NORMANDEAU ASSOCIATES
Environmental Consultants

Public Service Company of New Hampshire
Seacoast Reliability Project

Madbury, Durham, Newington & Portsmouth, NH

New Hampshire Department of Environmental Services
Shoreland Permit Application

Prepared For:
Public Service Company of New Hampshire
d/b/a Eversource Energy
780 North Commercial Street
Manchester, NH 03101

Submitted:
April 12, 2016

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Little Bay-Durham

SHORELAND PERMIT APPLICATION

NHDES-W-06-03

Water Division/ Shoreland Program

Land Resources Management

Check the status of your application: www.des.nh.gov/onestop

RSA/Rule: RSA 483-B, Env-Wq 140

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 (FAQs)

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 of New Hampshire, c/o Kurt Nelson			
ADDRESS: 13 Legends Drive	TOWN/CITY: Hooksett	STATE: NH	ZIPCODE: 03106
PHONE: 603-634-3256	EMAIL: kurt.nelson@eversource.com		
2. PROJECT LOCATION			
ADDRESS: 295 Durham Point Road	TOWN/CITY: Durham	STATE: NH	ZIPCODE: 03824
WATERBODY NAME: Little Bay	TAX MAP: 20	LOT NUMBER: 12-1	
3. CONTRACTOR OR AGENT			
LAST NAME, FIRST NAME, M.I: Allen, Sarah, D.			
ADDRESS: 25 Nashua Rd	TOWN/CITY: Bedford	STATE: NH	ZIPCODE: 03110
PHONE: 603-637-1158	EMAIL: sallen@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 standard.

☐ 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) under RSA 483-B:9, V_____.

5. PROJECT DESCRIPTION

Total Square feet of impact 28,271.6 Total square feet of new impervious area 0

Provide a complete description of the proposed project. PSNH is proposing to construct a new 115 kilovolt (kV) transmission line within an existing electric corridor between the existing Madbury and Portsmouth substations. The Seacoast Reliability Project would be located in the Towns of Madbury, Durham and Newington as well as the City of Portsmouth, in Strafford and Rockingham Counties, New Hampshire. Areas of the project occur within the Protected Shoreland Buffer at a crossing at Little Bay in Newington and Durham. The project also crosses the Oyster River in Durham which is a NH DES designated River and as such is protected under the Shoreland Water Quality Protection Act**.** At Little Bay in Durham, temporary impacts will result from project work consisting of trenching, installing underground cables and backfilling. No permanent impacts will occur at this site.

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 4 Feet above sea level.

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

The shoreland frontage on this lot is :123.3 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. = 28,271.6 **(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.

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

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

KLN 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:** __ **month:** __ **year:** ____ 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		PRINT NAME LEGIBLY: KURT I. NELSON	DATE: 4/5/2016
APPLICANT NAME		PRINT NAME LEGIBLY:	DATE:

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[1] means all human made impervious surfaces[2] 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**
PRIMARY STRUCTURE Include all attached decks and porches.	_____	_____	_____
ACCESSORY STRUCTURES All other impervious surfaces excluding lawn furniture, well heads, and fences. Common accessory structures include, but are not limited to: driveways, walkways, patios and sheds.	**Driveway**	**1,390.9** FT^2	**1,390.9** FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
TOTAL:		**(A) 1,390.9** FT^2	**(B) 1,390.9** FT^2
Area of the lot located within 250 ft of reference line:			**(C) 29,217** FT^2
Percentage of lot covered by pre-construction impervious area within 250 ft of the reference line:*[divide (a) by (c) x 100]*			**(D) 4.48 %**
Percentage of lot to be covered by post-construction impervious area within 250 ft of the reference line upon completion of the project: *[divide (b) by (c) x 100]*			**(E) 4.48 %**

[1] **"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.

[2] **"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.

IMPERVIOUS AREA THRESHOLDS

DETERMINING IF A STORMWATER MANAGEMENT PLAN IS REQUIRED
☒ This project does not require a stormwater management plan because the proposed post-construction impervious area (**Calculation E**) is less than or equal to 20%.
☐ This project requires a stormwater management plan because the proposed post-construction impervious area (**Calculation E**) is greater than 20%, but not greater than 30%. See details on the *Checklist of Required Items* on page 6
☐ This project requires a stormwater management plan designed and certified by a professional engineer because the post-construction impervious area **(Calculation E)** is greater than 30%; and All waterfront buffer grid segments must meet at least the minimum required tree and sapling point score. See details on the *Checklist of Required Items* 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[3] **(see definition below)**. If this area is completely altered, place a zero on line **(F)** and **(I)** and proceed to **(J)**.	**(F) 0**
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) 0**
Name of person who prepared this worksheet:	**(J) Tracy Coolidge**
Name and date of the plan this worksheet is based upon:	**(K) Seacoast Reliability Project Environmental Maps, 1/7/2016**
SIGNATURE: 	DATE: 2/12/2016

***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.

[3] **"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.

2.0 Shoreland Application, Oyster River Durham, NH

Oyster River-Durham

SHORELAND PERMIT APPLICATION

NHDES-W-06-037

Water Division/ Shoreland Program

Land Resources Management

Check the status of your application: www.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 (FAQs)

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 of New Hampshire, c/o Kurt Nelson			
ADDRESS: 13 Legends Drive	TOWN/CITY: Hooksett	STATE: NH	ZIPCODE: 03106
PHONE: 603-634-3526	EMAIL: kurt.nelson@nu.com		
2. PROJECT LOCATION			
ADDRESS: Main Street	TOWN/CITY: Durham	STATE: NH	ZIPCODE: 03824
WATERBODY NAME: Oyster River	TAX MAP: 12	LOT NUMBER: 7-2	
3. CONTRACTOR OR AGENT			
LAST NAME, FIRST NAME, M.I: Allen, Sarah, D.			
ADDRESS: 25 Nashua Rd.	TOWN/CITY: Bedford	STATE: NH	ZIPCODE: 03110
PHONE: 603-637-1158	EMAIL: sallen@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 standard.

☐ 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) under RSA 483-B:9, V_____.

5. PROJECT DESCRIPTION

Total Square feet of impact 29,943.5 Total square feet of new impervious area 225

Provide a complete description of the proposed project. PSNH is proposing to construct a new 115 kilovolt (kV) transmission line within an existing electric corridor between the existing Madbury and Portsmouth substations. The Seacoast Reliability Project would be located in the Towns of Madbury, Durham and Newington as well as the City of Portsmouth, in Strafford and Rockingham Counties, New Hampshire. Areas of the project occur within the Protected Shoreland Buffer at a crossing at Little Bay in Newington and Durham. The project also crosses the Oyster River in Durham which is a NH DES designated River and as such is protected under the Shoreland Water Quality Protection Act. Temporary impacts at this site will include work pads and access roads within the 250 foot shoreland buffer. Permanent impacts will result from the installation of two monopoles within the shoreland buffer.

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 30 Feet above sea level.

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

The shoreland frontage on this lot is :236.6 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. = 29,943.5 **(A) Square Feet**

Multiply the total Impact Area By 10¢ **and** add $100.00. **[(A) X .10 + $100.00] = $ Permit Fee 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.

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

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

KN 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:** Oyster River) 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:** __ **month:** __ **year:** ____ 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		PRINT NAME LEGIBLY: KURT I. NELSON	DATE: 4/5/2016
APPLICANT NAME		PRINT NAME LEGIBLY:	DATE:

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[4] means all human made impervious surfaces[5] 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**
PRIMARY STRUCTURE Include all attached decks and porches.	**Two Monopoles**	**0** FT^2	**225** FT^2
ACCESSORY STRUCTURES All other impervious surfaces excluding lawn furniture, well heads, and fences. Common accessory structures include, but are not limited to: driveways, walkways, patios and sheds.	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
TOTAL:		**(A) 0** FT^2	**(B) 225** FT^2
Area of the lot located within 250 ft of reference line:			**(C) 58,676.5** FT^2
Percentage of lot covered by pre-construction impervious area within 250 ft of the reference line:*[divide (a) by (c) x 100]*			**(D) 0 %**
Percentage of lot to be covered by post-construction impervious area within 250 ft of the reference line upon completion of the project: *[divide (b) by (c) x 100]*			**(E) 0.38 %**

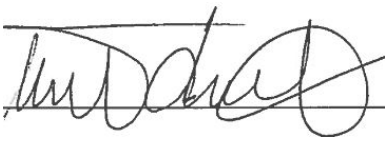
[4] **"Impervious surface area"** as defined in Env-Wq 1402.15 means, for purposes of the impervious surface limitation specified in RSA 483-B:9, V(g), the sum total of the footprint of each impervious surface that is located within the protected shoreland.

[5] **"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.

IMPERVIOUS AREA THRESHOLDS

DETERMINING IF A STORMWATER MANAGEMENT PLAN IS REQUIRED
☒ This project does not require a stormwater management plan because the proposed post-construction impervious area (**Calculation E**) is less than or equal to 20%.
☐ This project requires a stormwater management plan because the proposed post-construction impervious area (**Calculation E**) is greater than 20%, but not greater than 30%. See details on the *Checklist of Required Items* on page 6
☐ This project requires a stormwater management plan designed and certified by a professional engineer because the post-construction impervious area **(Calculation E)** is greater than 30%; and All waterfront buffer grid segments must meet at least the minimum required tree and sapling point score. See details on the *Checklist of Required Items* 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[6] **(see definition below)**. If this area is completely altered, place a zero on line **(F)** and **(I)** and proceed to **(J)**.	**(F) 0**
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) 0**
Name of person who prepared this worksheet:	**(J) Tracy Coolidge**
Name and date of the plan this worksheet is based upon:	**(K) Seacoast Reliability Project Environmental Maps, 1/7/2016**
SIGNATURE: 	DATE: 2/12/2016

***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.

[3] **"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.

3.0 Copy of Check for Application

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.

4.0 Project Specific Work within the Protected Shoreland

Public Service of New Hampshire (PSNH) is proposing to construct a new 115 kilovolt (kV) transmission line between the existing Madbury and Portsmouth substations. The Seacoast Reliability Project (SRP) would be located in the Towns of Madbury, Durham and Newington as well as the City of Portsmouth, in Strafford and Rockingham Counties, New Hampshire. Areas of the project occur within the previously developed shoreland zone and will include a crossing at Little Bay in Durham and Newington as well as a crossing at the Oyster River in Durham.

5.0 Wetlands

The SRP has water frontage on the west shore of Little Bay in Durham, NH and on the east shore of Little Bay in Newington, NH, both of which are tidal. The project also crosses a portion of the Oyster River, which is a designated river and as such is managed and protected for its outstanding natural and cultural resources in accordance with the RSA 483, The Rivers Management Act. Delineated Ordinary High Water (OHW) was used as a reference line for the Oyster River and was approximately 30ft in elevation at the contour.

The reference line for Little Bay, Highest Observable Tideline (HOTL), was established by Normandeau Associates using project-specific 2-foot contours and local average sea level data (and overlain on the site plan using ArcGIS). The delineated HOTL reference line of 4 feet is depicted on the site plans for Little Bay along with the jurisdictional 250-foot shoreland buffer (Appendix A).

6.0 Shoreland

The new 115 kV transmission line will be approximately 12.9 miles long, including a 0.9 mile crossing under Little Bay (Figure 1). The Project is proposed to be constructed almost entirely within an existing electric utility corridor. The right-of-way (ROW) ranges from 50 – 300 feet wide, but is predominantly 100 feet wide. The cable crossing corridor in Little Bay is approximately 1000 feet wide.

The purpose of this application is to request a permit to perform construction, trenching, and tree cutting activities within the 250-foot shoreland buffer in order to bury the transmission cables that will cross Little Bay and to expand the existing transmission line corridor as necessary. Minor tree removal and limbing will occur within the 250-ft shoreland buffer on the eastern and western shores of Little Bay. A photo log showing areas of proposed work within the 250-ft shoreland buffer is provided in Appendix E.

As the project is a public utility it can be permitted by the commissioner as necessary and consistent with the law to provide for economic development in proximity to waters. Specifically, no vegetation can remain in an unaltered state within a transmission corridor for safety reasons. Within the corridor, native vegetation will be allowed to grow to certain heights and trimmed as needed to maintain safe clearance for the transmission line.

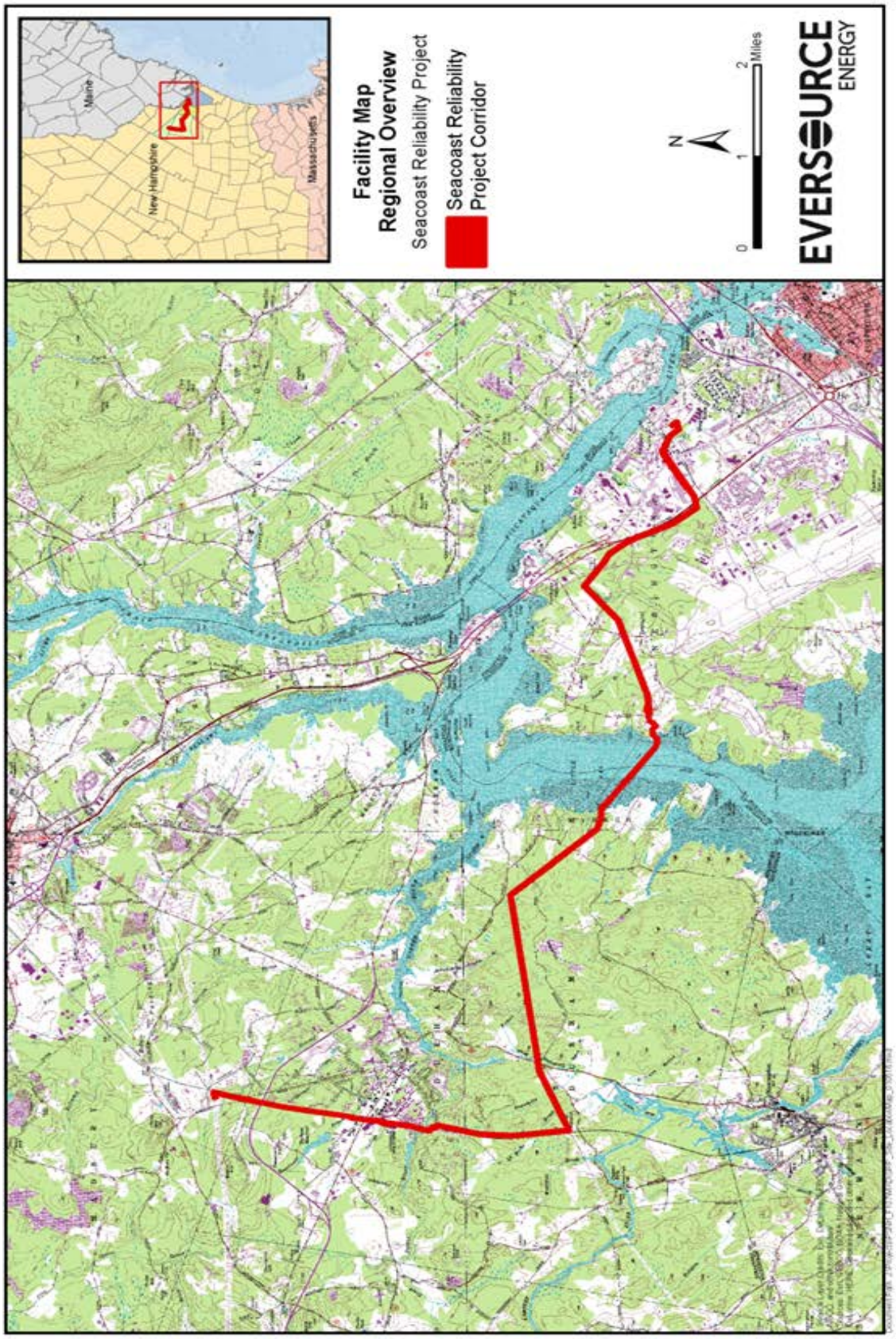


Figure 1. Overview Map of Seacoast Reliability Project (SRP).

The SRP, as a public utility, is also not required to notify abutters and the application fee is waived.

6.1 Little Bay, Durham Shoreland Site

At the Little Bay crossing in Durham (Appendix C), the line will traverse the Shoreland underground from a monopole located outside of the Shoreland to the submarine cable crossing. Once underground, the transmission line will be necessarily split into three cables to maintain the required transmissivity for the reliability project. Each cable will be trenched into the nearshore intertidal zone, and then buried 3.5-8 feet below the bottom of Little Bay using primarily a jetplow installation technology. East of Little Bay, the line will remain underground until it crosses Little Bay Road in Newington, after which it will emerge to cross overland until it terminates at Portsmouth substation.

At this Shoreland crossing, the wetland is confined to the estuarine zone and includes salt marsh (E2EM1), rocky shore (E2RS), intertidal unconsolidated flats (E2US), and subtidal unconsolidated bottom (E2UB). At the crossing, the bay is approximately 4,700 feet wide. The parcel on the western shore of the Bay at the Shoreland crossing is owned by William F. Getchell and is located at 295 Durham Point Road, Durham, NH. The land in the vicinity of the crossing on the western shore is entirely upland residential with maintained vegetation throughout the property. Temporary impacts at the site will result from work pads and trenching associated with placing the underground cables (Table 1). After construction is complete the trench will be backfilled and restored, resulting in no permanent impacts (Appendix A).

Table 1. SRP Shoreland Impacts at the Little Bay Crossing in Durham, NH.

Little Bay Durham	0′-50′ Waterfront Buffer	50′-150′ Natural Woodland Buffer	150′-250′ Shoreland Buffer	Total Impacts at Shoreland Crossing
Temporary Impacts (sq ft)	295.80 Clearing 4,672.0 Construction pad	2,028 Clearing 12,105 Construction pad	870.1 Clearing 11,494.6 Construction pad	3,193.9 Clearing 28,271.6 Construction pad
Permanent Impacts (sq ft)	0	0	0	0
Pre-Construction Impervious Surface Area (sq ft)	185.80	0	1,205.1	1,408.7
Post-Construction Impervious Surface Area (sq ft)	185.80	0	1,205.1	1,408.7

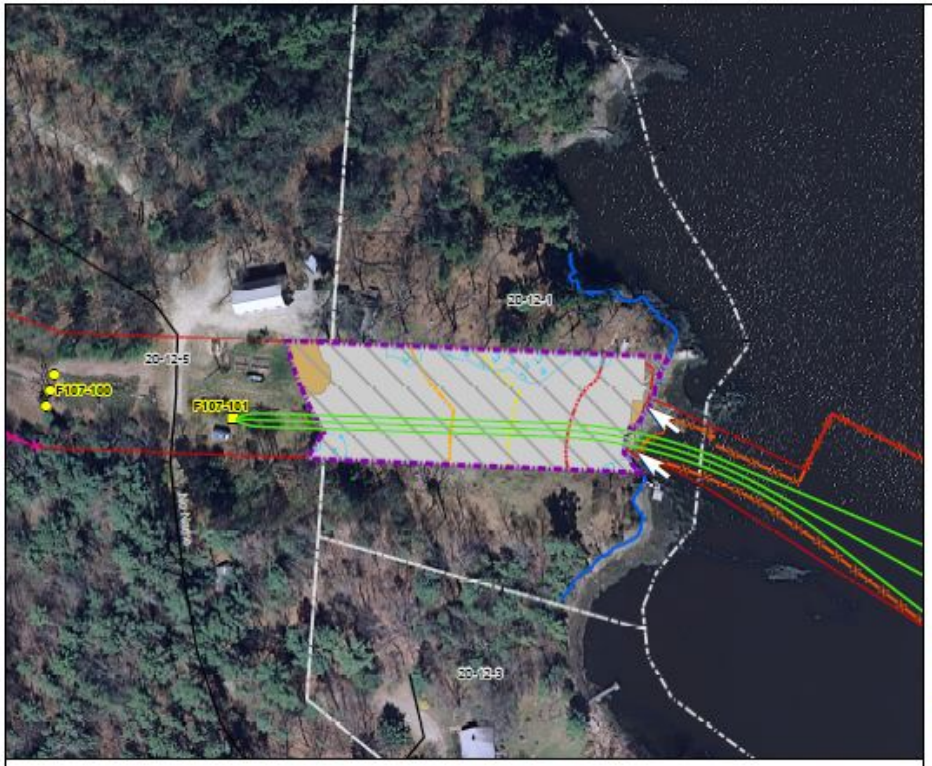
6.2 Oyster River, Durham Shoreland Site

At this SRP Shoreland crossing in Durham (Appendix C), the Oyster River is classified as a fourth order river (R2UB2) with a sand bottom. At the Project crossing, the river is approximately 40 feet wide. The parcels on both shores of the river at the crossing are owned by the University of New Hampshire (UNH). Land in the vicinity of the crossing is largely mixed conifer and deciduous forest on both shores and is surrounded by commercial land use including the University of New Hampshire and B&M Railways (Pan Am). Within the 250-foot Shoreland buffer, temporary impacts will occur from the construction of temporary access roads and temporary construction pads on both shores of the Oyster River. One monopole structure will be erected in the Waterfront buffer and one monopole structure will be placed in the Protected Shoreland Buffer at this construction site (Table 2). Both poles will be constructed on the southern shore of the River (Appendix A).

Table 2. SRP Shoreland Impacts at the Oyster River Crossing in Durham, NH.

Oyster River Durham	0′-50′ Waterfront Buffer	50′-150′ Natural Woodland Buffer	150′-250′ Shoreland Buffer	Total Impacts at Shoreland Crossing
Temporary Impacts (sq ft)	4,926.8 Clearing 6,671.2 Access Road, Construction pad	10,168.4 Clearing 11460 Access Road, Construction pad	11,255.9 Clearing 11,587.3 Access Road, Construction pad	26,351.1 Clearing 29,718.5 Access Road, Construction pad
Permanent Impacts (sq ft)	112.5 Monopole	0	112.5 Monopole	225 Monopole
Pre-Construction Impervious Surface Area (sq ft)	0	0	0	0
Post-Construction Impervious Surface Area (sq ft)	112. 5 Monopole	0	112. 5 Monopole	225 Monopole

Appendix A. Plan set



SWQPA Areas	Extent of Clearing (sq. ft.)		Construction Impacts (sq. ft.)		Impervious Surface (sq. ft)	
	Clearing in Wetland	Clearing in Upland	Temporary	Permanent	Pre-Construction	Post-Construction
Waterfront Buffer (50')	0	295.8	4672.0	0	185.8	185.8
Natural Woodland Buffer (150')	0	2028.0	12105.0	0	0	0
Protected Shoreland (250')	0	870.1	11494.6	0	1205.1	1205.1

SWQPA Areas	Extent of Clearing (sq. ft.)		Construction Impacts (sq. ft.)		Impervious Surface (sq. ft)	
	Clearing in Wetland	Clearing in Upland	Temporary	Permanent	Pre-Construction	Post-Construction
Waterfront Buffer (50')	0	4232.2	4440.7	10.0	16.6	26.6
Natural Woodland Buffer (150')	0	7148.2	8309.5	1.3	104.9	106.2
Protected Shoreland (250')	0	5317.6	3157.2	0	0	0

- SRP Right of Way
- Shoreland Buffer Zone (250ft)
- Natural Woodland Buffer (150ft)
- Tidal Buffer Zone (100ft)
- Waterfront Buffer (50ft)
- Reference Line (4ft Contour)
- Pre-Construction Impervious Areas
- Post-Construction Impervious Areas
- Temporary Impacts
- Existing Altered Areas
- Silt Curtain
- Tree Clearing
- DOT Roads
- Underground Cable
- Land Owner Parcels
- Photo Location and Direction

N

1 inch = 100 feet
when printed at 11" x 17"

0 100 200 Feet

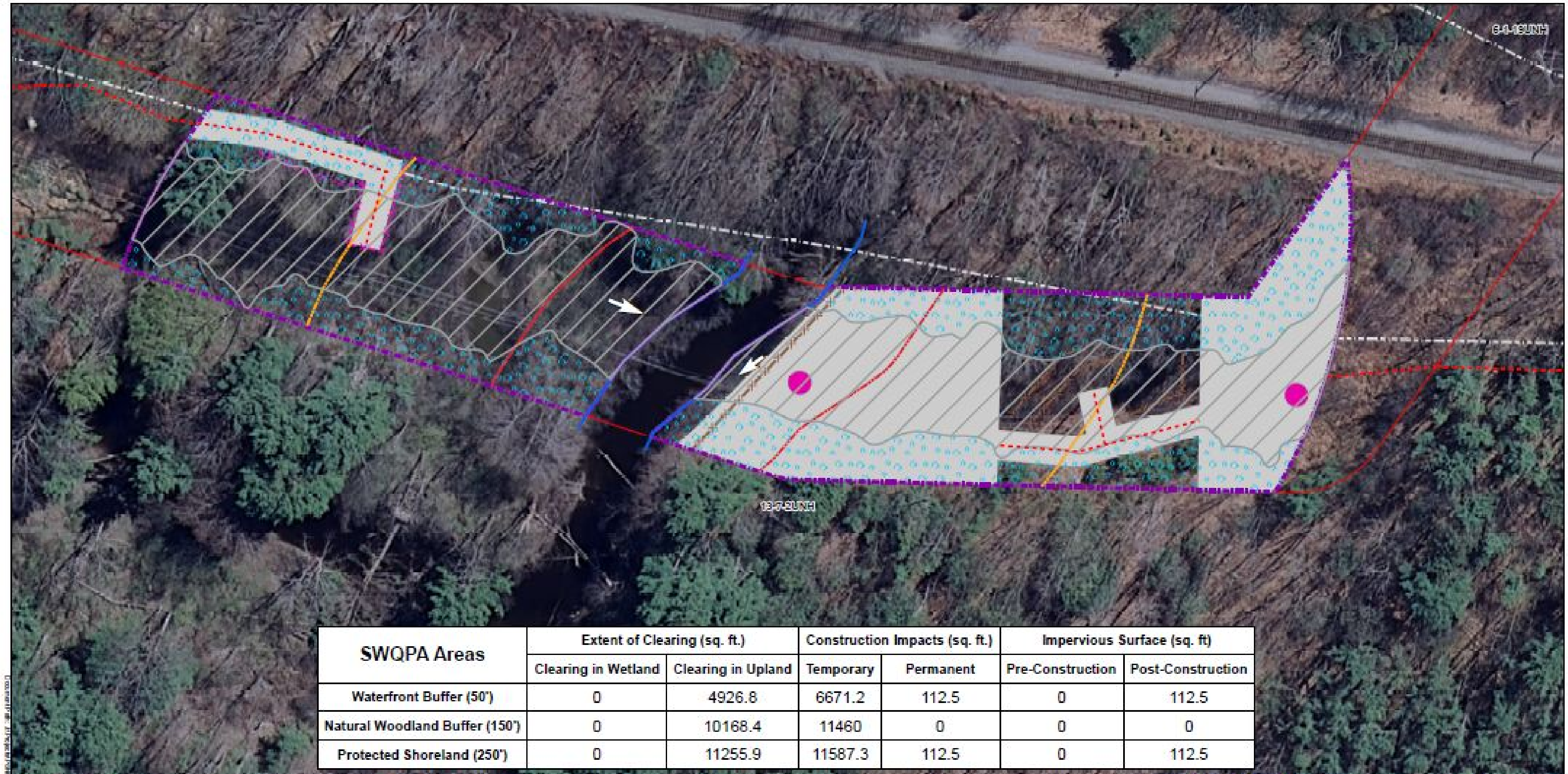
Seacoast Reliability Project

NHDES Shoreland Permit
Existing and Proposed Conditions

Little Bay, NH

NORMANDEAU ASSOCIATES
Environmental Consultants

Date: 1/7/2016
Drawn By: a.thompson
Project Number: 22960.003



SWQPA Areas	Extent of Clearing (sq. ft.)		Construction Impacts (sq. ft.)		Impervious Surface (sq. ft)	
	Clearing in Wetland	Clearing in Upland	Temporary	Permanent	Pre-Construction	Post-Construction
Waterfront Buffer (50')	0	4926.8	6671.2	112.5	0	112.5
Natural Woodland Buffer (150')	0	10168.4	11460	0	0	0
Protected Shoreland (250')	0	11255.9	11587.3	112.5	0	112.5

SRP Right of Way
Shoreland Buffer Zone (250ft)
Natural Woodland Buffer (150ft)
Waterfront Buffer (50ft)
Reference Line (OHW ~30ft Contour)
Photo Location and Direction

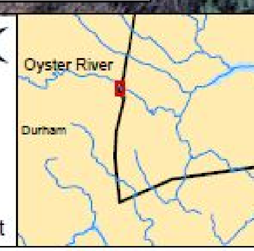
Post-Construction Impervious Areas
Temporary Impacts
Existing Altered Areas
Vegetation Clearing Areas
Silt Fence, Hay Bale, Erosion Control Mix Berm
Straw Waddle

Land Owner Parcels

N

1 inch = 50 feet
when printed at 11" x 17"

0 50 100 Feet



Seacoast Reliability Project

NHDES Shoreland Permit
Existing and Proposed Conditions

Oyster River

Durham, NH

NORMANDEAU ASSOCIATES
Environmental Consultants

Date: 1/7/2016
Drawn By: athompson
Project Number: 22860.003

Appendix B. Property Deeds

Pursuant to Env-wq 1406.07(a)(4) the following documentation is being provided to support the applicant's right to engage in the proposed activity on the property:

Durham - Oyster River

Right and Easement granted by the University of New Hampshire to Public Service Company of New Hampshire (PSNH) – dated April 18th, 1966; recorded at Stratford County Registry of Deeds June 24, 1966 Vol. 813 Page 426.

Durham – Little Bay (western shore)

PSNH has entered into a Purchase and Sale (P&S) Agreement for property located at 295 Durham Point Road in Durham (Map 20, Lot 12-1), the location of the western shore landing of the submarine cable. PSNH currently holds an easement on this property for overhead electric facilities. Purchase of this property will convey to PSNH the right to install the submarine cable underground through the property to the transition structure located approximately 367 feet from the western shore. Due to confidentiality concerns, a signed and notarized affidavit is being provided in lieu of a copy of the P&S Agreement.

813 426

STRAFFORD COUNTY RECORDS.
Received 11:30am J 24 19 66
Recorded Vol. 813 Page 426
Examined
James F. Pickett
Register

EAA 10530

EAA-105:30

KNOW ALL MEN BY THESE PRESENTS

That the UNIVERSITY OF NEW HAMPSHIRE, a corporation established under laws and having its principal place of business at Durham, in the County of Strafford in the State of New Hampshire (hereinafter called the Grantor), for consideration paid, grants to PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, a corporation having its principal place of business at 1087 Elm Street, Manchester, in the County of Hillsborough in the State of New Hampshire (hereinafter called the Grantee), with QUITCLAIM covenants, the RIGHT and EASEMENT to construct, repair, rebuild, operate, patrol, and remove overhead and underground lines consisting of wires, cables, ducts, manholes, poles and towers together with foundations, crossarms, braces, anchors, guys, grounds and other equipment, for transmitting electric current and/or intelligence over, under and across a strip of land 100 feet in width in the town of Durham, in the County of Strafford in the State of New Hampshire.

Said 100 foot strip shall extend 50 feet on either side of a line or extension of a line, described as follows:

Beginning at a point in the existing Durham S/S of the Grantee; thence

1. N 60° W crossing the Mill Dam Road 121 feet to an angle point adjacent to the original location of said Mill Dam Road; thence,

2. N 28° 20' E across land of the Grantor 179 feet to an angle point; thence,

3. N 37° 36' W approximately 27 feet to land of B & M RR; thence,

4. On the same course, crossing B & M RR land about 133 feet, to land of the Grantor; thence,

5. On the same course, 95 feet to an angle point; thence,

6. N 19° 00' E approximately 50 feet westerly of, and parallel to, B & M RR land, 256 feet to an angle point; thence,

7. N 35° 00' E approximately 50 feet westerly of, and parallel to, B & M RR land, 764.3 feet to an angle point; thence,

8. N 25° 00' E approximately 50 feet westerly of, and parallel to, B & M RR land, 1300.7 feet to an angle point; thence,

9. N 88° 00' E 61 feet to land of B & M RR; thence,

10. On the same course crossing B & M RR land about 138 feet, to land of the Grantor; thence,

11. On the same course 5 feet to an angle point; thence,

12. S 47° 00' E about 16 feet to the University of New Hampshire S/S of the Grantor.

For further description of said rights and easements see map entitled "UNH Tap - From Sub-Station Lot on Mill Dam Road to a point on property of U.N.H. in the rear of the heating plant (UNH S/S Location)" Public Service Company of New Hampshire, dated January 24, 1966, hereto attached and made a part of this conveyance, and also separately recorded in the Strafford County Registry of Deeds.

In the event that Public Service Company of New Hampshire, its successors and assigns, shall cease at any time to use the right of way described herein for the purpose of the transmission or distribution of electric energy, power and current, then the easement herein granted, shall cease and any right, title or interest that the said Grantee, its successors and assigns, shall have in the within described right of way shall revert to the said Grantor.

The Grantee herein agrees to save the Grantor harmless from any and all claims and demands, and any loss or damage resulting directly or indirectly from the maintenance of the above described lines.

Said strip of land being a part of the premises owned by the University of New Hampshire on both sides of the B & M RR between Mill Road and Main Street.

This conveyance shall include the right to clear and keep clear the strip of all trees and underbrush by such means as the Grantee may select, to remove all structures or obstructions which are now found within the limits of the strip, and the right to cut or trim such trees on the above-mentioned premises of the Grantor as in the judgment of the Grantee may interfere with or endanger said lines or their maintenance or operation.

The Grantor for itself and its successors and assigns, covenants and agrees to and with the Grantee, its successors and assigns, that they will not erect or maintain any building or other structure, or permit the erection or maintenance of any building or other structure of any kind or nature upon the strip.

All trees cut down by the Grantee shall remain the property of the Grantor. The Grantee shall have the right to limb such trees and to leave them full length or to cut them into shorter lengths for convenience in handling; provided, however, that with respect to any trees which in the opinion of the Grantee are suitable for lumber, the Grantee shall make only such cuts as in its reasonable judgment will not destroy the merchantability of the lumber.

The parties hereto, by delivering and accepting this conveyance, agree that all agreements, understandings and negotiations, written or verbal, heretofore made or entered into by the parties hereto or their representatives with respect to this conveyance are hereby waived and cancelled, and that there are no agreements, promises, representations or understandings with respect to this conveyance not mentioned herein.

IN WITNESS WHEREOF, the University of New Hampshire has hereunto caused its name to be subscribed and its corporate seal to be affixed this 18th day of April, 1966, by its Treasurer thereunto duly authorized.

In the presence of:

Marjorie L. Lukefort

UNIVERSITY OF NEW HAMPSHIRE

By N. W. Myers
Norman W. Myers, Treasurer

State of New Hampshire
County of Strafford

On this the 18th day of April, 1966, before me, the undersigned officer, personally appeared Norman W. Myers, who acknowledged himself to be the Treasurer of the University of New Hampshire, a corporation, and that he, as such Treasurer, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as Treasurer.

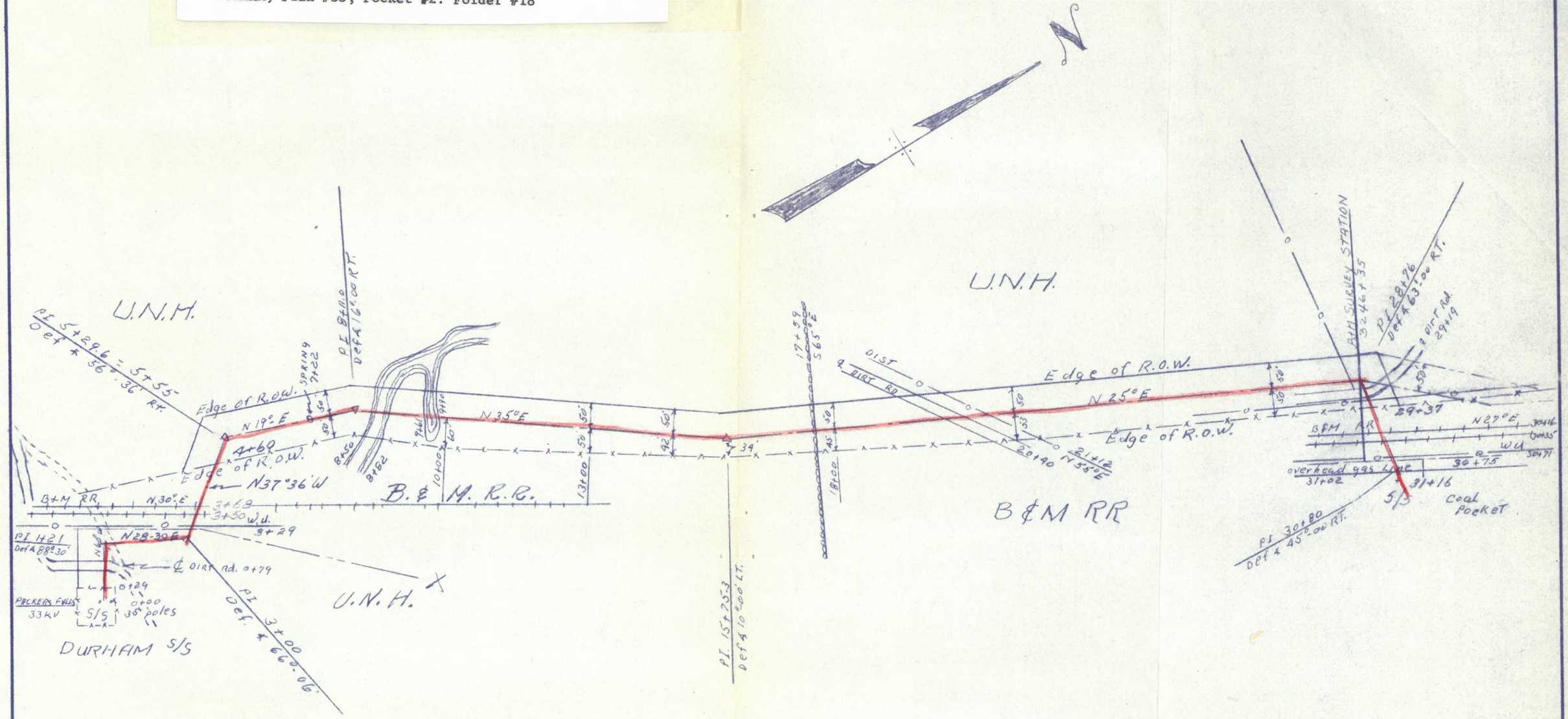
In witness whereof, I hereunto set my hand and official seal.

RUTH S. DALTON NOTARY PUBLIC NEW HAMPSHIRE

Ruth S. Dalton
Notary Public

Notary Public of New Hampshire
My Commission Expires August 7, 1970

DURHAM, Plan #33, Pocket #2. Folder #18



DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2	T. J. SOTER		
CK.	3			
APPR.	4			
	5			
	6			

U.N.H TAP
FROM SUB-STATION LOT ON MILL DAM ROAD TO A POINT ON PROPERTY OF U.N.H. IN THE REAR OF THE HEATING PLANT (U.N.H S/S LOCATION)

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE 1" = 200' DATE 1-24-66

B-8228-4

I HEREBY CERTIFY THAT THE FOLLOWING ACTION WAS TAKEN AT THE MEETING OF THE BOARD OF TRUSTEES OF THE UNIVERSITY OF NEW HAMPSHIRE HELD IN DURHAM, NEW HAMPSHIRE ON APRIL 16, 1966 AND I FURTHER CERTIFY THAT NORMAN W. MYERS IS THE VICE PRESIDENT-TREASURER OF THE UNIVERSITY OF NEW HAMPSHIRE:

"VOTED that the University Vice President - Treasurer be authorized to execute a deed for an easement granting a 100' right of way to the Public Service Company of New Hampshire, generally paralleling the line of the Boston and Maine Railroad tracks, north and south, from the center of the University campus at Durham, to accommodate the Public Service Company's electric current supply lines to the University transformer. This easement shall be in accordance with the documents prepared by the Public Service Company of New Hampshire, numbered B-8228-4, dated 1/24/66."

Witness:
Marjorie R. Lukefahr

Jere A. Chase
Executive Vice President

April 18, 1966

CORPORATE AFFIDAVIT

Theresa M. Feuersanger, being duly sworn, deposes and says:

1. The undersigned is Supervisor, Transmission and Distribution Rights of Way of Public Service Company of New Hampshire, a New Hampshire corporation doing business as Eversource Energy, with offices at 780 North Commercial Street, Manchester, New Hampshire, and is fully familiar with the matters herein set forth.

2. I hereby certify that Public Service Company of New Hampshire dba Eversource Energy has entered into a Purchase and Sale Agreement to acquire the real property located at 295 Durham Point Road, Durham, New Hampshire, owned by William Forbes Getchell, said Agreement is dated December 4, 2015.

Theresa M. Feuersanger Supervisor
Transmission and Distribution Rights of Way

State of New Hampshire
County of Hillsborough

On this the 11th day of February, 2016, before me, personally appeared Theresa M. Feuersanger, who acknowledged herself to be the Supervisor, of Transmission and Distribution Rights of Way of Public Service Company of New Hampshire, a New Hampshire corporation doing business as Eversource Energy, and that she as, being authorized to do so, executed the foregoing affidavit for the purposes therein contained.

Eugenia N. Snyder
Notary Public/Justice of the Peace

My commission expires:

EUGENIA N. SNYDER, Notary Public
My Commission Expires November 30, 2016

Appendix C. USGS Locus Map

Figure 1. Site Location map: Little Bay (Oriented North at a scale of 1:24,000)

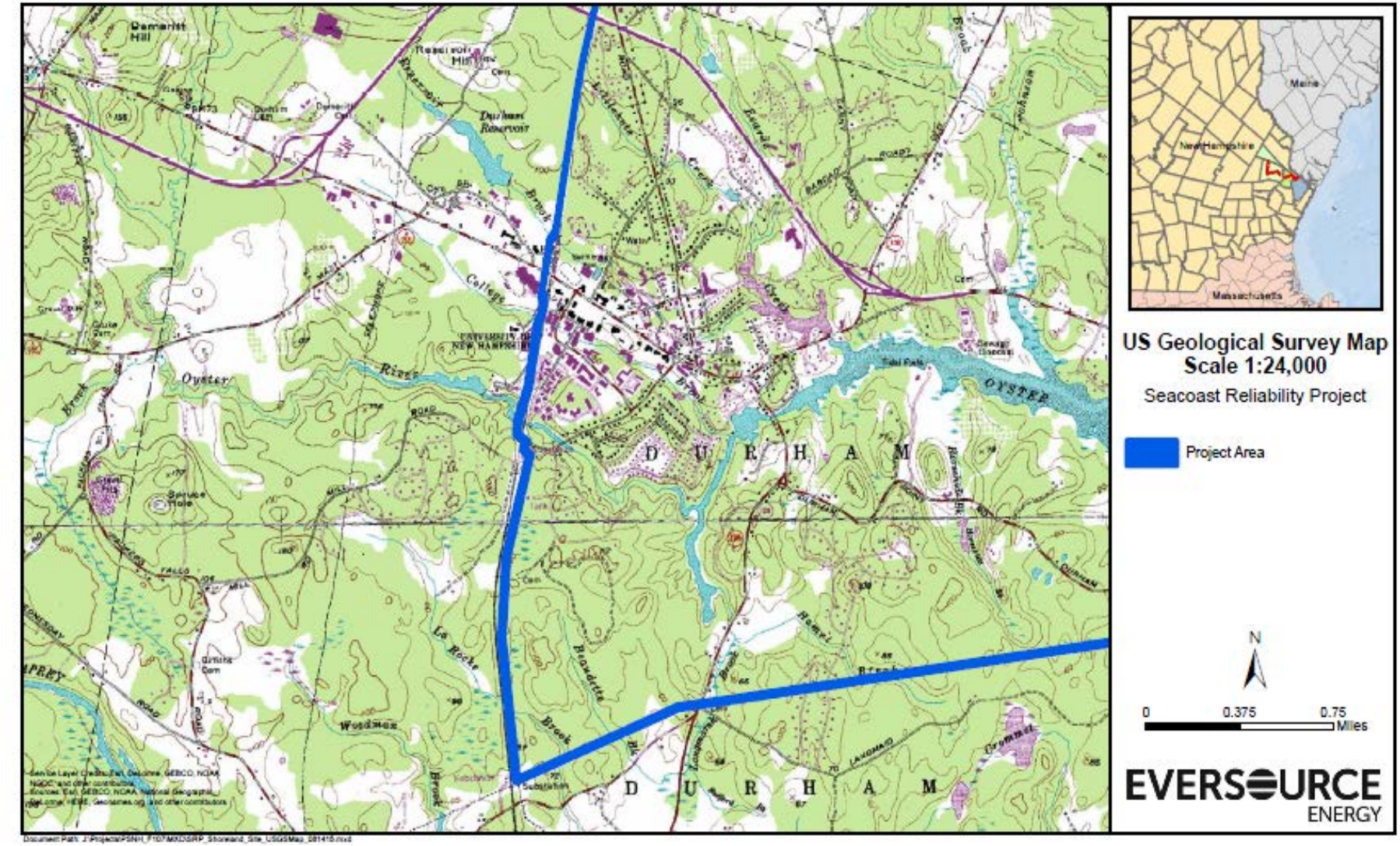


Figure 2. Site Location map: Oyster River (Oriented North at a scale of 1:24,000)

Appendix D. Tax Maps

Map 13

N

PROPERTY MAP
DURHAM
NEW HAMPSHIRE

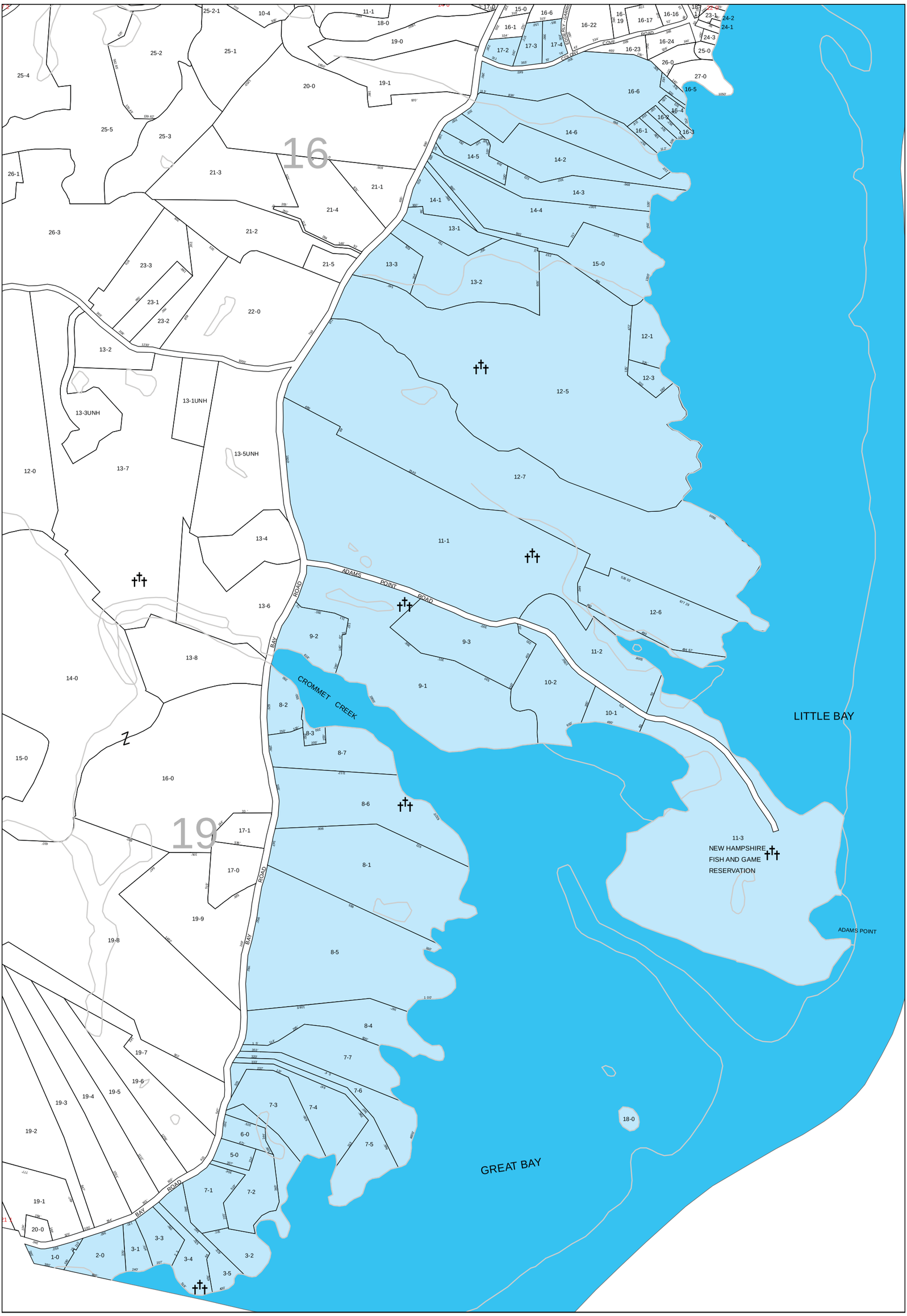
Legend

- Adjacent Map Sheets
- Current Map Sheet
- Cemetery

1 inch = 935 feet

This map was originally produced by Strafford Regional Planning Commission in October 2004 and updated by the Town of Durham in January 2014.

THIS MAP IS FOR ASSESSMENT PURPOSES ONLY.
IT IS NOT INTENDED FOR LEGAL DESCRIPTION OR CONVEYANCE.



This map was originally produced by Strafford Regional Planning Commission in October 2004, and was updated by the Town of Durham in February 2014.

THIS MAP IS FOR ASSESSMENT PURPOSES. IT IS NOT INTENDED FOR LEGAL DESCRIPTION OR CONVEYANCE.

Legend

- Adjacent Map Sheets
- Current Map Sheet
- Cemetery

PROPERTY MAP

DURHAM

NEW HAMPSHIRE

N

Map 20

1 inch = 777 feet

Appendix E. Representative Photos

Little Bay. Durham, NH. View North.

Little Bay. Durham, NH. View West.

Oyster River. Durham, NH. View West

Appendix F. Agency Coordination and NHB Report

A pre-application meeting regarding the wetland, stream and vernal pool resources was held on January 6, 2015 with the NH Department of Environmental Services (DES), NH Fish and Game Department (NHF&G), NH Department of Resource and Economic Development's Natural Heritage Bureau (NHNHB), US Army Corps of Engineers (USACE), US Environmental Protection Agency (USEPA), US Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS). Additional agency pre-application meetings have included one held with the DES project manager, Ms. Dori Wiggin, on February 25, 2015 and another to discuss resources and project activities in Little Bay was held on March 3, 2015 with NH DES, USACE, USEPA, and NMFS.

Another multi-agency pre-application meeting was held January 12, 2016 with state and federal agencies. Attendees included DES Wetlands Bureau, Alteration of Terrain, and Water Quality staff; NHNHB; USACE; USEPA; USFWS and NMFS. The purpose of this meeting was to present the final permitting design, describe the project community outreach efforts, and request any outstanding agency concerns.

A meeting describing the project and potential impacts was held on May 7, 2015 with NHF&G environmental review team; and an additional pre-application meeting was held on June 10, 2015 with NHDES and USACE.

Correspondence with the NHB and the NHF&G Non-Game and Endangered Species Program in 2013 determined that there were 19 records of Rare, Threatened and Endangered species and exemplary natural communities documented within the project vicinity. This list included seven plant species, four natural communities, seven vertebrate species, and one invertebrate. Normandeau biologists evaluated these species and communities during 2013 and early 2014, through field and/or desktop studies. In September 2014, Normandeau requested updated NHNHB data for the site. The updated list, which includes an addendum, contained an additional two plant species, two natural communities, and eight vertebrate species. A third record check was made in November 2015, and resulted in fewer species on the overall list for the project vicinity, but no change in the number of species and exemplary communities evaluated for the SRP.

Through field surveys and desktop work, Normandeau concluded that 14 species (1 plant, 4 communities, 1 invertebrate, 3 fish, 3 reptiles, and 2 birds) of the identified RTE species within the project vicinity have the possibility of being impacted by the SRP. Three of the four exemplary vegetation communities (High salt marsh, Salt marsh, and Sparsely vegetated intertidal) occur on the Durham side. On the Newington side, the salt marsh is less developed and only includes Salt marsh and Sparsely vegetated intertidal. Nesting or roosting bald eagle and osprey are known to occur in Little Bay, but not in the vicinity of the Project. Although no permanent impacts to these communities and species are anticipated, Project-specific management, including removal and restoration of salt marsh within the work area, and general Best Management Practices (BMP) will be employed to minimize temporary impacts during construction.

Memo

NH Natural Heritage Bureau
NHB Datacheck Results Letter

To: Susan Hegarty, Normandeau Associates, Inc.
25 Nashua Road
Bedford, NH 03110

From: Amy Lamb, NH Natural Heritage Bureau
Date: 11/9/2015 (valid for one year from this date)
Re: Review by NH Natural Heritage Bureau
NHB File ID: NHB15-3561 Town: Madbury, Durham, Newington, Portsmouth Location:
Description: Eversource is proposing to construct a new 13-mile 115kV transmission line between their Madbury and Portsmouth substations. It will predominantly follow existing ROW. It will consist primarily of overhead structures, but will have an underground section at UNH in Durham and will have a submarine segment under Little Bay. This is an update request. Our previously requested data expired on 10/2/2015. NHB file ID: NHB14-3618.

cc: Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments: This review is a follow-up to NHB14-3618 (9/24/2014) and the NHB14-3618 Addendum (10/2/2014). Continued coordination with NHB and NH Fish & Game is needed as this project progresses through permitting.

Invertebrate Species	**State[1]**	**Federal**	**Notes**
Ringed Boghaunter (*Williamsonia lintneri*)	E	--	Contact the NH Fish & Game Dept (see below).

Natural Community	**State[1]**	**Federal**	**Notes**
Hemlock - beech - oak - pine forest	--	--	Threats include logging, introduction of invasive species, and direct destruction due to development.
High salt marsh	--	--	Threats to these communities are primarily alterations to the hydrology of the wetland (such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat) and increased input of nutrients and pollutants in storm runoff.
Red maple - sensitive fern swamp	--	--	These swamps are influenced by groundwater seepage and springs which moderate water fluctuations and maintain conditions favorable for the accumulation of organic matter. The primary threats are changes to the hydrology of the wetland complex, particularly raising or lowering the water levels, and increased nutrient and pollutant input carried in by stormwater runoff.

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

DRED/NHB
172 Pembroke Rd.
Concord, NH 03301

Salt marsh system	--	--	Threats are primarily changes to the hydrology of the system, introduction of invasive species, and increased input of nutrients and pollutants.
Sparsely vegetated intertidal system	--	--	Threats to these communities are primarily alterations to the hydrology of the wetland (such as alterations that might affect the sheet flow of tidal waters across the intertidal flat) and increased input of nutrients and pollutants in storm runoff.
Subtidal system	--	--	Threats to these communities are primarily alterations to the hydrology of the wetland (such as alterations that might affect the sheet flow of tidal waters across the intertidal flat) and increased input of nutrients and pollutants in storm runoff.

Plant species	**State[1]**	**Federal**	**Notes**
Black Maple (*Acer nigrum*)	T	--	Threats are primarily damage to its floodplain or riverbank habitat, including changes to local hydrology, land conversion and fragmentation, introduction of invasive species, and increased input of nutrients and pollutants.
bulbous bitter-cress (*Cardamine bulbosa*)	E	--	This species occurs in forested swamps, low floodplain forest, and moist thickets.. Threats to the plants include canopy removal and destruction (draining) of its habitat.
crested sedge (*Carex cristatella*)*	E	--	This wetland species, which occurs in bogs, fens, seeps, and wet meadows, would be threatened by changes to local hydrology, including increased nutrient input from stormwater runoff, and sedimentation from nearby disturbance.
Engelmann's Quillwort (*Isoetes engelmannii*)*	E	--	Primarily vulnerable to changes to the hydrology of its wetland habitat, especially alterations that change water levels. It may also be susceptible to increased pollutants and nutrients carried in stormwater runoff.
great bur-reed (*Sparganium eurycarpum*)	T	--	Threats to aquatic species include changes in water quality, e.g., due to pollution and stormwater runoff, and significant changes in water level.
greater fringed-gentian (*Gentianopsis crinita*)*	T	--	Vulnerable to shading by invading trees and to disturbances that destroy plants or impede their ability to reproduce (such as mowing in the mid-summer while the plants are in bloom).
Marsh Elder (*Iva frutescens*)	T	--	Threats are primarily alterations to the hydrology of the wetland, such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat, activities that eliminate plants, and increased input of nutrients and pollutants in storm runoff.
Rigid Sedge (*Carex tetanica*)*	--	--	This plant relies on open habitat, and maintenance of the hydrology of any wetland where it occurs.
Sensitive species	T	T	Please contact NH Natural Heritage (271-2215 x 323) if project impacts could occur

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

DRED/NHB
172 Pembroke Rd.
Concord, NH 03301

Memo

in the area shown on the map.

Vertebrate species	State[1]	Federal	Notes
American Eel (*Anguilla rostrata*)	SC	--	Contact the NH Fish & Game Dept (see below).
Bald Eagle (*Haliaeetus leucocephalus*)	T	--	Contact the NH Fish & Game Dept (see below).
Banded Sunfish (*Enneacanthus obesus*)	SC	--	Contact the NH Fish & Game Dept (see below).
Blanding's Turtle (*Emydoidea blandingii*)	E	--	Contact the NH Fish & Game Dept (see below).
Eastern Hognose Snake (*Heterodon platirhinos*)*	E	--	Contact the NH Fish & Game Dept (see below).
Grasshopper Sparrow (*Ammodramus savannarum*)	T	--	Contact the NH Fish & Game Dept (see below).
Least Bittern (*Ixobrychus exilis*)	SC	--	Contact the NH Fish & Game Dept (see below).
Northern Black Racer (*Coluber constrictor constrictor*)	T	--	Contact the NH Fish & Game Dept (see below).
Osprey (*Pandion haliaetus*)	SC	--	Contact the NH Fish & Game Dept (see below).
Sea Lamprey (*Petromyzon marinus*)	SC	--	Contact the NH Fish & Game Dept (see below).
Sedge Wren (*Cistothorus platensis*)	E	--	Contact the NH Fish & Game Dept (see below).
Spotted Turtle (*Clemmys guttata*)	T	--	Contact the NH Fish & Game Dept (see below).
Swamp Darter (*Etheostoma fusiforme*)	SC	--	Contact the NH Fish & Game Dept (see below).
Upland Sandpiper (*Bartramia longicauda*)	E	--	Contact the NH Fish & Game Dept (see below).

[1]Codes: "E" Endangered, "T" Threatened, “SC” Special Concern, " " an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

Contact for all animal reviews: Kim Tuttle, NH F&G, (603) 271-6544.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

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

DRED/NHB
172 Pembroke Rd.
Concord, NH 03301

Appendix G. Certified Notifications and Mail Receipts

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

7015 1520 0002 9696 2928

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.

OFFICIAL USE

Certified Mail Fee
$ 3.45

Extra Services & Fees *(check box, add fee as appropriate)*
- [x] Return Receipt (hardcopy) $ 2.80
- [ ] Return Receipt (electronic) $
- [ ] Certified Mail Restricted Delivery $
- [ ] Adult Signature Required $
- [ ] Adult Signature Restricted Delivery $

Postage
$ 2.54

Total Postage and Fees
$ 8.79

BEDFORD RURAL
Postmark Here
APR 6 2016
BEDFORD NH 03110

Sent To Eric Fiegenbaum
Street and Apt. No., or PO Box No. 6 Moharimet Dr.
City, State, ZIP+4® Madbury, NH 03823

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 1520 0002 9696 2935

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PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

NORMANDEAU ASSOCIATES
Environmental Consultants

Via Certified Mail

April 1, 2016

Oyster River Local River Advisory Committee
Eric Fiegenbaum
6 Mohariment Drive
Madbury, NH 03823

Re: Shoreland Permit Application- Seacoast Reliability Project

Dear Mr. Fiegenbaum

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 Seacoast Reliability Project. The project includes work in and or around rivers and bays. Under state law, it is a requirement to provide municipalities and Local River Advisory Committees having jurisdiction over these waterbodies with a copy of the application, which proposes work within the protected shoreland of a public water or Designated River in your regulatory area.

Sincerely,

Sarah Allen

Sarah Allen
Project Manager
Normandeau Associates, Inc.

NORMANDEAU ASSOCIATES
Environmental Consultants

Via Certified Mail

April 1, 2016

Town of Durham
15 Newmarket Rd.
Durham, NH 03824

Re: PSNH Shoreland Permit Application- Seacoast Reliability 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 Public Service of New Hampshire's Seacoast Reliability Project. The project includes work in and or around rivers and bays. Under state law, it is a requirement to provide municipalities and Local River Advisory Committees having jurisdiction over these waterbodies with a copy of the application, which proposes work within the protected shoreland of a public water or Designated River in your regulatory area.

Sincerely,

Sarah Allen
Project Manager
Normandeau Associates, Inc.

Appendix H. List of Abutters

Tax map 20 Lot 12-5

Location: 313 & 315 Durham Point Road

Owner: Thomas A. Decapo

Mailing Address: 234 Causeway Street, Boston, MA 02114

Tax Map 20 Lot 12-3

Location: 297 Durham Point Road

Owner: Jeffery and Vivian Miller

Mailing Address: 297 Durham Point Road, Durham, NH 03824

Tax Map 20 Lot 12-1

Location: 295 Durham Point Road

Owner: William F. Getchell

Mailing Address: P.O Box 867, Durham, NH 03824

Tax Map 20 Lot 13

Location: 291 Durham Point Road

Owner: Matthew and Amanda E. Fitch

Mailing Address: 291 Durham Point Rd, Durham, NH 03824

Owner: Boston and Maine Railroad

Mailing Address: 1700 Iron Horse Park, Billerica, MA 01862

Tax Map 13 Lot 7-2UNH

Location: Main Street

Owner: University of New Hampshire Office of the President

Mailing Address: Thompson Hall, Durham, NH 03824

NORMANDEAU ASSOCIATES
Environmental Consultants

Public Service Company of New Hampshire
Seacoast Reliability Project

Madbury, Durham, Newington & Portsmouth, NH

New Hampshire Department of Environmental Services
Shoreland Permit Application

Prepared For:
Public Service Company of New Hampshire
d/b/a Eversource Energy
780 North Commercial Street
Manchester, NH 03101

Submitted:
April 12, 2016

Prepared By:
Normandeau Associates, Inc.
25 Nashua Road
Bedford, NH 03110-5500
603.472.5191

www.normandeau.com

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1.0 Shoreland Application, Little Bay Newington, NH

Little Bay- Newington

SHORELAND PERMIT APPLICATION

NHDES-W-06-037

Water Division/ Shoreland Program

Land Resources Management

Check the status of your application: www.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 (FAQs)

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 of New Hampshire, c/o Kurt Nelson			
ADDRESS: 13 Legends Drive	TOWN/CITY: Hooksett	STATE: NH	ZIPCODE: 03106
PHONE: 603-634-3256	EMAIL: kurt.nelson@nu.com		
2. PROJECT LOCATION			
ADDRESS: 44 Gundalow Landing	TOWN/CITY: Newington	STATE: NH	ZIPCODE: 03805
WATERBODY NAME: Little Bay	TAX MAP: 22	LOT NUMBER: 5	
3. CONTRACTOR OR AGENT			
LAST NAME, FIRST NAME, M.I: Allen, Sarah, D.			
ADDRESS: 25 Nashua Rd.	TOWN/CITY: Bedford	STATE: NH	ZIPCODE: 03110
PHONE: 603-637-1158	EMAIL: sallen@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 standard.

☐ 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) under RSA 483-B:9, V_____.

5. PROJECT DESCRIPTION

Total Square feet of impact 15,918.7 Total square feet of new impervious area 11.3

Provide a complete description of the proposed project. PSNH is proposing to construct a new 115 kilovolt (kV) transmission line within an existing electric corridor between the existing Madbury and Portsmouth substations. The Seacoast Reliability Project would be located in the Towns of Madbury, Durham and Newington as well as the City of Portsmouth, in Strafford and Rockingham Counties, New Hampshire. Areas of the project occur within the Protected Shoreland Buffer at a crossing at Little Bay in Newington and Durham. The project also crosses the Oyster River in Durham which is a NH DES designated River and as such is protected under the Shoreland Water Quality Protection Act. At Little Bay in Newington, temporary impacts that will result from project work will consist of trenching and installing underground cables and backfilling. Permanent impacts at the site will result from the placement of two manhole covers to allow access to the cables during repairs.

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 4 Feet above sea level.

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

The shoreland frontage on this lot is : 52 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. = 15,918.7 **(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.

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

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

KN 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: __ month: __ year: ____** 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		PRINT NAME LEGIBLY: KURT I. NELSON	DATE: 4/5/2016
APPLICANT NAME		PRINT NAME LEGIBLY:	DATE:

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[1] means all human made impervious surfaces[2] 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**
PRIMARY STRUCTURE Include all attached decks and porches.	**Manhole cover, Driveway**	**121.5** FT^2	**132.8** FT^2
ACCESSORY STRUCTURES All other impervious surfaces excluding lawn furniture, well heads, and fences. Common accessory structures include, but are not limited to: driveways, walkways, patios and sheds.	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
TOTAL:		**(A) 121.5** FT^2	**(B) 132.8** FT^2
Area of the lot located within 250 ft of reference line:			**(C) 19,486.08** FT^2
Percentage of lot covered by pre-construction impervious area within 250 ft of the reference line:*[divide (a) by (c) x 100]*			**(D) 0.62 %**
Percentage of lot to be covered by post-construction impervious area within 250 ft of the reference line upon completion of the project: *[divide (b) by (c) x 100]*			**(E) 0.68 %**

[1] **"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.

[2] **"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.

IMPERVIOUS AREA THRESHOLDS

DETERMINING IF A STORMWATER MANAGEMENT PLAN IS REQUIRED
☒ This project does not require a stormwater management plan because the proposed post-construction impervious area (**Calculation E**) is less than or equal to 20%.
☐ This project requires a stormwater management plan because the proposed post-construction impervious area (**Calculation E**) is greater than 20%, but not greater than 30%. See details on the *Checklist of Required Items* on page 6
☐ This project requires a stormwater management plan designed and certified by a professional engineer because the post-construction impervious area **(Calculation E)** 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 *Checklist of Required Items* 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[3] **(see definition below)**. If this area is completely altered, place a zero on line **(F)** and **(I)** and proceed to **(J)**.	**(F) 0**
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) 0**
Name of person who prepared this worksheet:	**(J) Tracy Coolidge**
Name and date of the plan this worksheet is based upon:	**(K) Seacoast Reliability Project Environmental Maps, 1/7/2016**
SIGNATURE: 	DATE: 2/12/2016

***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.

[3] **"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.

2.0 Copy of Check for Application

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

Public Service of New Hampshire (PSNH) is proposing to construct a new 115 kilovolt (kV) 12.9-mile transmission line between the existing Madbury and Portsmouth substations. The Seacoast Reliability Project (SRP) would be located in the Towns of Madbury, Durham and Newington as well as the City of Portsmouth, in Strafford and Rockingham Counties, New Hampshire. Areas of the project occur within the previously developed shoreland zone and will include a crossing at Little Bay in Durham and Newington as well as a crossing at the Oyster River in Durham.

4.0 Wetlands

The SRP has water frontage on the west shore of Little Bay in Durham, NH and on the east shore of Little Bay in Newington, NH, both of which are tidal. The project also crosses a portion of the Oyster River, which is a designated river and as such is managed and protected for its outstanding natural and cultural resources in accordance with the RSA 483, The Rivers Management Act. Delineated Ordinary High Water (OHW) was used as a reference line for the Oyster River and was approximately 30ft in elevation at the contour.

The reference line for Little Bay, Highest Observable Tideline (HOTL), was established by Normandeau Associates using project-specific 2-foot contours and local average sea level data (and overlain on the site plan using ArcGIS). The delineated HOTL reference line of 4 feet is depicted on the site plans for Little Bay along with the jurisdictional 250-foot shoreland buffer (Appendix A).

5.0 Shoreland

The new 115 kV transmission line will be approximately 12.9 miles long, including a 0.9 mile crossing under Little Bay (Figure 1). The Project is proposed to be constructed almost entirely within an existing electric utility corridor. The right-of-way (ROW) ranges from 50 – 300 feet wide, but is predominantly 100 feet wide. The cable crossing corridor in Little Bay is approximately 1000 feet wide.

The purpose of this application is to request a permit to perform construction, trenching, and tree cutting activities within the 250-foot shoreland buffer in order to bury the transmission cables that will cross Little Bay and to expand the existing transmission line corridor as necessary. Tree removal and limbing will occur within the 250-foot shoreland buffer on the eastern and western shores of Little Bay. A photo log showing areas of proposed work within the 250-foot shoreland buffer is provided in Appendix E.

As the project is a public utility it can be permitted by the commissioner as necessary and consistent with the law to provide for economic development in proximity to waters. Specifically, no vegetation can remain in an unaltered state within a transmission corridor for safety reasons. Within the corridor, native vegetation will be allowed to grow to certain heights and trimmed as needed to maintain safe clearance for the transmission line. The SRP, as a public utility, is also not required to notify abutters and the application fee is waived.

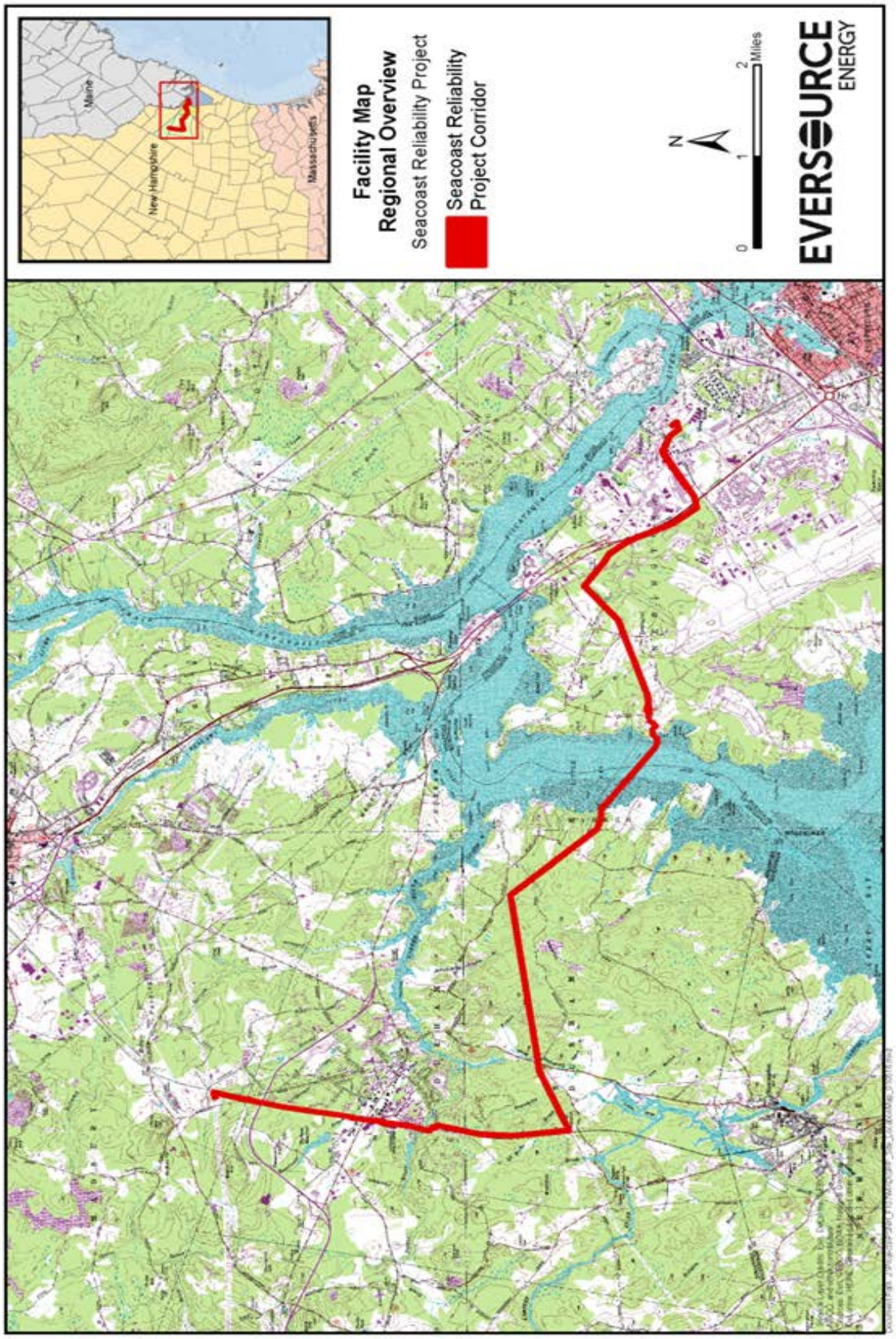


Figure 1. Overview Map of Seacoast Reliability Project (SRP).

5.1 Little Bay, Newington Shoreland Site

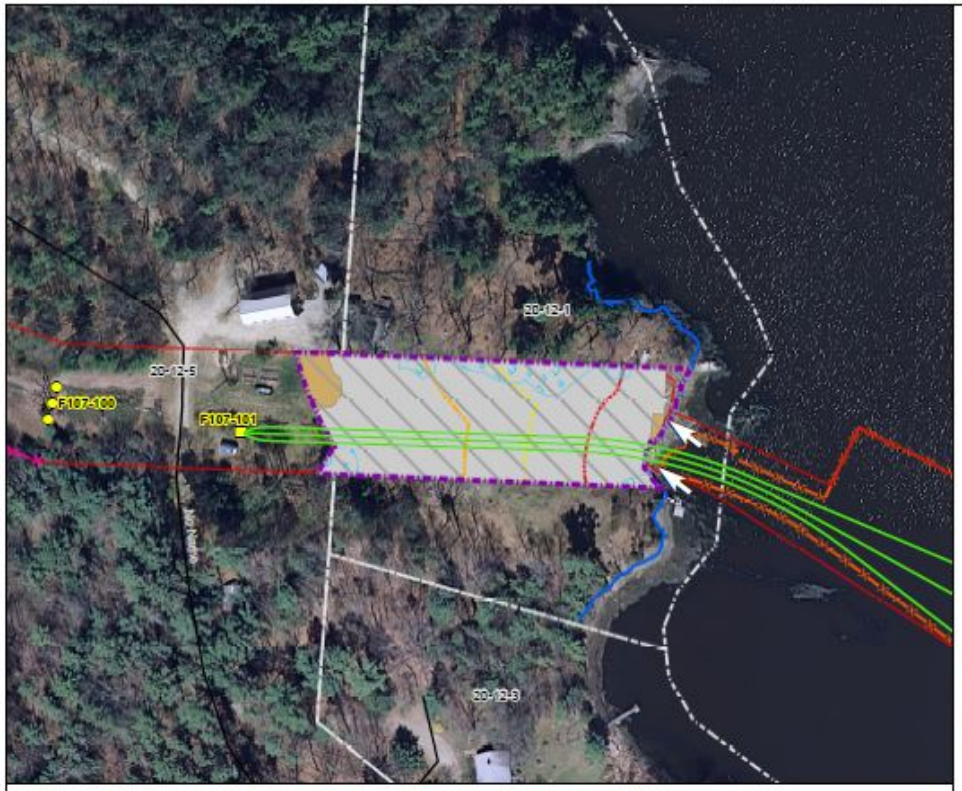
At the Little Bay crossing in Newington (Appendix C), the line will traverse the Shoreland underground from the submarine cable crossing to a set of three transition structures located outside of the Shoreland. Each cable will be trenched to the nearshore intertidal, and then buried 3.5-8 feet below the bottom of Little Bay using primarily a jetplow installation technology. East of Little Bay, the line will remain underground until it crosses Little Bay Road in Newington, after which it will emerge to cross overland until it terminates at Portsmouth substation.

At the Shoreland crossing, the wetland is confined to the estuarine zone and includes salt marsh (E2EM1), rocky shore (E2RS), intertidal unconsolidated flats (E2US), and subtidal unconsolidated bottom (E2UB). At the crossing, the bay is approximately 4,700 feet wide. The parcel on the eastern shore of Little Bay at the Shoreland crossing is owned by Paul R. Beswick 2008 Revocable Trust and is located at 44 Gundalow Landing Circle, Newington, NH. The land in the vicinity of the crossing on the eastern shore is largely residential with maintained vegetation throughout the property. Within the 250-foot Shoreland Buffer, the three cables will go underground in a cut-and-cover trench until it crosses Little Bay Road in Newington, after which it will emerge to cross overland until it terminates at Portsmouth substation. Temporary impacts at the site will result from work pads and trenching associated with placing the underground cables (Table 1). After construction is complete the trench will be backfilled and restored, resulting in no permanent impacts (Appendix A). Permanent post-construction impacts at this site will result from the placement of two man-hole covers which will result in the Waterfront Buffer as well as the Natural Woodland Buffer (Appendix A).

Table 1. SRP Shoreland Impacts at the Little Bay Crossing in Newington, NH

Little Bay Newington	0′-50′ Waterfront Buffer	50′-150′ Natural Woodland Buffer	150′-250′Shoreland Buffer	Total Impacts at Shoreland Crossing
Temporary Impacts (sq ft)	4,440.7 trenching 4,232.2 clearing	8,309.5 trenching 7,148.2 clearing	3,157.2 trenching 5,317.6 clearing	15,907.4 trenching 16,698 clearing
Permanent Impacts (sq ft)	10 manholes	1.3 manholes	0	11.3 manholes
Pre-Construction Impervious Surface Area (sq ft)	16.6	104.9	0	121.5
Post-Construction Impervious Surface Area (sq ft)	26.6 manholes	106.2 manholes	0	132.8 manholes

Appendix A. Plan set



SWQPA Areas	Extent of Clearing (sq. ft.)		Construction Impacts (sq. ft.)		Impervious Surface (sq. ft)	
	Clearing in Wetland	Clearing in Upland	Temporary	Permanent	Pre-Construction	Post-Construction
Waterfront Buffer (50')	0	295.8	4672.0	0	185.8	185.8
Natural Woodland Buffer (150')	0	2028.0	12105.0	0	0	0
Protected Shoreland (250')	0	870.1	11494.6	0	1205.1	1205.1

SWQPA Areas	Extent of Clearing (sq. ft.)		Construction Impacts (sq. ft.)		Impervious Surface (sq. ft)	
	Clearing in Wetland	Clearing in Upland	Temporary	Permanent	Pre-Construction	Post-Construction
Waterfront Buffer (50')	0	4232.2	4440.7	10.0	16.6	26.6
Natural Woodland Buffer (150')	0	7148.2	8309.5	1.3	104.9	106.2
Protected Shoreland (250')	0	5317.6	3157.2	0	0	0

SRP Right of Way
Shoreland Buffer Zone (250ft)
Natural Woodland Buffer (150ft)
Tidal Buffer Zone (100ft)
Waterfront Buffer (50ft)
Reference Line (4ft Contour)

Pre-Construction Impervious Areas
Post-Construction Impervious Areas
Temporary Impacts
Existing Altered Areas
Silt Curtain

Tree Clearing
DOT Roads
Underground Cable
Land Owner Parcels

Photo Location and Direction

N

1 inch = 100 feet
when printed at 11" x 17"

0 100 200 Feet

Seacoast Reliability Project

NHDES Shoreland Permit
Existing and Proposed Conditions

Little Bay, NH

NORMANDEAU ASSOCIATES
Environmental Consultants

Project Number 22860.003
Drawn By: a thompson
Date: 1/7/2016

Appendix B. Property Deeds

Pursuant to Env-wq 1406.07(a)(4) the following documentation is being provided to support the applicants right to engage in the proposed activity on the property:

Newington - Little Bay (eastern shore)

PSNH has entered into an Easement Exchange Agreement for property located at 44 Gundalow Landing Circle in Newington (Map 22 Lot 5), the location of the eastern shore landing of the submarine cable. PSNH entered into this agreement to relocate its easement on the subject property to a more preferable shore landing location. Due to confidentiality concerns, a signed and notarized affidavit is being provided in lieu of the Easement Exchange Agreement.

CORPORATE AFFIDAVIT

Theresa M. Feuersanger, being duly sworn, deposes and says:

1. The undersigned is Supervisor, Transmission and Distribution Rights of Way of Public Service Company of New Hampshire, a New Hampshire corporation doing business as Eversource Energy, with offices at 780 North Commercial Street, Manchester, New Hampshire, and is fully familiar with the matters herein set forth.

2. I hereby certify that Public Service Company of New Hampshire dba Eversource Energy has entered into an Easement Exchange Agreement to acquire easement rights over the real property owned by Siang Kiang Beswick and John J. Tsoutsouras, Co-Trustees of the Paul R. Beswick 2008 Trust (First Non-Elective) located at 44 Gundalow Landing Circle, Newington, New Hampshire as of November 20, 2015.

Theresa M. Feuersanger Supervisor
Transmission and Distribution Rights of Way

State of New Hampshire
County of Hillsborough

On this the 11th day of February, 2016, before me, personally appeared Theresa M. Feuersanger, who acknowledged herself to be the Supervisor, of Transmission and Distribution Rights of Way of Public Service Company of New Hampshire, a New Hampshire corporation doing business as Eversource Energy, and that she as, being authorized to do so, executed the foregoing affidavit for the purposes therein contained.

Eugenia N. Snyder
Notary Public/Justice of the Peace

My commission expires:

EUGENIA N. SNYDER, Notary Public
My Commission Expires November 30, 2016

Appendix C. USGS Locus Map

Figure 1. Site Location map: Little Bay (Oriented North at a scale of 1:24,000).

Appendix D. Tax Maps

GREAT BAY

WELSH COVE

N

REFERENCE PLAN

22–13
"MYERS, NORMAN W. FAMILY TRUST"
12.40

22–3
"SMITH, JEFFERY W."
2.66

22–2
"HEBERT, DENNIS & HYLAND-HEBERT, ANN"
1.83

22–1
"DAVIS, PETER K. & LINDA B."
1.84

22–4
"ROSS, DOUGLAS A. & ANGELITA R."
2.30

22–5
"BESWICK, PAUL R. 2008 REV. TRUST"
3.33

22–9
"VIETAS, LAWRENCE W. & SUZANNE"
2.69

22–6
HILDE COCHRANE REVOCABLE TRUST
2.22

22–7
"PHILBRICK, SUSAN REV. TRUST"
2.10

22–8
"HASKELL, CALVIN B. & MARY JO."
2.80

22–10
"HYLAND, HELEN E. TRUST"
1.88

22–11
"HAMELIN, RICHARD P."
1.84

22–12
"RAYMOND, ROBERT P. & PERNAA, MARY JANE"
1.84

22–7A
"PHILBRICK, SUSAN REV. TRUST"
0.70

23–16

23–31

23–32

23–33

S 1150

S 500

S 690+/–

255

180

311

542

210

566

1640+/–

369

208

264

100

476.80'

376

340

399.87'

412.00'

81.65'

38.90'

54.57'

50.68'

205.38'

163.84'

116.37'

377.70

230±

TIE
158.87'

228.22'

183.63'

200.00'

43.82'

192.44'

19'±

TIE
69.83'

TIE
152.63'

85'±

110'±

47.20'

227.94'

209.78'

278.92'

1825+/–

10'±

495.11

532.89

1075+/–

200.0

40.0

60.73

78.41

316.0

625.61

GUNDALOW LANDING CIRCLE

GUNDALOW LANDING CIRCLE

BRICKYARD WAY

LITTLE ROAD

FROG

LEGEND	LOT NO. 12–12 DIMENSIONS 123.45'
TOWN LINE	
ROW - PUBLIC	
ROW - PRIVATE	
ROW - PAPER	
LOTLINE	
EASEMENT	
BROOKS/STREAMS	
LAKES/RIVERS	
FORMER LOT LINE	
PDA / SNDY.	
BUILDINGS/DRIVES	
WETLANDS / WATER BODIES	
PRIME WETLAND	PW

MERIDIAN LAND SERVICES, INC.
31 OLD NASHUA ROAD, AMHERST, N.H. 03110
TEL. 603-672-1461 FAX 603-672-1564
ENGINEERS • LAND SURVEYORS • SCIENTISTS • LAND PLANNERS

NEWINGTON, N.H.

TAX MAP SCALE
24"x36" PLOT – 1"=100'
11"x17" PLOT – 1"=220'+/–
JANUARY 17, 2011
DATE OF LATEST REVISION

GRAPHIC SCALE
0 50' 100' 200'

MLS JOB NO. 4171.00

	15	16
	23	
	29	30

22

Appendix E. Representative Photos

Little Bay. Newington. View East

Little Bay. Newington. View Southeast.

Appendix F. Agency Coordination and NHB Report

A pre-application meeting regarding the wetland, stream and vernal pool resources was held on January 6, 2015 with the NH Department of Environmental Services (DES), NH Fish and Game Department (NHF&G), NH Department of Resource and Economic Development's Natural Heritage Bureau (NHB), US Army Corps of Engineers (USACE), US Environmental Protection Agency (USEPA), US Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS). Additional agency pre-application meetings have included one held with the DES project manager, Ms. Dori Wiggin, on February 25, 2015 and another to discuss resources and project activities in Little Bay was held on March 3, 2015 with NH DES, USACE, USEPA, and NMFS.

Another multi-agency pre-application meeting was held January 12, 2016 with state and federal agencies. Attendees included DES Wetlands Bureau, Alteration of Terrain, and Water Quality staff; NHNHB; USACE; USEPA; USFWS and NMFS. The purpose of this meeting was to present the final permitting design, describe the project community outreach efforts, and request any outstanding agency concerns.

A meeting describing the project and potential impacts was held on May 7, 2015 with NHF&G environmental review team; and an additional pre-application meeting was held on June 10, 2015 with NHDES and USACE.

Correspondence with the NHB and the NHF&G Non-Game and Endangered Species Program in 2013 determined that there were 19 records of Rare, Threatened and Endangered species and exemplary natural communities documented within the project vicinity. This list included seven plant species, four natural communities, seven vertebrate species, and one invertebrate. Normandeau biologists evaluated these species and communities during 2013 and early 2014, through field and/or desktop studies. In September 2014, Normandeau requested updated NHNHB data for the site. The updated list, which includes an addendum, contained an additional two plant species, two natural communities, and eight vertebrate species. A third record check was made in November 2015, and resulted in fewer species on the overall list for the project vicinity, but no change in the number of species and exemplary communities evaluated for the SRP.

Through field surveys and desktop work, Normandeau concluded that 14 species (1 plant, 4 exemplary vegetation communities, 1 invertebrate, 3 fish, 3 reptiles, and 2 birds) of the identified RTE species within the project vicinity have the possibility of being impacted by the SRP. Three of the four exemplary vegetation communities (High salt marsh, Salt marsh, and Sparsely vegetated intertidal) occur on the Durham side. On the Newington side, the salt marsh is less developed and only includes Salt marsh and Sparsely vegetated intertidal. Nesting or roosting bald eagle and osprey are known to occur in Little Bay, but not in the vicinity of the Project. Although no permanent impacts to these communities and species are anticipated, Project-specific management, including removal and restoration of salt marsh within the work area, and general Best Management Practices (BMP) will be employed to minimize temporary impacts during construction.

Memo

NH Natural Heritage Bureau
NHB Datacheck Results Letter

To: Susan Hegarty, Normandeau Associates, Inc.
25 Nashua Road
Bedford, NH 03110

From: Amy Lamb, NH Natural Heritage Bureau
Date: 11/9/2015 (valid for one year from this date)
Re: Review by NH Natural Heritage Bureau
NHB File ID: NHB15-3561 Town: Madbury, Durham, Newington, Portsmouth Location:
Description: Eversource is proposing to construct a new 13-mile 115kV transmission line between their Madbury and Portsmouth substations. It will predominantly follow existing ROW. It will consist primarily of overhead structures, but will have an underground section at UNH in Durham and will have a submarine segment under Little Bay. This is an update request. Our previously requested data expired on 10/2/2015. NHB file ID: NHB14-3618.

cc: Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments: This review is a follow-up to NHB14-3618 (9/24/2014) and the NHB14-3618 Addendum (10/2/2014). Continued coordination with NHB and NH Fish & Game is needed as this project progresses through permitting.

Invertebrate Species	**State[1]**	**Federal**	**Notes**
Ringed Boghaunter (*Williamsonia lintneri*)	E	--	Contact the NH Fish & Game Dept (see below).

Natural Community	**State[1]**	**Federal**	**Notes**
Hemlock - beech - oak - pine forest	--	--	Threats include logging, introduction of invasive species, and direct destruction due to development.
High salt marsh	--	--	Threats to these communities are primarily alterations to the hydrology of the wetland (such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat) and increased input of nutrients and pollutants in storm runoff.
Red maple - sensitive fern swamp	--	--	These swamps are influenced by groundwater seepage and springs which moderate water fluctuations and maintain conditions favorable for the accumulation of organic matter. The primary threats are changes to the hydrology of the wetland complex, particularly raising or lowering the water levels, and increased nutrient and pollutant input carried in by stormwater runoff.

Salt marsh system	--	--	Threats are primarily changes to the hydrology of the system, introduction of invasive species, and increased input of nutrients and pollutants.
Sparsely vegetated intertidal system	--	--	Threats to these communities are primarily alterations to the hydrology of the wetland (such as alterations that might affect the sheet flow of tidal waters across the intertidal flat) and increased input of nutrients and pollutants in storm runoff.
Subtidal system	--	--	Threats to these communities are primarily alterations to the hydrology of the wetland (such as alterations that might affect the sheet flow of tidal waters across the intertidal flat) and increased input of nutrients and pollutants in storm runoff.

Plant species	**State[1]**	**Federal**	**Notes**
Black Maple (*Acer nigrum*)	T	--	Threats are primarily damage to its floodplain or riverbank habitat, including changes to local hydrology, land conversion and fragmentation, introduction of invasive species, and increased input of nutrients and pollutants.
bulbous bitter-cress (*Cardamine bulbosa*)	E	--	This species occurs in forested swamps, low floodplain forest, and moist thickets.. Threats to the plants include canopy removal and destruction (draining) of its habitat.
crested sedge (*Carex cristatella*)*	E	--	This wetland species, which occurs in bogs, fens, seeps, and wet meadows, would be threatened by changes to local hydrology, including increased nutrient input from stormwater runoff, and sedimentation from nearby disturbance.
Engelmann's Quillwort (*Isoetes engelmannii*)*	E	--	Primarily vulnerable to changes to the hydrology of its wetland habitat, especially alterations that change water levels. It may also be susceptible to increased pollutants and nutrients carried in stormwater runoff.
great bur-reed (*Sparganium eurycarpum*)	T	--	Threats to aquatic species include changes in water quality, e.g., due to pollution and stormwater runoff, and significant changes in water level.
greater fringed-gentian (*Gentianopsis crinita*)*	T	--	Vulnerable to shading by invading trees and to disturbances that destroy plants or impede their ability to reproduce (such as mowing in the mid-summer while the plants are in bloom).
Marsh Elder (*Iva frutescens*)	T	--	Threats are primarily alterations to the hydrology of the wetland, such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat, activities that eliminate plants, and increased input of nutrients and pollutants in storm runoff.
Rigid Sedge (*Carex tetanica*)*	--	--	This plant relies on open habitat, and maintenance of the hydrology of any wetland where it occurs.
Sensitive species	T	T	Please contact NH Natural Heritage (271-2215 x 323) if project impacts could occur

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

DRED/NHB
172 Pembroke Rd.
Concord, NH 03301

Memo

NH Natural Heritage Bureau
NHB Datacheck Results Letter

in the area shown on the map.

Vertebrate species	State[1]	Federal	Notes
American Eel (*Anguilla rostrata*)	SC	--	Contact the NH Fish & Game Dept (see below).
Bald Eagle (*Haliaeetus leucocephalus*)	T	--	Contact the NH Fish & Game Dept (see below).
Banded Sunfish (*Enneacanthus obesus*)	SC	--	Contact the NH Fish & Game Dept (see below).
Blanding's Turtle (*Emydoidea blandingii*)	E	--	Contact the NH Fish & Game Dept (see below).
Eastern Hognose Snake (*Heterodon platirhinos*)*	E	--	Contact the NH Fish & Game Dept (see below).
Grasshopper Sparrow (*Ammodramus savannarum*)	T	--	Contact the NH Fish & Game Dept (see below).
Least Bittern (*Ixobrychus exilis*)	SC	--	Contact the NH Fish & Game Dept (see below).
Northern Black Racer (*Coluber constrictor constrictor*)	T	--	Contact the NH Fish & Game Dept (see below).
Osprey (*Pandion haliaetus*)	SC	--	Contact the NH Fish & Game Dept (see below).
Sea Lamprey (*Petromyzon marinus*)	SC	--	Contact the NH Fish & Game Dept (see below).
Sedge Wren (*Cistothorus platensis*)	E	--	Contact the NH Fish & Game Dept (see below).
Spotted Turtle (*Clemmys guttata*)	T	--	Contact the NH Fish & Game Dept (see below).
Swamp Darter (*Etheostoma fusiforme*)	SC	--	Contact the NH Fish & Game Dept (see below).
Upland Sandpiper (*Bartramia longicauda*)	E	--	Contact the NH Fish & Game Dept (see below).

[1]Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

Contact for all animal reviews: Kim Tuttle, NH F&G, (603) 271-6544.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

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Appendix G. Certified Mail Receipts

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

NORMANDEAU ASSOCIATES
Environmental Consultants

Via Certified Mail

April 1, 2016

Town of Newington
336 Nimble Hill Rd.
Newington, NH 03801

Re: Shoreland Permit Application- Seacoast Reliability Project

Dear Sir of 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 Seacoast Reliability Project. The project includes work in and or around rivers and bays. Under state law, it is a requirement to provide municipalities and Local River Advisory Committees having jurisdiction over these waterbodies with a copy of the application, which proposes work within the protected shoreland of a public water or Designated River in your regulatory area.

Sincerely,

Sarah Allen
Project Manager
Normandeau Associates, Inc.

Appendix H. List of Abutters

Tax Map 22 Lot 5

Location: 44 Gundalow Landing Circle

Owner: Paul R. Beswick 2008 Revocable Trust, Paul R. Beswick Trustee

Mailing Address: 44 Gundalow Landing Circle, Newington, NH 03805

Tax Map 22 Lot 6

Location: 45 Gundalow Landing Circle

Owner: Hilde Cochrane Revocable Trust. Hilde Cochrane Trustee

Mailing Address: 52 Gundalow Landing Circle, Newington, NH 03805

Tax Map 22 Lot 4

Location: 40 Gundalow Landing Circle. Newington, NH 03805

Owner: Ross, Douglas A. & Angelita R

Mailing Address: 40 Gundalow Landing Circle, Newington, NH 03805