



***Via Certified Mail***

October 14, 2015

Town of Pembroke  
311 Pembroke Street  
Pembroke, NH 03275

**Re: Shoreland Permit Application – The Northern Pass Project**

Dear Sir or Madam:

Enclosed please find a copy of the Shoreland Permit Application package that will be filed with the NH Department of Environmental Services (DES) and New Hampshire Site Evaluation Committee for the Northern Pass Project. The project includes work in or around rivers, lakes, streams ponds, etc. Under state law, it is a requirement to provide the municipalities and Local River Advisory Committees having jurisdiction over these waterbodies with a copy of the shoreland application by Certified mail, for review and comment. Please find attached a copy of the application, which proposes work within the protected shoreland of a public water or Designated River in your regulatory area.

Sincerely,

Lee Carbonneau

Normandeau Associates, Inc.

As agent for Northern Pass Transmission, LLC.

**Shoreland Permit Application  
Northern Pass  
Soucook River, Pembroke, NH**

**Prepared for**  
Northern Pass Transmission, LLC and  
Public Service Company of New Hampshire  
d/b/a Eversource Energy  
Energy Park  
780 Commercial Street  
Manchester, NH 03101

October 2015

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## DISCLOSURE STATEMENT

*The data contained in all pages of this document have been submitted in confidence and contain trade secrets and/or privileged or confidential information, and such data shall be used or disclosed only for evaluation purposes, provided that if a contract is awarded to this proposer as a result of or in connection with the submission of this proposal, the client shall have the right to use or disclose the data herein to the extent provided in the contract. This document includes data that shall not be disclosed outside of the purposes of this submittal and shall not be duplicated, used, or disclosed--in whole or in part--for any purpose other than for evaluation purposes.*

## 1.0 Shoreland Permit Application

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Soucook River



# SHORELAND PERMIT APPLICATION

Water Division/ Shoreland Program  
Land Resources Management

Check the status of your application: <http://des.nh.gov/onestop>

RSA/Rule: RSA 483-B, Env-Wq 1400

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

This is an application for a permit to excavate, fill or construct new structures within the protected shoreland as regulated under RSA 483-B. For a complete list of activities that do not require a shoreland permit, view the shoreland program [frequently asked questions](#) (FAQ's)

Please type or print clearly. **Please note:** Application packages missing required elements will be returned to the applicant in their entirety, including the fee. Land Resources Management will include a letter identifying the missing elements and describing how to resubmit the application package to DES. Application packages that are accepted will proceed to technical review to ensure the applicant has fulfilled all requirements as specified by statute or rules. For more information visit the [New Land Resources Management Application Return Process](#) site located on the Shoreland Program Page.

## 1. PROPERTY OWNER

LAST NAME, FIRST NAME, M.I.: Public Service Co. of NH d/b/a Eversource Energy (PSNH), c/o Kevin McCune, Supervisor, Environmental Affairs Licensing and Permitting

ADDRESS: 780 Commercial Street

TOWN/CITY: Manchester

STATE: NH

ZIPCODE: 03101

PHONE: 603-669-4000

EMAIL: Kevin.mccune@eversource.com

## 2. PROJECT LOCATION

ADDRESS: Riverwood Drive

TOWN/CITY: Pembroke

STATE: NH

ZIPCODE: 03275

WATERBODY NAME: Soucook River

TAX MAP: 632

LOT NUMBER: 18

## 3. CONTRACTOR OR AGENT

LAST NAME, FIRST NAME, M.I.: Carbonneau, Lee E.

ADDRESS: 25 Nashua Rd

TOWN/CITY: Bedford

STATE: NH

ZIPCODE: 03110

PHONE: 603-637-1150

EMAIL: lcarbonneau@normandeau.com

## 4. CRITERIA

Please check at least one of the following below:

- ☒ This shoreland permit application requires neither a proposal to make the property more nearly conforming nor a request for a waiver of a minimum standards.
- ☐ This shoreland permit application includes a proposal to make the structures and/ or the property more nearly conforming in accordance with RSA 483-B:11
- ☐ This shoreland permit application includes a request for a waiver of the following minimum standard(s)

## 5. PROJECT DESCRIPTION

Total Square feet of impact 29,984 Total square feet of new impervious area 79

[shoreland@des.nh.gov](mailto:shoreland@des.nh.gov) or (603) 271-2147

NHDES Wetlands Bureau, PO Box 95, Concord, NH 03303-0095

[www.des.nh.gov](http://www.des.nh.gov)

Provide a complete description of the proposed project. **A new high voltage transmission line will be constructed in an existing transmission ROW, and existing transmission and distribution lines will be relocated. The Pembroke Project area includes one shoreland location along the Soucook River. Work in the shoreland includes installation of one new 3-Pole structure within 250 feet of the river and replacement of an existing single pole structure as shown in the project plans. Three temporary construction pads and an access path will be established on the south side of the river and these areas will be restored after construction.**

#### 6. PERMIT APPLICATIONS SUBMITTED

Please indicate if applications for any of the permits listed below have been submitted or will need to be submitted:

- ☒ Wetlands Permit per RSA 482-A ☐ Individual Sewage Disposal System per RSA 485-A:29  
☒ Alteration of Terrain Permit Per RSA 485-A:17 ☐ Subdivision Permit Per RSA 485-A:29

#### 7. REFERENCE LINE ELEVATION (REQUIRED FOR LAKES, PONDS, AND ARTIFICIAL IMPOUNDMENTS)

Reference line elevations for most lakes, ponds and artificial impoundments greater than 10 acres in size are listed in the [Consolidated List of Waterbodies Subject to the Shoreland Water Quality Protection Act](#). Please see RSA 483-B:4, xvii for the definition of reference line.

The reference line for this waterbody is: 246-248 Feet

#### 8. SHORELAND FRONTAGE Shoreland frontage is the actual frontage along the waterfront measured at the reference line.

The shoreland frontage on this lot is :749 Linear Feet

☐ N/A – No Direct frontage on this lot

#### 9. APPLICATION FEE

A non-refundable permit application fee of \$100 plus \$0.10 per total square foot of is required at the time the application is submitted. Fees are capped at \$750 for projects impacting less than 10,000 sq ft, \$1,875 for projects impacting between 10,000 and less than 25,000 sq ft, and \$3,750 for projects impacting 25,000 sq ft and greater. Please note that your application will not be considered complete if it does not include the appropriate fee. **Please make checks payable to the Treasurer, State of NH.**

#### 10. CALCULATING THE TOTAL IMPACT AREA AND PERMIT APPLICATION FEE

Total impact area is calculated by determining the sum of all areas disturbed by regrading, excavation, filling, construction, and structure removal. Impacts often include, but are not limited to: constructing new driveways, constructing new structures, areas disturbed when installing a new septic system or foundation, creating temporary access roads for the purpose of installing a well and regrading associated with landscaping activities.

Total Area Impacted within 250 Of the Reference Line. = 29,984 (A) Square Feet

Multiply the total Impact Area By 10¢ and add \$100.00. [ (A) X .10 + \$100.00 ] = \$ Permit Fee Exempt per 483-B:5-b III

#### 11. REQUIRED CERTIFICATIONS

By initialing within the blank before each of the following statements, and signing below, you are certifying that: to the best of my knowledge, the information provided is true, complete and not misleading.

☒ I understand that any permit or waiver granted based on false, incomplete, or misleading information shall be subject to revocation.

☒ I am aware that obtaining a shoreland permit will not exempt the work I am proposing from other state, local or federal approvals.

☒ I have notified the municipality or municipalities in which the proposed impacts are located and provided them with a complete copy of the application and all supporting materials on   /  /   via certified mail.

☒ ☐ This project is within ¼ mi of a [designated river](#) (river name:           ) and I have notified the [Local River Management Advisory Committee](#) by providing them with a copy of the complete application, including all supporting materials, via certified mail on day: 16 month: 10 year: 2015 and I have included a copy of the certified mail receipt in the application submittal (RSA 482-A:3,i(d)(2))

☒ This project is **not** within ¼ mi of a designated river

N/A I have notified all abutters of the proposed impacts via certified mail as required by RSA 483-B:5-b, iv-a. (see definition of "abutter" on page (6). **Exempt per RSA-483-B:5-b, IV (A)**

## 12. SIGNATURES (Both must sign per Env-Wq 1406.08)

OWNER NAME	See attached signature page	PRINT NAME LEGIBLY: Kevin McCune, PSNH d/b/a Eversource Energy	DATE: <input type="text"/>
APPLICANT NAME	See attached signature page	PRINT NAME LEGIBLY: Kevin McCune, PSNH d/b/a Eversource Energy Northern Pass LLC, c/o Robert P. Clarke, Project Director	DATE: <input type="text"/>

Please mail this application and all other attachments to the Department of Environmental Services Wetlands Bureau, PO Box 95, Concord NH 03302-0095. Missing information will delay processing of your application and may result in denial of a Shoreland Permit.

# SHORELAND APPLICATION WORKSHEET

This form must be submitted to the Department of Environmental Services Wetlands Bureau accompanied with a Shoreland Permit Application. [Instructions for completing this form](#) are available on the shoreland program web page.

For the purposes of this worksheet, "**Pre-Construction**" impervious surface areas<sup>1</sup> means all human made impervious surfaces<sup>2</sup> currently in existence on the property, whether to be removed or to remain after the project is completed. "**Post-Construction**" impervious area means all impervious surfaces that will exist on the property upon completion of the project, including both new and any remaining pre-existing impervious surfaces. All answers shall be given in square feet.

CALCULATING THE IMPERVIOUS AREA WITHIN 250 FEET OF THE REFERENCE LINE			
	STRUCTURE DESCRIPTION	PRE-CONSTRUCTION IMPERVIOUS AREA	POST-CONSTRUCTION IMPERVIOUS AREA
<b>PRIMARY STRUCTURE</b> Include all <u>attached</u> decks and porches.	<u>Transmission structure foundations</u>	<u>14</u> FT <sup>2</sup>	<u>79</u> FT <sup>2</sup>
<b>ACCESSORY STRUCTURES</b> All other impervious surfaces excluding lawn furniture, well heads, and fences.	<u>                    </u>	<u>      </u> FT <sup>2</sup>	<u>      </u> FT <sup>2</sup>
Common accessory structures include, but are not limited to: driveways, walkways, patios and sheds.	<u>                    </u>	<u>                    </u> FT <sup>2</sup>	<u>                    </u> FT <sup>2</sup>
	<u>                    </u>	<u>                    </u> FT <sup>2</sup>	<u>                    </u> FT <sup>2</sup>
	<u>                    </u>	<u>                    </u> FT <sup>2</sup>	<u>                    </u> FT <sup>2</sup>
	<u>                    </u>	<u>                    </u> FT <sup>2</sup>	<u>                    </u> FT <sup>2</sup>

<sup>1</sup> "**Impervious surface area**" as defined in Env-Wq 1402.15 means, for purposes of the impervious surface limitation specified in RSA 483-B:9, V(g), the sum total of the footprint of each impervious surface that is located within the protected shoreland.

<sup>2</sup> "**Impervious Surface**" as defined in RSA 483-B:4, VII-b means any modified surface that cannot effectively absorb or infiltrate water. Examples of impervious surfaces include, but are not limited to, roofs, and unless designed to effectively absorb or infiltrate water, decks, patios, and paved, gravel, or crushed stone driveways, parking areas, and walkways.

	_____	_____ FT <sup>2</sup>	_____ FT <sup>2</sup>
	<b>TOTAL:</b>	<b>(A) 14 FT<sup>2</sup></b>	<b>(B) 79 FT<sup>2</sup></b>
Area of the lot located within 250 ft of reference line:			<b>(C) 155.057 FT<sup>2</sup></b>
Percentage of lot covered by pre-construction impervious area within 250 ft of the reference line: <i>[divide (a) by (c) x 100]</i>			<b>(D) 0.01%</b>
Percentage of lot to be covered by post-construction impervious area within 250 ft of the reference line upon completion of the project: <i>[divide (b) by (c) x 100]</i>			<b>(E) 0.05%</b>


## IMPERVIOUS AREA THRESHOLDS

DETERMINING IF A STORMWATER MANAGEMENT PLAN IS REQUIRED
<input checked="" type="checkbox"/> This project does not require a stormwater management plan because the proposed post-construction impervious area ( <b>Calculation E</b> ) is less than or equal to 20%.
<input type="checkbox"/> This project requires a stormwater management plan because the proposed post-construction impervious area ( <b>Calculation E</b> ) is greater than 20%, but not greater than 30%.  See details on the <i>Checklist of Required Items</i> on page 6
<input type="checkbox"/> This project requires a stormwater management plan designed and certified by a professional engineer because the post-construction impervious area ( <b>Calculation E</b> ) is greater than 30%; and  All waterfront buffer grid segment must meet at least the minimum required tree and sapling point score.  See details on the <i>Checklist of Required Items</i> on page 6

## UNALTERED STATE REQUIREMENT

CALCULATING THE AREA TO REMAIN IN AN UNALTERED STATE	
Total area of the lot between 50 ft and 150 ft of the reference line within which the vegetation currently exists in an unaltered state <sup>3</sup> ( <b>see definition below</b> ). If this area is completely altered, place a zero on line (F) and (I) and proceed to (J).	<b>(F) 0</b>

<sup>3</sup> “**Unaltered State**” means native vegetation allowed to grow without cutting, limbing, trimming, pruning, mowing, or other similar activities except as needed for renewal or to maintain or improve plant health.

Total area of the lot between 50 ft and 150 ft from the reference line	(G) _____
At least 25 percent of the vegetation within area (G) must remain in an unaltered state. [.25 x G]	(H) _____
Place the smaller of line (F) and calculation (H) on this line. In order to remain compliant with RSA 483-B:9, V(b), this is the minimum area that must remain in an unaltered state between 50 ft and 150 ft from the reference line. This area must be represented on all plans.	(I) <u>0*</u>
Name of person who prepared this worksheet:	(J) <u>Tracy Coolidge</u>
Name and date of the plan this worksheet is based upon:	(K) <u>NHDES Shoreland Permit Application Plans Soucook River, Pembroke, NH 8/8/2015</u>
SIGNATURE: 	DATE: <u>10/13/2015</u>

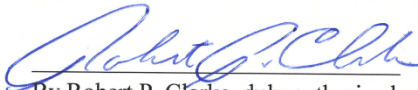
**\*Unaltered State-**

Vegetation in a public utility right-of-way must be maintained/ mowed regularly for safety and operational purposes. There will always be little or no land in an unaltered state within a transmission ROW, and therefore no calculations for this metric were performed. Furthermore, RSA 483-B:9 IV-b. states "Public utility lines and associated structures and facilities, public roads, and public water access facilities including boat ramps shall be permitted by the commissioner as necessary and consistent with the purposes of this chapter and other state law." In addition, RSA 483-B:2 XVI provides for economic development in proximity to waters.

**Block 12. Signatories for NH Department of Environmental Services Shoreland Permit Applications**

**Applicant**

1. Eversource Energy Service Corporation, as duly authorized agent for  
Northern Pass Transmission LLC  
Robert P. Clarke  
Director, Transmission Business Operations  
780 North Commercial Street  
Manchester, NH 03101  
Tel: 781-441-8057  
[Robert.Clarke@eversource.com](mailto:Robert.Clarke@eversource.com)

  
By Robert P. Clarke, duly authorized

**Owner and Applicant**

2. Eversource Energy Service Corporation, as duly authorized agent for  
Public Service Company of New Hampshire d/b/a Eversource Energy  
Kevin F. McCune  
Supervisor, Environmental Affairs Licensing and Permitting  
780 North Commercial Street  
Manchester, NH 03101  
Phone: 339-987-7020  
[Kevin.mccune@eversource.com](mailto:Kevin.mccune@eversource.com)

  
By Kevin F. McCune, duly authorized

## **2.0 Copy of Check for Application Fee**

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**N/A, per RSA 483-B:5-b-III. Construction of public roads, public utility lines and associated structures and facilities, and public water access facilities shall be exempt from the permitting fees of paragraph I and the abutter notification requirements of paragraph IV-a.**

### 3.0 Project Specific Work within the Protected Shoreland

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The Northern Pass project area extends from the international border of Canada and the United States in Pittsburg, New Hampshire to Londonderry, New Hampshire. The Project will require work within the 250 foot protected shoreland of multiple waterbodies. This application includes information related to the work within the protected shoreland of the Soucook River in Pembroke, NH (Appendix C, Locus Map).

The Project seeks to take advantage of existing transmission and road ROW in order to minimize environmental and other impacts. There are locations where existing electric lines must be relocated. In these areas, the existing 115 kV transmission lines and 34.5 kV distribution lines will be relocated within the ROW to create room for new Project infrastructure.

Unless there are clearance or other safety issues, the proposed temporary access roads will follow existing access roads or ATV paths currently in the ROW, if present, and will cross wetlands and small streams at their current locations as possible. On average, temporary access roads will be about 16 feet in width at the surface, but may be up to 20 feet wide at the base, if temporary grading or fill is needed. Access roads in upland areas are proposed to remain in use until the end of Project construction.

The Project proposes to use lattice steel, tubular steel monopole and tubular steel H-Frame or tri-pole (AC line) structures (Appendix I). These structures will range in height from roughly 50 to 155 feet. Average heights vary from approximately 80 to 130 feet. The structure in the Shoreland at this location will not be lattice. Tubular steel monopole configurations will be around five to ten feet in diameter at the base, tapering to approximately one to two feet in diameter at the top. These structures will be anchored to concrete foundations approximately seven to twelve feet in diameter. The tubular steel H-Frame structures will consist of two smaller vertical poles connected near the top of the structure with a crossarm, making them resemble the capital letter "H." Each of the vertical poles that make up the H-Frame structures will have an approximate base diameter of two to three feet, tapering to roughly one foot at the top. The two vertical poles will be separated horizontally by 26 feet. The crossarm is the widest piece of the structure measuring about 52 feet in width. The H-Frame structures will have a combination of direct embed and concrete foundations. Concrete foundations for the H-Frame structures will be approximately three to four feet in diameter, while the direct embed foundations will consist of placing a portion of the vertical poles into a three to four foot diameter hole and backfilling the hole with either native material, crushed rock, or a mixture of the two, which will be compressed to provide a rigid support system. Three-pole structures are similar, except that there are three vertical poles. During the detailed design process, other foundation designs might be considered based on their capacity to improve constructability, reduce environmental impacts or achieve other benefits.

### 3.1 Soucook River

The Soucook River is part of the S1 overhead line portion of the Project. The River at this location is classified as a fourth order river (R2UB1) with a cobble-gravel bottom, and is approximately 80-90 feet wide (Appendix A). The 19-acre parcel of land on the south shore of the river in Pembroke is owned by the State of New Hampshire Adjutant General's Department (National Guard), and is managed, in part, for the state-listed species wild lupine, hognose snake, and Karner blue butterfly (also federally listed) according to the NH Fish and Game Department. Land in the vicinity of the crossing is a managed right-of-way corridor bordered by pine-barrens habitat. Northern Pass is working with the U.S. Fish and Wildlife Service, NH Fish and Game Department, and the NH Natural Heritage Bureau to address all concerns regarding endangered and threatened species and exemplary natural communities (Appendix F). The north side of the Soucook River is in Concord, and is addressed in a separate application.

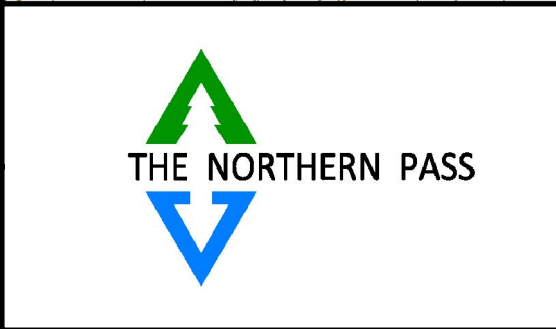
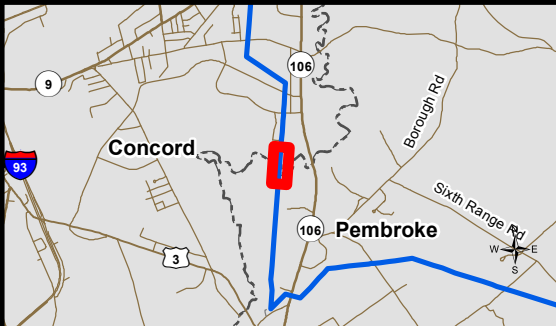
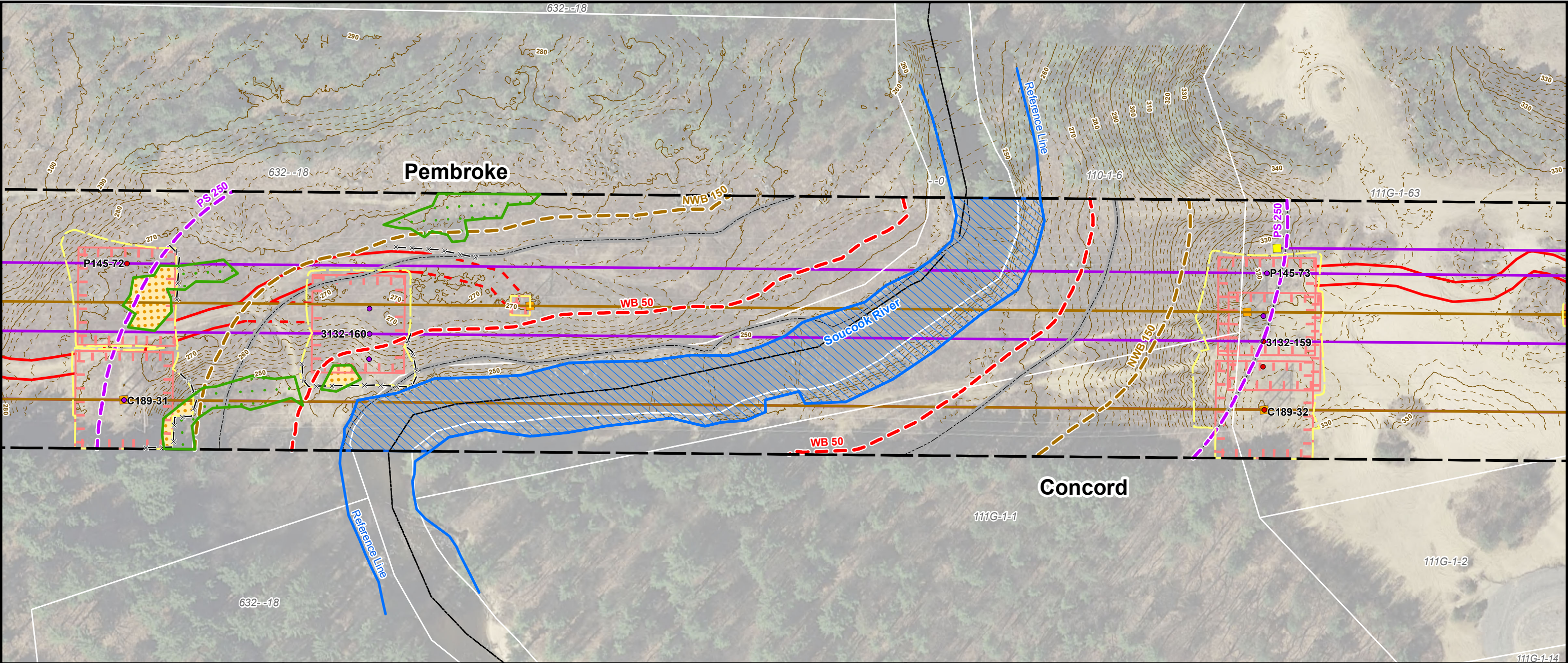
One new three-pole structure and one monopole will be installed within 250 feet of the river as shown in the project plan. Within the Pembroke Shoreland, an existing monopole structure will be replaced with another monopole in the same location; and existing monopole structure will be permanently removed; and a new three-pole structure will be installed. This three-pole structure is close to the edge of the river, and due to the geometry of the ROW and the transmission line, there are no suitable alternatives further away from the river edge. A construction vehicle access road and a construction pad will create temporary impacts to the buffer zone. Erosion controls will be installed to prevent impacts to the River and nearby wetlands. For all work within the shoreland buffer, tree stumps will be left in place except where structure excavation is needed, and shrub and herbaceous vegetation will be undisturbed wherever possible.

There are NH Natural Heritage Bureau (NHB) records for several rare, threatened and endangered plants and animals in the vicinity of the project, and Northern Pass has conducted surveys of this area. The findings and results are described in Appendix F.

Pembroke Soucook River Shoreland Site	0'-50' Waterfront Buffer	50'-150' Natural Woodland Buffer	150'-250' Shoreland Buffer	Total Impacts at Shoreland
<b>Temporary Impacts</b>	2,918 sq. ft. Construction pad	15,921 sq. ft. Removal of 1 monopole, construction pad, access road	11,066 sq. ft. Access road	29,905 sq. ft. Removal of 1 monopole, construction pad, access road
<b>Permanent Impacts</b>	20 sq. ft. 2 footings of 1 three-pole	39 sq. ft. 1 footing of 1 three-pole	20 sq. ft. 1 monopole	79 sq. ft. 1 three-pole, 19 sq. ft. monopole
<b>Pre-Construction Impervious Surface Area</b>	0 sq. ft.	7 sq. ft.	7 sq. ft.	14 sq. ft.
<b>Post-Construction Impervious Surface Area</b>	20 sq. ft. 2 footings of 1 three-pole	39 sq. ft.	20 sq. ft.	79 sq. ft.

## ■ Appendix A Plans

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Existing Conditions

- Existing Structure
- Existing Structure to be Removed
- Existing Transmission Line
- Existing Transmission Line to be Removed
- Delineated Wetlands
- Tax Parcels
- Existing Right of Way
- 10' Index Contour
- 2' Interval Contour

USGS 10' Contour

USGS 2' Contour

Stream Centerlines

- Perennial
- Intermittent
- Ephemeral

Delineated Waterbodies

- Perennial
- Intermittent
- Ephemeral
- Local Setbacks

Proposed Conditions

- Proposed Structure - No Shoreland Impact
- Proposed Structure - Shoreland Impact
- Proposed Transmission Line
- Proposed New Right of Way
- Off ROW and UG Reporting Extents
- Temporary Construction Pad
- Station LODs
- Existing Access Route
- New Access Route

Temporary Wetlands Matting (16' x 16')

Erosion and Sedimentation Control BMPs

Erosion and Sedimentation Control BMPs (Steep Slope)

Temporary Limit of Disturbance - Construction Pad

Limits of Permanent Vegetation Clearing

UG Splice Vaults

Trenched UG

Trenchless UG

NHDES Shoreland Permit Application Plans

SWQPA Areas	Extent of Clearing (sq. ft.)	Construction Impacts (sq. ft.)		Impervious Surface (sq. ft.)	
	Clearing in Upland	Temporary	Permanent	Pre-Construction	Post - Construction
Waterfront Buffer (50')	0	2,918	20	0	20
Natural Woodland Buffer (150')	0	15,921	39	7	39
Protected Shoreland (250')	0	11,066	20	7	20
Total	0	29,905	79	14	79
May not sum to total due to rounding					
THE NORTHERN PASS PROPOSED ROUTE			Soucook River, Pembroke		
Date: 9/8/2015	DRAWN: LD				Page 01

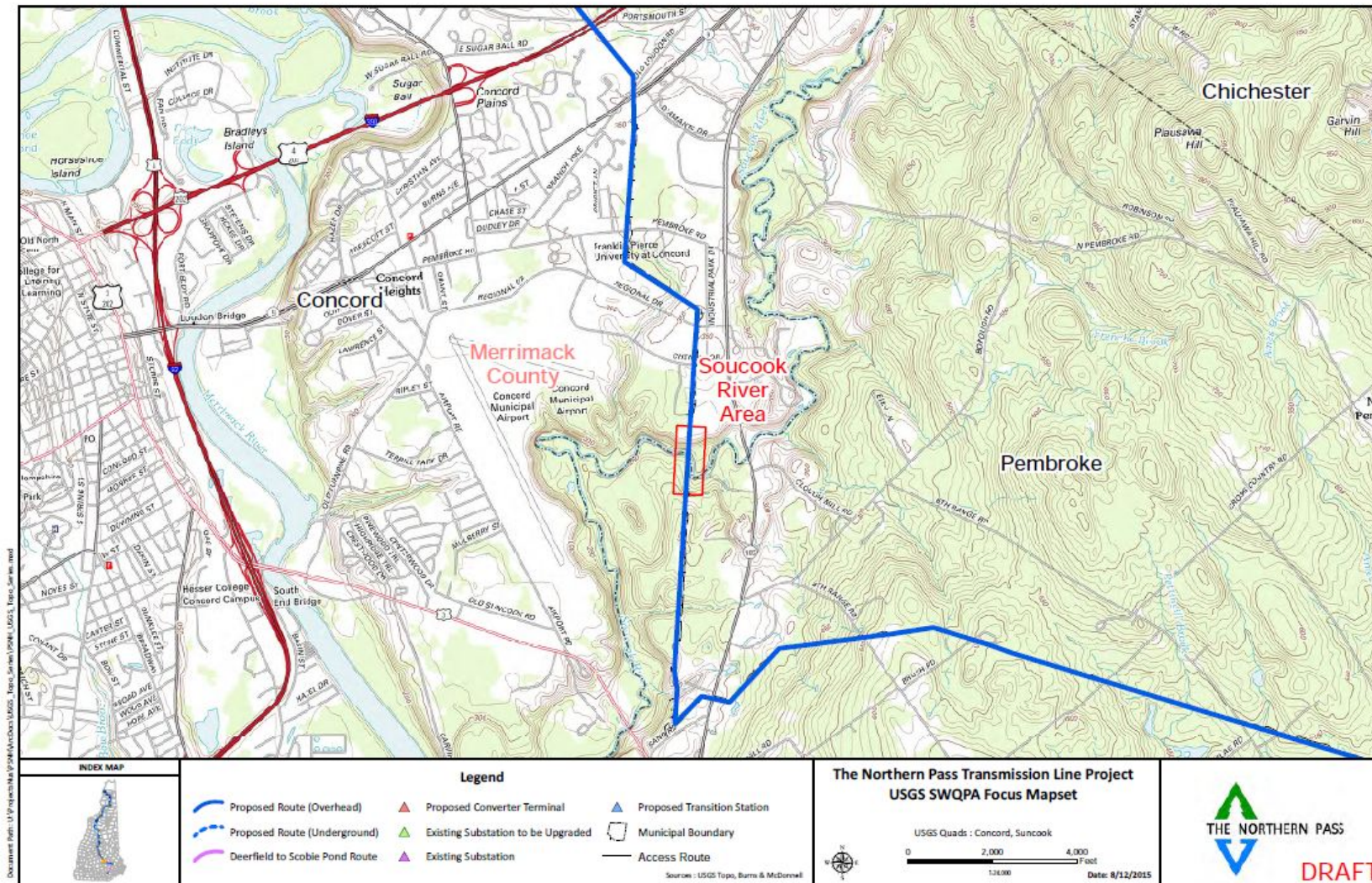
## ■ Appendix B Property Deeds

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Per recommendation of the NH Department of Environmental Services Shoreland Bureau, legal documents associated with easements and other property rights, including deeds, are being submitted separately via CD to NHDES. NPT will install underground transmission facilities pursuant to authority provided under RSA 231:160, et seq. for use of public highways for various utility purposes.

## ■ Appendix C USGS Locus Map

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## ■ Appendix D NH Tax Maps

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## ■ Appendix E Representative Photos

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**Photo 1. The NPT line crosses the Soucook River in Pembroke, NH as part of the S1 Overhead line. The view is west along the River, which is the Pembroke/Concord town line.**



**Photo 2. In the protected shoreland of the Soucook River in Pembroke. One three-pole structure will be installed on the south shore of the river. View is north.**



**Photo 3. A three-pole structure will be installed at the shoreland location in the center of the photo, and temporary impacts will result from the placement of a construction pad. View is north.**

## ■ Appendix F NHB Report and Correspondence

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**NEW HAMPSHIRE NATURAL HERITAGE BUREAU**

DRED - DIVISION OF FORESTS & LANDS

PO Box 1 856 -- 1 72 PEMBROKE ROAD, CONCORD, NH 03302-1 856

(603) 271 -221 4

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**To:** William McCloy, Normandeau Associates, Inc.  
**From:** Melissa Coppola, Environmental Information Specialist  
**Date:** March 30, 2015  
**Subject:** Northern Pass Database Request (NHB15-0611)

This memo is to confirm that Normandeau Associates have coordinated with the NH Natural Heritage Bureau (NHB) regarding information on known locations of rare species and exemplary natural communities for the Northern Pass project.

Due to the size and scope of the project, NHB is not providing a typical NHB review memo for permitting. Instead, this memo summarizes information provided by NHB to date, and notes that specific recommendations should be developed after project plans are close to being finalized:

- Normandeau was provided with digital data for the project under a data-sharing agreement dated 1/16/15 (397 digital NHB records). This is the sixth data-sharing agreement Normandeau has requested for this project: others were provided in 2010, 2011, 2012, 2013, and 2014 for project planning and ecological impact studies. NHB has also reviewed work plans associated with plant and community survey methodology on several occasions, including a meeting on 6/18/10.
- At the request of NHB, Normandeau consultants have conducted rare plant and natural community surveys within the proposed project area. If the project area extends to new locations, or new concerns are identified, additional surveys may be requested.
- As the project progresses and impacts areas are further clarified, Normandeau should set up a meeting with NHB staff to discuss avoiding and minimizing impacts to rare plant species and exemplary natural communities.



## New Hampshire Natural Heritage Bureau

DRED - Division of Forests & Lands  
172 Pembroke Road, Concord, NH 03301  
(603) 271-2214

**To:** Lee Carbonneau, Normandeau Associates, Inc.  
**From:** Amy Lamb, Ecological Information Specialist  
**Date:** October 5, 2015  
**Subject:** Northern Pass Pre-Application Meeting Summary (NHB15-0611)

On March 30, 2015, Melissa Coppola issued a NH Natural Heritage Bureau (NHB) memo (NHB15-0611) to Normandeau Associates, Inc. that listed Threatened and Endangered species populations that will potentially be impacted by the proposed Northern Pass project. Since that date, NHB and Normandeau have met on several occasions to discuss project impacts, avoidance and minimization measures, route changes, and the remaining survey work to be completed.

This memo summarizes the most recent pre-application meeting, which took place on October 1, 2015. This meeting was held in order to review current rare plant and natural community information, refine avoidance and minimization measures, and determine additional steps to be taken in preparation for permit application submittal at the end of October, 2015.

The meeting resulted in the following determinations regarding data and documentation:

- NHB last provided digital data to Normandeau in February of 2015, and will continue to provide any new data (i.e., new plant surveys within the project area) as they become available.
- Normandeau will provide the final reports on Vegetation and Threatened and Endangered species to NHB upon completion.
- Normandeau will provide NHB a table summarizing the anticipated impacts to all rare plants and exemplary natural communities within the selected corridor. This table will distinguish between the different types of impacts and their resulting (long-term) effects on rare plants and exemplary natural communities.

- Any reports that are filed as publicly available information will not contain specific locations of rare plants; this information will be restricted to an appendix and treated as confidential, and will be removed from publicly available reports.
- The rare plant avoidance and minimization measures that the applicant has proposed were developed in consultation with NHB. NHB will provide additional species-specific avoidance and minimization guidance during the permit review period. This will consist of a table with prioritized actions for each species.
- As any new areas for access, staging, etc. become known, Normandeau (or any subsequent contractor) will conduct rare plant surveys in the areas and provide the results to NHB.
- Normandeau identified Lee Carbonneau as the point person for future Natural Heritage communications, and the NHB point person will be Amy Lamb.

The meeting also resulted in the determination of several measures to avoid and minimize impacts to Natural Heritage resources during construction:

- Meetings will be held among contractors, environmental monitors, and inspectors, prior to contractors working in or near areas where listed plants are located, that will include making contractors aware of sensitive areas and the appropriate best management practices for each area.
- Plans that are provided to contractors will contain a color-coded bar indicating the extent of a sensitive area; no further information will be revealed on such plans.
- Normandeau (or any subsequent contractor) will have "Sensitive Area" signs installed around rare plant populations and exemplary natural communities to alert work crews to their presence.
- It was agreed that it is critical that environmental monitors have the power and authority to stop work immediately if they become aware that any action will violate agreed-upon BMPs.
- NHB will make a recommendation to NHDES regarding qualifications of Environmental Monitors, to be included as a permit condition.

NHB and Normandeau will continue to communicate as the project progresses, in particular as any route changes or new impacts to rare plants become known.

Northern Pass has coordinated with the NH Natural Heritage Bureau (NHB) since 2010 to obtain information on known locations of rare species and exemplary natural communities within a half mile of the Northern Pass Project. Normandeau was provided with a digital data set for known locations. Based on the information provided by NHB and additional desktop research, Normandeau Associates prepared and implemented a work plan for field surveys for rare plant and natural community surveys. This work plan was approved by the NHB.

Within a half mile of the Protected Shoreland of the Soucook River in Pembroke, NH there are eighteen element occurrences identified by NHB. South of the river, NHB identified the S2 Wild Lupine (*Lupinus perennis*), the S1 Licorice Goldenrod (*Solidago odora*), the smooth green snake (*Opheodrys vernalis*), the S1 Karner Blue butterfly (*Lycaeides Melissa samuelis*), the S1 Wild Indigo Duskywing (*Erynnis baptisiae*), the S1 Eastern Hognose snake (*Heterodon platirhinos*) (three records), the S2 Barrens Xylotype (*Xylotype capax*), the SU Carolotta's Tiger Moth (*Apantesis Carlotta*), the S1 Hollow Joe-Pyeweed (*Eutrochium fistulosum*), the S1S2 Pitch-Pine Scrub Oak Woodland natural community, and the S3 Wood Turtle (*Glyptemys insculpta*). North of the Soucook, NHB identified five occurrences within a half mile of the Protected Shoreland buffer in Concord. NHB identified the S1 Butterfly Milkweed (*Asclepias tuberosa*), the S1S2 Barrens Itame (*Speranza exonerata*), the Brook Floater (*Alasmidonta varicosa*), the Red Threeawn (*Aristida longespica*), and S3 American Eel (*Anguilla rostrata*).

Northern Pass is working with the U.S. Fish and Wildlife Service, NH Fish and Game Department, and the NH NHB to address all concerns regarding endangered and threatened species and exemplary natural communities in the project area.

## ■ Appendix G Certified Mail Notifications and Receipts

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N/A for Abutters (Waiver for public utility lines exempt per RSA-483-B:5-b, IV (A))

***Via Certified Mail***

October 14, 2015

Town of Pembroke  
311 Pembroke Street  
Pembroke, NH 03275

**Re: Shoreland Permit Application – The Northern Pass Project**

Dear Sir or Madam:

Enclosed please find a copy of the Shoreland Permit Application package that will be filed with the NH Department of Environmental Services (DES) and New Hampshire Site Evaluation Committee for the Northern Pass Project. The project includes work in or around rivers, lakes, streams ponds, etc. Under state law, it is a requirement to provide the municipalities and Local River Advisory Committees having jurisdiction over these waterbodies with a copy of the shoreland application by Certified mail, for review and comment. Please find attached a copy of the application, which proposes work within the protected shoreland of a public water or Designated River in your regulatory area.

Sincerely,



Lee Carbonneau  
Normandeau Associates, Inc.  
As agent for Northern Pass Transmission, LLC.