Engineers Wetlands Delineation Manual*[1] and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regional Supplement.*[2] Wetland communities were classified according to the *Classification of Wetlands and Deepwater Habitats of the United States.*[3] Hydric soil determinations were made in accordance with the Corps wetland delineation manuals and the *Field Indicators for Identifying Hydric Soils in New England (Version 4).*[4]

Wetland boundaries anticipated to meet state, federal, and local jurisdictional criteria were located using a Global Positioning System (GPS) receiver capable of submeter accuracy. The previously delineated

[1] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
[2] U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[3] Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.
[4] New England Hydric Soils Technical Committee. 2017. Field Indicators for Identifying Hydric Soils in New England (Version 4).

wetland boundaries were confirmed using the GPS, with revisions to the boundaries located with the GPS as necessary.

Watercourses (e.g., streams) identified during the delineations were identified based on the definitions in NHDES Certified Administrative Rules Env-Wt 406.04, as well as the technical guidance available from the Corps on the identification of an Ordinary High Water Mark.[5] The top of each bank was mapped for streams typically over 6 feet wide, and the centerline was mapped for streams with top of bank widths up to 6 feet wide. Data was collected on flow regime, top of bank, band depth, Ordinary High Water Mark widths, dominant substrates, and evidence of biological use. GPS data were used to produce the attached map set.

The wetland delineation occurred outside the appropriate identification period for vernal pool indicator species; therefore, potential vernal pools were identified and evaluated in accordance with the *Identification and Documentation of Vernal Pools in New Hampshire.*[6] Potential vernal pools were primarily identified based on their physical characteristics and landscape position, and the presence of vernal pool indicator species, if observed. Observations of approximate size, hydrology, and evidence of disturbance were recorded. The boundaries of the potential vernal pools were located with GPS receivers, and photographs were taken of each vernal pool identified.

Priority Resource Areas (PRA), as defined in Env-Wt 103.66, were identified based on field observations and use of the Wetlands Permit Planning Tool.[7] PRAs identified along the R169 Line consisted of wetlands contiguous with tier 3 streams, tidal wetlands, and undeveloped tidal buffer zones.

2.2 FUNCTIONAL ASSESSMENT

Stantec performed a wetland functional assessment of the delineated wetlands and watercourses in accordance with New Hampshire Wetland Rules (Env-Wt 311.10). Wetland functions and values were qualitatively evaluated through direct field observation and a review of existing public data resources following the New Hampshire Method for evaluating the Ecological Integrity of the Wetlands and Streams (RSA 482-A:2, XI) and Corps *Highway Methodology Workbook Supplement.*[8] Information was collected to prepare Corps Wetland Determination Data Forms and Wetlands Functional Assessment Worksheets. Full assessments of Ecological Integrity using the New Hampshire Method is based on a series of desktop and field assessments and results in a numerical Functional Value Index for each wetland. Due to the length of the Project area, the abundance of wetlands, and the anticipated wetland impacts associated with the Project (temporary timber matting), Stantec evaluated the Ecological Integrity of each wetland using a qualitative value of low, medium, and high that considered the condition of the wetland

[5] U.S. Army Corps of Engineers. 2005. Regulatory Guidance Letter: Ordinary High Water Mark Identification. December 8, 2005. No. 05-05.

[6] Marchand, M. 2016. *Identifying and Documenting Vernal Pools in New Hampshire*. Third Edition, New Hampshire Fish and Game Department, Nongame and Endangered Wildlife Program.

[7] https://nhdeswppt.unh.edu/, accessed June 2023.

[8] U.S. Army Corps of Engineers. 1999. The Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach. U.S. Army Corps of Engineers. New England Division. 32pp. NAEEP-360-1-30a.

relative to human-caused stressors, diversity of native vegetation, and presence of natural processes. This modified method allowed for a more consistent and streamlined approach when completing the required Wetlands Functional Assessment Worksheets. The temporary impact area (matting) listed on the Wetlands Functional Assessment Worksheets is approximate based on preliminary mapping and Project design and represents the greatest amount of impact likely to occur. Temporary wetland impacts will be minimized throughout the permitting and design process, and some of these wetland impact areas may decrease.

3.0 RESULTS

3.1 GENERAL SITE DESCRIPTION

The R169 Line is an existing transmission line that traverses forested, residential, and agricultural landscapes between the Dover Substation in Dover and the Three Rivers Substation in Eliot. The open transmission line is approximately 100 feet wide in most areas, with wider stretches, up to 250-feet wide, containing additional transmission lines in the areas around the Piscataqua River crossing. The ROW primarily crosses rural areas and town roads, as well as the Cocheco River and the Piscataqua River. The topography varies from flat lowlands and fields to undulating hills and steep side slopes. Elevations generally range between 0 and 90 feet above mean sea level.

The open upland natural communities consist of early successional shrub, sapling, and herbaceous species. Characteristic woody vegetation includes gray birch (*Betula populifolia*), quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), sheep-laurel (*Kalmia angustifolia*), late lowbush blueberry (*Vaccinium angustifolium*), white meadowsweet (*Spiraea alba*), Allegheny blackberry (*Rubus allegheniensis*), American hazelnut (*Corylus americana*), red oak (*Quercus rubra*), and red raspberry (*Rubus idaeus*). Commonly observed herbaceous vegetation included little Canada mayflower (*Maianthemum canadense*), wrinkle-leaf goldenrod (*Solidago rugosa*), Canada goldenrod (*Solidago canadensis*), bracken fern (*Pteridium aquilinum*), hay-scented fern (*Dennstaedtia punctilobula*), wild strawberry (*fragaria virginiana*), bristly dewberry (*Rubus hispidus*), Kentucky blue grass (*Poa pratensis*), and other common grass and wildflower species. Non-native invasive species abundance was moderate compared to native vegetation and included rambler rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), Morrow's honeysuckle (*Lonicera morrowii*), and glossy false buckthorn (*Frangula alnus*). Soils within the ROW consisted primarily of loam and silty loam.

3.2 WETLAND AND WATERCOURSE DELINEATION

The wetland and watercourse delineations were conducted on June 8 and June 9, 2023, under appropriate conditions during the growing season. A total of 23 wetlands, 9 unnamed watercourses, and the Cocheco River and Piscataqua River were delineated. In addition, one potential vernal pool was surveyed. The locations of the delineated wetlands, watercourses, and potential vernal pool are included on the attached Draft Map Set. Tables 1, 2, and 3 summarize the delineated wetlands, watercourses, and potential vernal pool, respectively. Representative site photographs are provided in Appendix A. Representative Corps Wetland Determination Forms are included in Appendix B.



Table 1. Summary of Delineated Wetlands

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W001	PEM	Trees: None Saplings/Shrubs: None Herbs: broad-leaf cat-tail (*Typha latifolia*), lamp rush (*Juncus effusus*), cottongrass bulrush (*Scirpus cyperinus*), sensitive fern *(Onoclea sensibilis*), uptight sedge (*Carex stricta*)	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	Ditch excavation around existing substation
W002	E2EM	Trees: none Saplings/Shrubs: none Herbs: saltwater cord grass (*Spartina alterniflora*), eastern grasswort (*Lilaeopsis chinesis*)	F3: Depleted Matrix	A1: Surface Water A2: High Water Table A3: Saturation	Yes - Tidal	Tidal wetland associated with Cocheco River. Rare plant species observed.
W003	PFO	Trees: Norway maple (*Acer plantanoides*) Saplings/Shrubs: speckled alder (*Alnus incana*) Herbs: sensitive fern, lamp rush	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	Yes – within 100-feet of tidal areas	Stream S01 flows through wetland and into the Cocecho River.
W004	PSS	Trees: None Saplings/Shrubs: speckled alder Herbs: broad-leaf cat-tail, sensitive fern	F3: Depleted Matrix	A2: High Water Table A3: Saturation	Yes – within 100-feet of tidal areas	
W005	PSS/PEM	Trees: None Saplings/Shrubs: speckled alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	
W006	PEM	Trees: none Saplings/Shrubs: red maple, speckled alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush, reed canary grass (*Phalaris arundinacea*), spotted touch-me-not (*Impatiens capensis*)	F3: Depleted Matrix	A3: Saturation	No	Contains potential vernal pool PVP01.
W007	PSS	Trees: none Saplings/Shrubs: speckled alder Herbs: sensitive fern, lamp rush, spotted touch-me-not, bluejoint (*Calamagrostis canadensis*), woodland horsetail (*Equisetum sylvaticum*)	F3: Depleted Matrix	A3: Saturation	No	Contains stream S02.
W008	PEM	Trees: none Saplings/Shrubs: speckled alder Herbs: broad-leaf cat-tail, sensitive fern, uptight sedge	F3: Depleted Matrix	A3: Saturation	No	Contains stream S03.
W009	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, spotted touch-me-not, purple loosestrife (*Lythrum salicaria*)	F3: Depleted Matrix	A3: Saturation	No	

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W010	PEM/PSS	Trees: none Saplings/Shrubs: speckled alder Herbs: sensitive fern, lamp rush, woodland horsetail, bluejoint, reed canary grass	F3: Depleted Matrix	A3: Saturation	No	
W011	PSS	Trees: none Saplings/Shrubs: speckled alder, common winterberry (*Ilex verticilata*) Herbs: nodding sedge (*Carex gynandra*), sensitive fern, spotted touch-me-not, reed canary grass	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	Contains stream S04.
W012	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation	No	
W013	PEM	Trees: none Saplings/Shrubs: alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush, skunk-cabbage (*Symplocarpus foetidus*)	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	
W014	PEM/PSS	Trees: none Saplings/Shrubs: red maple, speckled alder, common winterberry Herbs: sensitive fern, lamp rush, broad-leaf cat-tail, reed canary grass, wrinkle-leaf goldenrod	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	
W015	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, steeplebush, wrinkle-leaf goldenrod, lamp rush	F3: Depleted Matrix	A3: Saturation	No	Portion of wetland within maintained lawn/yard area.
W016	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, uptight sedge, fowl manna grass (*Glyceria striata*), greater bladder sedge (*Carex intumescens*)	F3: Depleted Matrix	A3: Saturation	No	
W017	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, reed canary grass	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	
W018	PSS/PEM	Trees: none Saplings/Shrubs: broad-leaf meadowsweet (*Spiraea latifolia*), coastal sweet pepperbush (*Clethra alnifolia*), speckled alder, common winterberry Herbs: sensitive fern, lamp rush, bluejoint, blue iris (*Iris versicolor)*	F3: Depleted Matrix	A3: Saturation	No	Portion of wetland is mowed hay field. Contains stream S05.

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W019	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, broad-leaf cat-tail, necklace sedge (*Carex projecta*)	F3: Depleted Matrix	A3: Saturation	No	
W020	PEM/PSS	Trees: none Saplings/Shrubs: pussy willow (*Salix discolor*) Herbs: sensitive fern, bluejoint, reed canary grass, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation	No	
W021	PEM	Trees: none Saplings/Shrubs: speckled alder Herbs: lamp rush, sensitive fern, cottongrass bulrush	F3: Depleted Matrix	A3: Saturation B10: Wetland drainage patterns	No (Maine)	Adjacent to Piscataqua River. Portions within mowed lawn/yard area.
W022	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, woodland horsetail, cottongrass bulrush	F3: Depleted Matrix	A3: Saturation	No (Maine	
W023	PSS/PEM	Trees: none Saplings/Shrubs: broad-leaf meadowsweet, speckled alder, common winterberry Herbs: sensitive fern, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No (Maine)	

[1] PEM = Palustrine Emergent, PSS = Palustrine Scrub-shrub, PUB = Palustrine Unconsolidated Bottom, PFO = Palustrine Forested, E2EM = Estuarine Intertidal Emergent

Table 2. Summary of Delineated Streams

Stream Identifier	Flow Type	Bankfull Width (ft)	Ordinary High Water Mark Width (ft)	Dominant Substrates	Additional notes
S01	Perennial	4-6	4-6	Sand, gravel, silt	Flows south through W03, into the Cocheco River
Cocheco River	Perennial/Tidal	200+	200+	Silt, gravel, mud	
S02	Intermittent	2-3	2-3	Silt, gravel	Flows across ROW toward Cocheco River
S03	Perennial	8	8	Cobbles, gravel, boulders	Flows across ROW toward Cocheco River
S04	Perennial	4	4	Silt, gravel	Flows through wetland W11 in residence area
S05	Intermittent	4	4	Silt, gravel	Flows from wetland W18 towards Piscataqua River
Piscataqua River	Perennial/Tidal	850+	850+	Silt, gravel, mud	
S06	Intermittent	3	3	Sand, silt, gravel	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S07	Intermittent	4	4	Gravel, cobbles	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S08	Intermittent	4	4	Silt, gravel, cobbles	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S09	Ephemeral	4	5	Sand, gravel	Originates from culvert under existing road, likely only flows during heavy rain

Table 3. Summary of Identified Vernal Pools

VP Identifier	Estimated Hydroperiod	Indicator Species	Comments
PVP01	Semi-permanent	Unknown adult frogs observed	Potential old excavation adjacent to pipeline crossing of the transmission line ROW. Approximately 50-foot diameter and 1 to 2 feet deep with mucky substrate.

3.3 FUNCTIONAL ASSESSMENT

Table 4 summarizes the results of the wetland functional assessment. In general, wetlands within the Project area provide a variety of functions and values. Nutrient Trapping / Retention & Transformation, Sediment Trapping, and Wetland-dependent Wildlife Habitat were the most common functions along with Groundwater Recharge and Flood Storage.

Wetlands Functional Assessment Worksheets for wetlands proposed to be impacted by temporary timber matting are included in Appendix C. Potential vernal pools and streams were considered when performing the functional assessment of impacted wetlands, but since no impacts are proposed to potential vernal pools and streams, a full assessment of these features was not included in the Wetlands Functional Assessment Worksheets. The list of observed wildlife is included in Appendix D, and Table 1 above includes the observed vegetation.

Table 4. Summary of Functional Assessment

Wetland Resource Identifier	Wetland Functions and Values[1]													
	1 Ecological Integrity[2]	2 Educational Potential	3 Fish and Aquatic Life Habitat	4 Flood Storage	5 Groundwater Recharge	6 Noteworthiness	7 Nutrient Trapping / Retention & Transformation	8 Production Export	9 Scenic Quality	10 Sediment Trapping	11 Shoreline Anchoring	12 Uniqueness/ Heritage	13 Wetland-based Recreation	14 Wetland-dependent Wildlife Habitat
W001	Low			X			P	X		X				
W002	High		P	P		P	P	X		X	P	X		X
W003	Moderate			P			X	X		X	X			X
W004	Moderate			P			X	X		X	P			X
W005	Moderate			P	X		X	X		X				X
W006	Moderate				P		X	X		X				P
W007	Moderate			X	P		X	X		X	P			X
W008	Moderate			X	P		X	X		X	P			X
W009	Low				P		X	X		X				X
W010	Moderate			X	P		X	X		X				X
W011	Moderate		X	X	X		X	X		X	P			X
W012	Low				X		P	X		X				X
W013	Moderate			X	X		P	X		X				X
W014	Moderate			X	X		P	P		X				X
W015	Low				X		X	X		P				X
W016	Low				X		P	X		X				X
W017	Moderate						X	P		X				X
W018	Moderate			X	X		P	X		X				X
W019	Low						P	X		P				X
W020	Low						P	X		P				X
W021	N/A, Maine			P	X		X	X		P				X
W022	N/A, Maine				X		X	X		P				X
W023	N/A, Maine			X	P	X	X	X		P				X

X = Function observed within wetland, P = Principal Function

[1] Corps Highway Methodology Workbook Supplement

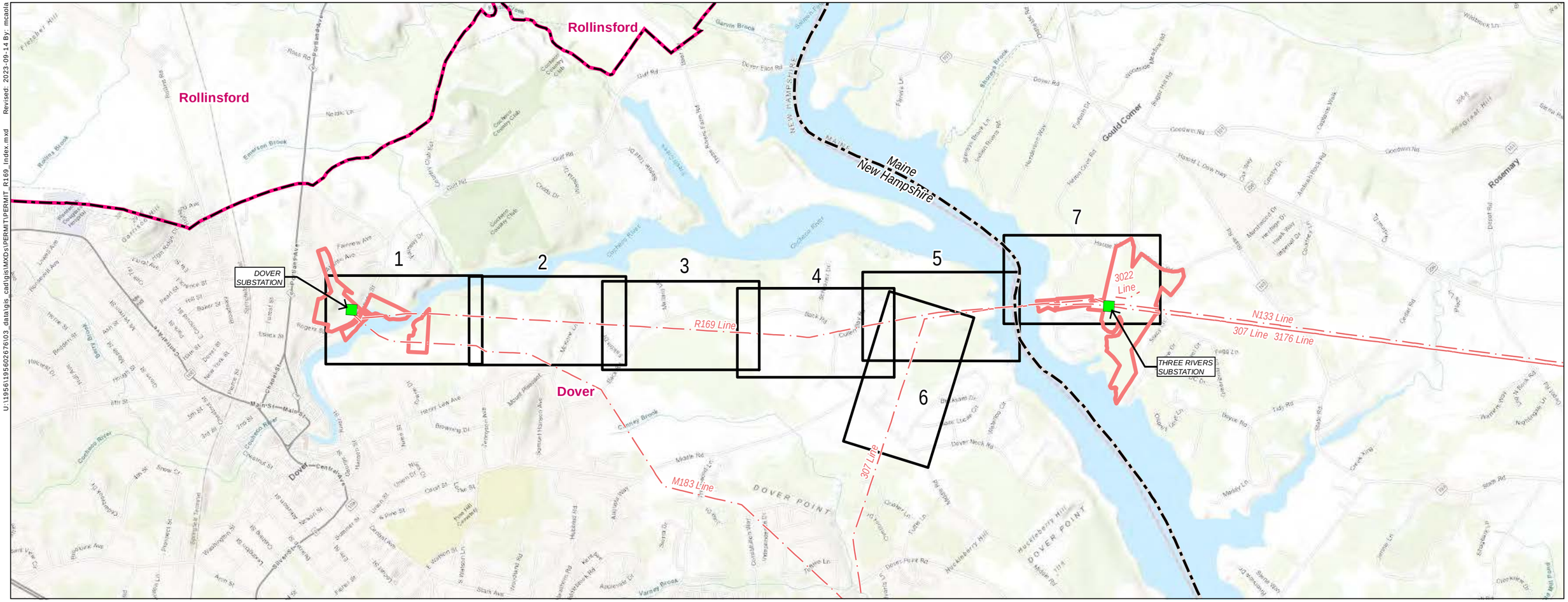
[2] Method for the Comparative Evaluation of Nontidal Wetlands in New Hampshire

FIGURES

R169 Line - Structure Replacement Project

Dover, NH and Eliot, ME
Environmental Resources Map
PERMIT Map Set
Date: September 14, 2023

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Legend

Substation | Municipal Boundary | State Boundary | Map Sheet | Eversource Owned Property

N

0 2,000 4,000 Feet

PREPARED FOR:

EVERSOURCE ENERGY

107 Selden Street
Berlin, CT 06037

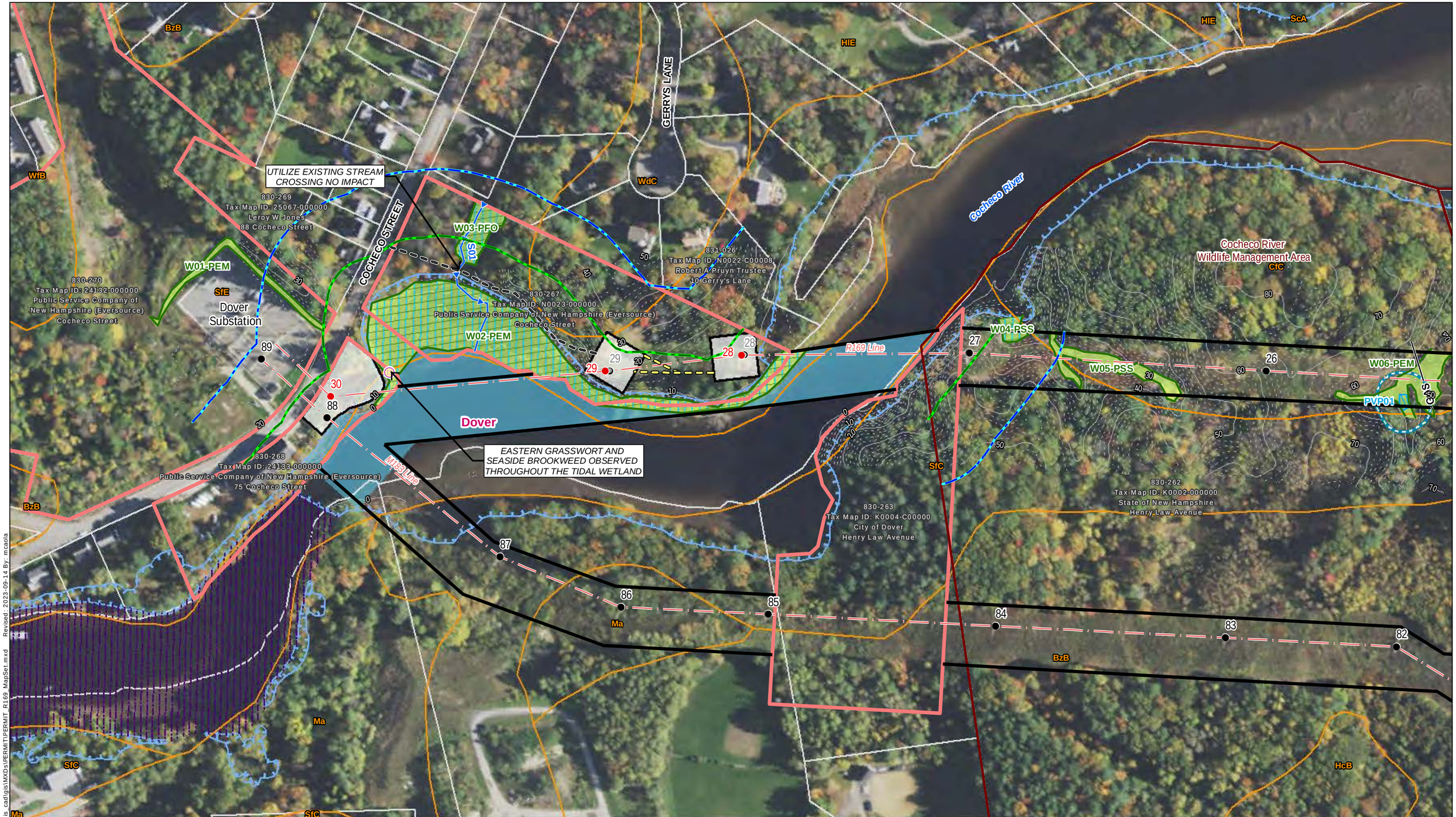
INDEX OF FIGURES

Title Sheet / Index Map
NRCS Soils Table
Map Sheets 1-7

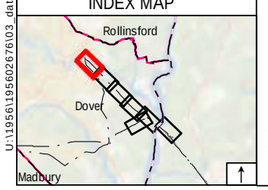
PREPARED BY:

Stantec

30 Park Drive
Topsham, ME 04086



INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
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- Eversource Owned Property
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- Delineated Perennial Stream
- Delineated Intermittent Stream
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STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

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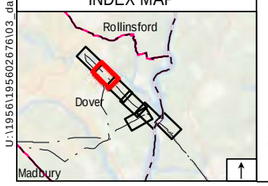
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 1 of 7
Date: September 14, 2023	Stantec

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Dover
Cocheco River
Cocheco River Wildlife Management Area
831-022
Tax Map ID: N0018-001000
State of New Hampshire
McKone Lane
831-024
Tax Map ID: K0001-A00000
Robert Swanson
38 McKone Lane
831-025
Tax Map ID: K0001-A00001
State of New Hampshire
McKone Lane
831-023
Tax Map ID: K0001-B00000
State of New Hampshire
McKone Lane
830-262
Tax Map ID: K0002-000000
State of New Hampshire
Henry Law Avenue
831-020
Tax Map ID: N0018-006000
Daniel & Jacqueline Ayer Revocable Trusts
McKone Lane
831-019
Tax Map ID: N0018-014000
Brianna Dichter
10 Whiteley Drive
831-018
Tax Map ID: N0018-000OP1
One Home Builders II LLC
Eagan Drive
831-021
Tax Map ID: N0019-005000
Anthony P Ayer
47 McKone Lane
831-017
Tax Map ID: N0019-A00000
Elaine M Thurston
174 Back Road
WHITELEY DRIVE
EAGAN DRIVE
MCKONE LANE
FALCON DRIVE
BACKROAD
W06-PEM
PVP01
W07-PSS
W08-PEM
W09-PEM
W10-PEM
W11-PSS
SPAN STREAM NO IMPACT
CONFIGURE WORK PADS TO AVOID EXISTING STONEWALL
UTILIZE EXISTING BREACH IN STONEWALL
STONEWALL TO BE REMOVED AND REBUILT AFTER CONSTRUCTION
UTILIZE EXISTING PAVED DRIVEWAY
TEMPORARY WETLAND IMPACT: +/-742 SQ.FT.
R169 Line
M183 Line
ScA
HeD
HcC
SfC
WfB
HcB
DeA
HcD
CfC
CsD
CsB
WfC
HdD
BzB
HdC
HcB
ScB
HdB
WdB
82
81
80
79
78
8.5
25
24
23
22
21
20

INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
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- Stone Work Pad
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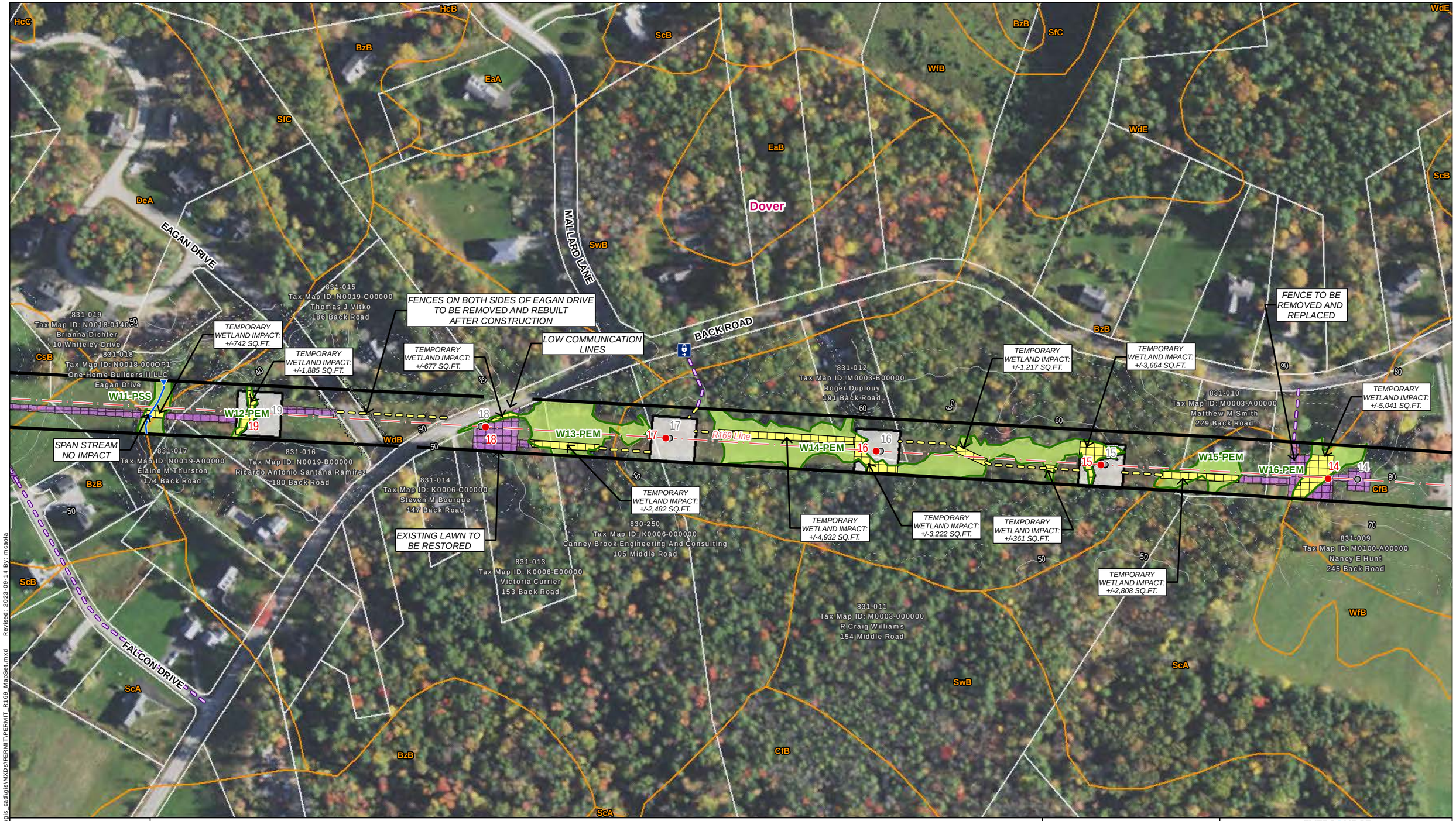
STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

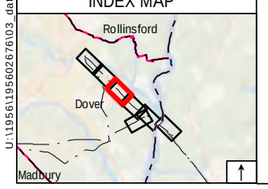
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 2 of 7
Date: September 14, 2023	Stantec

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INDEX MAP



Legend

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- Existing Right-of-Way (ROW)
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Dover, NH	MAP SHEET 3 of 7
Date: September 14, 2023	Stantec

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FENCE TO BE REMOVED AND REPLACED

TEMPORARY WETLAND IMPACT: +/-926 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-1,452 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-810 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-3,188 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-6,840 SQ.FT.

ACCESS FROM BACK ROAD

EXISTING LAWN TO BE RESTORED

SCHOONER DRIVE

CULLEN BAY ROAD

BACK ROAD

Dover

R169 Line

W16-PEM

W17-PEM

W18-PSS

831-008
Tax Map ID: M0100-B00000
Gregory W Hunt
295 Back Road

831-007
Tax Map ID: M0105-002000
Christopher D Berg
303 Back Road

831-004
Tax Map ID: M0093-B00000
Nancy Magiaras
362 Back Road

831-003
Tax Map ID: M0092-B00000
Cullen Bay Homeowners Association
Cullen Bay Road

831-005
Tax Map ID: M0105-000000
Eric W Thompson
321 Back Road

831-009
Tax Map ID: M0100-A00000
Nancy E Hunt
245 Back Road

831-006
Tax Map ID: M0105-001000
William C & Nancy Hunt Trustees
Back Road

831-001
Tax Map ID: M0092-A00000
Patricia Langs
Back Road

829-138
Tax Map ID: M0091-A00000
Townsquare Media Portsmouth LLC
292 Middle Road

WdE WdB BzB ScB CfB HcB WfB ScA SwB SfC HcC

INDEX MAP

Rollinsford
Dover
Madbury

Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
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- Parcel Boundary
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- State Boundary
- Delineated Perennial Stream
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- FEMA Floodway
- NRCS Soil Unit Boundary
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- Culvert

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0 50 100 200 Feet

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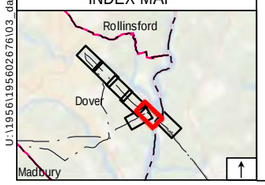
Dover, NH	MAP SHEET 4 of 7
Date: September 14, 2023	Stantec

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SfC
HaA
WdB
SfC
WfB
SfC
DeB
CULLEN BAY ROAD
CULLEN BAY ROAD
Dover
Piscataqua River
Maine
New Hampshire
829-139
Tax Map ID: M0104-000000
Alan G. Dexter Trustee
Back River Road
831-001
Tax Map ID: M0092-A00000
Patricia Langs
Back Road
WdB
TEMPORARY WETLAND IMPACT: +/-2,022 SQ.FT.
831-002
Tax Map ID: M0092-H00000
Marie V Hebert Trustee
Cullen Bay Road
ScB
TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.
831-003
Tax Map ID: M0092-B00000
Cullen Bay Homeowners Association
Cullen Bay Road
W18-PSS
S05
R169 Line
307 Line
SPAN STREAM AND WETLAND NO IMPACT
829-138
Tax Map ID: M0091-A00000
Townsquare Media Portsmouth LLC
292 Middle Road
TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.
TEMPORARY WETLAND IMPACT: +/-6,840 SQ.FT.
WdA
WdE
S06
WdC
ScA
BzB
S07
WfC
Ta
EaB
WfB

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INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 330 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
- Potential Vernal Pool Extent
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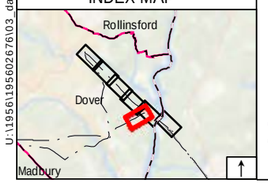
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R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 5 of 7
Date: September 14, 2023	Stantec



INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 330 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
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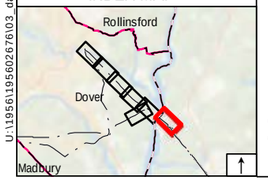
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 6 of 7
Date: September 14, 2023	Stantec

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INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
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- Stone Work Pad
- Temporary Construction Matting
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- Eversource Owned Property
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- Parcel Boundary
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- State Boundary
- Delineated Perennial Stream
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- FEMA Floodway
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Dover, NH and Eliot, ME	MAP SHEET 7 of 7
Date: September 14, 2023	Stantec

U:\11956\19560276\03_data\gis_cad\gis\MXDs\PERMIT\PERMIT_R169_MapSet.mxd Revised: 2023-09-14 By: mcaola

APPENDICES

Appendix A REPRESENTATIVE PHOTOGRAPHS



Photo 1. Representative view of the Cocheco River from structure 30. Stantec, June 8, 2023.



Photo 2. Representative view of the Cocheco River from Structure 29. Stantec, June 8, 2023.



Photo 3. Stream S01 flowing into Cocheco River near structure 29. Stantec, June 8, 2023.



Photo 4. Representative view of Cocheco River from structure 28. Stantec, June 8, 2023.



Photo 5. Representative view of the ROW and Wetland W05. Stantec, June 8, 2023.



Photo 6. Potential vernal pool PVP01, near structure 25. Stantec, June 8, 2023.



Photo 7. Representative view of the ROW and wetland W10 near structure 23. Stantec, June 8, 2023.



Photo 8. Representative view of the ROW and wetland W13 near structure 18. Stantec, June 8, 2023.



Photo 9. Representative view of the ROW and wetland in active pasture area near structure 14. Stantec, June 8, 2023.



Photo 10. Representative view of the ROW and open field side of wetland W18, near structure 8. Stantec, June 8, 2023.



Photo 11. Stream S05 in wetland W18 near junction of R169 and 307 line ROWs. Stantec, June 8, 2023.



Photo 12. Representative view of the ROW at the Piscataqua River, structure 5. Stantec, June 8, 2023.



Photo 13. Wetland W19 and existing access along 307 line ROW. Stantec, June 8, 2023.



Photo 14. Representative view of the ROW and wetland W21, near structure 4. Stantec, June 8, 2023.



Photo 15. Representative view of the ROW and wetland W23, near structure 3. Stantec, June 8, 2023.



Photo 16. Structure 2, near the Three Rivers Substation. Stantec, June 8, 2023.

Appendix B CORPS WETLAND DETERMINATION DATA FORMS

(Provided upon request)

Appendix C WETLANDS FUNCTIONAL ASSESSMENT WORKSHEETS

(Provided upon request)

Appendix D OBSERVED WILDLIFE

Common Name	Species Name
American crow	*Corvus brachyrhynchos*
Osprey	*Pandion haliaetus*
Eastern chipmunk	*Tamias striatus*
Red-tailed hawk	*Buteo jamaicensis*
White-tailed deer	*Odocoileus virginianus*
Wild turkey	*Meleagris gallopavo*

R169 Structure Replacement Project
Dover, New Hampshire

Conditional Use Permit Application

Part 5 of 5

December 22, 2023

Prepared for:

Public Service Company of New Hampshire d/b/a Eversource Energy
13 Legends Drive
Hooksett, NH 03106

Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: Public Service Company of NH d/b/a Eversource Energy Telephone # 603-634-2243

Address of Applicant: 13 Legends Drive, Hooksett, NH 03106

E-Mail Address: Travis.Yandow@Eversource.com

Name of Property Owner (if different from applicant): same as above Telephone # same as above

Address of Property Owner: same as above

PROPERTY INFORMATION

Assessor's Map # B31-003 Lot(s) # Multiple

Address of Property: Existing R169 transmission line ROW--Cullen Bay Road to Back River Road

Zoning District(s) R-40, R-12, CWD Overlay District(s) Wetland Protection

Rural Residential, Medium Density, Residential, Urban Density Multi Residential, Cocheco Waterfront District

Existing Use of Property: Electric transmission line ROW

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☐ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

Impact Area 5/Sheet 5: Eversource is proposing to replace one structure (structure 6) along their existing R169 utility transmission line in Dover as it traverses southeast at Cullen Bay Rd and continues southeasterly to the Piscataqua River. This wooden structure requires replacement due to age, cracking, leaning, and/or woodpecker damage. The existing structure will be replaced with new weathering steel structure to provide a more reliable electrical infrastructure. The new structure requires construction of a work pad and access roads. In wetland areas timber matting is used to temporary work over these sensitive resources. In Area 5, as a result of the large wetland (W18-PSS) around proposed structure 6, matting will be utilized to minimize access impacts within the ROW. The structure 6 work pad is also entirely within the delineated wetland and will be completely matted. The only impacts in this area are within the Wetland Protection District. In the wetland areas, 29,676 square feet of temporary impact is proposed as a result of work pad and access road matting across a the large wetland (W18-PSS) at structure 6. Approximately 942 square feet of temporary impact is proposed in the wetland buffer areas as a result of the upland matting needed to protect farmland. When needed, these areas will require pre-construction erosion/ sediment control BMPs and monitoring throughout for effectiveness. See attached application narrative and supporting documents for more details.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: NHDES: Alteration of Terrain; Wetlands Utility Statutory Permit by Notification; Shoreland Permit by Notification; USACE Pre-application Construction Notification; USACE Section 408 Variance to Fed. Navigation Project.

Name of Professional That Prepared Plans: Tom Tetreau, NH Certified Wetland Scientist

Address 30 Park Drive, Topsham, ME 04086 Telephone #: 207-504-7231

Professional License #: 283 E-mail address: tom.tetreau@stantec.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 12/20/2023

Signature of Applicant (if different from owner): _____ Date: _____

Signature of Agent: _____ Date: 12/20/2023

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 12/20/2023

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS
Multiple		Kurt Nelson, Eversource Energy	13 Legends Drive, Hooksett, NH 03106

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS
Tom Tetreau, NH Certified Wetland Scientist	Stantec	30 Park Drive, Topsham, ME 04086

Conservation Easement Holder:

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

Stantec Consulting Services Inc.
30 Park Drive, Topsham ME 04086-1737

December 22, 2023

Project/File: 195602676

Attention: Donna Benton
Planning Director
288 Central Avenue
Dover, NH 03820
d.benton@dover.nh.gov

Reference: Conditional Use Permit Application, Eversource Energy, R169 Structure Replacement Project, Dover, New Hampshire

Dear Ms. Benton and Planning Board Members,

On behalf of the Public Service of New Hampshire d/b/a Eversource Energy (Eversource), Stantec Consulting Services Inc. is filing five Conditional Use Permit (CUP) applications for necessary structure replacements as part of the R169 Structure Replacement Project (Project) in the City of Dover. Eversource has identified 18 existing structures along the existing R169 transmission line right-of-way (ROW) in Dover that require replacement due to deterioration from age, cracking, leaning, rot, and/or woodpecker damage.

Portions of the proposed Project are located within the Conservation District and the Wetlands Protection District, as described in the Dover Zoning Ordinance, Articles 170-27 and 170-27.1, respectively. CUPs may be granted within utility ROWs in the Conservation District in accordance with Article 170-27 Section C (1), and in the Wetlands Protection District in accordance with Article 170-27.1 Section F (1):

> "Article 170-27 Section C (1): *Conditional Use Permits may be granted by the PLANNING BOARD for the following uses within the* ***Conservation District****: (1) STREETs, roads and other access ways and utility rights-of-way, communications equipment, easements, including power lines and pipe lines, if essential to the productive use of land not so zoned and if so located and constructed as to minimize any detrimental impact of such uses upon the wetlands or other environmentally sensitive areas, where it is physically impossible to locate such ways over land not so zoned."*
>
> "Article 170-27.1 Section F (1): *Conditional use approval may be granted by the PLANNING BOARD (RSA 674:21II) after proper public notice and public hearing, for construction within the* ***Wetland Protection District*** *or buffer. Said construction may include but is not limited to, a road or other accessway, utility right-of-way, communication lines, power lines and pipelines, STRUCTUREs, and parking LOTs provided that the proposed construction complies with the following standards [emphasis added.]*

Therefore, Eversource is requesting the CUPs for activities and temporary impacts to wetland buffer areas within the Conservation District and the Wetlands Protection District and has outlined compliance with City of Dover zoning standards in the attached project narrative, which is being submitted in accordance with Articles 170-27 and 170-27.1 of the zoning ordinance. These five CUP applications (one per project map sheet) are being submitted, in total, for approximately 19,734 square feet (0.45 acres) of temporary tidal

Reference: Conditional Use Permit Application, Eversource Energy, R169 Structure Replacement Project

buffer resource impacts (to be restored) and 1,515 square feet (0.03 acres) of temporary stream buffer resource impacts (timber matting) in the Conservation District. In the Wetland Protection District, the following impacts are anticipated: approximately 56,885 square feet (1.31 acres) of temporary wetland impacts (matting), 26,838 square feet (0.62 acres) of temporary impacts within wetland buffers (matting), and 29,941 square feet (0.69 acres) of permanent impacts within upland wetland buffer areas for gravel access road and work pad construction.

The proposed work is for direct “in-kind” replacements of cracked and damaged poles, and no new pole locations are proposed within the R169 ROW in Dover. New structures will be in the same general footprint as existing and do not represent a significant footprint expansion within the Conservation District and the Wetlands Protection District or consist of substantial disturbances beyond those historically created by the transmission line. Disturbed areas will be protected with erosion and sediment control measures, and strategies will be implemented to stabilize and allow for re-vegetation of exposed soils.

This submittal includes a digital copy of each of the five CUP application packages. The filing fee of $1,000 ($200 per application x 5 CUP applications [one per project map sheet]) is included in the online submittal with this application. We understand that the City of Dover will calculate and invoice for abutter and notice fees; therefore, we have assumed these fees will be paid at a later date and have not included them with this application.

Additional state and federal wetland and shoreland permit applications are being prepared and submitted for the Project. Permit approvals will be forwarded to the City of Dover as required and/or requested.

Sincerely,

STANTEC CONSULTING SERVICES INC.

Jess S. Hunt
Senior Associate, Environmental Services
Phone: (603) 557-4662
jessica.hunt@stantec.com

Andrew Ackerman
Senior Environmental Scientist, Environmental Services
Phone: (603-413-7731
andrew.ackerman@stantec.com

Attachment: Conditional Use Permit Applications

cc. Travis Yandow and Kurt Nelson, Eversource

Conditional Use Permit Application

R169 Structure Replacement Project
Dover, New Hampshire

December 22, 2023

Prepared for:

Public Service Company of New Hampshire d/b/a Eversource Energy
13 Legends Drive
Hooksett, NH 03106

Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

Table of Contents

1.0 PROJECT INTRODUCTION AND PURPOSE 1

2.0 EXISTING CONDITONS 2

3.0 PROJECT DESCRIPTION AND PROPOSED CONDITIONS 3
3.1 LINE REBUILD: STRUCTURE REPLACEMENT, CONDUCTOR AND OPGW REPLACEMENT 3
3.2 ACCESS 4
3.2.1 Road Construction 4
3.2.2 Wetland and Upland Temporary Matting 4
3.2.3 Work Pad Construction 5
3.3 CONSTRUCTION SEQUENCE 5
3.4 BEST MANAGEMENT PRACTICES 6
3.4.1 Erosion and Sedimentation Control 6
3.4.2 Invasive Species Control Plan 6
3.4.3 Construction Observation and Post Construction Monitoring 6

4.0 OVERLAY ZONING DISTRICT IMPACTS AND ACTIVITIES 7
4.1 WETLAND PROTECTION DISTRICT 8
4.2 CONSERVATION DISTRICT 11
4.3 IMPACT AREAS 13
4.3.1 Impact Area 1 13
4.3.2 Impact Area 2 14
4.3.3 Impact Area 3 14
4.3.4 Impact Area 4 14
4.3.5 Impact Area 5 14

LIST OF FIGURES

Figure 1 USGS Site Location

R169 – Dover CUP Permit Map Set, Dover, NH

LIST OF APPENDICES

APPENDIX A WETLAND DELINEATION REPORT

1.0 PROJECT INTRODUCTION AND PURPOSE

Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource) owns and maintains the R169 electrical transmission line that passes through Dover, New Hampshire. Eversource has identified 19 existing wooden structures that need to be replaced on the R169 line (18 in Dover, New Hampshire, and 1 in Eliot, Maine) due to age, cracking, leaning, rot, and/or woodpecker damage, which constitutes the proposed R169 Structure Replacement Project (Project). The existing wooden structures will be replaced with new, steel structures that adhere to current safety and electrical codes to provide more reliable electrical infrastructure.

The R169 Line right-of-way (ROW) begins at the Three Rivers Substation in Eliot adjacent to the Piscataqua River and traverses westerly over the river into Dover, then continues westerly through Dover approximately 3 miles for the remainder of the length of the transmission line to the Dover Substation.

Chapter 170 of the local Zoning Ordinance of the City of Dover, New Hampshire, establishes regulations and guides appropriate use of land. The existing utility ROW and proposed structure replacement activities in Dover bisect various city zoning districts, including the Rural Residential (R-40), Medium Density Residential (R-12), and Urban Density Multi Residential (RM-U) zoning districts and the Cocheco Waterfront District (CWD). The ROW and proposed Project activities also intersect two natural resource protection overlay districts—the Conservation District (per Article 170-27) and the Wetland Protection District (per Article 170-27.1). The purpose of these two overlay districts is to avoid and minimize development impacts to, and similarly conserve, local rivers, streams, wetlands, and flood-prone or steep, erosion-prone areas of Dover. The Project has taken into consideration each the objectives of these overlay districts in the development of construction plans and activities around the identified sensitive resources.

The proposed Project activities require a Conditional Use Permit (CUP) from the City of Dover (hereafter, City) Planning Board for those activities that occur within the Conservation District and the Wetland Protection District per the City's Local Zoning Ordinance (as amended, September 2022) and subsequent guidance from the City Planning and Community Development Department. This CUP application presents the applicable information associated with the Project. In addition to the 18 proposed replacement structures in Dover, Eversource previously identified five utility structures for replacement along the R169 line. A CUP application (#406-22) for the replacement of those five structures was submitted to the City in July 2022 and approved by the Planning Board on July 21, 2022. Replacement of those five structures has been completed.

In accordance with NH RSA 482-A:3 XV, routine utility maintenance work is exempt from the standard NH wetland permit process. However, Eversource is required to submit a Utility Maintenance Activity Statutory Permit-by-Notification, Shoreland Permit-by-Notification, and Alteration of Terrain permit application to the New Hampshire Department of Environmental Services (NHDES) to cover the temporary wetland impact associated with use of timber matting within wetlands required to

complete the proposed structure replacement work, impacts within the developed portions of the Protected Shoreland of the Cocheco River, and proposed upland ground disturbance.

2.0 EXISTING CONDITONS

The existing cleared R169 ROW varies from approximately 100 feet (ft) in most areas to 250 ft wide where the ROW is shared with additional transmission lines near the Piscataqua River. The Project ROW consists of Eversource fee-owned property or Eversource-controlled easements. From the Piscataqua River to the Dover Substation, the ROW traverses westerly through forested, residential, and agricultural landscapes. The ROW primarily crosses rural areas and local roads, as well as the Cocheco River and the Piscataqua River. The topography varies from flat lowlands and fields to undulating hills and steep side slopes. Elevations range from 0 to 90 ft above mean sea level. Soils within the ROW consist primarily of loam and silty loam (see attached CUP plans).

The open upland natural communities in the ROW consist of early successional shrub, sapling, and herbaceous species. Characteristic woody vegetation includes gray birch (*Betula populifolia*), quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), sheep-laurel (*Kalmia angustifolia*), late lowbush blueberry (*Vaccinium angustifolium*), white meadowsweet (*Spiraea alba*), Allegheny blackberry (*Rubus allegheniensis*), American hazelnut (*Corylus americana*), red oak (*Quercus rubra*), and red raspberry (*Rubus idaeus*). Commonly observed herbaceous vegetation in the ROW includes little Canada mayflower (*Maianthemum canadense*), wrinkle-leaf goldenrod (*Solidago rugosa*), Canada goldenrod (*Solidago canadensis*), bracken fern (*Pteridium aquilinum*), hay-scented fern (*Dennstaedtia punctilobula*), wild strawberry (*Fragaria virginiana*), bristly dewberry (*Rubus hispidus*), Kentucky blue grass (*Poa pratensis*), and other common grass and wildflower species. Non-native invasive species such as rambler rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), Morrow's honeysuckle (*Lonicera morrowii*), and glossy false buckthorn (*Frangula alnus*) are present in moderate abundance.

Stantec consulted with the New Hampshire Natural Heritage Bureau, the New Hampshire Fish and Game Department, and the US Fish and Wildlife Service as required for NHDES and US Army Corps of Engineers (USACE) permitting. There were three state-listed wildlife species, three state-listed plant species, and three federally listed wildlife species noted in the vicinity of the Project. Eversource proposes to follow agency recommendations and permit conditions as part of this Project and will conduct recommended surveys as needed.

One potential vernal pool and 23 wetlands were identified within the ROW during a delineation conducted by Stantec (Tom Tetreau, New Hampshire Certified Wetland Scientist #283) in June 2023; results of the wetland survey can be found in Appendix A.

The 307 transmission line ROW intersects the R169 ROW from the south near proposed structure 6 to the Piscataqua River; the nearby 307 line ROW will be utilized for access only. Existing access roads traverse portions of both ROWs. These access roads are unpaved with mostly a loamy sand base with occasional stretches consisting of previously installed stone. The access roads are generally 8 to 12 ft wide in most areas.

Routine vegetation maintenance is performed along the R169 ROW on an approximate 4- to 5-year cycle. The last vegetation maintenance was performed along portions of the R169 ROW in summer 2023. Trees and shrubs capable of growing to heights that could interfere with conductors are trimmed and allowed to regenerate until the next maintenance cycle. Prior to the start of construction, areas around proposed access roads and pads will need additional mowing within the ROW.

3.0 PROJECT DESCRIPTION AND PROPOSED CONDITIONS

3.1 LINE REBUILD: STRUCTURE REPLACEMENT, CONDUCTOR AND OPGW REPLACEMENT

The proposed Project includes replacement of 18 existing wooden transmission line structures along the R169 line in Dover. The replacement (new) structures will be within 10 ft of the previous structure location, with two exceptions: proposed structure 13 will be approximately 140 ft from the existing structure location to avoid wetland and impacts, and proposed structure 20 will be approximately 40 ft from the existing location. A majority of the new structures will be approximately 5 to 10 ft taller than the previous structures to comply with current electrical standards. The one structure proposed for a reduction in height is structure 27, within the shoreland of the Cocheco River, which will be reduced from the current 135 ft to 120 ft. The shorter structure allows for a reduced construction footprint and minimizes potential impacts to the sensitive shoreland area.

The structure replacement process consists of drilling holes near the existing structures and installing a caisson, also referred to as a can, below the ground surface. The new structure is installed in the can and backfilled with clean, suitable rock or gravel material. Spoils produced from drilling the hole will be disposed of in an approved upland location away from wetland areas and will be stabilized with an appropriate conservation/contractor's seed mix and weed-free straw mulch. Some replacement structures may require anchors. Anchors will be installed by excavating trenches, installing concrete block anchors, and backfilling trenches. If soil conditions allow, screw anchors may be installed to minimize ground disturbance. Temporary swamp mats (i.e., matting) will be utilized to access structures located within delineated wetlands or wetland areas that must be crossed for access. Mats will also be used on some occasions to minimize impacts to maintained yards or farmed upland areas. Once the new structure is installed and stable, the wires from the old structure will be transferred to the new structure. Old structures will be cut and removed from the ground in upland locations. To minimize ground disturbance, old structures in wetlands are typically cut flush with the ground surface. In some cases, the bottom of the old structure may be able to be pulled from the wetland with minimal disturbance to the wetland. All construction materials and old structure pieces will be removed and disposed of off-site at an approved disposal facility.

Following completion of the structure replacement and wire work, temporary timber construction mats will be removed. Disturbed wetland areas will be restored and stabilized with weed-free straw mulch. Temporarily disturbed upland areas will also be restored and stabilized through seeding and mulching. Permanently disturbed wetland buffer areas will remain as permanent features. Seed and mulch will be

applied along the shoulders and side slopes of the access roads as necessary and the established access roads will be left in place, with the exception of the area around proposed structures 27 and 28, which will be entirely restored. The work pads and new access road between proposed structures 27 and 28 will be re-contoured to the existing grade, covered with topsoil that was stockpiled during the initial grading, and stabilized with seed and mulch.

Minor tree clearing is proposed as maintenance within the existing access road off Cocheco Street and within the existing ROW near proposed structures 27 and 28 as part of the Project. The Project will submit a Protected Shoreland Permit by Notification to address proposed selectively cut trees in the upland shoreland areas.

3.2 ACCESS

The proposed Project utilizes existing access roads within the R169 line ROW and existing access within the 307 line ROW wherever possible. The majority of the existing access roads are made up of dirt or gravel areas and are proposed to be improved, as necessary, through the addition of clean stone as part of the Project to allow for construction vehicle access. Proposed access roads are shown on the attached map set. Access road entrances are located off local roadways and utilize existing entrances wherever possible. Driveways permits are not anticipated to be required from the City. There are no state-owned roads in the project area; therefore, temporary driveway permits from the New Hampshire Department of Transportation will not be required for construction. The proposed access roads were sited to minimize ground disturbance and temporary wetland impacts to the greatest extent practicable while providing safe and efficient access to the existing structures. Timber matting will be used to cross all wetland and stream resources that cannot be avoided completely.

3.2.1 Road Construction

Proposed upland access road improvements include construction of approximately 12- to 16-ft-wide gravel and stone roads within the ROW and in some cases adjacent to the ROW. The roads will provide access to existing utility structures for replacement activities. The improved access roads will provide reliable, permanent access to utility infrastructure during future maintenance or emergency repairs. Where possible, the proposed access roads will be located on top of existing dirt roads or trails. If no existing routes are available or suitable, a new road will be constructed. Minor grading may be necessary to remove large boulders and create a flat surface for the new rock or gravel.

Project plans require tree removal along the widening the existing access road off Cocheco Street to proposed structures 27 and 28 to a width of 12 ft to accommodate equipment for the structure replacements. Tree removal at this location will occur within the existing utility ROW and along the existing access road on Eversource property and will be conducted between November 1 and April 14 to avoid potential impacts to federally listed wildlife species if present.

3.2.2 Wetland and Upland Temporary Matting

Access through maintained fields and private property within uplands and delineated wetlands in the Project area will utilize temporary timber construction mats to minimize ground disturbance and prevent

rutting. Where necessary in overly saturated conditions, runners (mats placed parallel to the direction of travel) will be placed on the wetland surface prior to setting the top, perpendicular layer of mats. This will help reduce settling and overall wetland disturbance.

3.2.3 Work Pad Construction

The proposed Project includes construction of 18 structure replacement work pads approximately 100 ft by 100 ft each, with some exceptions. With the exception of work pads located within wetlands, upland work pads will be constructed using clean stone. The work pads will be top dressed with compacted 1.5- to 3-inch-diameter clean stone. After the structure replacement work is complete, restoration of upland work pads will consist of utilizing stockpiled topsoil to reduce work pads to approximately 30 ft by 60 ft. Restored areas will be stabilized with seed and mulch. Proposed work pads located in wetland areas will be constructed using temporary timber construction mats and will be removed upon completion of the work.

3.3 CONSTRUCTION SEQUENCE

The general Project construction sequence will be:

1. Installation of appropriate signage along public roads near construction entrances;
2. Installation of erosion control devices, as needed;
    a. Erosion control practices will follow the *Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetland and Waterbodies in New Hampshire* (Utility BMP Manual) published by the New Hampshire Department of Natural and Cultural Resources (March 2019).
3. Placement of construction mats in wetlands for access roads and work pads;
4. Grading and improvements of upland access roads and work pads;
5. Stabilization (seed and mulch) of exposed soils on created side slopes;
6. Replacement of structures:
    a. Drill new structure holes;
    b. Install new poles and structure components;
    c. Transfer electrical lines from old structure to new structure; and
    d. Remove and haul away old structure.
7. Clean up excess/stockpiled material at work pads;
8. Smoothing/grading upland work pads and stabilizing and restoring with seed and mulch as necessary;
9. Removing construction mats from wetland areas and stabilizing/restoring disturbed wetland areas with weed-free straw mulch; and

10. Stabilization, restoration, and clean up staging areas and entrance points.

Provided necessary permits are in place and to the extent possible, work would begin in April 2024 and continue through fall 2024. Entrances, access roads, and work pads will be created prior to structure replacement work. New structure holes will likely be drilled prior to mobilization of structure replacement equipment (cranes, bucket trucks). Installing new poles and transferring wires will be completed prior to moving on to the next structure. Multiple structure replacement crews may be working in different areas to expedite the process. Removal of mats and restoration will occur as individual work areas are completed.

3.4 BEST MANAGEMENT PRACTICES

3.4.1 Erosion and Sedimentation Control

Work will be conducted in accordance with the Utility BMP Manual. Following these BMPs will minimize and avoid impacts to wetland and stream resources and the surrounding upland areas to the greatest extent practicable.

Perimeter erosion controls consisting of silt fence, straw wattles, mulch, and straw bales will be installed as necessary around the work areas to minimize potential impacts to adjacent resource areas. Water bars, also known as diversion ditches, will be installed along access roads with steep slopes, where necessary, to prevent water from traveling long distances down the road causing erosion. Water bars will direct water off the road into adjacent upland areas. Exposed soil created during construction will be stabilized with seed and mulch as soon as possible after active work in the area is complete. No equipment or material will be stored within wetland areas.

3.4.2 Invasive Species Control Plan

Due to the developed landscape surrounding the majority of the R169 line, invasive plant species occur within the ROW and were observed during field surveys. Contractors will follow the invasive species recommendations in the Utility BMP Manual to help prevent the spread of invasive species, including inspection and cleaning of equipment and contractor training. Equipment, including construction mats, brought to the Project area will be inspected by the contractor and/or environmental monitor, and if plant material or soil is present, the equipment will be cleaned and dried prior to use on the Project. Contractors will be familiar with identification of common invasive species and will be required to clean mats and equipment prior to their use elsewhere. If possible and without increasing wetland impacts, the contractors may also make slight shifts in access roads or work pads to avoid invasive species locations.

3.4.3 Construction Observation and Post Construction Monitoring

During construction, Eversource will contract an environmental monitor to perform routine construction observation visits. The environmental monitor will inspect the Project area for compliance with the Utility BMP Manual and applicable Project permits and conditions. Construction observation visits will occur at least once per week and/or after a significant rainfall (0.5 inches or greater) or snow melt event. Under the National Pollutant Discharge Elimination System, Eversource will file a Notice of Intent and

Stormwater Pollution Prevention Plan (SWPPP) under the U.S. Environmental Protection Agency's Construction General Permit. Construction observation visits and associated reporting will follow the SWPPP and Construction General Permit guidelines and be performed by a qualified individual familiar with the SWPPP, Utility BMP Manual, and Project specific permit conditions.

A series of post-construction monitoring visits in the Project area will be performed by a qualified environmental scientist to document that disturbed areas are properly stabilized and vegetation is beginning to regrow. Site restoration will be considered successful when there is at least 85% cover by native or non-invasive herbaceous plant species within the restored portions of the ROW, including restored wetland areas. This does not include gravel work pads or access roads that existed prior to construction or were created during construction, with the exception of the gravel work pads and road for proposed structures 27 and 28, which will be restored to natural grade, topsoil spread, and stabilized with seed and mulch. The environmental scientist will prepare a report following each post-construction monitoring visit that includes representative photographs and corrective actions (if applicable). Once the disturbed uplands and temporarily impacted wetlands within the Project area are determined to be permanently stabilized, post-construction monitoring will be considered complete, and a Notice of Termination will be filed under the U.S. Environmental Protection Agency's Construction General Permit.

4.0 OVERLAY ZONING DISTRICT IMPACTS AND ACTIVITIES

The ROW and proposed Project activities intersect natural resource protection overlay districts in Dover, including the Conservation District and the Wetland Protection District. The following summarizes the Project-specific components in the respective overlay districts.

Proposed temporary impacts to wetlands were minimized to the maximum extent practical during project planning. This included modifications to ROW access, reducing the size and positioning of the proposed utility poles, the utilization of timber matting and/or tracked equipment, and the location and orientation of work pads. Timber matting will be installed to completely span streams, where necessary, to avoid impacts to the stream bed and banks.

For the purposes of this CUP, resource impacts have been divided into 5 Impact Areas and corresponding map sheets, as shown per wetland and stream in the attached map set and in Table 1. Given the overlapping overlay districts and associated buffers, impacts were quantified in Table 1 below by direct resource impact and overlay district buffer impacts. The district buffers were established by taking the farthest buffer (such as when a stream channel is encompassed by a surrounding wetland, the larger Conservation District buffer was used).

Table 1: City of Dover Proposed Wetland Protection and Conservation District Impacts

District	Resource Impacts (SF)	Impact Area 1 (Map Sheet 1)	Impact Area 2 (Map Sheet 2)	Impact Area 3 (Map Sheet 3)	Impact Area 4 (Map Sheet 4)	Impact Area 5 (Map Sheet 5)
Wetland Protection District	Temporary Wetland Impact	-	742	23,279	3,188	29,676
	Temporary Wetland Buffer Impact	5,526	1,802	16,716	1,852	942
	Permanent Wetl and Buffer Impact*	-	-	29,941	-	-
Conservation District	Temporary Area Subject to Tidal Action Buffer Impact	19,734	-	-	-	-
	Temporary Stream Resource Buffer Impact	-	1,515	-	-	-
Overlapping Districts		5,526	773	-	-	-
	Total	**25,260**	**4,059**	**69,936**	**5,040**	**30,618**

*Based on 12-ft disturbance area for new gravel access
Overlapping Districts are illustrative of how much districts overlap and not part of total for each Map Sheet.

4.1 WETLAND PROTECTION DISTRICT

The Wetland Protection District includes all areas of wetlands and 50-ft wetland buffers, as defined in Dover Zoning Ordinance, Article 170-27.1. Project activities subject to a CUP that are within the Wetland Protection District are limited to temporary placement of timber mats in wetlands and at stream crossings and the creation of stone work pads and access road improvements in wetland buffer areas. New structures will be placed in the same general location as the existing structures, as described in section 3.1 above. The proposed access roads were sited along existing roads or trails wherever possible.

The Project will meet the following Wetland Protection District standards for Conditional Use Approval, as outlined in the Dover Zoning Ordinance, Article 170-27.1F(1).

(a) *Practicable Alternative: There is no practicable alternative that would have a less adverse impact on the area.*

The Project site is an existing transmission line within a utility ROW. The proposed structure replacement work is necessary to maintain reliability and safe operation of the existing R169 line. Alternative locations would require creation of a new ROW, and increased impacts to resources and the surrounding landscape and were not considered. The replacement structures must be located on the alignment of the existing transmission line and must be located within the existing ROW. The Project has been designed to reduce the footprint of the construction as much as

possible. For example, the proposed access route between structures 14 and 15 was designed to utilize a narrow upland area on the south side of the ROW to minimize wetland impacts as much as possible while maintaining required clearances for working equipment from overhead wires and adjacent tree lines. For example, in addition to reducing the height and footprint of proposed structure 27 near the Cocheco River, the Project proposes to move access roads to uplands where possible, completely restore impacted areas adjacent to the Cocheco River, smooth/grade upland work pads, and stabilize and restore with seed and mulch as necessary.

Upland work pads, other than those near the Cocheco River, are typically restored to an approximately 30-ft by 60-ft size. Topsoil pushed to the sides during the initial construction will be used to cover the work pads. Exposed soils will be stabilized with seed and mulch. Temporary construction mats will be removed from wetland areas as soon as work is complete and wetland areas will be stabilized/restored with weed-free straw mulch, if necessary. Matting will be removed in a similar manner to how it was installed.

(b) *Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative.*

The proposed structure replacements have been designed to avoid permanent fill and loss of wetland and stream areas by utilizing upland areas as much as possible and using temporary construction mats. The mats will result in minimal temporary disturbance of the shrub and herbaceous vegetation underneath, but the vegetation is expected to quickly recover following removal of the construction mats after construction is complete. Mats will be used to span streams and will not disturb streambanks or modify hydrology.

Wetlands will be protected from stormwater runoff through erosion and sedimentation control measures, and exposed soils will be stabilized in accordance with the measures discussed in Section 3.4.1. Additionally, appropriate siltation prevention measures will be implemented and inspected during construction and post-construction to prevent erosion, siltation, and turbidity. The erosion control methods and materials will follow the Utility BMP Manual. Perimeter controls (silt fence, straw bales, straw wattles, etc.) will be installed along the limits of work to protect adjacent resources and off-site area. If necessary, other BMPs including stone check dams and dewatering basins will be used to control and treat stormwater and prevent runoff to abutting or downslope properties.

The tidal wetland, wetland W02 associated with the Cocheco River, will be completely avoided by construction activities. Work will occur within the adjacent upland only, and erosion and sedimentation controls will be installed prior to ground disturbance to protect the wetland and river.

(c) *Minimization: Any unavoidable impacts have been minimized. No reasonable Alternative to the proposed construction exists which does not impact a wetland or which has less detrimental impact on a wetland. Design, construction and maintenance methods will be*



prepared by a registered engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade.

The Project is designed to replace existing infrastructure in an existing and maintained utility ROW. The Project does not propose any permanent impacts directly to surface waters or wetlands. Areas where district buffers are impacted have been reduced by using upland matting adjacent to wetlands in some areas and by reducing the overall footprint of structure work pads in others. Additionally, where ground disturbance and work area construction will occur near wetlands, appropriate erosion prevention measures will be implemented during construction and post-construction to prevent the migration of sediment laden runoff from reaching the adjacent wetlands. These areas will be inspected regularly for correct installation and to confirm that they remain effective erosion prevention measures.

The erosion control prevention and sediment control methods and materials will follow the Utility BMP Manual. Perimeter controls (silt fence, straw bales, straw wattles, etc.) will be used to protect adjacent resources and off-site areas. If necessary, other BMPs including stone check dams and dewatering basins will be used to control and treat stormwater and prevent runoff to abutting or downstream properties.

Temporary wetland and wetland buffer impacts will be avoided and minimized by following the Utility BMP Manual. This includes:

- Using wooden construction mats to support machinery in wetlands;
- Removing and restoring temporary impacts to wetlands, if necessary;
- Smoothing rutted areas, seeding as required, and mulching with weed-free straw;
- Using erosion and sediment controls as needed where ground disturbing activities are adjacent to wetland areas;
- Requiring contractors to follow practices outlined in the Utility BMP Manual to help prevent the spread of invasive species; and
- Conducting weekly inspections to monitor compliance with minimization measures and providing any site restoration recommendations as needed.

The new structure locations and associated structure components were designed by Eversource's engineers. Work and access roads were designed based on the results of the wetland delineation performed by a New Hampshire Certified Wetland Scientist and a constructability field review by Eversource engineers and construction personnel.

(d) Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review.

The Project will require temporary matting impacts to wetlands but will not result in permanent loss of any wetland area or permanent alterations to the wetland hydrology or associated vegetation; therefore, a compensatory mitigation plan is not proposed for the work in any of the

five Impact Areas. Additionally, the applicant has consulted with the NHDES Wetlands Bureau, which has concurred with the minimum impact determination for the R169 Project.

(e) *Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below.*

A Wetlands Utility Maintenance Activity SPN will be submitted for the Project. On November 16, 2023, Eversource met with the NHDES Wetlands Bureau and the USACE. During this meeting, a determination was made that the Project qualified for a 'minimum impact' since there are no permanent impacts to delineated wetlands, vernal pools, streams or other sensitive resources associated with the Project and Eversource will minimize temporary impacts and restore permanent upland impacts. The SPN application and NHDES and USACE permit approvals will be forwarded to the City as required and/or requested. Additional pending approvals are listed in Section 4.2 below.

4.2 CONSERVATION DISTRICT

The Conservation District includes water bodies, rivers, streams, swamps and marshes subject to tidal action and those areas within a minimum of 100 ft of each, as defined in Dover Zoning Ordinance, Article 170-27. The Conservation District also includes specific lots as defined in Article 170-27, as well as areas with slopes 20% and more than 2,000 square feet (sf) of contiguous area, neither of which is located within the Project area. Project activities subject to a CUP that are within the Conservation District are limited to temporary placement of timber mats at stream crossings and creation of stone work pads and access road improvements in river and stream buffer areas. New structures will be placed in the same general location as the existing structures. The proposed access roads were sited along existing roads or trails wherever possible.

The Project will meet the following Conservation District standards for Conditional Use Approval, as outlined in the Dover Zoning Ordinance, Article 170-27.C(2).

(a) The APPLICANT shall demonstrate that the proposed use is essential to the productive use of land not in the district; is located and constructed to minimize any detrimental impact of such use upon the surface waters or other environmentally sensitive areas, where it is physically impossible to locate such use on land not in the district; and economic advantage alone shall not be deemed a sufficient reason for such proposed use.

Approval of this CUP application would allow Eversource to maintain critical infrastructure necessary to provide the public with reliable electricity. The existing structures and line are currently located within the Conservation District and would remain as such following the structure replacements. The proposed Project is in the public's interest (versus economic advantage to Eversource) because the structure replacements will allow for the continued supply of reliable electricity to Eversource's customers. The avoidance and minimization efforts described above in section 4.1 for the Wetland Protection District also apply to the Conservation District.

(b) *A soil erosion and sedimentation control plan is submitted and followed to verify the planned avoidance of sediment pollutant runoff to bodies of water. This plan will address the following (if applicable), but should not be limited to:*

(i) stabilization of exposed soils and soil stockpiles;
(ii) protection of steep slopes from erosion;
(iii) construction site waste management;
(iv) inspection and maintenance of runoff control measures (BMPs);
(v) minimization of land clearing;
(vi) stabilization of drainage ways;
(vii) installation of perimeter controls;
(viii) installation of sediment trapping devices; and
(ix) storm drain inlet protection.

Erosion and sedimentation control practices will follow the Utility BMP Manual). Typical erosion and sedimentation controls devices used within the ROW may consist of silt fence, straw wattles, stone check dams, and/or hay and weed-free straw mulch stabilization. Erosion and sedimentation control notes and details are included on the attached map set. Approximate locations of erosion and sedimentation controls are shown around proposed work areas and access roads on the attached map set. Installation and maintenance of erosion and sedimentation controls will occur throughout the construction phase of the project. The controls will be inspected regularly by Eversource's contractors and environmental monitors and maintained and/or replaced as needed. Additional details are provided in sections 3.3 and 3.4 above.

(c) Necessary state and federal approvals have been applied for. Said permits shall be received prior to the issuance of the Conditional Use Permit by the Planning and Community Development Department.

Regulatory permits, approvals, and notifications required for the proposed Project are summarized below. The City will be provided copies of permit approvals when they are received. Given the review periods associated with some of the required permits, Eversource requests that the City condition approval of the CUP so that permit may be provided as they are received, rather than prior to the issuance of the CUP. The following state and federal permits are anticipated to be required for the Project:

- NHDES Utility Statutory Permit by Notification (submitted)
- NHDES Protected Shoreland Permit by Notification (pending submission)
- NHDES Alteration of Terrian Permit (submitted)
- USACE Pre-Construction Notification (pending submission)
- USACE Section 408 Variance Approval (pending)

(d) *A written review by the Conservation Commission of the environmental effects of the proposed use upon the area in question has been submitted. The Commission's review shall address the following, but is not limited to:*

(i) attempted avoidance of the impact;

(ii) minimization of the impact;

(iii) planned mitigation of the effects of the impact; and

(iv) efficacy of the soil erosion and sedimentation control plan.

Watercourses and surface waters have been avoided to the extent possible, and no alterations of banks or natural geomorphology are proposed. Temporary construction mats will be used to bridge, and avoid, stream areas; mats will be removed following construction. Conditions or requests for information related to environmental effects made by the local Conservation Commission will be documented and applied to the project where feasible.

4.3 IMPACT AREAS

Anticipated temporary and permanent impacts within the Conservation District and Wetland Protection District are summarized by Impact Area in Table 1 and described per area below. Each area corresponds with respective map sheets (Impact Area 1 corresponds with Map Sheet 1, etc.) in the attached CUP permit map set. Temporary impacts include timber matting and areas that will be restored post-construction, and permanent impacts within buffers are for gravel access road and work pad construction. Most of the impacts across the five impact areas (Map Sheets 1–5) occur in the Wetland Protection District and of those impacts 64% are temporary; the remaining 36% are permanent impacts in upland wetland buffer areas (see Impact Area discussions below for more details).

4.3.1 Impact Area 1

Within the Wetland Protection District, anticipated impacts in Impact Area 1 include approximately 5,526 sf of temporary impacts within wetland buffer areas of wetland W02 (overlaps 100% with areas subject to tidal action in the Conservation District), and approximately 19,734 sf of temporary impacts within the buffer area of areas subject to tidal action in the Conservation District. These temporary impacts associated with the creation of access roads and work pad construction are necessary to complete the replacement of proposed structures 27 and 28. Disturbances associated with these structure replacements will be fully restored once construction is complete, and no permanent impacts are anticipated in either District.

Impacts were avoided and minimized to the greatest extent practicable by minimizing the length of the new access road, locating access roads and work pads outside of wetland boundaries and wetland buffers, where possible, utilizing existing disturbances/access roads, and reducing the construction footprint and restoring areas along the Cocheco River shoreland that are within the Wetland Protection and Conservation Districts.

4.3.2 Impact Area 2

Within the Wetland Protection District, anticipated impacts in Impact Area 2 include approximately 742 sf of temporary wetland impacts (i.e., timber matting) and approximately 1,802 sf of temporary impacts in wetland buffer areas to cross wetland W11 and stream S04 along the access route between proposed structures 18 and 19. Within the Conservation District, approximately 1,515 sf of temporary impacts in stream buffer areas are anticipated. Overlapping buffer areas include approximately 773 sf of temporary impacts. Areas within and surrounding the Districts are existing fields and residential areas, and temporary upland matting will be used to avoid ground disturbance at the landowner's request. No permanent impacts are anticipated within either District.

4.3.3 Impact Area 3

Within the Wetland Protection District, anticipated impacts in Impact Area 3 include approximately 23,279 sf of temporary wetland impact (i.e., timber matting), approximately 16,716 sf of temporary impact in wetland buffer areas, and approximately 29,941 sf of permanent impact in wetland buffer areas to create the access road and work areas associated with proposed structures 13 through 18, across wetlands W12 through W16.

Impact Area 3 is the only Impact Area on the R169 line where upland buffer area impacts are proposed to be permanent (see Table 1 and Map Sheet 3 of 5). The permanent impacts are a result of the proposed 100-ft by 100-ft gravel work pads around proposed structures 14, 15, 16, and 18. In the case of the pads at proposed structures 14, 15, and 18, a portion of the 100-ft by 100-ft pad area will be gravel, with the remaining pad area constructed using temporary wetland matting. In these three locations, it is likely that the temporary matting will cover an even greater proportion of the pad area. Proposed structure 16 is the sole location where the entire pad is proposed to be gravel, and this location is entirely upland. No temporary or permanent impacts are anticipated within the Conservation District in Impact Area 3.

4.3.4 Impact Area 4

Within the Wetland Protection District, anticipated impacts in Impact Area 4 include approximately 3,188 sf of temporary wetland impact (i.e., timber matting) and approximately 1,852 sf of temporary impact in wetland buffer areas. Temporary impacts to wetlands and buffers include access across wetland W17 between proposed structures 9 and 10, and work areas and access in wetland W18 at proposed structure 7; no permanent impacts are anticipated due to landowner requests to use upland matting to protect existing field areas. No Conservation Districts are present in Impact Area 4.

4.3.5 Impact Area 5

Within the Wetland Protection District, anticipated impacts in Impact Area 5 include approximately 29,676 sf of temporary wetland impact (i.e., timber matting) and approximately 942 sf of temporary impact in wetland buffer areas to create work areas and access in wetland W18 associated with proposed structure 6; no permanent impacts are proposed. The Project will utilize an existing gravel access road from the 307 line ROW to proposed structure 6 to traverse through the Conservation Districts associated with

streams S05, S06, and S07 to avoid temporary and permanent impacts within those buffers. No work is proposed within the Conservation District associated with the Piscataqua River.

PHOTOGRAPHS

R169 STRUCTURE REPLACEMENT PROJECT
CUP APPLICATION - REPRESENTATIVE PHOTOGRAPHS

December 22, 2023



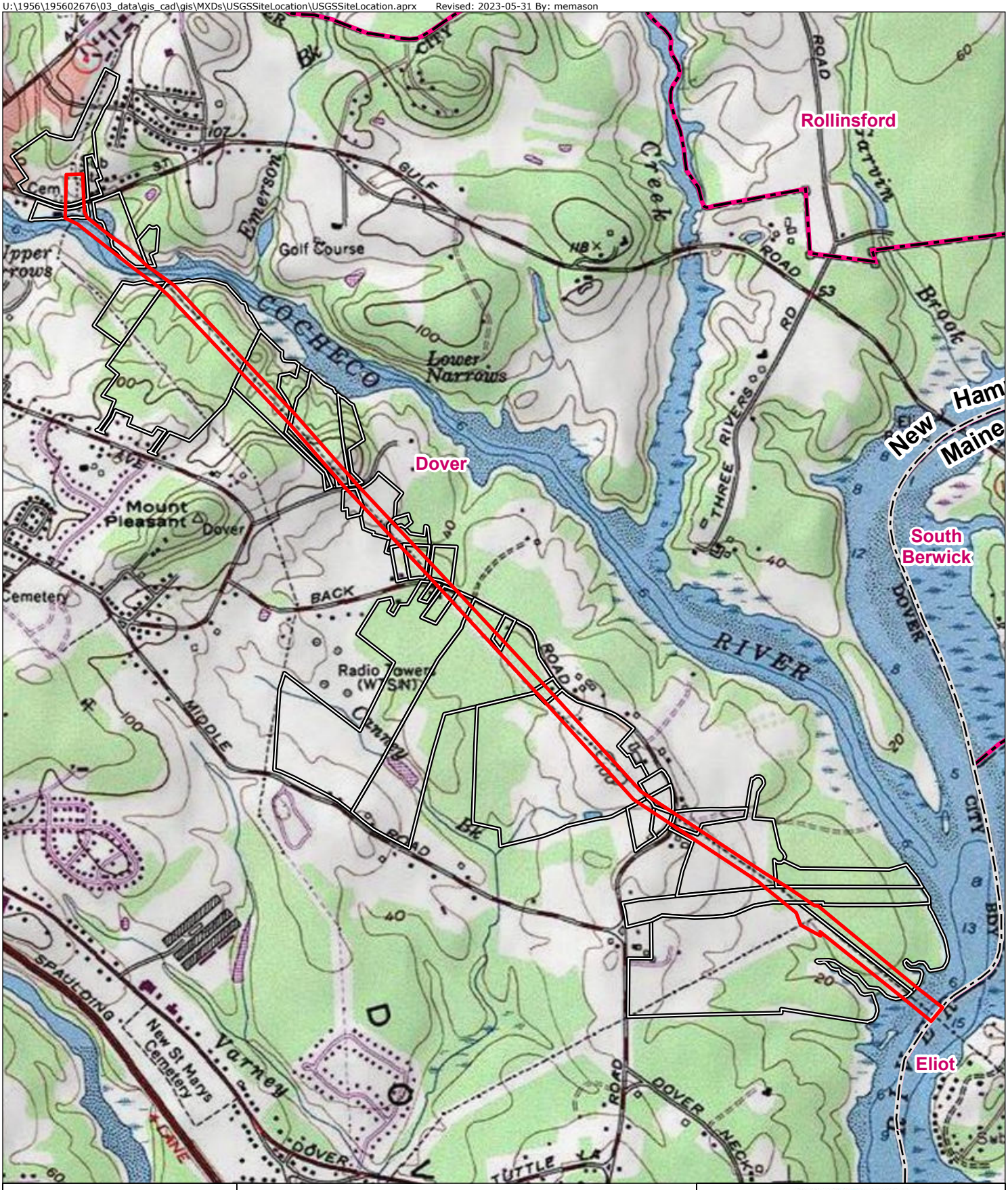
Photo 1. Representative view of the ROW and wetland W18. View west from proposed structure 6 towards proposed structure 7 (structure 7 is included in Impact Area 4 CUP application). Stantec. June 8, 2023.



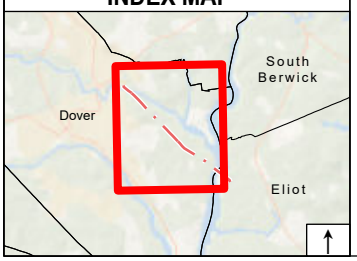
Photo 2. Scrub-shrub wetland habitat at proposed structure 6 prior to mowing. Stantec. June 8, 2023.

FIGURES

U:\1956\195602676\03_data\gis_cad\gis\MXDs\USGSSiteLocation\USGSSiteLocation.aprx Revised: 2023-05-31 By: memason



INDEX MAP



Legend

- Approximate Project Limits
- Municipal Boundary
- State Boundary
- Abutting Parcel Boundary

N

1 inch = 1,500 Feet

0 750 1,500 Feet

EVERSOURCE ENERGY

Dover to Eliot (R169)
Structure Replacement Project

Date: May 31, 2023

Figure 1
USGS Location Map

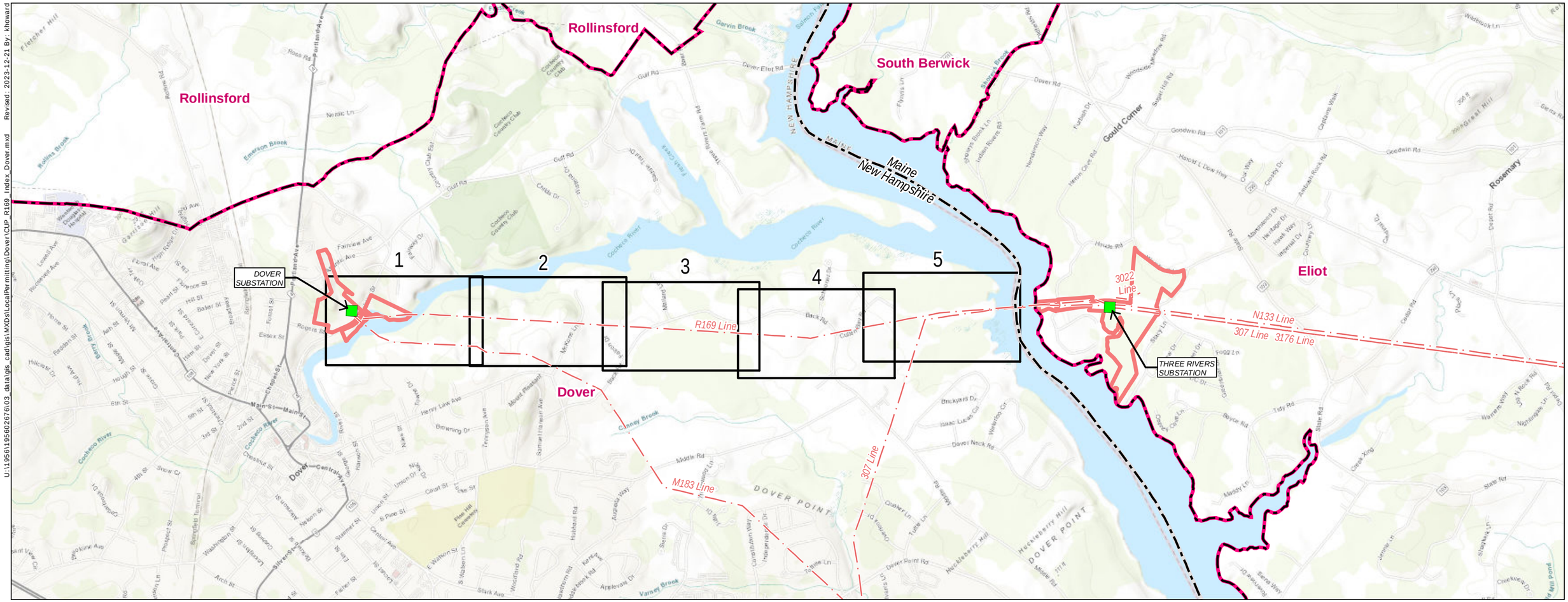
R169 Line - Structure Replacement Project

Dover, NH

Environmental Resources Map

Dover CUP Permit Map Set

Date: December 21, 2023



Legend

Substation | Municipal Boundary | State Boundary | Map Sheet | Eversource Owned Property

PREPARED FOR:

EVERSOURCE ENERGY

107 Selden Street
Berlin, CT 06037

N

0 2,000 4,000 Feet

INDEX OF FIGURES

Title Sheet / Index Map
Map Sheets 1-5

PREPARED BY:

Stantec

30 Park Drive
Topsham, ME 04086

Temporary Wetland Impact (SF)	Temporary Wetland Protection District Impact (SF)	Temporary Conservation District Impact (SF)	Permanent Wetland Protection District Impact (SF)	Permanent Conservation District Impact (SF)
29,676	942	-	-	-

CULLEN BAY ROAD

CULLEN BAY ROAD

831-001
Tax Map ID: M0092-A00000
Patricia Langs
Back Road

831-002
Tax Map ID: M0092-H00000
Marie V Hebert Trustee
Cullen Bay Road

831-003
Tax Map ID: M0092-B00000
Cullen Bay Homeowners Association
Cullen Bay Road

829-139
Tax Map ID: M0104-000000
Alan G. Dexter Trustee
Back River Road

829-138
Tax Map ID: M0091-A00000
Townsquare Media Portsmouth LLC
292 Middle Road

TEMPORARY WETLAND IMPACT: +/-2,375 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-6,494 SQ.FT.

SPAN STREAM AND WETLAND NO IMPACT

Dover

Piscataqua River

Maine
New Hampshire

R169 Line

307 Line

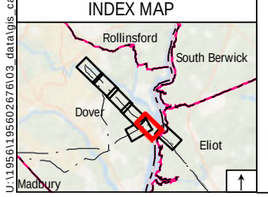
W18-PSS

S05

S06

S07

INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending
- Proposed Access
- Sediment Control Barrier (Typ.)
- Stone Work Pad
- Temporary Wetland Construction Matting
- Temporary Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 880 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource
- Open Water
- Potential Vernal Pool Extent
- 50' Potential Vernal Pool Buffer
- FEMA 100-Year Flood Zone
- FEMA Floodway
- -GAS- Approximate Gas Pipeline
- Fence
- Stonewall
- 2' Contour
- 10' Contour
- Culvert
- NHDES 250' Protected Shoreland
- Conservation District
- Wetland Protection District

1 inch = 200 feet
0 50 100 200 Feet

Map Notes:
Coordinate System: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet
Data source: Eversource easement lines, structures, transmission lines provided by Eversource Energy. Wetlands, watercourses, and potential vernal pools delineated and verified by Stantec June 2023. Additional sources include: FEMA, NH Granit, Maine Geolibrary Basemap: 2021 National Agriculture Imagery Program (NAIP) aerial imagery.

STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

R169 Line Structure Replacement
Dover CUP Permit Map Set

Dover, NH | MAP SHEET 5 of 5

Date: December 21, 2023

Stantec

U:\13956\13956026716\03_data\gis_cad\gis\MXDs\LocalPermitting\Dover\CUP_R169_MapSet_Dover1.mxd Revised: 2023-12-21 By: khoward

APPENDICES

Appendix A WETLAND DELINEATION REPORT

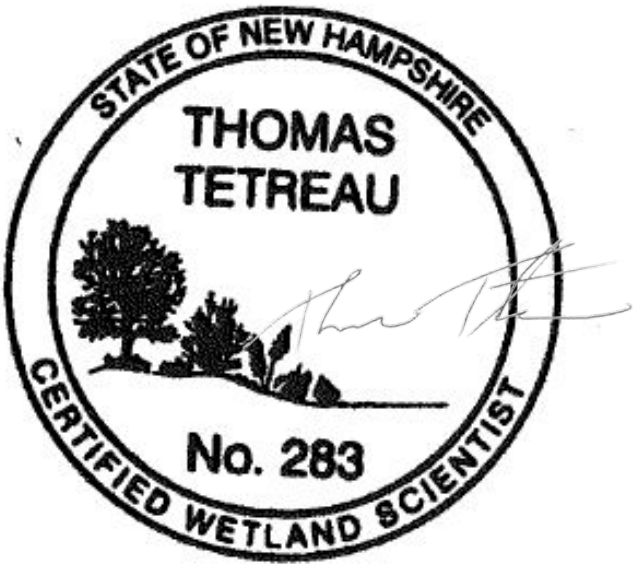
Wetland and Watercourse Delineation and Functional Assessment Report: R169 Structure Replacement Project

Dover, New Hampshire, and Eliot, Maine

September 14, 2023

Prepared for:

Eversource Energy
13 Legends Drive
Hooksett, NH 03106



Prepared by:

Stantec Consulting Services Inc.
30 Park Drive
Topsham, ME 04086

Table of Contents

1.0 INTRODUCTION 1

2.0 METHODS 1
2.1 WETLAND AND WATERCOURSE DELINEATION 1
2.2 FUNCTIONAL ASSESSMENT 2

3.0 RESULTS 3
3.1 GENERAL SITE DESCRIPTION 3
3.2 WETLAND AND WATERCOURSE DELINEATION 3
3.3 FUNCTIONAL ASSESSMENT 7

LIST OF TABLES

Table 1. Summary of Delineated Wetlands 4
Table 2. Summary of Delineated Streams 6
Table 3. Summary of Identified Vernal Pools 7
Table 4. Summary of Functional Assessment 8

LIST OF FIGURES

Permit Map Set

LIST OF APPENDICES

Appendix A Representative Photographs
Appendix B Corps Wetland Determination Data Forms (provided upon request)
Appendix C Wetlands Functional Assessment Worksheets (provided upon request)
Appendix D Observed Wildlife

1.0 INTRODUCTION

Eversource Energy (Eversource) proposes to replace approximately 20 existing transmission line structures located within the full length of the R169 Line, totaling approximately 3 miles of combined transmission line right-of-way (ROW) in Dover, New Hampshire and Eliot, Maine (Project Site; see attached Draft Map Set). Of the 20 structures proposed to be replaced, 19 are located in Dover and 1 is located in Eliot. Stantec Consulting Services Inc. (Stantec) was contracted to conduct wetland and watercourse delineations and a wetland functional assessment of the Project Site to support federal, state, and local natural resource permitting.

Stantec conducted on-site delineations within the existing ROW between June 8 and June 9, 2023. The delineations were conducted by Tom Tetreau, New Hampshire Certified Wetland Scientist #283. This report includes descriptions of the wetland and watercourse delineation methods and results.

2.0 METHODS

2.1 WETLAND AND WATERCOURSE DELINEATION

The R169 Line was previously delineated over 5 years ago, and the spatial data of these previously delineated wetlands and watercourses were used to aid in the 2023 wetland and watercourse delineation.

Wetland boundaries under local, state, and federal jurisdiction were determined using the technical criteria described in the U.S. Army Corps of Engineers (Corps) *Corps of Engineers Wetlands Delineation Manual*[1] and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regional Supplement.*[2] Wetland communities were classified according to the *Classification of Wetlands and Deepwater Habitats of the United States.*[3] Hydric soil determinations were made in accordance with the Corps wetland delineation manuals and the *Field Indicators for Identifying Hydric Soils in New England (Version 4).*[4]

Wetland boundaries anticipated to meet state, federal, and local jurisdictional criteria were located using a Global Positioning System (GPS) receiver capable of submeter accuracy. The previously delineated

[1] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
[2] U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[3] Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.
[4] New England Hydric Soils Technical Committee. 2017. Field Indicators for Identifying Hydric Soils in New England (Version 4).

wetland boundaries were confirmed using the GPS, with revisions to the boundaries located with the GPS as necessary.

Watercourses (e.g., streams) identified during the delineations were identified based on the definitions in NHDES Certified Administrative Rules Env-Wt 406.04, as well as the technical guidance available from the Corps on the identification of an Ordinary High Water Mark.[5] The top of each bank was mapped for streams typically over 6 feet wide, and the centerline was mapped for streams with top of bank widths up to 6 feet wide. Data was collected on flow regime, top of bank, band depth, Ordinary High Water Mark widths, dominant substrates, and evidence of biological use. GPS data were used to produce the attached map set.

The wetland delineation occurred outside the appropriate identification period for vernal pool indicator species; therefore, potential vernal pools were identified and evaluated in accordance with the *Identification and Documentation of Vernal Pools in New Hampshire.*[6] Potential vernal pools were primarily identified based on their physical characteristics and landscape position, and the presence of vernal pool indicator species, if observed. Observations of approximate size, hydrology, and evidence of disturbance were recorded. The boundaries of the potential vernal pools were located with GPS receivers, and photographs were taken of each vernal pool identified.

Priority Resource Areas (PRA), as defined in Env-Wt 103.66, were identified based on field observations and use of the Wetlands Permit Planning Tool.[7] PRAs identified along the R169 Line consisted of wetlands contiguous with tier 3 streams, tidal wetlands, and undeveloped tidal buffer zones.

2.2 FUNCTIONAL ASSESSMENT

Stantec performed a wetland functional assessment of the delineated wetlands and watercourses in accordance with New Hampshire Wetland Rules (Env-Wt 311.10). Wetland functions and values were qualitatively evaluated through direct field observation and a review of existing public data resources following the New Hampshire Method for evaluating the Ecological Integrity of the Wetlands and Streams (RSA 482-A:2, XI) and Corps *Highway Methodology Workbook Supplement.*[8] Information was collected to prepare Corps Wetland Determination Data Forms and Wetlands Functional Assessment Worksheets. Full assessments of Ecological Integrity using the New Hampshire Method is based on a series of desktop and field assessments and results in a numerical Functional Value Index for each wetland. Due to the length of the Project area, the abundance of wetlands, and the anticipated wetland impacts associated with the Project (temporary timber matting), Stantec evaluated the Ecological Integrity of each wetland using a qualitative value of low, medium, and high that considered the condition of the wetland

[5] U.S. Army Corps of Engineers. 2005. Regulatory Guidance Letter: Ordinary High Water Mark Identification. December 8, 2005. No. 05-05.

[6] Marchand, M. 2016. *Identifying and Documenting Vernal Pools in New Hampshire*. Third Edition, New Hampshire Fish and Game Department, Nongame and Endangered Wildlife Program.

[7] https://nhdeswppt.unh.edu/, accessed June 2023.

[8] U.S. Army Corps of Engineers. 1999. The Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach. U.S. Army Corps of Engineers. New England Division. 32pp. NAEEP-360-1-30a.

relative to human-caused stressors, diversity of native vegetation, and presence of natural processes. This modified method allowed for a more consistent and streamlined approach when completing the required Wetlands Functional Assessment Worksheets. The temporary impact area (matting) listed on the Wetlands Functional Assessment Worksheets is approximate based on preliminary mapping and Project design and represents the greatest amount of impact likely to occur. Temporary wetland impacts will be minimized throughout the permitting and design process, and some of these wetland impact areas may decrease.

3.0 RESULTS

3.1 GENERAL SITE DESCRIPTION

The R169 Line is an existing transmission line that traverses forested, residential, and agricultural landscapes between the Dover Substation in Dover and the Three Rivers Substation in Eliot. The open transmission line is approximately 100 feet wide in most areas, with wider stretches, up to 250-feet wide, containing additional transmission lines in the areas around the Piscataqua River crossing. The ROW primarily crosses rural areas and town roads, as well as the Cocheco River and the Piscataqua River. The topography varies from flat lowlands and fields to undulating hills and steep side slopes. Elevations generally range between 0 and 90 feet above mean sea level.

The open upland natural communities consist of early successional shrub, sapling, and herbaceous species. Characteristic woody vegetation includes gray birch (*Betula populifolia*), quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), sheep-laurel (*Kalmia angustifolia*), late lowbush blueberry (*Vaccinium angustifolium*), white meadowsweet (*Spiraea alba*), Allegheny blackberry (*Rubus allegheniensis*), American hazelnut (*Corylus americana*), red oak (*Quercus rubra*), and red raspberry (*Rubus idaeus*). Commonly observed herbaceous vegetation included little Canada mayflower (*Maianthemum canadense*), wrinkle-leaf goldenrod (*Solidago rugosa*), Canada goldenrod (*Solidago canadensis*), bracken fern (*Pteridium aquilinum*), hay-scented fern (*Dennstaedtia punctilobula*), wild strawberry (*fragaria virginiana*), bristly dewberry (*Rubus hispidus*), Kentucky blue grass (*Poa pratensis*), and other common grass and wildflower species. Non-native invasive species abundance was moderate compared to native vegetation and included rambler rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), Morrow's honeysuckle (*Lonicera morrowii*), and glossy false buckthorn (*Frangula alnus*). Soils within the ROW consisted primarily of loam and silty loam.

3.2 WETLAND AND WATERCOURSE DELINEATION

The wetland and watercourse delineations were conducted on June 8 and June 9, 2023, under appropriate conditions during the growing season. A total of 23 wetlands, 9 unnamed watercourses, and the Cocheco River and Piscataqua River were delineated. In addition, one potential vernal pool was surveyed. The locations of the delineated wetlands, watercourses, and potential vernal pool are included on the attached Draft Map Set. Tables 1, 2, and 3 summarize the delineated wetlands, watercourses, and potential vernal pool, respectively. Representative site photographs are provided in Appendix A. Representative Corps Wetland Determination Forms are included in Appendix B.



Table 1. Summary of Delineated Wetlands

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W001	PEM	Trees: None Saplings/Shrubs: None Herbs: broad-leaf cat-tail (*Typha latifolia*), lamp rush (*Juncus effusus*), cottongrass bulrush (*Scirpus cyperinus*), sensitive fern *(Onoclea sensibilis*), uptight sedge (*Carex stricta*)	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	Ditch excavation around existing substation
W002	E2EM	Trees: none Saplings/Shrubs: none Herbs: saltwater cord grass (*Spartina alterniflora*), eastern grasswort (*Lilaeopsis chinesis*)	F3: Depleted Matrix	A1: Surface Water A2: High Water Table A3: Saturation	Yes - Tidal	Tidal wetland associated with Cocheco River. Rare plant species observed.
W003	PFO	Trees: Norway maple (*Acer plantanoides*) Saplings/Shrubs: speckled alder (*Alnus incana*) Herbs: sensitive fern, lamp rush	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	Yes – within 100-feet of tidal areas	Stream S01 flows through wetland and into the Cocecho River.
W004	PSS	Trees: None Saplings/Shrubs: speckled alder Herbs: broad-leaf cat-tail, sensitive fern	F3: Depleted Matrix	A2: High Water Table A3: Saturation	Yes – within 100-feet of tidal areas	
W005	PSS/PEM	Trees: None Saplings/Shrubs: speckled alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	
W006	PEM	Trees: none Saplings/Shrubs: red maple, speckled alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush, reed canary grass (*Phalaris arundinacea*), spotted touch-me-not (*Impatiens capensis*)	F3: Depleted Matrix	A3: Saturation	No	Contains potential vernal pool PVP01.
W007	PSS	Trees: none Saplings/Shrubs: speckled alder Herbs: sensitive fern, lamp rush, spotted touch-me-not, bluejoint (*Calamagrostis canadensis*), woodland horsetail (*Equisetum sylvaticum*)	F3: Depleted Matrix	A3: Saturation	No	Contains stream S02.
W008	PEM	Trees: none Saplings/Shrubs: speckled alder Herbs: broad-leaf cat-tail, sensitive fern, uptight sedge	F3: Depleted Matrix	A3: Saturation	No	Contains stream S03.
W009	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, spotted touch-me-not, purple loosestrife (*Lythrum salicaria*)	F3: Depleted Matrix	A3: Saturation	No	

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W010	PEM/PSS	Trees: none Saplings/Shrubs: speckled alder Herbs: sensitive fern, lamp rush, woodland horsetail, bluejoint, reed canary grass	F3: Depleted Matrix	A3: Saturation	No	
W011	PSS	Trees: none Saplings/Shrubs: speckled alder, common winterberry (*Ilex verticilata*) Herbs: nodding sedge (*Carex gynandra*), sensitive fern, spotted touch-me-not, reed canary grass	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	Contains stream S04.
W012	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation	No	
W013	PEM	Trees: none Saplings/Shrubs: alder Herbs: sensitive fern, broad-leaf cat-tail, lamp rush, skunk-cabbage (*Symplocarpus foetidus*)	F3: Depleted Matrix	A2: High Water Table A3: Saturation	No	
W014	PEM/PSS	Trees: none Saplings/Shrubs: red maple, speckled alder, common winterberry Herbs: sensitive fern, lamp rush, broad-leaf cat-tail, reed canary grass, wrinkle-leaf goldenrod	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	
W015	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, steeplebush, wrinkle-leaf goldenrod, lamp rush	F3: Depleted Matrix	A3: Saturation	No	Portion of wetland within maintained lawn/yard area.
W016	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, uptight sedge, fowl manna grass (*Glyceria striata*), greater bladder sedge (*Carex intumescens*)	F3: Depleted Matrix	A3: Saturation	No	
W017	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, bluejoint, reed canary grass	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No	
W018	PSS/PEM	Trees: none Saplings/Shrubs: broad-leaf meadowsweet (*Spiraea latifolia*), coastal sweet pepperbush (*Clethra alnifolia*), speckled alder, common winterberry Herbs: sensitive fern, lamp rush, bluejoint, blue iris (*Iris versicolor)*	F3: Depleted Matrix	A3: Saturation	No	Portion of wetland is mowed hay field. Contains stream S05.

Wetland Resource Identifier	Wetland Classification[1]	Dominant and Characteristic Vegetation	Hydric Soil Indicators	Wetland Hydrology Indicators	Priority Resource Area (PRA)	Additional Comments
W019	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, broad-leaf cat-tail, necklace sedge (*Carex projecta*)	F3: Depleted Matrix	A3: Saturation	No	
W020	PEM/PSS	Trees: none Saplings/Shrubs: pussy willow (*Salix discolor*) Herbs: sensitive fern, bluejoint, reed canary grass, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation	No	
W021	PEM	Trees: none Saplings/Shrubs: speckled alder Herbs: lamp rush, sensitive fern, cottongrass bulrush	F3: Depleted Matrix	A3: Saturation B10: Wetland drainage patterns	No (Maine)	Adjacent to Piscataqua River. Portions within mowed lawn/yard area.
W022	PEM	Trees: none Saplings/Shrubs: none Herbs: sensitive fern, lamp rush, woodland horsetail, cottongrass bulrush	F3: Depleted Matrix	A3: Saturation	No (Maine	
W023	PSS/PEM	Trees: none Saplings/Shrubs: broad-leaf meadowsweet, speckled alder, common winterberry Herbs: sensitive fern, lamp rush, broad-leaf cat-tail	F3: Depleted Matrix	A3: Saturation B9: Water-stained leaves	No (Maine)	

[1] PEM = Palustrine Emergent, PSS = Palustrine Scrub-shrub, PUB = Palustrine Unconsolidated Bottom, PFO = Palustrine Forested, E2EM = Estuarine Intertidal Emergent

Table 2. Summary of Delineated Streams

Stream Identifier	Flow Type	Bankfull Width (ft)	Ordinary High Water Mark Width (ft)	Dominant Substrates	Additional notes
S01	Perennial	4-6	4-6	Sand, gravel, silt	Flows south through W03, into the Cocheco River
Cocheco River	Perennial/Tidal	200+	200+	Silt, gravel, mud	
S02	Intermittent	2-3	2-3	Silt, gravel	Flows across ROW toward Cocheco River
S03	Perennial	8	8	Cobbles, gravel, boulders	Flows across ROW toward Cocheco River
S04	Perennial	4	4	Silt, gravel	Flows through wetland W11 in residence area
S05	Intermittent	4	4	Silt, gravel	Flows from wetland W18 towards Piscataqua River
Piscataqua River	Perennial/Tidal	850+	850+	Silt, gravel, mud	
S06	Intermittent	3	3	Sand, silt, gravel	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S07	Intermittent	4	4	Gravel, cobbles	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S08	Intermittent	4	4	Silt, gravel, cobbles	Flows across ROW toward Piscataqua River; flows under existing road through culvert
S09	Ephemeral	4	5	Sand, gravel	Originates from culvert under existing road, likely only flows during heavy rain

Table 3. Summary of Identified Vernal Pools

VP Identifier	Estimated Hydroperiod	Indicator Species	Comments
PVP01	Semi-permanent	Unknown adult frogs observed	Potential old excavation adjacent to pipeline crossing of the transmission line ROW. Approximately 50-foot diameter and 1 to 2 feet deep with mucky substrate.

3.3 FUNCTIONAL ASSESSMENT

Table 4 summarizes the results of the wetland functional assessment. In general, wetlands within the Project area provide a variety of functions and values. Nutrient Trapping / Retention & Transformation, Sediment Trapping, and Wetland-dependent Wildlife Habitat were the most common functions along with Groundwater Recharge and Flood Storage.

Wetlands Functional Assessment Worksheets for wetlands proposed to be impacted by temporary timber matting are included in Appendix C. Potential vernal pools and streams were considered when performing the functional assessment of impacted wetlands, but since no impacts are proposed to potential vernal pools and streams, a full assessment of these features was not included in the Wetlands Functional Assessment Worksheets. The list of observed wildlife is included in Appendix D, and Table 1 above includes the observed vegetation.

Table 4. Summary of Functional Assessment

Wetland Resource Identifier	Wetland Functions and Values[1]													
	1 Ecological Integrity[2]	2 Educational Potential	3 Fish and Aquatic Life Habitat	4 Flood Storage	5 Groundwater Recharge	6 Noteworthiness	7 Nutrient Trapping / Retention & Transformation	8 Production Export	9 Scenic Quality	10 Sediment Trapping	11 Shoreline Anchoring	12 Uniqueness/ Heritage	13 Wetland-based Recreation	14 Wetland-dependent Wildlife Habitat
W001	Low			X			P	X		X				
W002	High		P	P		P	P	X		X	P	X		X
W003	Moderate			P			X	X		X	X			X
W004	Moderate			P			X	X		X	P			X
W005	Moderate			P	X		X	X		X				X
W006	Moderate				P		X	X		X				P
W007	Moderate			X	P		X	X		X	P			X
W008	Moderate			X	P		X	X		X	P			X
W009	Low				P		X	X		X				X
W010	Moderate			X	P		X	X		X				X
W011	Moderate		X	X	X		X	X		X	P			X
W012	Low				X		P	X		X				X
W013	Moderate			X	X		P	X		X				X
W014	Moderate			X	X		P	P		X				X
W015	Low				X		X	X		P				X
W016	Low				X		P	X		X				X
W017	Moderate						X	P		X				X
W018	Moderate			X	X		P	X		X				X
W019	Low						P	X		P				X
W020	Low						P	X		P				X
W021	N/A, Maine			P	X		X	X		P				X
W022	N/A, Maine				X		X	X		P				X
W023	N/A, Maine			X	P	X	X	X		P				X

X = Function observed within wetland, P = Principal Function

[1] Corps Highway Methodology Workbook Supplement

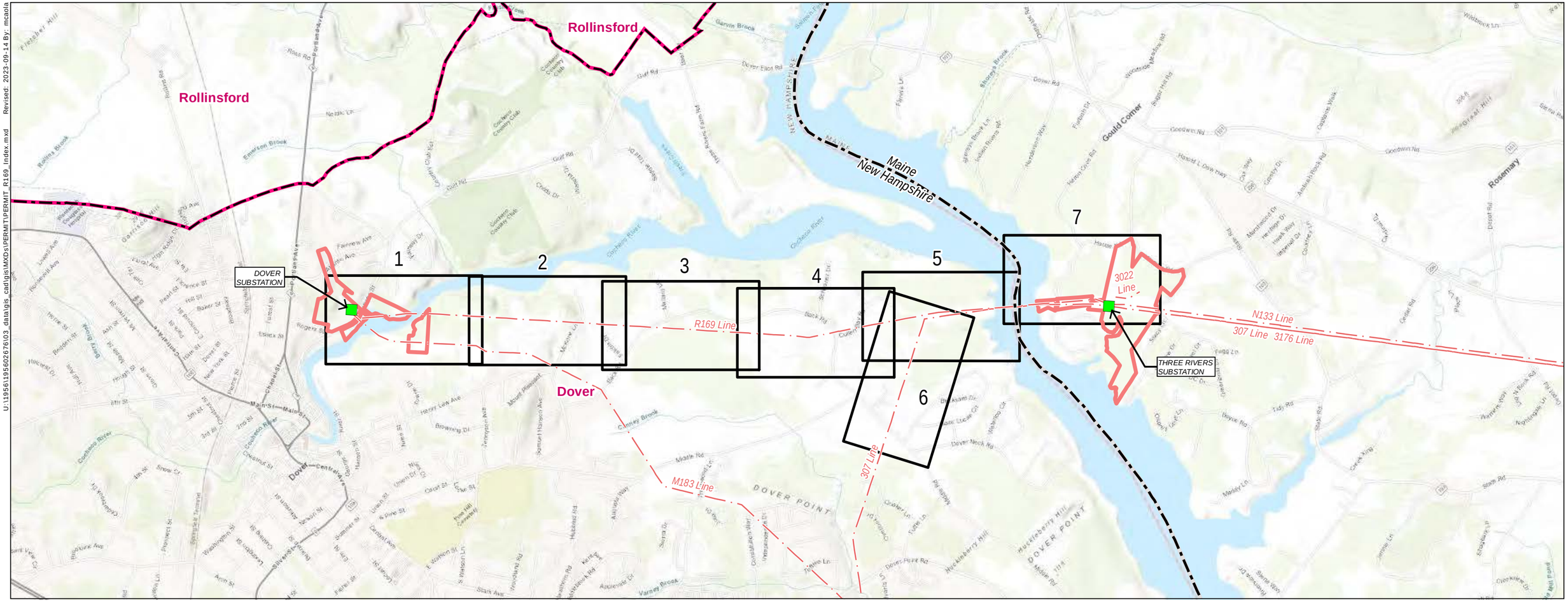
[2] Method for the Comparative Evaluation of Nontidal Wetlands in New Hampshire

FIGURES

R169 Line - Structure Replacement Project

Dover, NH and Eliot, ME
Environmental Resources Map
PERMIT Map Set
Date: September 14, 2023

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Legend

Substation | Municipal Boundary | State Boundary | Map Sheet | Eversource Owned Property

N

0 2,000 4,000 Feet

PREPARED FOR:

EVERSOURCE ENERGY

107 Selden Street
Berlin, CT 06037

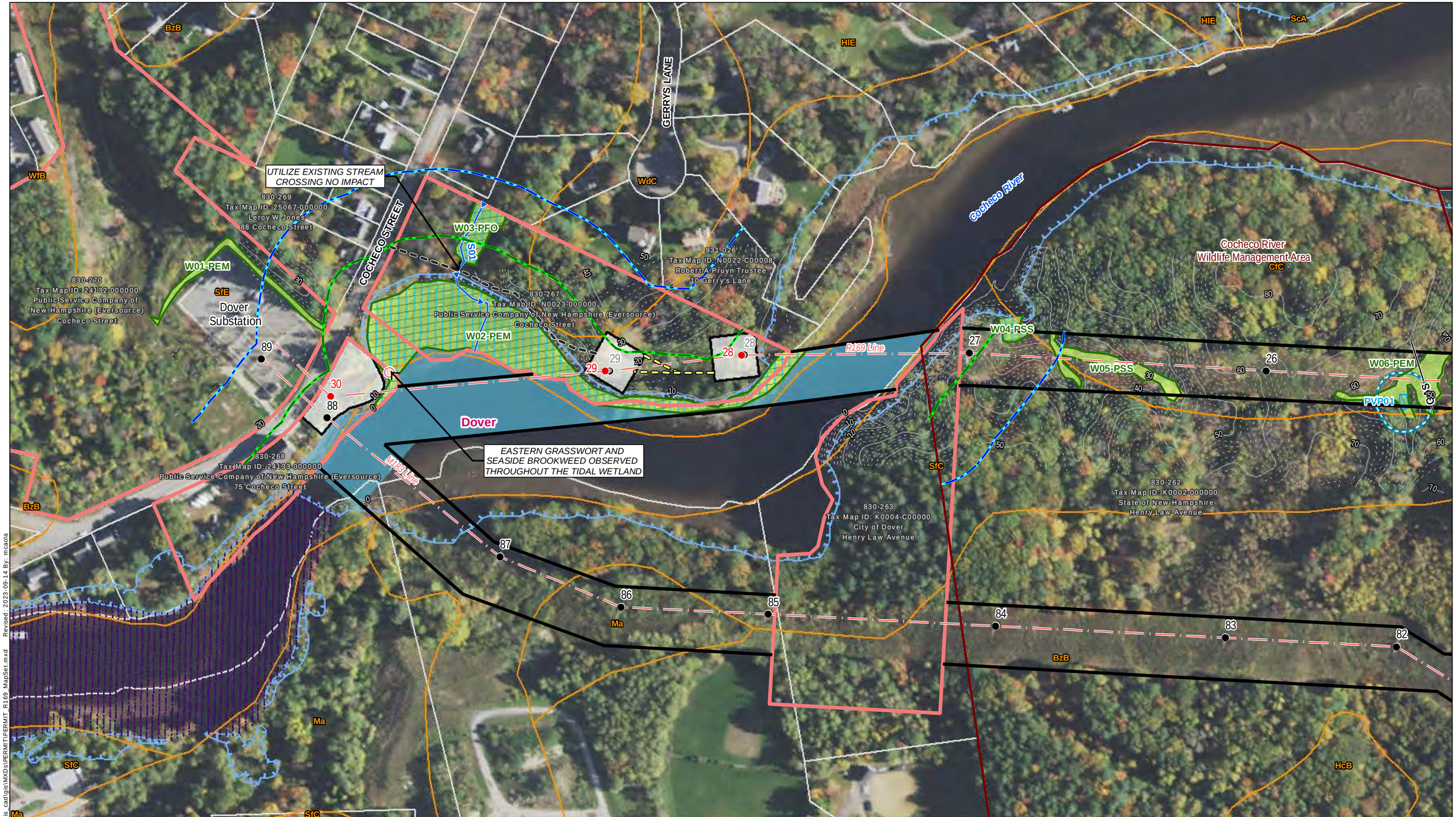
INDEX OF FIGURES

Title Sheet / Index Map
NRCS Soils Table
Map Sheets 1-7

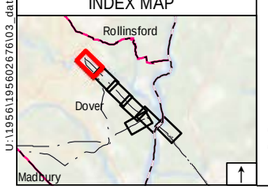
PREPARED BY:

Stantec

30 Park Drive
Topsham, ME 04086



INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 830 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
- Potential Vernal Pool Extent
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1 inch = 200 feet
0 50 100 200 Feet

Map Notes:
Coordinate System: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet
Data source: Eversource easement lines, structures, transmission lines, and wetlands/watercourses provided by Eversource Energy. Additional sources include: FEMA, NH Granit, Maine Geolibrary
Basemap: 2021 National Agriculture Imagery Program (NAIP) aerial imagery

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THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

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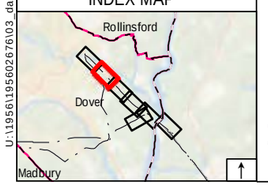
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 1 of 7
Date: September 14, 2023	Stantec

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Dover
Cocheco River
Cocheco River Wildlife Management Area
831-022
Tax Map ID: N0018-001000
State of New Hampshire
McKone Lane
831-024
Tax Map ID: K0001-A00000
Robert Swanson
38 McKone Lane
831-025
Tax Map ID: K0001-A00001
State of New Hampshire
McKone Lane
831-023
Tax Map ID: K0001-B00000
State of New Hampshire
McKone Lane
830-262
Tax Map ID: K0002-000000
State of New Hampshire
Henry Law Avenue
831-020
Tax Map ID: N0018-006000
Daniel & Jacqueline Ayer Revocable Trusts
McKone Lane
831-019
Tax Map ID: N0018-014000
Brianna Dichter
10 Whiteley Drive
831-018
Tax Map ID: N0018-000OP1
One Home Builders II LLC
Eagan Drive
831-021
Tax Map ID: N0019-005000
Anthony P Ayer
47 McKone Lane
831-017
Tax Map ID: N0019-A00000
Elaine M Thurston
174 Back Road
WHITELEY DRIVE
EAGAN DRIVE
MCKONE LANE
FALCON DRIVE
BACKROAD
W06-PEM
PVP01
W07-PSS
W08-PEM
W09-PEM
W10-PEM
W11-PSS
SPAN STREAM NO IMPACT
CONFIGURE WORK PADS TO AVOID EXISTING STONEWALL
UTILIZE EXISTING BREACH IN STONEWALL
STONEWALL TO BE REMOVED AND REBUILT AFTER CONSTRUCTION
UTILIZE EXISTING PAVED DRIVEWAY
TEMPORARY WETLAND IMPACT: +/-742 SQ.FT.
R169 Line
M183 Line
ScA
HeD
HcC
SfC
WfB
HcB
DeA
HcD
CfC
CsD
CsB
WfC
HdD
BzB
HdC
HcB
ScB
HdB
WdB
82
81
80
79
78
8.5
25
24
23
22
21
20

INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 830 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
- Potential Vernal Pool Extent
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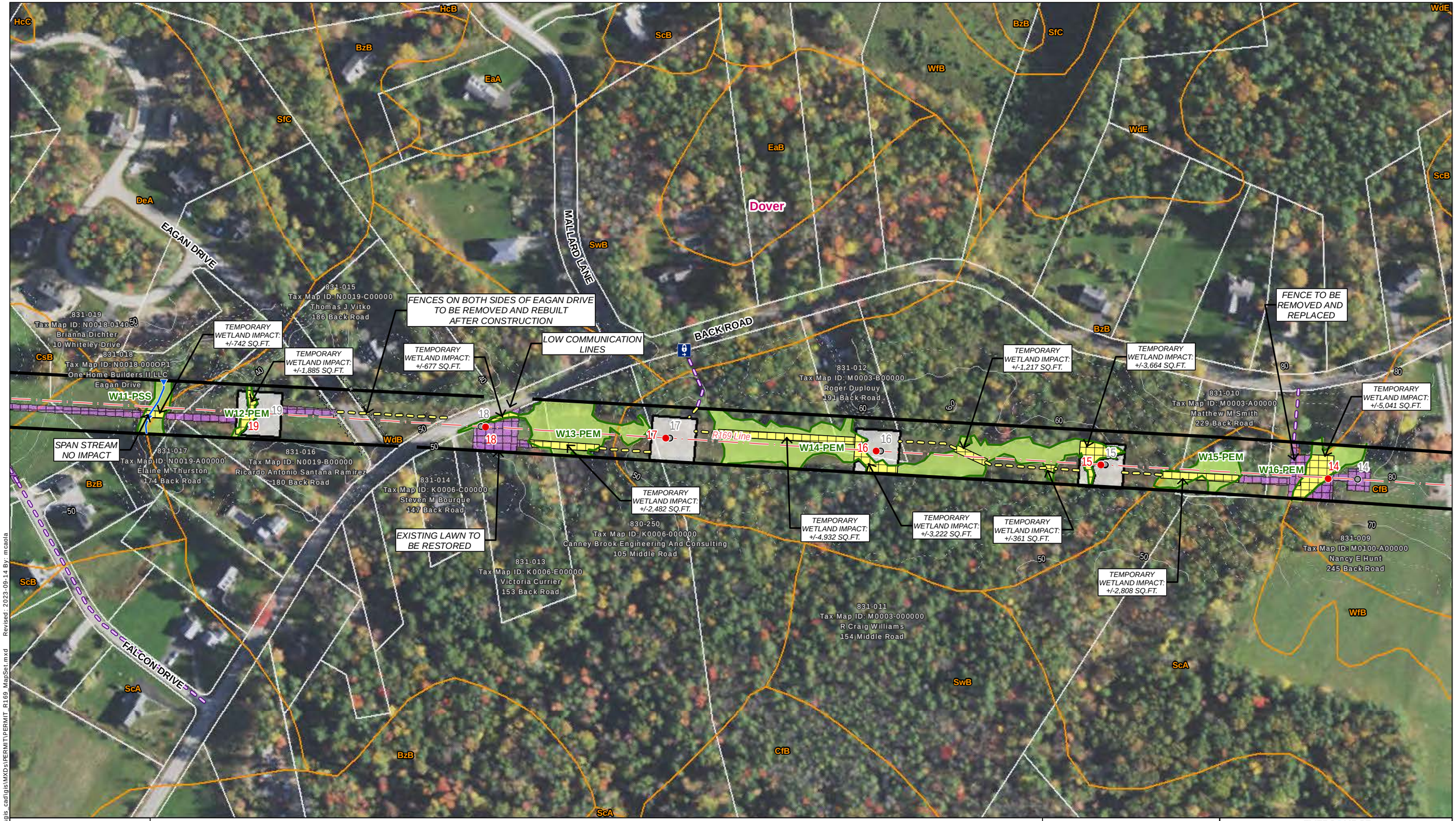
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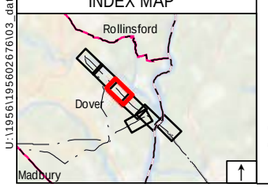
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 2 of 7
Date: September 14, 2023	Stantec

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- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 830 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
- Potential Vernal Pool Extent
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R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 3 of 7
Date: September 14, 2023	Stantec

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FENCE TO BE REMOVED AND REPLACED

TEMPORARY WETLAND IMPACT: +/-926 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-1,452 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-810 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-3,188 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.

TEMPORARY WETLAND IMPACT: +/-6,840 SQ.FT.

ACCESS FROM BACK ROAD

EXISTING LAWN TO BE RESTORED

SCHOONER DRIVE

CULLEN BAY ROAD

BACK ROAD

Dover

R169 Line

W16-PEM

W17-PEM

W18-PSS

831-008
Tax Map ID: M0100-B00000
Gregory W Hunt
295 Back Road

831-007
Tax Map ID: M0105-002000
Christopher D Berg
303 Back Road

831-004
Tax Map ID: M0093-B00000
Nancy Magiaras
362 Back Road

831-003
Tax Map ID: M0092-B00000
Cullen Bay Homeowners Association
Cullen Bay Road

831-005
Tax Map ID: M0105-000000
Eric W Thompson
321 Back Road

831-009
Tax Map ID: M0100-A00000
Nancy E Hunt
245 Back Road

831-006
Tax Map ID: M0105-001000
William C & Nancy Hunt Trustees
Back Road

831-001
Tax Map ID: M0092-A00000
Patricia Langs
Back Road

829-138
Tax Map ID: M0091-A00000
Townsquare Media Portsmouth LLC
292 Middle Road

WdE WdB BzB ScB CfB HcB WfB ScA SwB SfC HcC

INDEX MAP

Rollinsford
Dover
Madbury

Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 830 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
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- Field Delineated Wetland Boundary
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- NRCS Soil Unit Boundary
- -GAS- Approximate Gas Pipeline
- Fence
- Stonewall
- 2' Contour
- 10' Contour
- Gate
- Culvert

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1 inch = 200 feet
0 50 100 200 Feet

Map Notes:
Coordinate System: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet
Data source: Eversource easement lines, structures, transmission lines, and wetlands/watercourses provided by Eversource Energy. Additional sources include: FEMA, NH Granit, Maine Geolibrary
Basemap: 2021 National Agriculture Imagery Program (NAIP) aerial imagery

STATE OF NEW HAMPSHIRE
THOMAS TETREAU
No. 283
CERTIFIED WETLAND SCIENTIST

EVERSOURCE ENERGY

R169 Line Structure Replacement
PERMIT Map Set

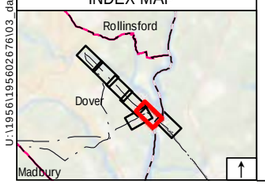
Dover, NH	MAP SHEET 4 of 7
Date: September 14, 2023	Stantec

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SfC
HaA
WdB
SfC
WfB
SfC
DeB
CULLEN BAY ROAD
CULLEN BAY ROAD
Dover
Piscataqua River
Maine
New Hampshire
829-139
Tax Map ID: M0104-000000
Alan G. Dexter Trustee
Back River Road
831-001
Tax Map ID: M0092-A00000
Patricia Langs
Back Road
WdB
TEMPORARY WETLAND IMPACT: +/-2,022 SQ.FT.
831-002
Tax Map ID: M0092-H00000
Marie V Hebert Trustee
Cullen Bay Road
ScB
TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.
831-003
Tax Map ID: M0092-B00000
Cullen Bay Homeowners Association
Cullen Bay Road
W18-PSS
S05
R169 Line
307 Line
SPAN STREAM AND WETLAND NO IMPACT
829-138
Tax Map ID: M0091-A00000
Townsquare Media Portsmouth LLC
292 Middle Road
TEMPORARY WETLAND IMPACT: +/-10,000 SQ.FT.
TEMPORARY WETLAND IMPACT: +/-6,840 SQ.FT.
WdA
WdE
S06
WdC
ScA
BzB
S07
WfC
Ta
EaB
WfB

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INDEX MAP



Legend

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Right-of-Way (ROW)
- Existing Access
- Off-ROW Access Pending Rights
- Proposed Access
- Stone Work Pad
- Temporary Construction Matting
- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
- Parcel Boundary
- 330 Abutter Number
- State Boundary
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Field Delineated Wetland Boundary
- Primary Resource Area
- Open Water
- Potential Vernal Pool Extent
- 50' Potential Vernal Pool Buffer
- 250' Protected Shoreland
- 100' Tidal Buffer Zone
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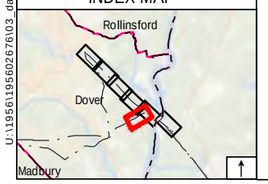
EVERSOURCE ENERGY

R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 5 of 7
Date: September 14, 2023	Stantec



INDEX MAP



Legend

- Existing Structure
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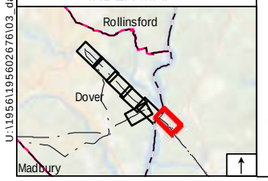
R169 Line Structure Replacement
PERMIT Map Set

Dover, NH	MAP SHEET 6 of 7
Date: September 14, 2023	Stantec

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INDEX MAP



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- Proposed Access
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- Upland Construction Matting
- Eversource Owned Property
- State Owned Property
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- Delineated Intermittent Stream
- Delineated Ephemeral Stream
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- FEMA Floodway
- NRCS Soil Unit Boundary
- Rare Species Observation
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STATE OF NEW HAMPSHIRE
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EVERSOURCE ENERGY

R169 Line Structure Replacement
PERMIT Map Set

Dover, NH and Eliot, ME	MAP SHEET 7 of 7
Date: September 14, 2023	Stantec

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APPENDICES

Appendix A REPRESENTATIVE PHOTOGRAPHS



Photo 1. Representative view of the Cocheco River from structure 30. Stantec, June 8, 2023.



Photo 2. Representative view of the Cocheco River from Structure 29. Stantec, June 8, 2023.



Photo 3. Stream S01 flowing into Cocheco River near structure 29. Stantec, June 8, 2023.



Photo 4. Representative view of Cocheco River from structure 28. Stantec, June 8, 2023.



Photo 5. Representative view of the ROW and Wetland W05. Stantec, June 8, 2023.



Photo 6. Potential vernal pool PVP01, near structure 25. Stantec, June 8, 2023.



Photo 7. Representative view of the ROW and wetland W10 near structure 23. Stantec, June 8, 2023.



Photo 8. Representative view of the ROW and wetland W13 near structure 18. Stantec, June 8, 2023.



Photo 9. Representative view of the ROW and wetland in active pasture area near structure 14. Stantec, June 8, 2023.



Photo 10. Representative view of the ROW and open field side of wetland W18, near structure 8. Stantec, June 8, 2023.



Photo 11. Stream S05 in wetland W18 near junction of R169 and 307 line ROWs. Stantec, June 8, 2023.



Photo 12. Representative view of the ROW at the Piscataqua River, structure 5. Stantec, June 8, 2023.



Photo 13. Wetland W19 and existing access along 307 line ROW. Stantec, June 8, 2023.



Photo 14. Representative view of the ROW and wetland W21, near structure 4. Stantec, June 8, 2023.



Photo 15. Representative view of the ROW and wetland W23, near structure 3. Stantec, June 8, 2023.



Photo 16. Structure 2, near the Three Rivers Substation. Stantec, June 8, 2023.

Appendix B CORPS WETLAND DETERMINATION DATA FORMS

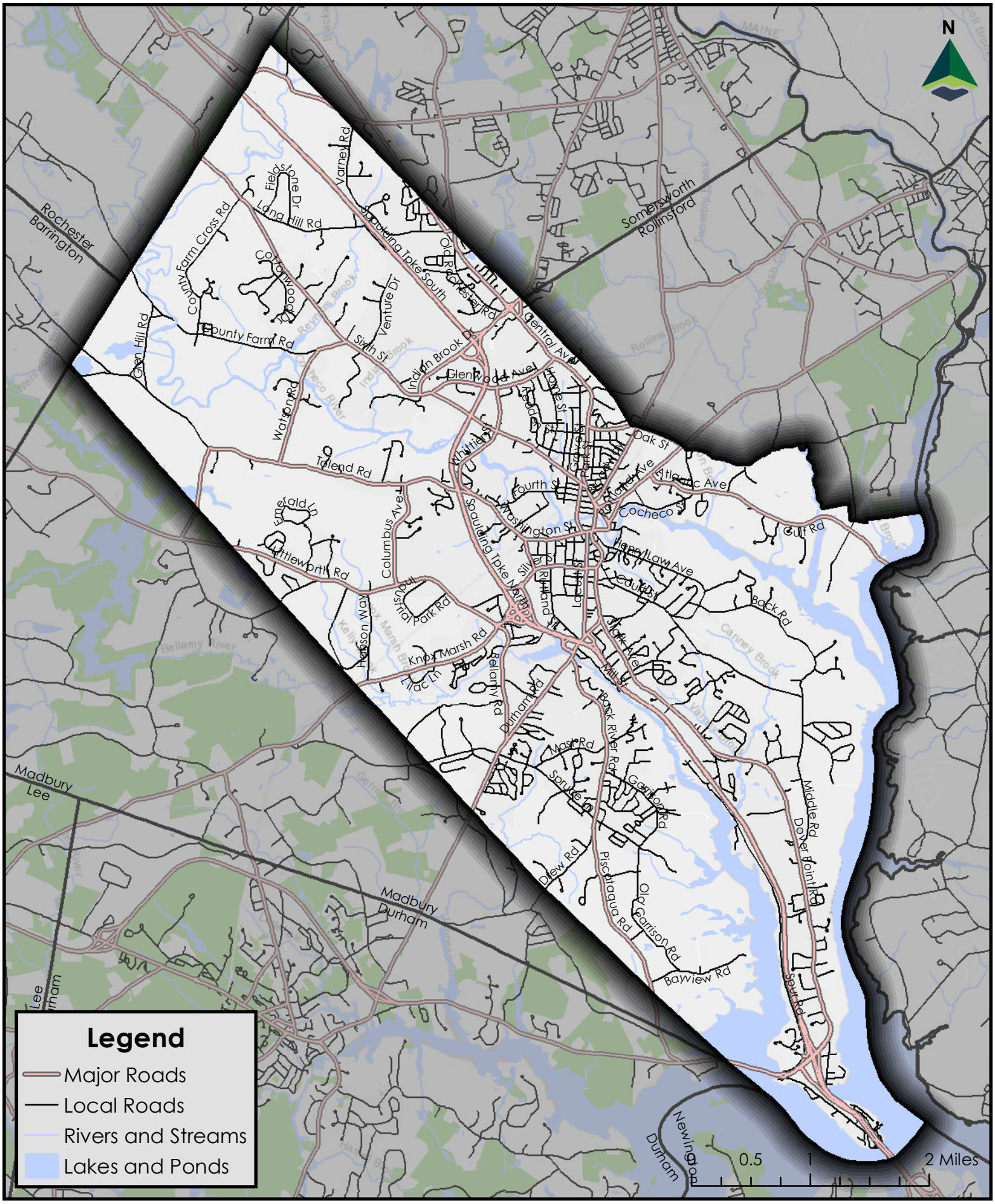
(Provided upon request)

Appendix C WETLANDS FUNCTIONAL ASSESSMENT WORKSHEETS

(Provided upon request)

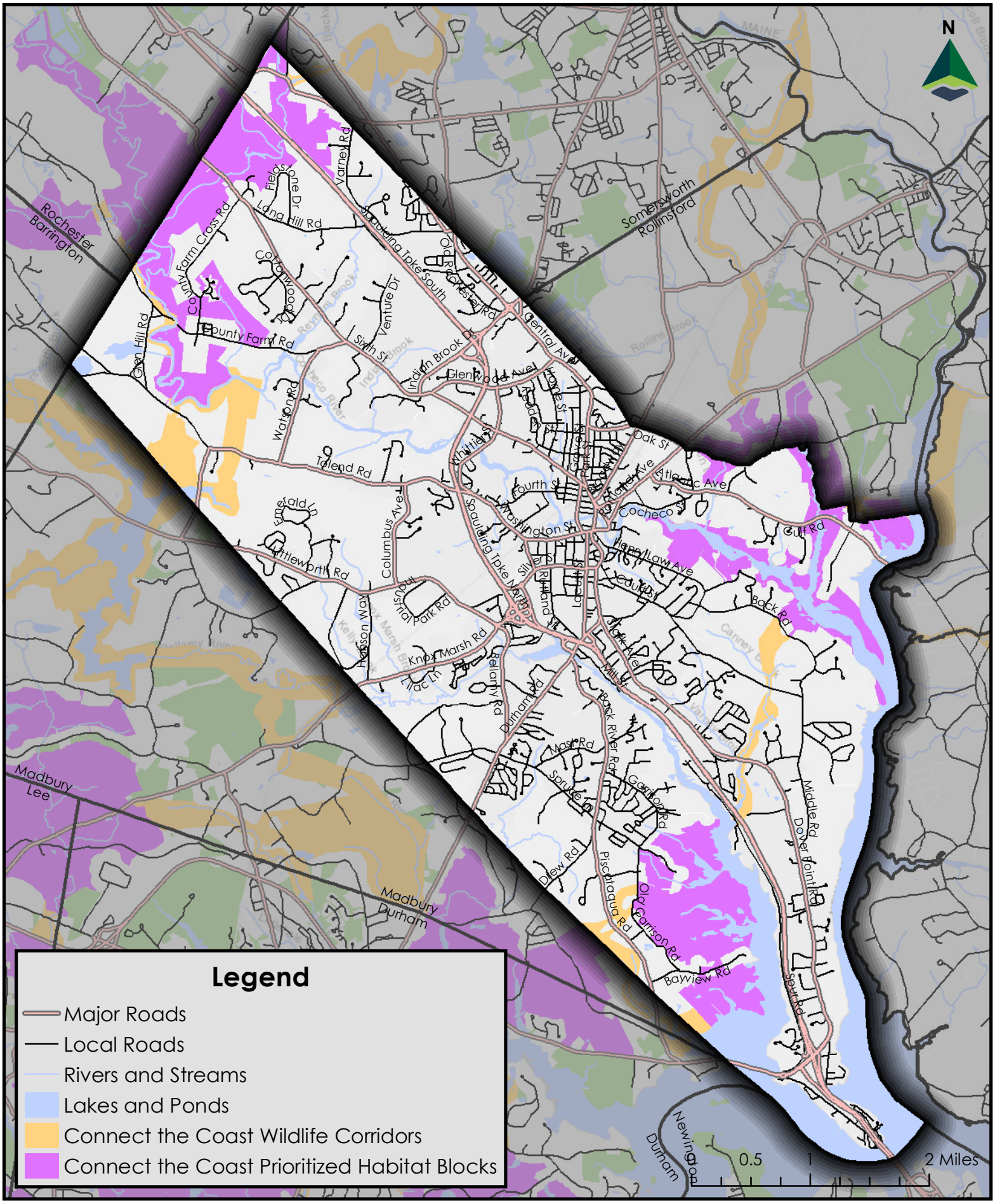
Appendix D OBSERVED WILDLIFE

Common Name	Species Name
American crow	*Corvus brachyrhynchos*
Osprey	*Pandion haliaetus*
Eastern chipmunk	*Tamias striatus*
Red-tailed hawk	*Buteo jamaicensis*
White-tailed deer	*Odocoileus virginianus*
Wild turkey	*Meleagris gallopavo*



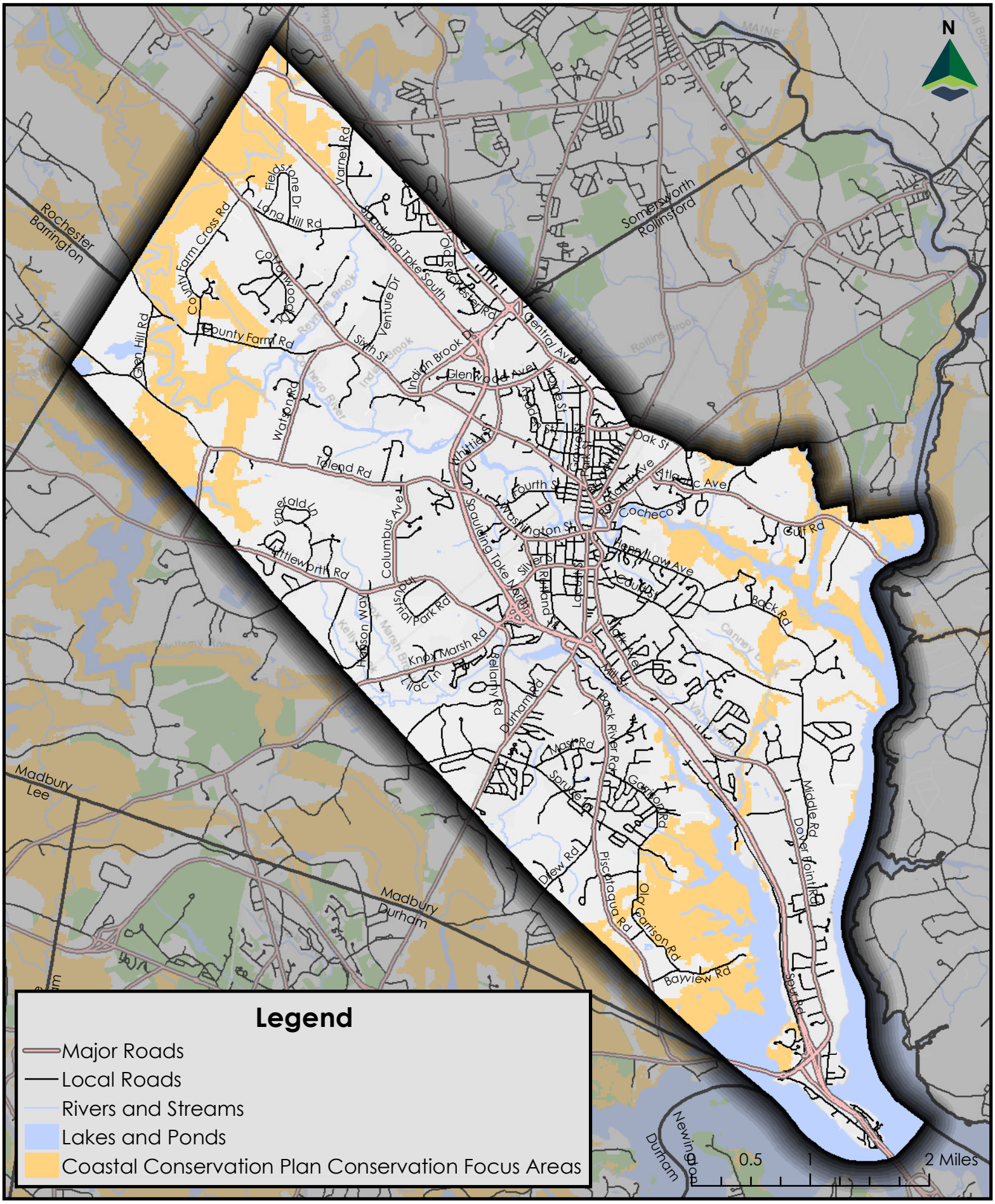
Natural Resource Inventory - City of Dover, NH

Locus Map



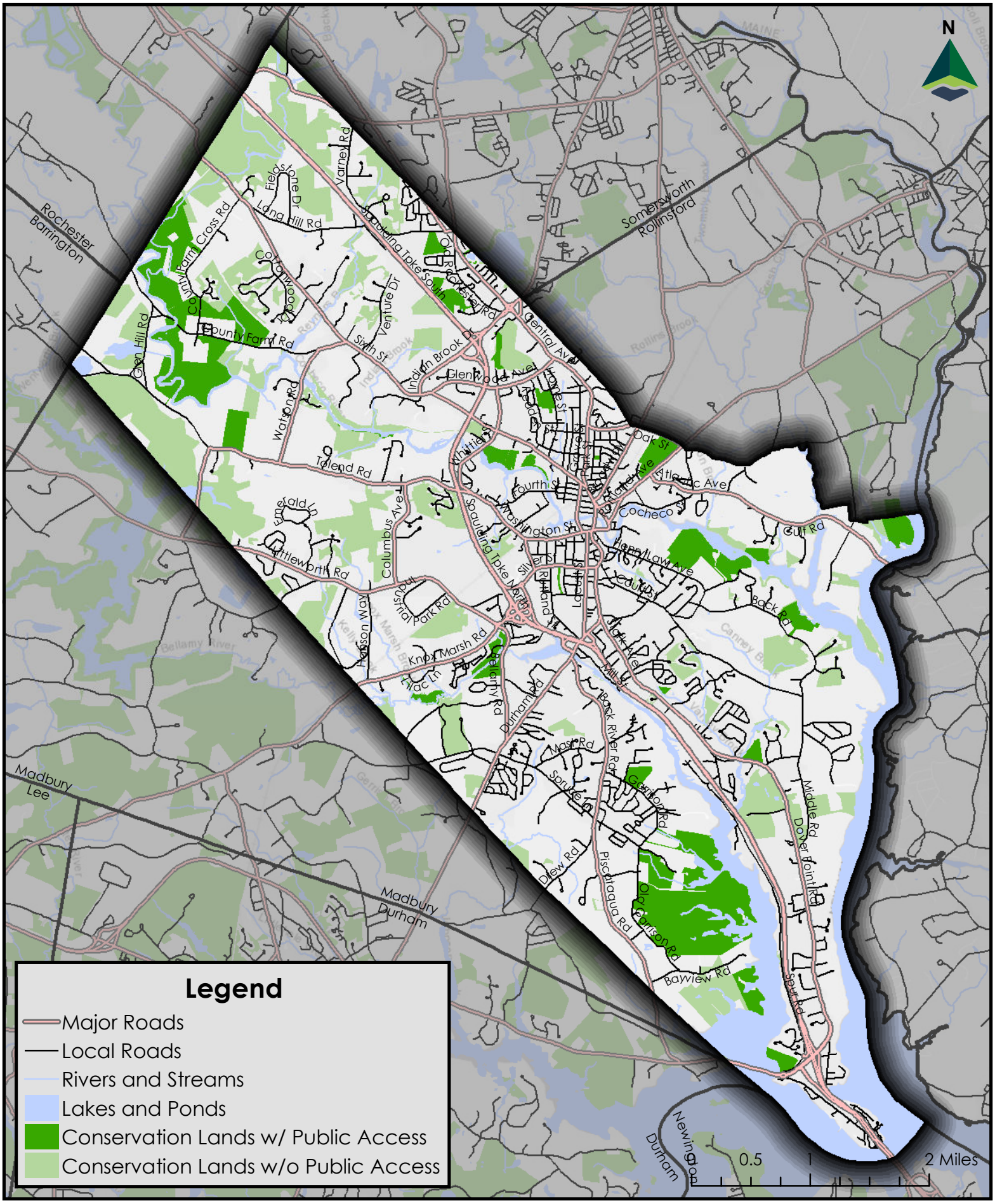
Natural Resource Inventory - City of Dover, NH

Connect the Coast Habitats



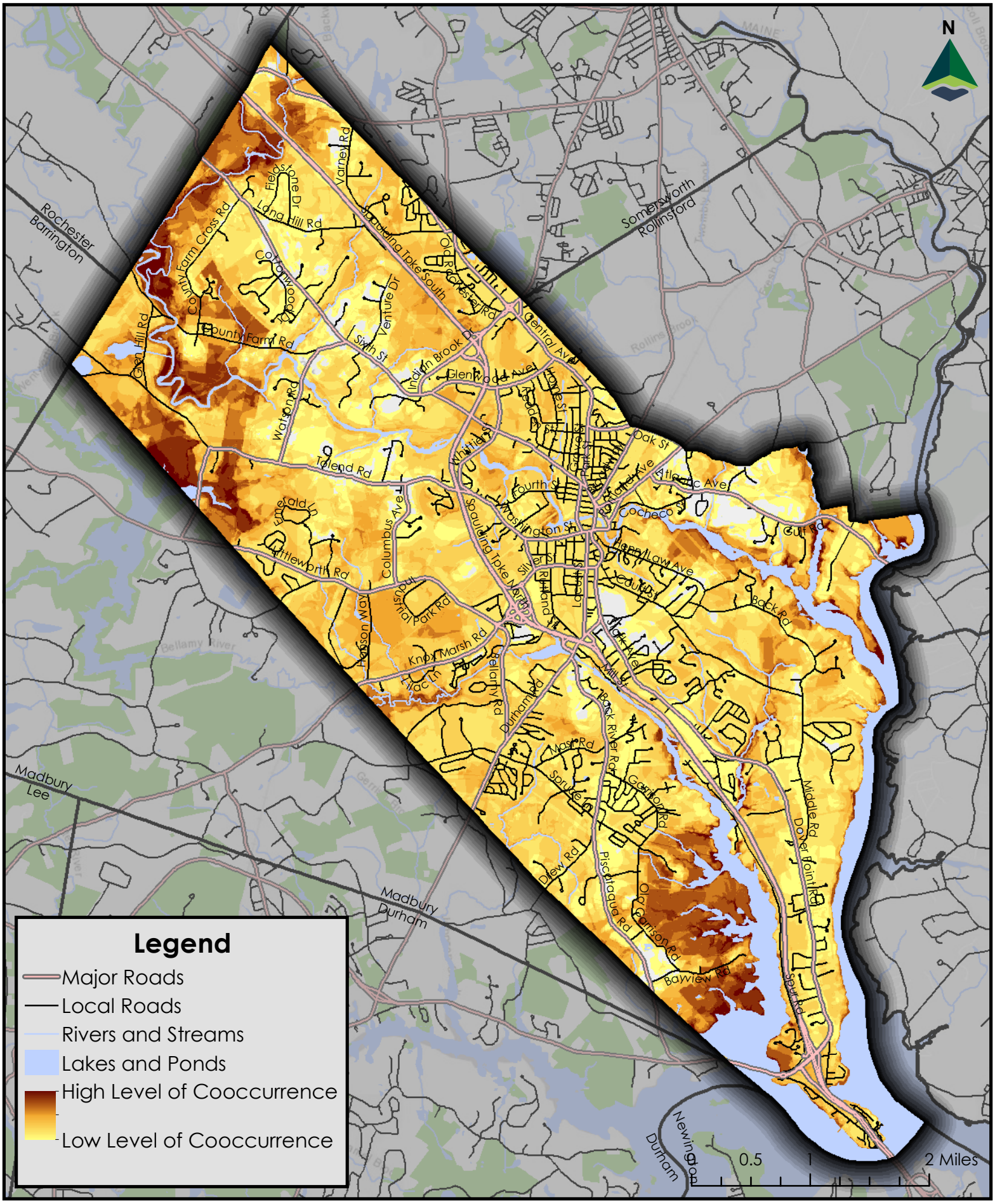
Natural Resource Inventory - City of Dover, NH

Conservation Focus Areas



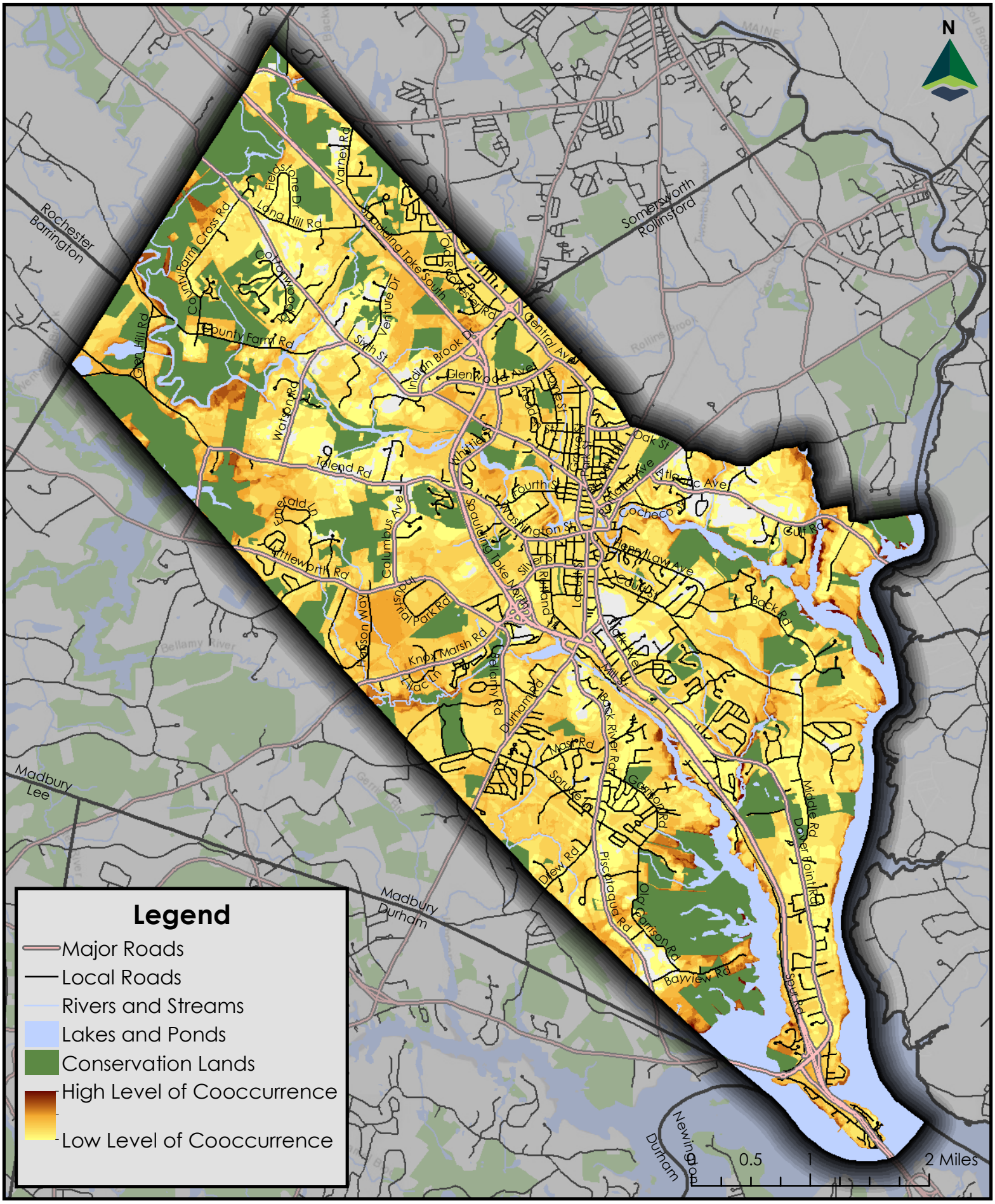
Natural Resource Inventory - City of Dover, NH

Conservation Lands



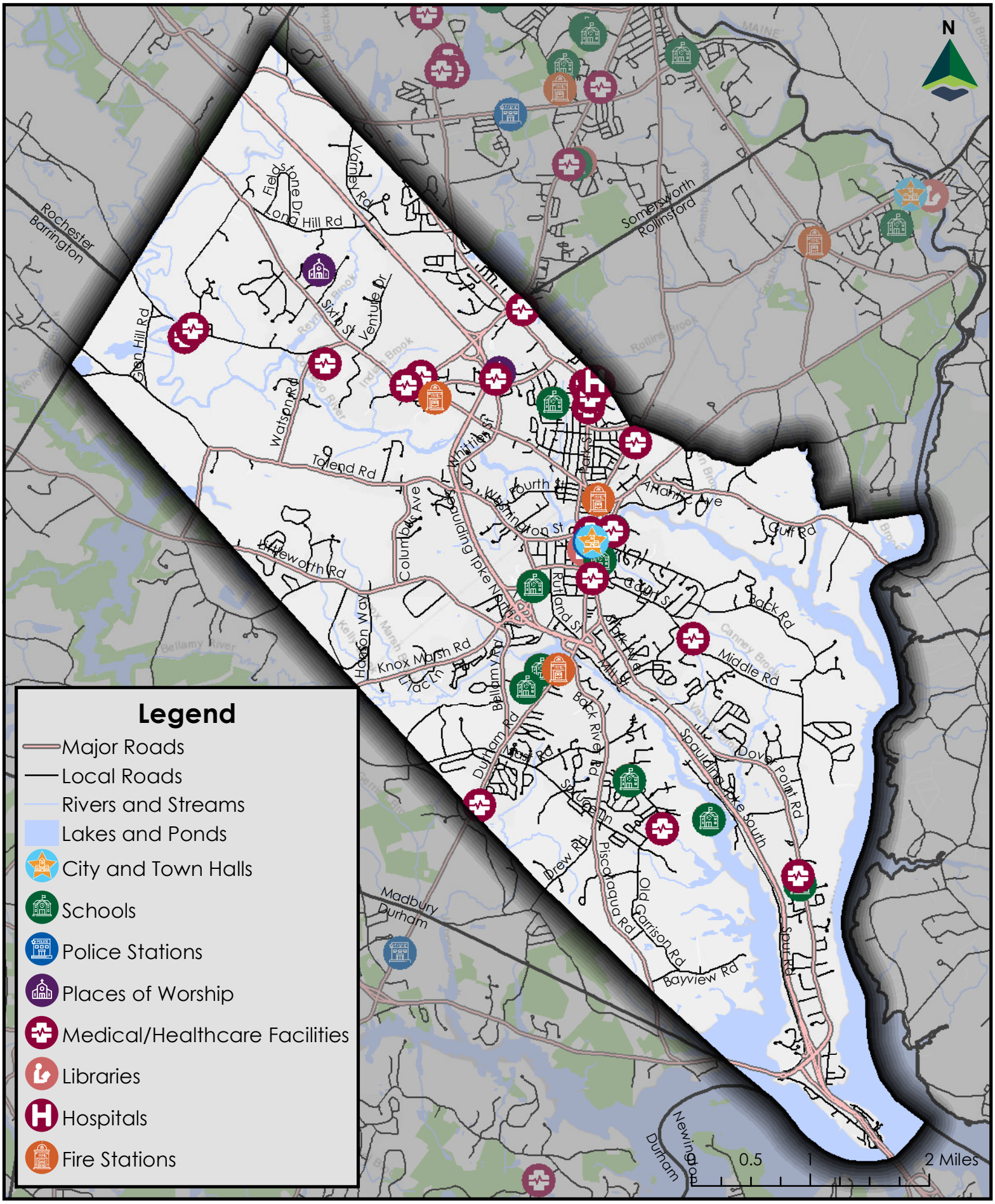
Natural Resource Inventory - City of Dover, NH

Conservation Focus Areas



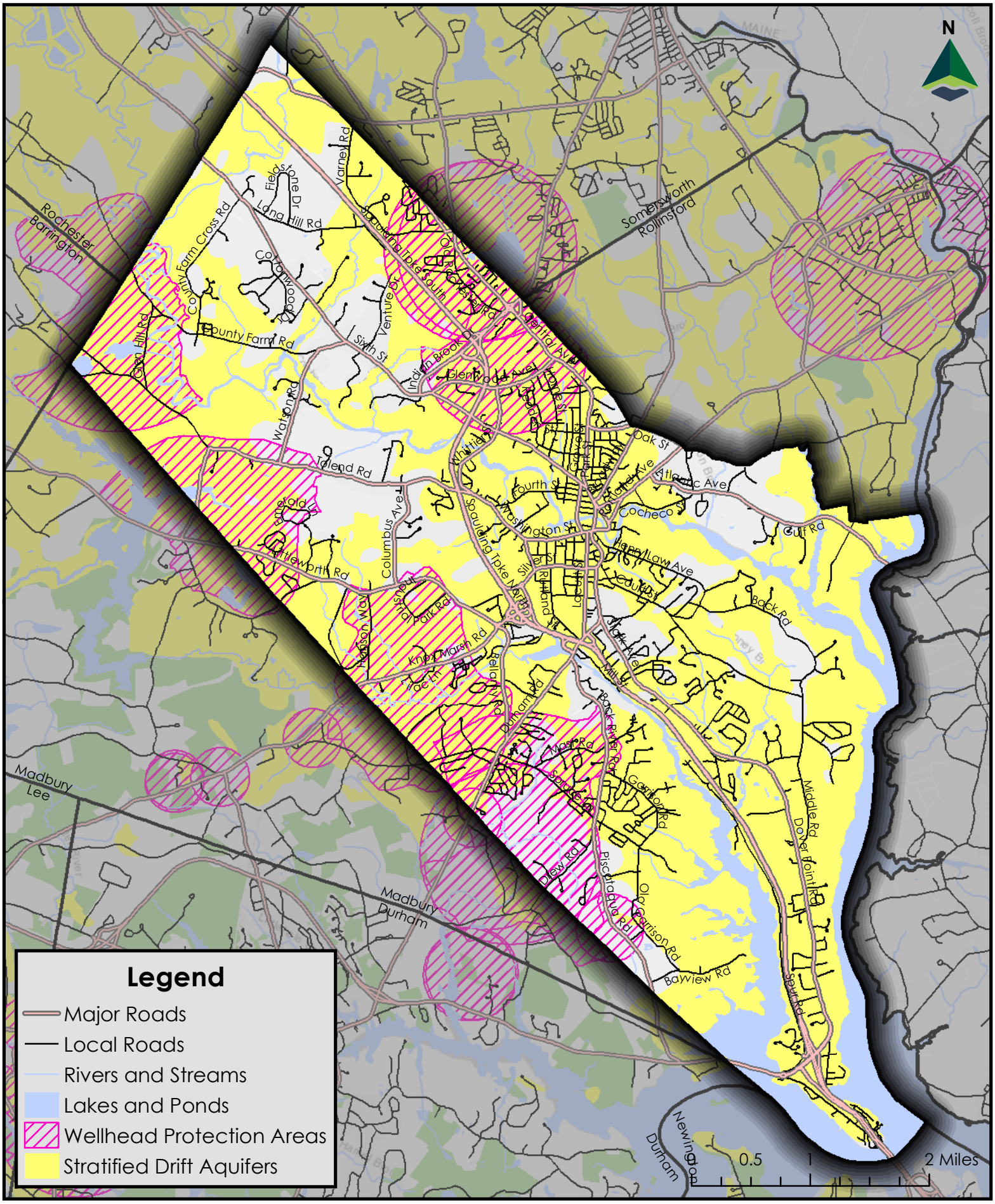
Natural Resource Inventory - City of Dover, NH

Conservation Focus Areas



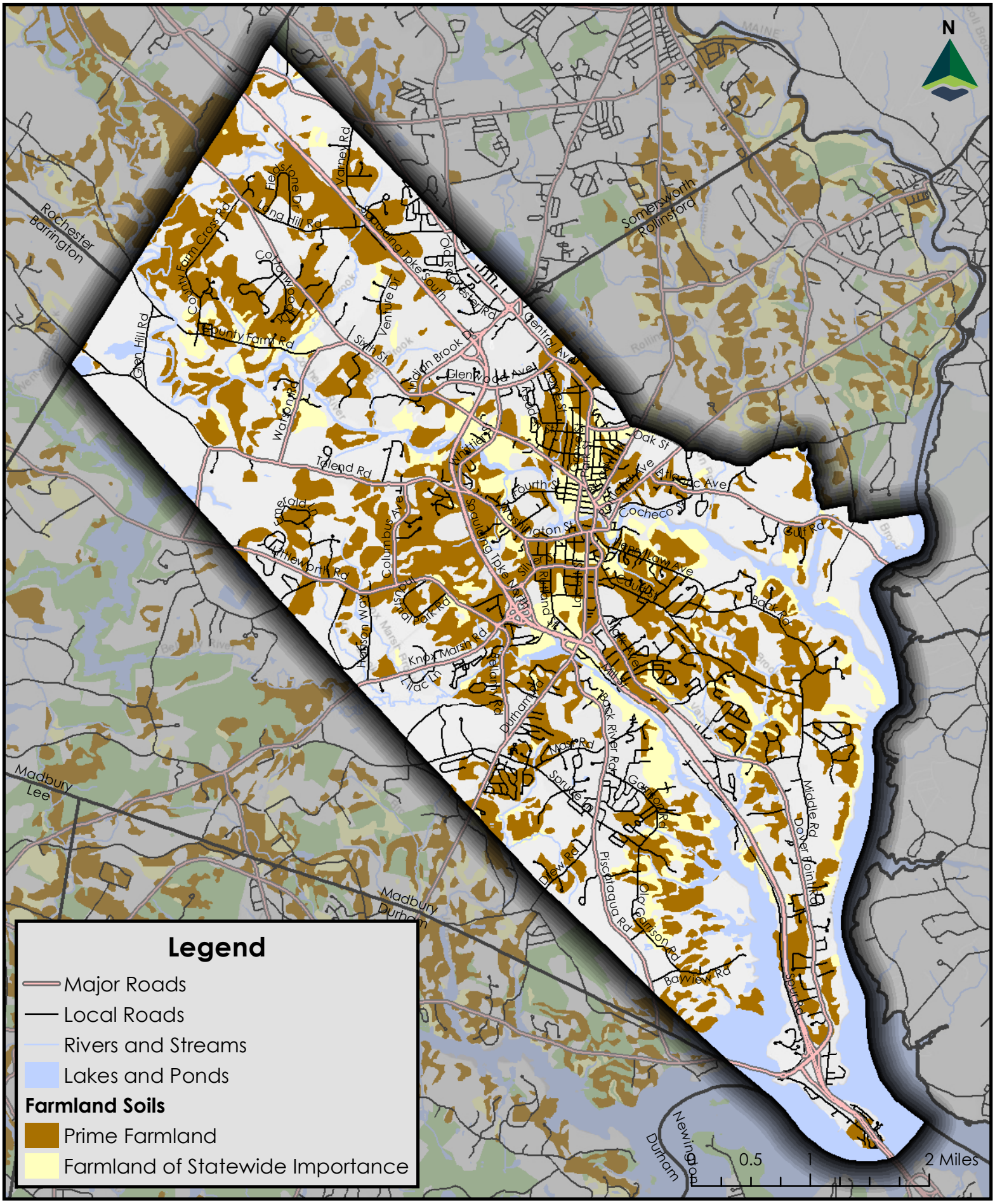
Natural Resource Inventory - City of Dover, NH

Cultural Resources



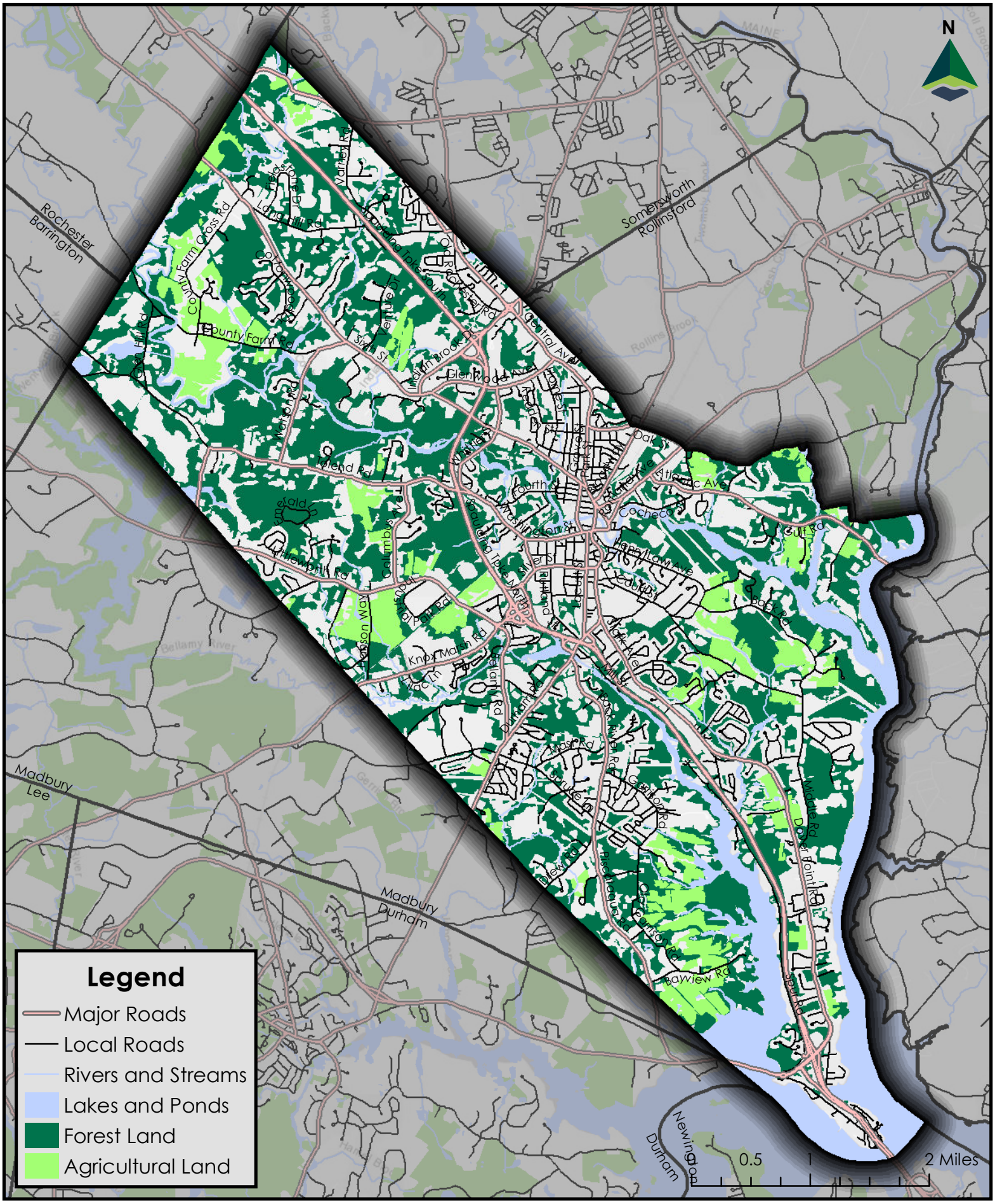
Natural Resource Inventory - City of Dover, NH

Drinking Water



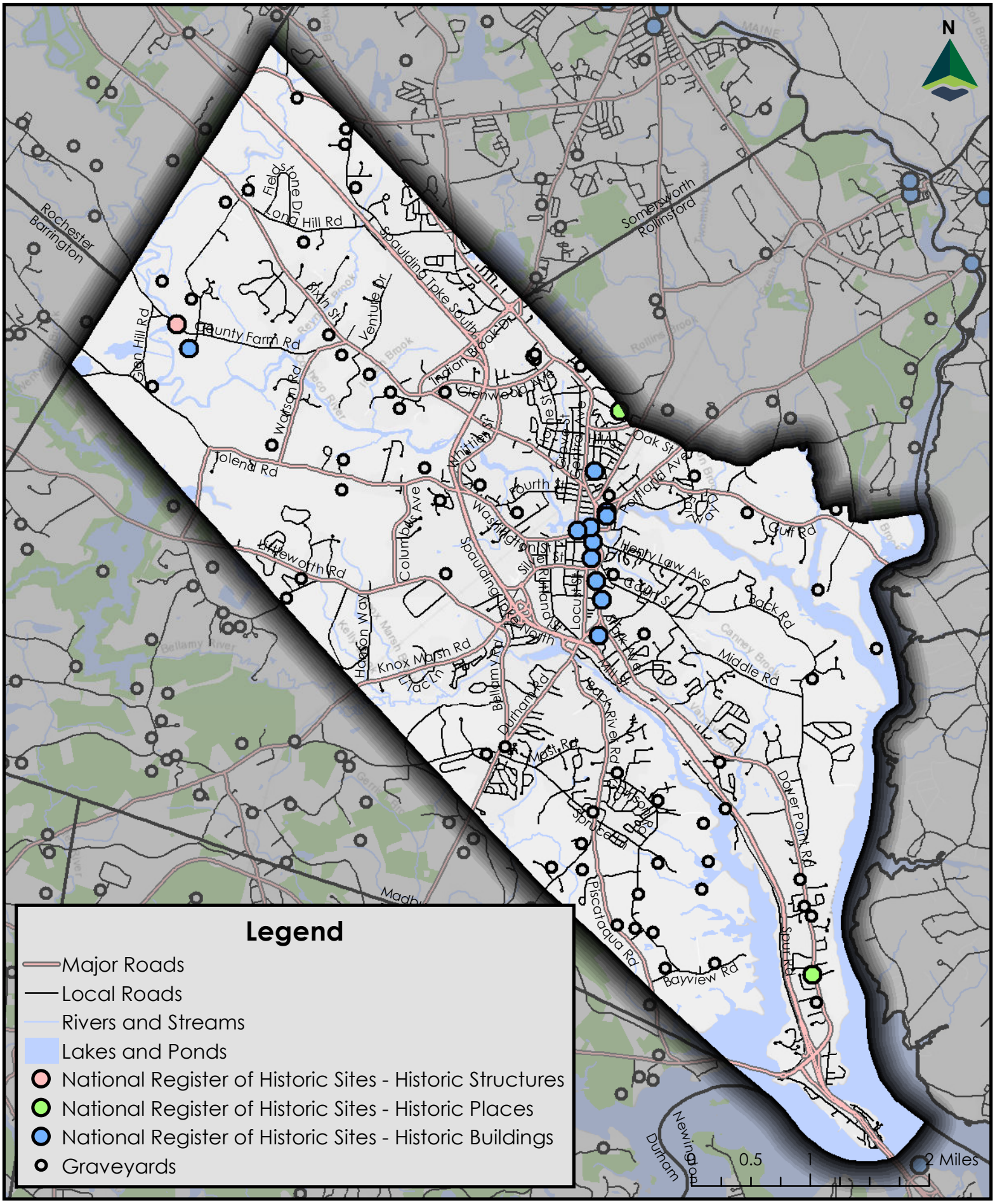
Natural Resource Inventory - City of Dover, NH

Farmland Soils



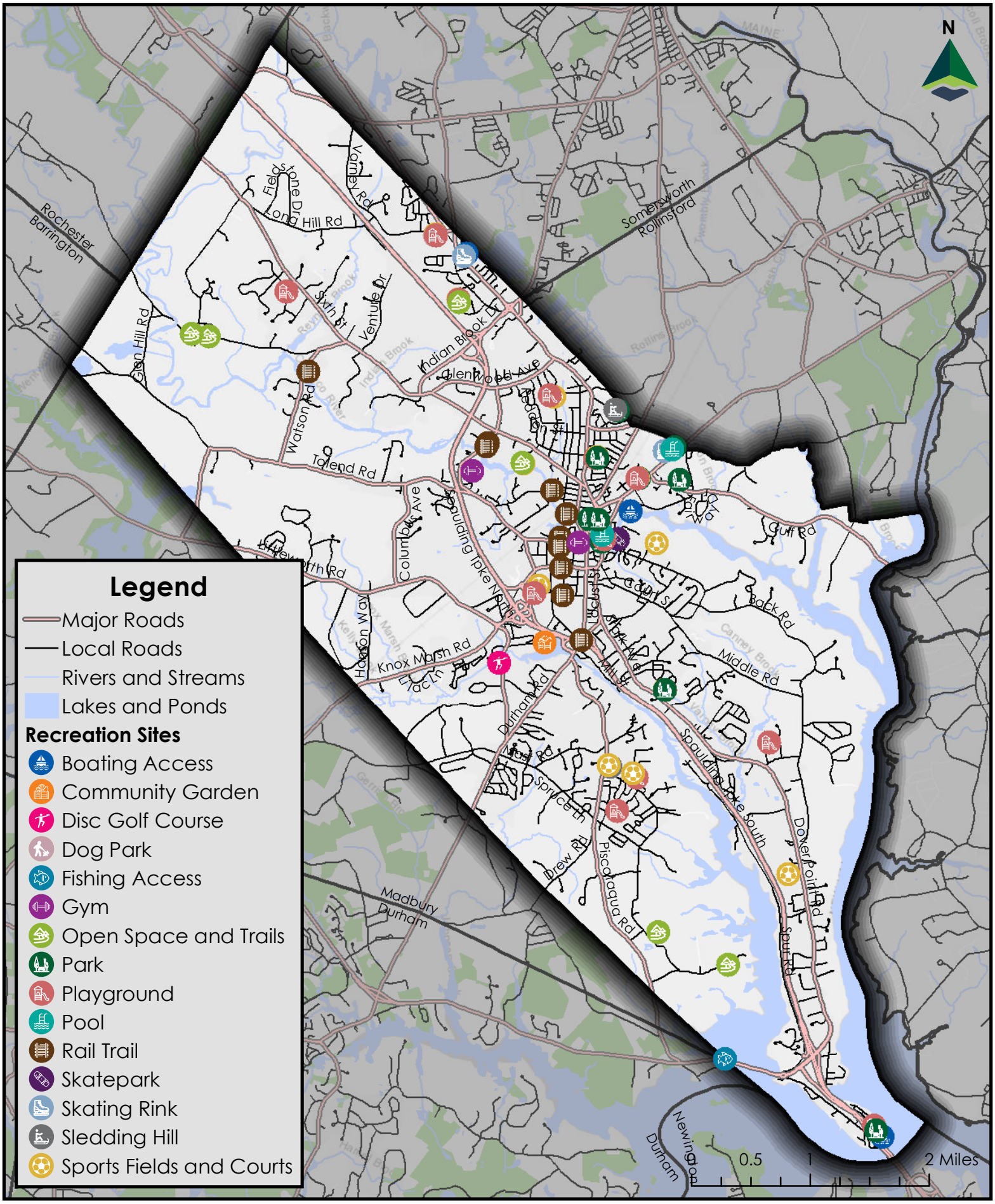
Natural Resource Inventory - City of Dover, NH

Forest and Agricultural Lands



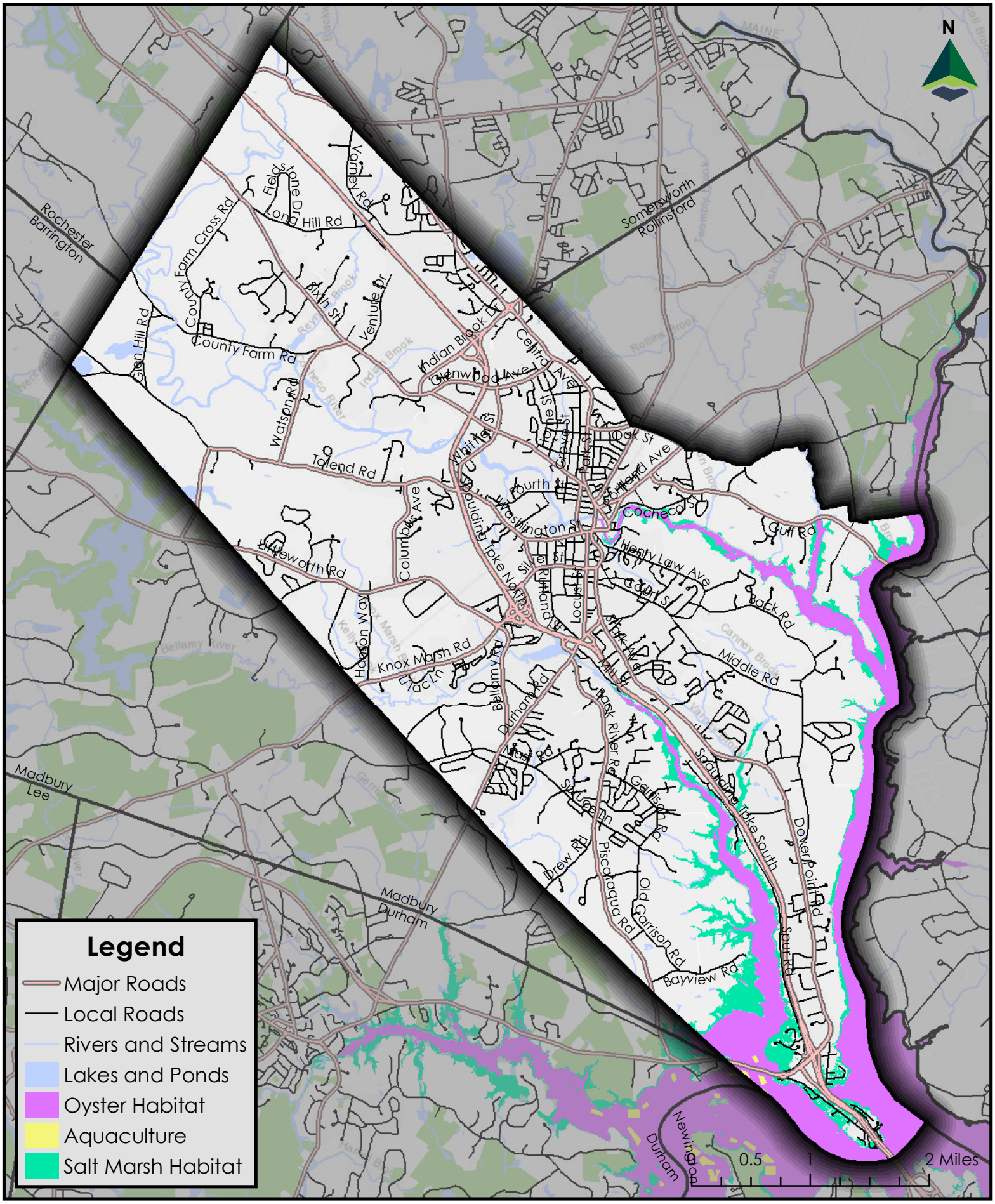
Natural Resource Inventory - City of Dover, NH

Historic Resources



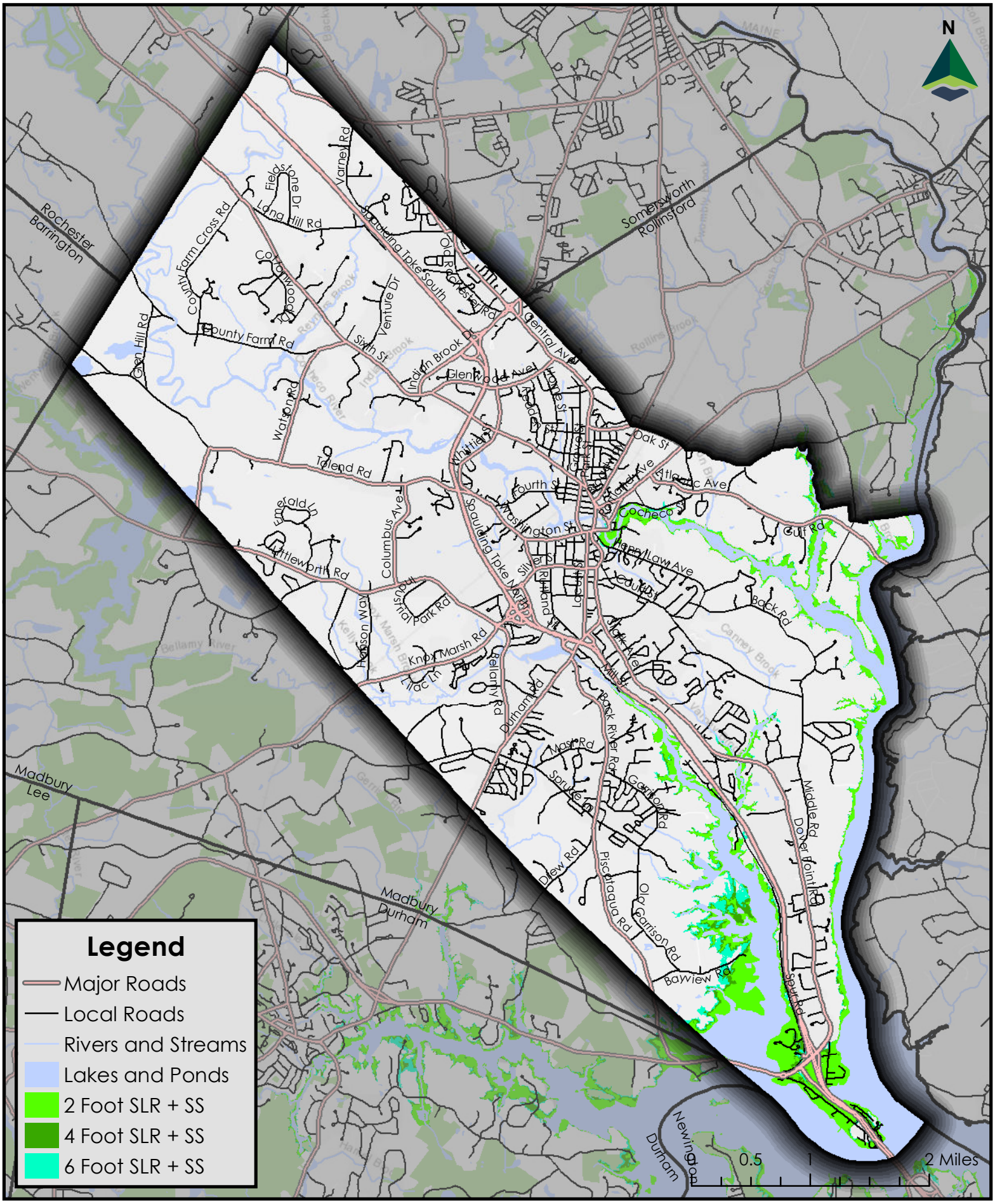
Natural Resource Inventory - City of Dover, NH

Recreation Sites



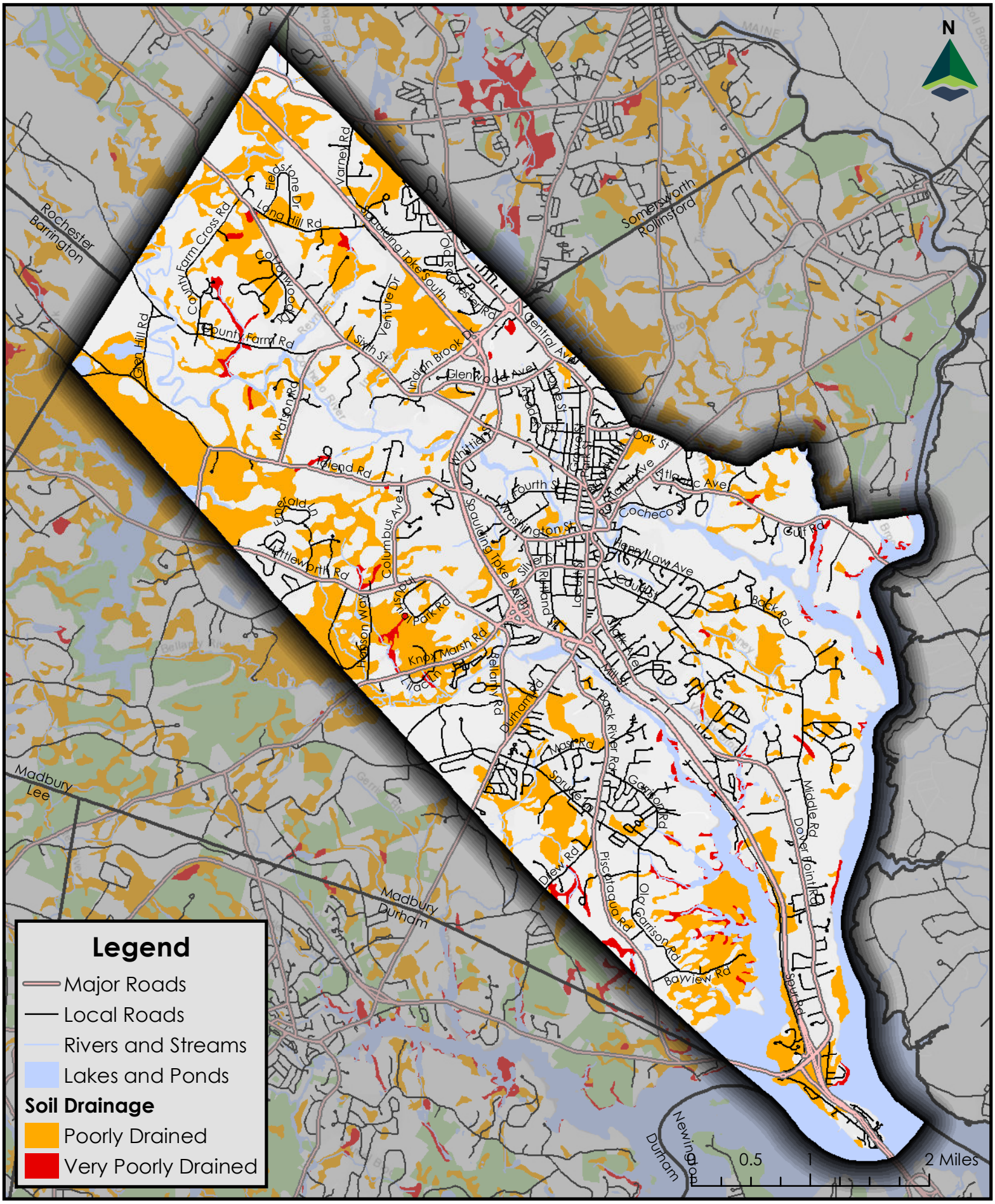
Natural Resource Inventory - City of Dover, NH

Significant Marine Habitats



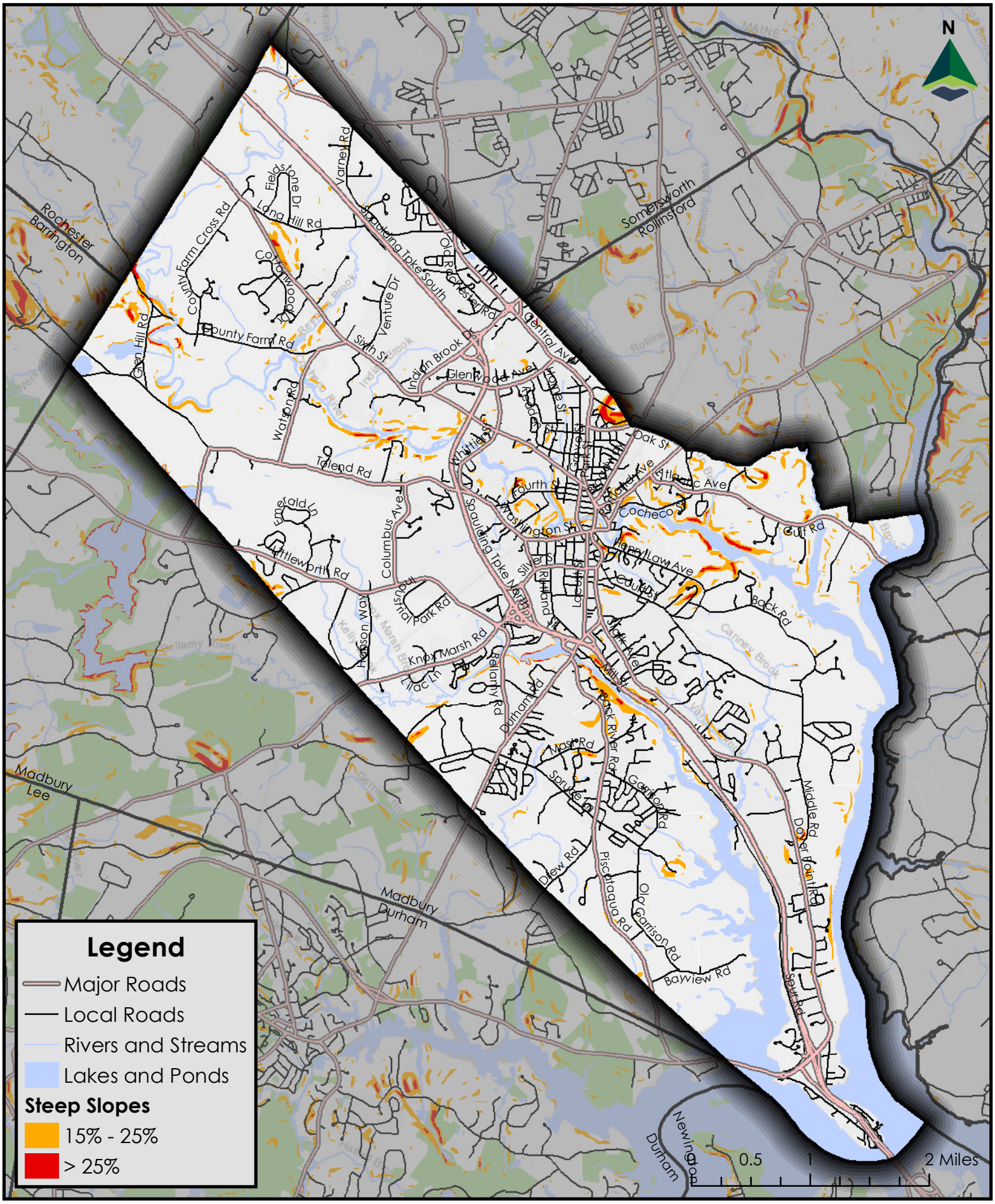
Natural Resource Inventory - City of Dover, NH

Sea Level Rise and Storm Surge



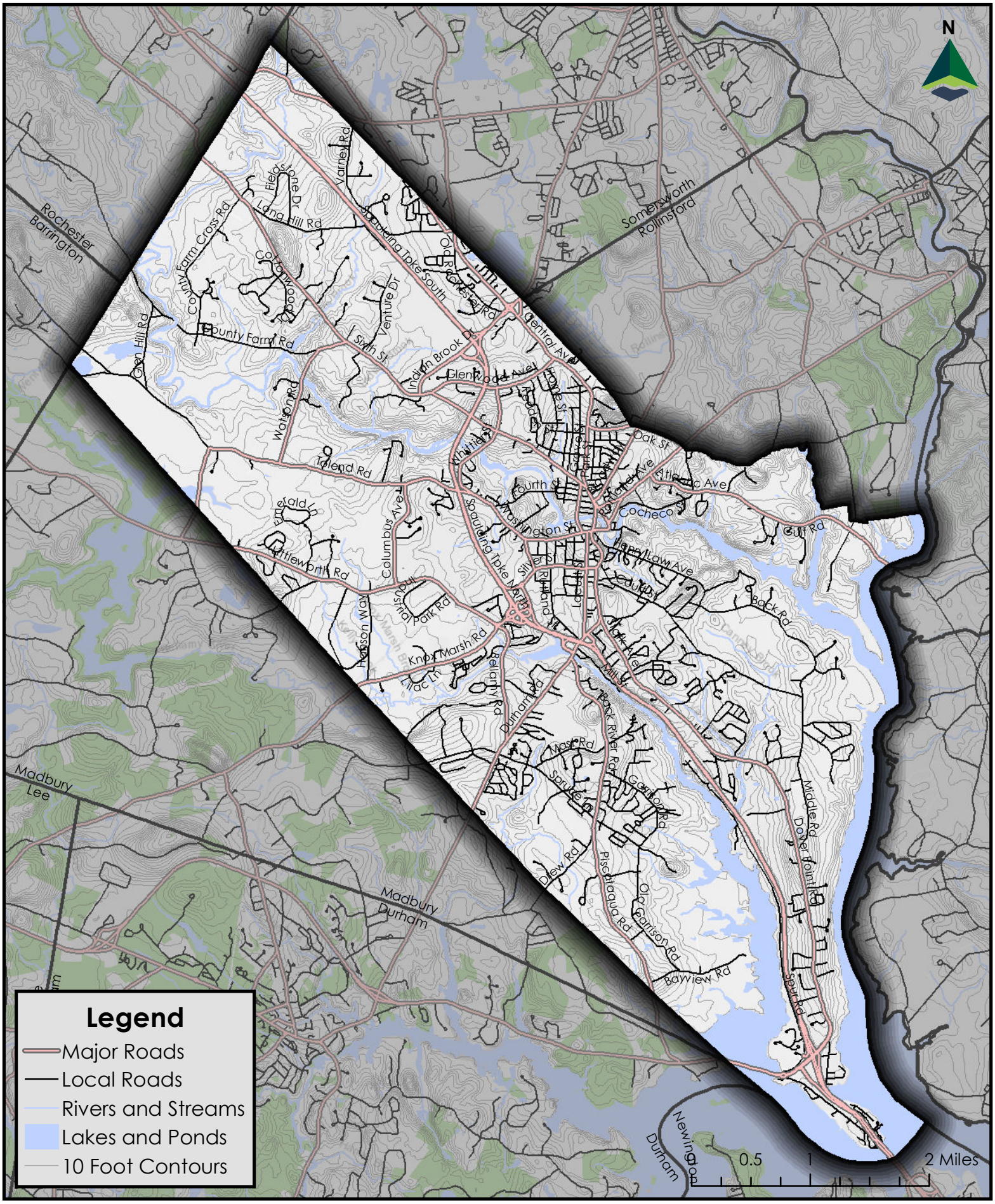
Natural Resource Inventory - City of Dover, NH

Soil Drainage



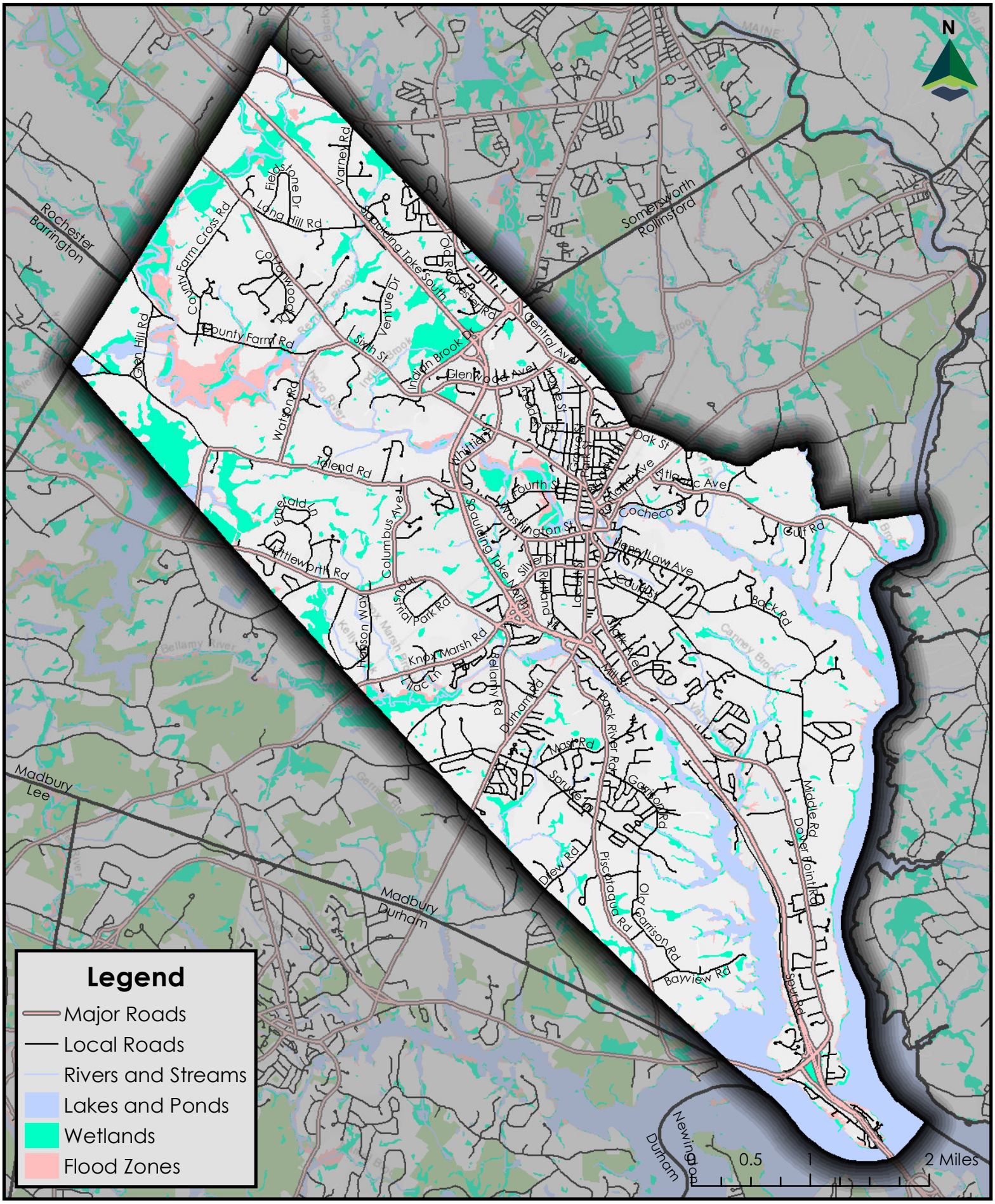
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Steep Slopes



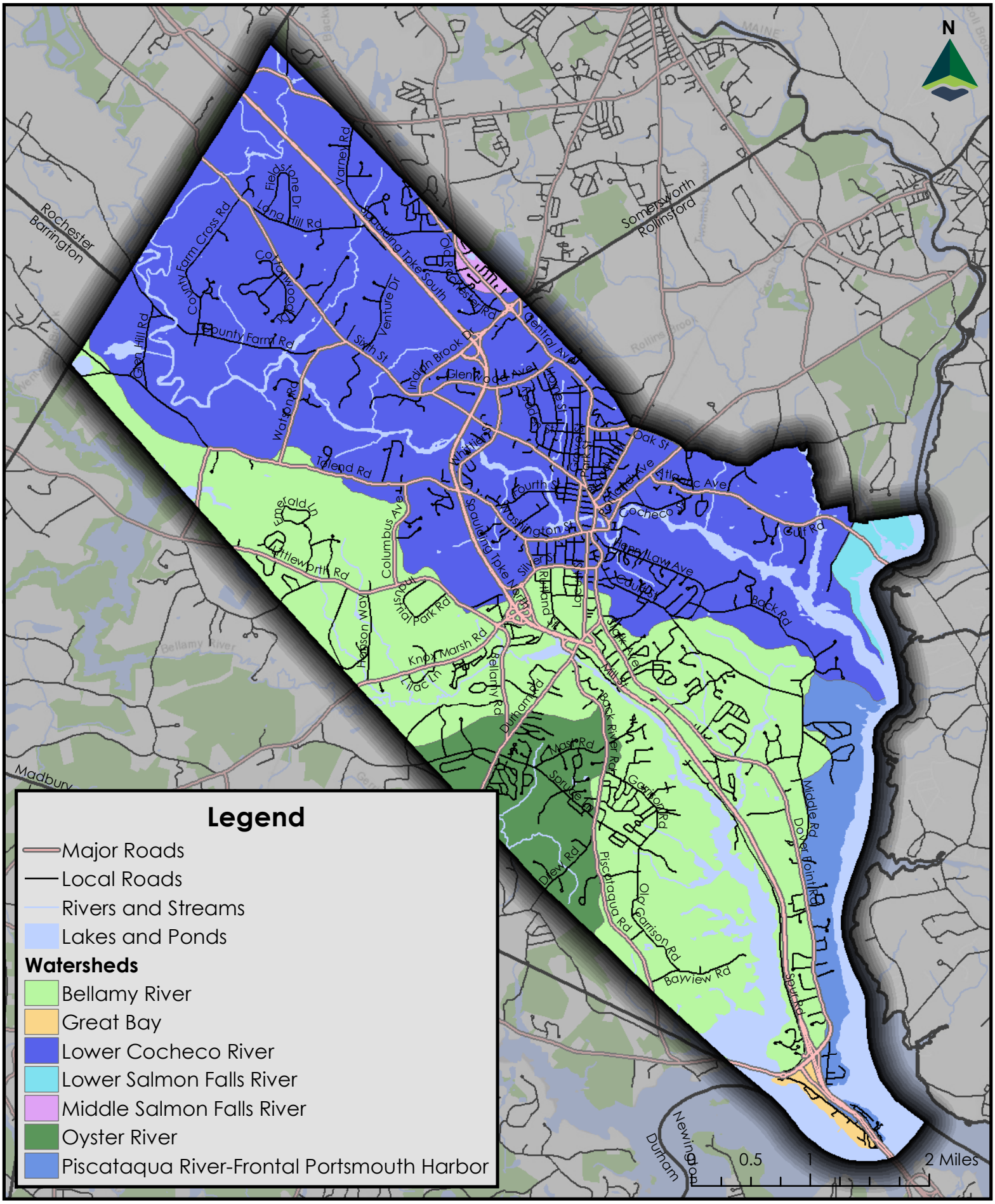
Natural Resource Inventory - City of Dover, NH

Topography



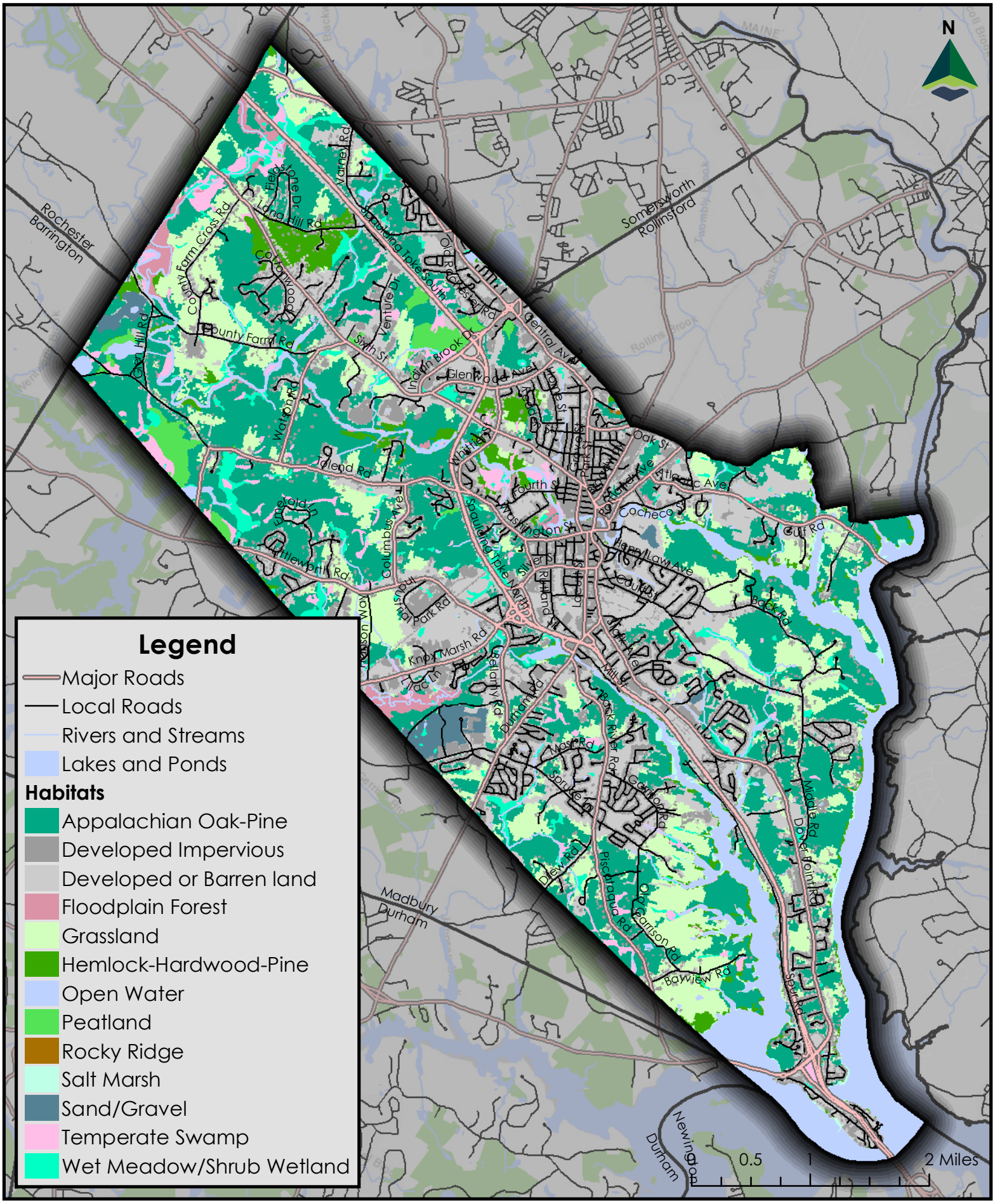
Natural Resource Inventory - City of Dover, NH

Water Resources



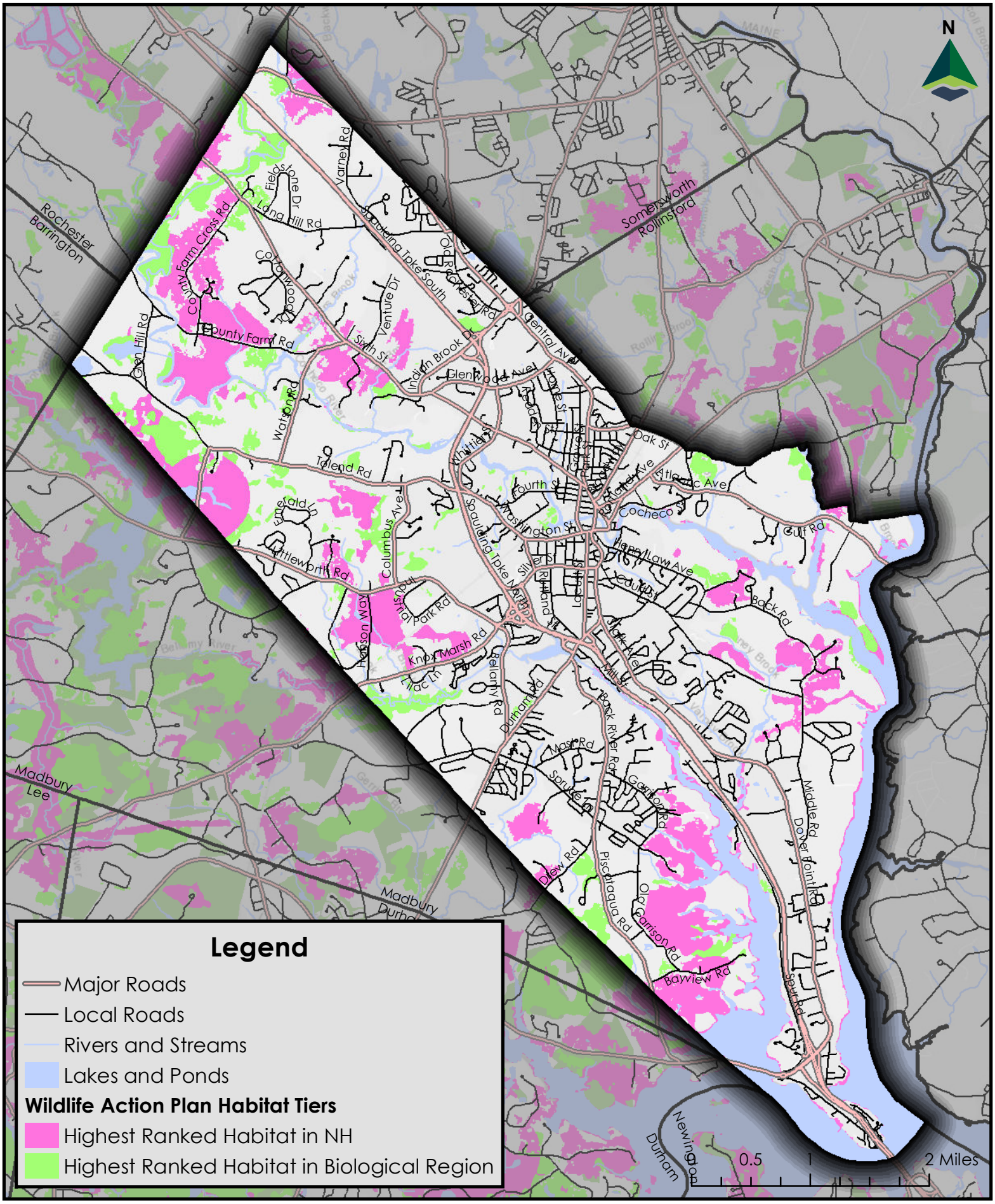
Natural Resource Inventory - City of Dover, NH

Watersheds



Natural Resource Inventory - City of Dover, NH

Wildlife Action Plan Habitats



Natural Resource Inventory - City of Dover, NH

Wildlife Action Plan Habitat Tiers