



Via Certified Mail

October 14, 2015

Pemigewasset River Local Advisory Committee
Max Stamp, Chair
2110 Summer St.
Bristol, NH 03222

Re: Shoreland Permit Application – The Northern Pass Project

Dear Mr. Stamp:

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

Sincerely,

Lee Carbonneau

Normandeau Associates, Inc.

As agent for Northern Pass Transmission, LLC



Via Certified Mail

October 14, 2015

Town of Plymouth
6 Post Office Square
Plymouth, NH 03264

Re: Shoreland Permit Application – The Northern Pass Project

Dear Sir or Madam:

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

Sincerely,

A handwritten signature in blue ink that reads "Lee E. Carbonneau".

Lee Carbonneau

Normandeau Associates, Inc.

As agent for Northern Pass Transmission, LLC

**Shoreland Permit Application
Northern Pass
Pemigewasset River, Plymouth, NH**

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

October 2015

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DISCLOSURE STATEMENT

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

1.0 Shoreland Permit Application



SHORELAND PERMIT APPLICATION

Water Division/ Shoreland Program

Land Resources Management

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



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

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

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

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

| | | | |
|--|------------------------------------|----------------------|----------------|
| 1. PROPERTY OWNER | | | |
| LAST NAME, FIRST NAME, M.I.: Public Service Co. of NH d/b/a Eversource Energy (PSNH), c/o Kevin McCune, Supervisor, Environmental Affairs Licensing and Permitting | | | |
| ADDRESS: 780 Commercial Street | TOWN/CITY: Manchester | STATE: NH | ZIPCODE: 03101 |
| PHONE: 603-669-4000 | EMAIL: Kevin.mccune@eversource.com | | |
| 2. PROJECT LOCATION | | | |
| ADDRESS: Multiple, Route 3 | TOWN/CITY: Plymouth | STATE: NH | ZIPCODE: 03264 |
| WATERBODY NAME: Pemigewasset | TAX MAP: Multiple | LOT NUMBER: Multiple | |
| 3. CONTRACTOR OR AGENT | | | |
| LAST NAME, FIRST NAME, M.I.: Carbonneau, Lee E. | | | |
| ADDRESS: 25 Nashua Rd | TOWN/CITY: Bedford | STATE: NH | ZIPCODE: 03110 |
| PHONE: 603-637-1150 | EMAIL: lcarbonneau@normandeau.com | | |
| 4. CRITERIA | | | |
| Please check at least one of the following below: | | | |
| <input checked="" type="checkbox"/> This shoreland permit application requires neither a proposal to make the property more nearly conforming nor a request for a waiver of a minimum standards. | | | |
| <input type="checkbox"/> 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 | | | |
| <input type="checkbox"/> This shoreland permit application includes a request for a waiver of the following minimum standard(s) | | | |
| 5. PROJECT DESCRIPTION | | | |
| Total Square feet of impact 37,338 Total square feet of new impervious area 0 | | | |

Provide a complete description of the proposed project. **A new high voltage transmission line will be constructed in the existing Route 3 ROW. Construction in the Plymouth area includes the installation of underground transmission cable, as shown in the Project plans. To place the line, the road bed and/or shoulder of NH Route 3 will be trenched, the line will be placed, and the road/shoulder will be backfilled and restored. No tree clearing is planned within the existing road ROW.**

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: N/A Feet

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

The shoreland frontage on this lot is : N/A 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. = 37,338 (A) Square Feet

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

11. REQUIRED CERTIFICATIONS

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

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

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

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

☒ This project is within ¼ mi of a [designated river](#) (river name: Pemigewasset 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: 16 month: 10 year: 2015 and I have included a copy of the certified mail receipt in the application submittal (RSA 482-A:3,i(d)(2))

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

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

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

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

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

SHORELAND APPLICATION WORKSHEET

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

For the purposes of this worksheet, "**Pre-Construction**" impervious surface areas¹ means all human made impervious surfaces² 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 <u>attached</u> decks and porches. | _____ | <u>0</u> FT ² | <u>0</u> FT ² |
| ACCESSORY STRUCTURES All other impervious surfaces excluding lawn furniture, well heads, and fences. | <u>Route 3</u> | <u>163,111</u> FT ² | <u>163,111</u> FT ² |
| | _____ | _____ FT ² | _____ FT ² |
| | _____ | _____ FT ² | _____ FT ² |
| Common accessory structures include, but are not limited to: driveways, walkways, patios and sheds. | _____ | _____ FT ² | _____ FT ² |
| | _____ | _____ FT ² | _____ FT ² |

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.

| | | | |
|---|---------------|--|--|
| | _____ | _____ FT ² | _____ FT ² |
| | TOTAL: | (A) <u>163,111</u> FT² | (B) <u>163,111</u> FT² |
| Area of the lot located within 250 ft of reference line: | | | (C) <u>541,711</u> FT² |
| Percentage of lot covered by pre-construction impervious area within 250 ft of the reference line: <i>[divide (a) by (c) x 100]</i> | | | (D) <u>30.1</u> % |
| Percentage of lot to be covered by post-construction impervious area within 250 ft of the reference line upon completion of the project: <i>[divide (b) by (c) x 100]</i> | | | (E) <u>30.1</u> % |


IMPERVIOUS AREA THRESHOLDS

| DETERMINING IF A STORMWATER MANAGEMENT PLAN IS REQUIRED |
|--|
| <input checked="" type="checkbox"/> This project does not require a stormwater management plan because the proposed post-construction impervious area (Calculation E) is less than or equal to 20%. |
| <input type="checkbox"/> 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 <i>Checklist of Required Items</i> on page 6 |
| <input type="checkbox"/> This project requires a stormwater management plan designed and certified by a professional engineer because the post-construction impervious area (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 <i>Checklist of Required Items</i> on page 6 |

UNALTERED STATE REQUIREMENT

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

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.

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

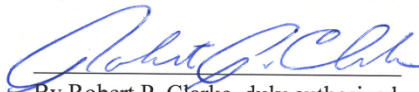
***Unaltered State section-**

Vegetation in a public utility right-of-way must be maintained/ mowed regularly for safety and operational purposes. There will generally be little or no land in an unaltered state within an active transmission corridor, 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 water.

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


Applicant

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


By Robert P. Clarke, duly authorized

Owner and Applicant

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


By Kevin F. McCune, duly authorized

2.0 Copy of Check for Application Fee

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

The Northern Pass project area extends from the international border of Canada and the United States in Pittsburg, New Hampshire to Londonderry, New Hampshire. The Project will require work within the 250 foot protected shoreland of multiple waterbodies. This application includes information related to the work within an existing road ROW that intersects the protected shoreland of the Pemigewasset River in Plymouth, NH.

The Project seeks to take advantage of existing transmission and road ROW in order to minimize environmental and other impacts of the Project. The underground transmission line will be located in the shoulder and/or roadbed of NH Route 3 and will not require limbing or trimming of vegetation for installation as this area is already paved or maintained ROW.

Underground cables will be installed using a combination of construction techniques including direct bury of the cable, installation of the cable in a duct bank, or the use of trenchless technology (directional boring and jack and bore). These techniques result in cables being buried at different depths. Direct-buried cable is installed approximately four feet below grade. The depth of duct banks varies, but these will have at least 2.5 feet of cover. Cables installed via jack and bore will be approximately 10 to 15 feet below grade. Directional boring sections will be installed at a maximum depth of approximately 65 feet below grade, and will be used primarily for crossing under large perennial streams and rivers. Exact depths may be adjusted during final design. Jack and bore and directional bore require installation pits for construction. Direct bury and duct bank installations require permanent splice boxes or vaults spaced approximately every 1,800 feet to allow for maintenance.

3.1 Pemigewasset River Site 1

The Pemigewasset River at Site 1 in Plymouth is part of the UG1 Underground Line portion of the Project. The Pemigewasset River is classified as sixth order river (R3UB2) with a rubble bottom. The river is approximately 300 feet where it comes within 250 feet of the Project. The line will be installed in the Route 3 ROW, which intersects the shoreland of the Pemigewasset River for approximately 1,600 feet at Site 1 between the traffic circle connecting Route 3 (Main Street) and High Street and the Route 3 intersection with Armory Road. Work along the protected shoreland buffer will include trenching for the placement of underground transmission lines (Attachment A). No splice boxes will be necessary within the protected shoreland of the Pemigewasset River. The line will pass under existing stream and drainage culverts without disturbance wherever possible. Route 3 is largely surrounded by residential and commercial land in Plymouth. Erosion control will be installed along the shore of the river to prevent impacts. For all work within the shoreland buffer, shrub and herbaceous vegetation will be left undisturbed wherever possible. Within a half mile of the protected shoreland of Pemigewasset River Site 1 in Plymouth, NH there are no element occurrences identified by the NH Natural Heritage Bureau

| Pemigewasset River Site 1 | 0'-50' Waterfront Buffer | 50'-150' Natural Woodland Buffer | 150'-250' Shoreland Buffer | Total Impacts at Shoreland |
|--|--------------------------|----------------------------------|----------------------------|----------------------------|
| Temporary Impacts | 0 sq. ft. | 13,046 sq. ft. trenching | 4,215 sq. ft. trenching | 17,261 sq. ft. trenching |
| Permanent Impacts | 0 sq. ft. | 0 sq. ft. | 0 sq. ft. | 0 sq. ft. |
| Pre-Construction Impervious Surface Area | 0 sq. ft. | 69,175 sq. ft. | 47,925 sq. ft. | 117,100 sq. ft. |
| Post-Construction Impervious Surface Area | 0 sq. ft. | 69,175 sq. ft. | 47,925 sq. ft. | 117,100 sq. ft. |

3.2 Pemigewasset River Site 2

The Pemigewasset River in Plymouth is part of the UG1 Underground Line portion of the Project. The Pemigewasset River is classified as sixth order river (R3UB2) with a rubble bottom. The river is approximately 300 feet where it comes within 250 feet of the Project. The line will be installed in the Route 3 ROW, which intersects the shoreland of the Pemigewasset River for approximately 1,700 feet at Site 2 where Route 3 runs parallel to the railroad approximately 1,700 feet north of the intersection with Webster Hill Road. Work along the protected shoreland buffer will include trenching for the placement of underground transmission lines (Attachment A). No splice boxes will be necessary within the protected shoreland of Coffin Pond. The line will pass under existing stream and drainage culverts without disturbance wherever possible. Route 3 is largely surrounded by residential and commercial land in Plymouth. Erosion control will be installed along the shore of the river to prevent impacts. For all work within the shoreland buffer, shrub and herbaceous vegetation will be left undisturbed wherever possible. Within a half mile of the protected shoreland of Pemigewasset River Site 2 in Plymouth, NH there are no element occurrences identified by the NH Natural Heritage Bureau.

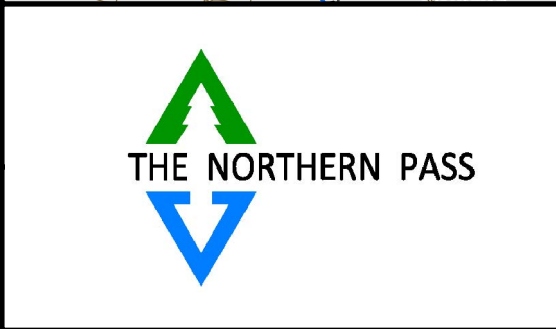
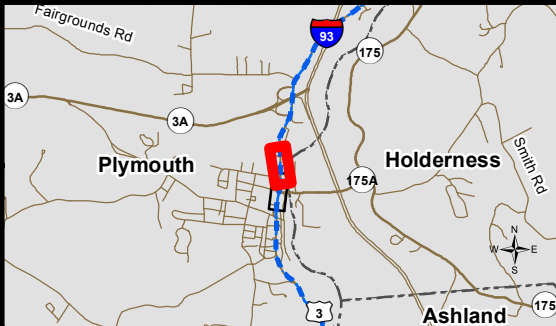
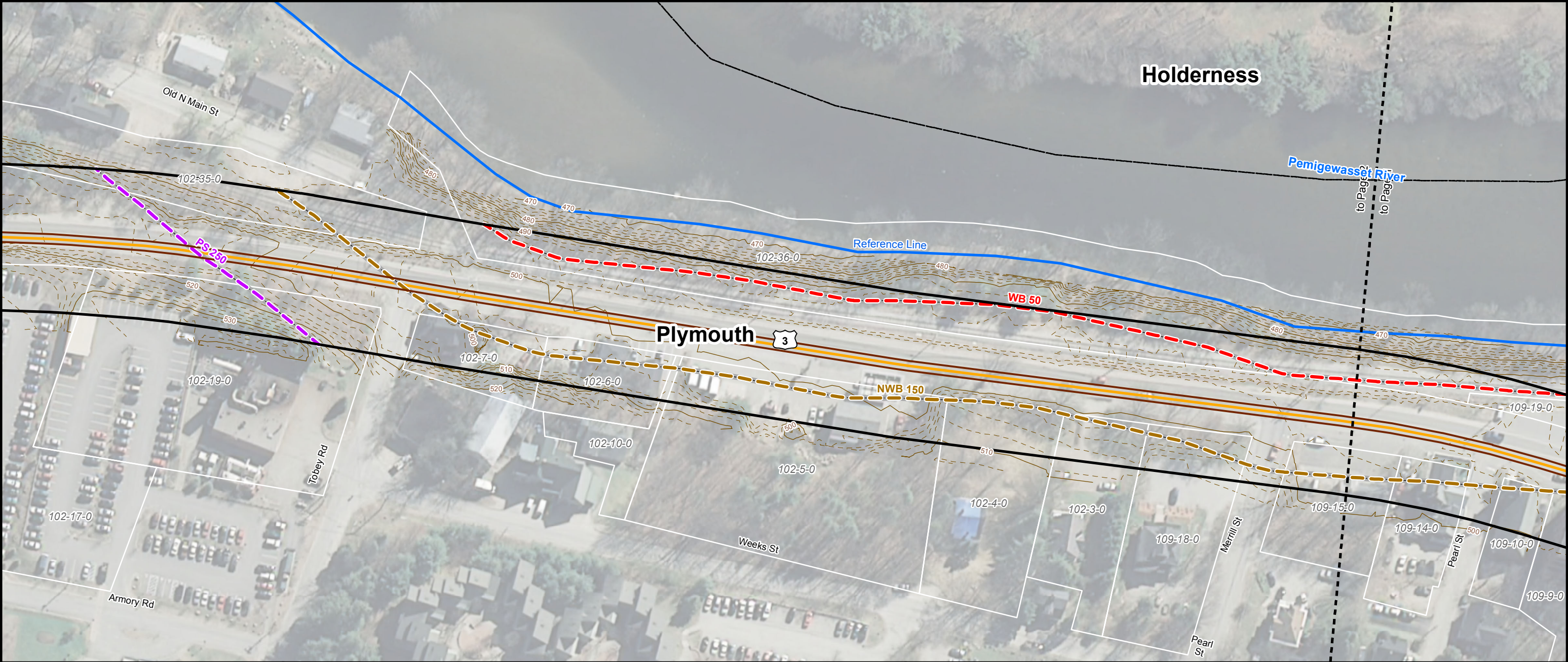
| Pemigewasset River Site 2 | 0'-50' Waterfront Buffer | 50'-150' Natural Woodland Buffer | 150'-250' Shoreland Buffer | Total Impacts at Shoreland |
|--|--------------------------|----------------------------------|----------------------------|----------------------------|
| Temporary Impacts | 260 sq. ft. | 15,635 sq. ft. trenching | 4,182 sq. ft. trenching | 20,077 sq. ft. trenching |
| Permanent Impacts | 0 sq. ft. | 0 sq. ft. | 0 sq. ft. | 0 sq. ft. |
| Pre-Construction Impervious Surface Area | 246 sq. ft. | 35,386 sq. ft. | 10,379 sq. ft. | 46,011 sq. ft. |
| Post-Construction Impervious Surface Area | 246 sq. ft. | 35,386 sq. ft. | 10,379 sq. ft. | 46,011 sq. ft. |

3.1 Pemigewasset River Summary

The Pemigewasset River in Plymouth is part of the UG1 Underground Line portion of the Project. The Pemigewasset River is classified as sixth order river (R3UB2) with a rubble bottom. The river is approximately 300 feet where it comes within 250 feet of the Project. The line will be installed in the Route 3 ROW, which intersects the shoreland of the Pemigewasset River for approximately 3,300 feet (1,600 feet at Site1, 1,700 feet at Site 2). Work along the protected shoreland buffer will include trenching for the placement of underground transmission lines (Attachment A). No splice boxes will be necessary within the protected shoreland of the Pemigewasset River in Plymouth. The line will pass under existing stream and drainage culverts without disturbance wherever possible. Route 3 is largely surrounded by residential and commercial land in Plymouth. Erosion control will be installed along the shore of the river to prevent impacts. For all work within the shoreland buffer, shrub and herbaceous vegetation will be left undisturbed wherever possible. Within a half mile of the protected shoreland of Pemigewasset River in Plymouth, NH there are no element occurrences identified by the NH Natural Heritage Bureau.

| Pemigewasset River Site Summary | 0'-50' Waterfront Buffer | 50'-150' Natural Woodland Buffer | 150'-250' Shoreland Buffer | Total Impacts at Shoreland |
|--|--------------------------|----------------------------------|----------------------------|----------------------------|
| Temporary Impacts | 260 sq. ft. | 28,681 sq. ft. trenching | 8,397 sq. ft. trenching | 37,338 sq. ft. trenching |
| Permanent Impacts | 0 sq. ft. | 0 sq. ft. | 0 sq. ft. | 0 sq. ft. |
| Pre-Construction Impervious Surface Area | 246 sq. ft. | 104,561 sq. ft. | 58,304 sq. ft. | 163,111 sq. ft. |
| Post-Construction Impervious Surface Area | 246 sq. ft. | 104,561 sq. ft. | 58,304 sq. ft. | 163,111 sq. ft. |

■ Appendix A Plan Set



Existing Conditions

Existing Structure

Existing Structure to be Removed

Existing Transmission Line

Existing Transmission Line to be Removed

Delineated Wetlands

Tax Parcels

Existing Right of Way

10' Index Contour

2' Interval Contour

USGS 10' Contour

USGS 2' Contour

Stream Centerlines

Perennial

Intermittent

Ephemeral

Delineated Waterbodies

Perennial

Intermittent

Ephemeral

Local Setbacks

Proposed Conditions

Proposed Structure - No Shoreland Impact

Proposed Structure - Shoreland Impact

Proposed Transmission Line

Proposed New Right of Way

Off ROW and UG Reporting Extents

Temporary Construction Pad

Station LODs

Existing Access Route

New Access Route

Temporary Wetlands Matting (16'x 16')

Erosion and Sedimentation Control BMPs

Erosion and Sedimentation Control BMPs (Steep Slope)

Temporary Limit of Disturbance - Construction Pad

Limits of Permanent Vegetation Clearing

UG Splice Vaults

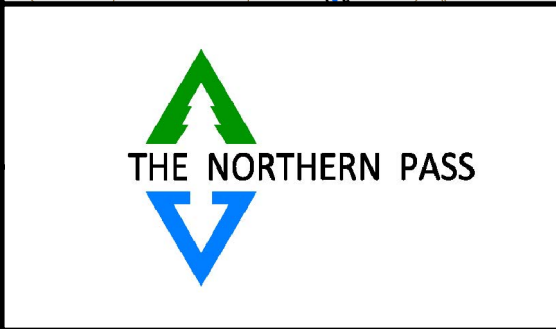
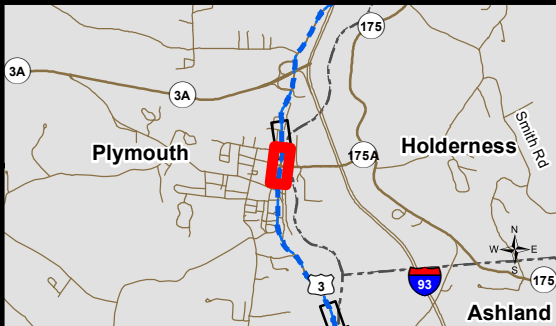
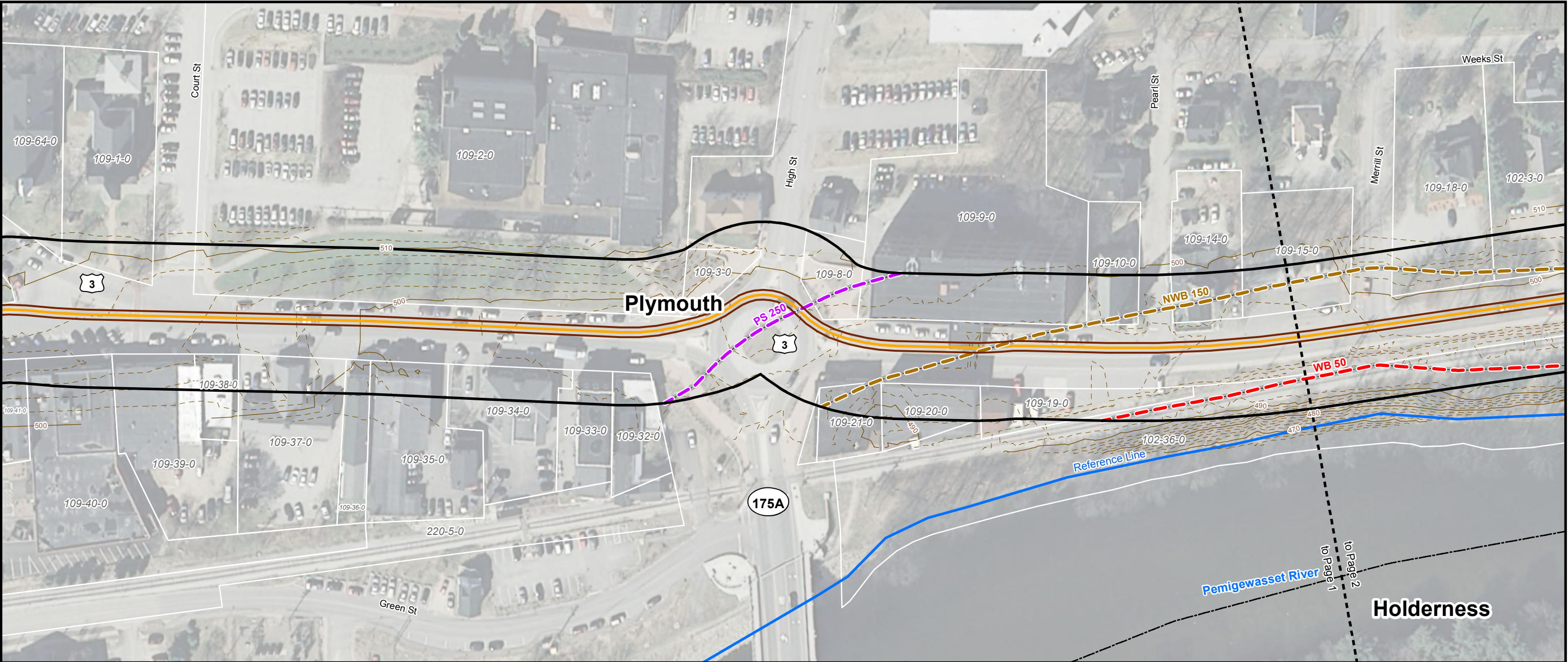
Trenched UG

Trenchless UG

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

| NHDES Shoreland Permit Application Plans | | | | | |
|--|------------------------------|--------------------------------|------------------------------|------------------------------|---------------------|
| SWQPA Areas | Extent of Clearing (sq. ft.) | Construction Impacts (sq. ft.) | | Impervious Surface (sq. ft.) | |
| | Clearing in Upland | Temporary | Permanent | Pre-Construction | Post - Construction |
| Waterfront Buffer (50') | 0 | 0 | 0 | 0 | 0 |
| Natural Woodland Buffer (150') | 0 | 9,903 | 0 | 44,040 | 44,040 |
| Protected Shoreland (250') | 0 | 2,115 | 0 | 24,874 | 24,874 |
| Total | 0 | 12,018 | 0 | 68,915 | 68,915 |
| May not sum to total due to rounding | | | | | |
| THE NORTHERN PASS PROPOSED ROUTE | | | Pemigewasset River, Plymouth | | |
| Date: 9/8/2015 | DRAWN: LD | | | | Page 01 |

Source: NHDOT 2010 and 2011 Aerials; New Hampshire GRANIT GIS Data; Coler & Colantonio; Normandeau; Burns & McDonnell.



Existing Conditions

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

Stream Centerlines

- USGS 10' Contour
- USGS 2' Contour
- Perennial
- Intermittent
- Ephemeral

Delineated Waterbodies

- Perennial
- Intermittent
- Ephemeral
- Local Setbacks

Proposed Conditions

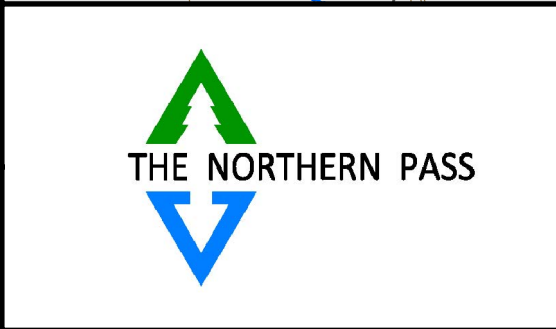
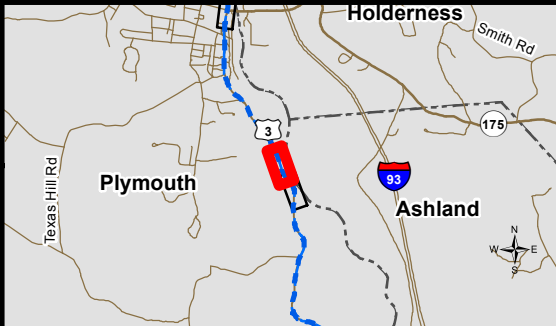
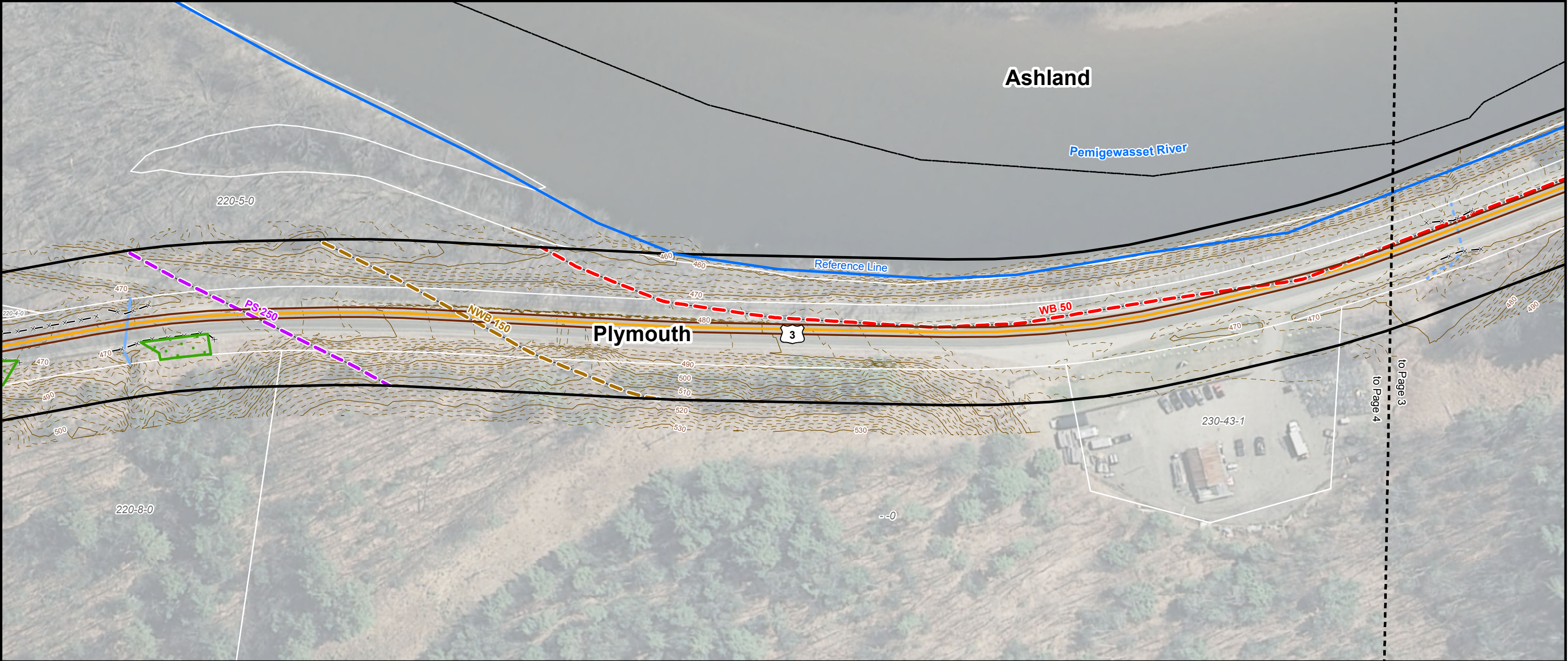
- Proposed Structure - No Shoreland Impact
- Proposed Structure - Shoreland Impact
- Proposed Transmission Line
- Proposed New Right of Way
- Off ROW and UG Reporting Extents
- Temporary Construction Pad
- Station LODs
- Existing Access Route
- New Access Route

Temporary Wetlands Matting (16'x 16')

- Erosion and Sedimentation Control BMPs
- Erosion and Sedimentation Control BMPs (Steep Slope)
- Temporary Limit of Disturbance - Construction Pad
- Limits of Permanent Vegetation Clearing
- UG Splice Vaults
- Trenched UG
- Trenchless UG

NHDES Shoreland Permit Application Plans

| SWQPA Areas | Extent of Clearing (sq. ft.) | Construction Impacts (sq. ft.) | | Impervious Surface (sq. ft.) | |
|--------------------------------------|------------------------------|--------------------------------|------------------------------|------------------------------|---------------------|
| | Clearing in Upland | Temporary | Permanent | Pre-Construction | Post - Construction |
| Waterfront Buffer (50') | 0 | 0 | 0 | 0 | 0 |
| Natural Woodland Buffer (150') | 0 | 3,143 | 0 | 25,135 | 25,135 |
| Protected Shoreland (250') | 0 | 2,100 | 0 | 23,051 | 23,051 |
| Total | 0 | 5,243 | 0 | 48,186 | 48,186 |
| May not sum to total due to rounding | | | | | |
| THE NORTHERN PASS PROPOSED ROUTE | | | Pemigewasset River, Plymouth | | |
| Date: 9/8/2015 | DRAWN: LD | | | | Page 02 |



Existing Conditions

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

Stream Centerlines

- USGS 10' Contour
- USGS 2' Contour
- Perennial
- Intermittent
- Ephemeral

Delineated Waterbodies

- Perennial
- Intermittent
- Ephemeral
- Local Setbacks

Proposed Conditions

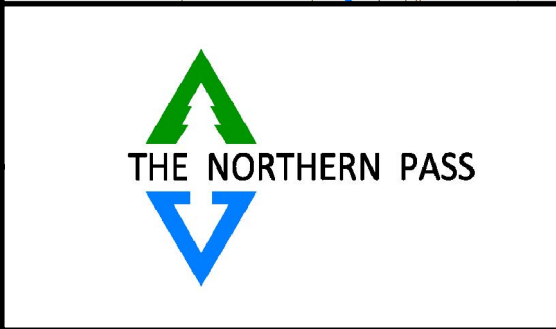
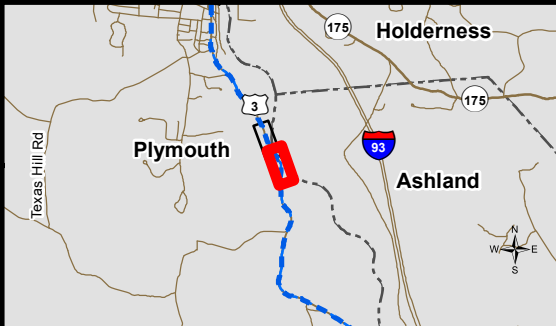
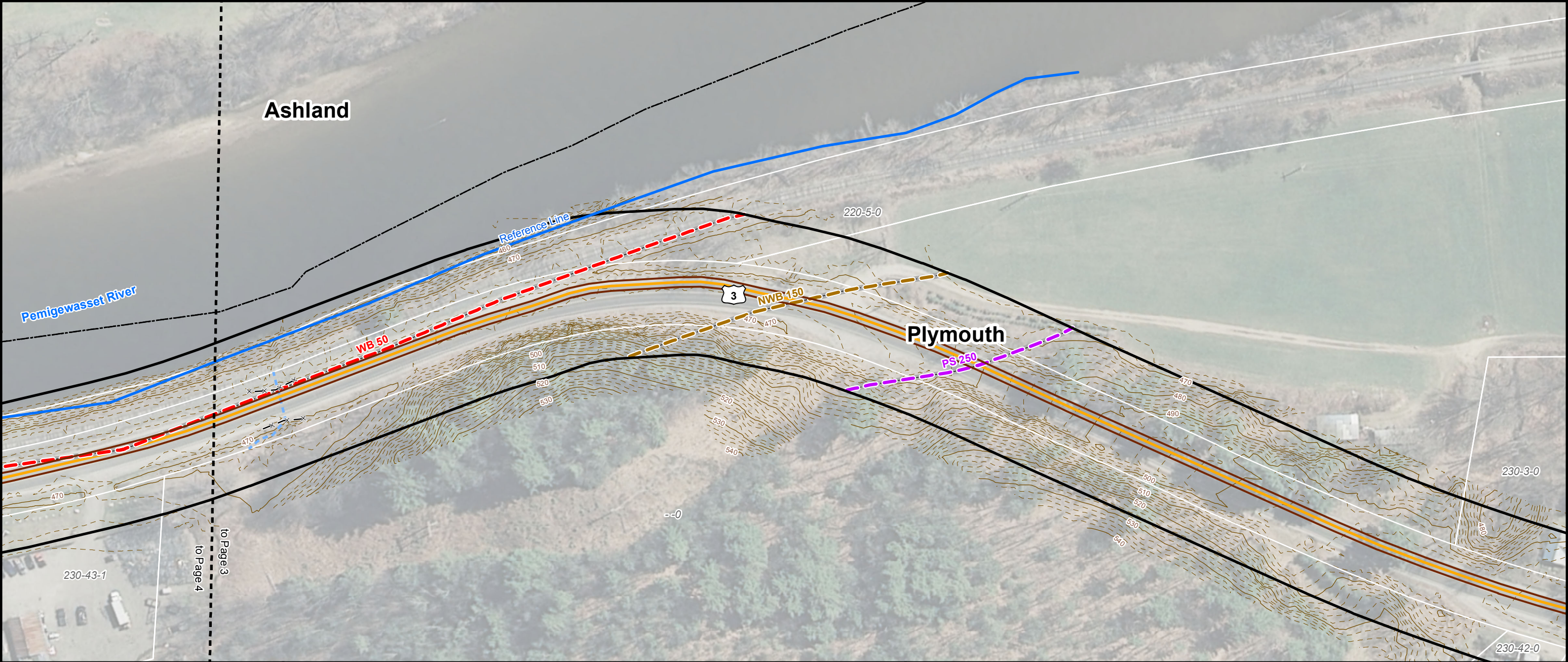
- Proposed Structure - No Shoreland Impact
- Proposed Structure - Shoreland Impact
- Proposed Transmission Line
- Proposed New Right of Way
- Off ROW and UG Reporting Extents
- Temporary Construction Pad
- Station LODs
- Existing Access Route
- New Access Route

Proposed Conditions

- Temporary Wetlands Matting (16'x 16')
- Erosion and Sedimentation Control BMPs
- Erosion and Sedimentation Control BMPs (Steep Slope)
- Temporary Limit of Disturbance - Construction Pad
- Limits of Permanent Vegetation Clearing
- UG Splice Vaults
- Trenched UG
- Trenchless UG

NHDES Shoreland Permit Application Plans

| SWQPA Areas | Extent of Clearing (sq. ft.) | Construction Impacts (sq. ft.) | | Impervious Surface (sq. ft.) | |
|--------------------------------------|------------------------------|--------------------------------|------------------------------|------------------------------|---------------------|
| | Clearing in Upland | Temporary | Permanent | Pre-Construction | Post - Construction |
| Waterfront Buffer (50') | 0 | 260 | 0 | 246 | 246 |
| Natural Woodland Buffer (150') | 0 | 9,372 | 0 | 21,321 | 21,321 |
| Protected Shoreland (250') | 0 | 2,231 | 0 | 4,686 | 4,686 |
| Total | 0 | 11,862 | 0 | 26,253 | 26,253 |
| May not sum to total due to rounding | | | | | |
| THE NORTHERN PASS PROPOSED ROUTE | | | Pemigewasset River, Plymouth | | |
| Date: 9/8/2015 | DRAWN: LD | | | | Page 03 |



Existing Conditions

Existing Structure

Existing Structure to be Removed

Existing Transmission Line

Existing Transmission Line to be Removed

Delineated Wetlands

Tax Parcels

Existing Right of Way

10' Index Contour

2' Interval Contour

USGS 10' Contour

USGS 2' Contour

Stream Centerlines

Perennial

Intermittent

Ephemeral

Delineated Waterbodies

Perennial

Intermittent

Ephemeral

Local Setbacks

Proposed Conditions

Proposed Structure - No Shoreland Impact

Proposed Structure - Shoreland Impact

Proposed Transmission Line

Proposed New Right of Way

Off ROW and UG Reporting Extents

Temporary Construction Pad

Station LODs

Existing Access Route

New Access Route

Temporary Wetlands Matting (16'x 16')

Erosion and Sedimentation Control BMPs

Erosion and Sedimentation Control BMPs (Steep Slope)

Temporary Limit of Disturbance - Construction Pad

Limits of Permanent Vegetation Clearing

UG Splice Vaults

Trenched UG

Trenchless UG

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

| NHDES Shoreland Permit Application Plans | | | | | |
|--|------------------------------|--------------------------------|------------------------------|------------------------------|---------------------|
| SWQPA Areas | Extent of Clearing (sq. ft.) | Construction Impacts (sq. ft.) | | Impervious Surface (sq. ft.) | |
| | Clearing in Upland | Temporary | Permanent | Pre-Construction | Post - Construction |
| Waterfront Buffer (50') | 0 | 0 | 0 | 0 | 0 |
| Natural Woodland Buffer (150') | 0 | 6,263 | 0 | 14,065 | 14,065 |
| Protected Shoreland (250') | 0 | 1,951 | 0 | 5,693 | 5,693 |
| Total | 0 | 8,214 | 0 | 19,758 | 19,758 |
| May not sum to total due to rounding | | | | | |
| THE NORTHERN PASS PROPOSED ROUTE | | | Pemigewasset River, Plymouth | | |
| Date: 9/8/2015 | DRAWN: LD | | | | Page 04 |

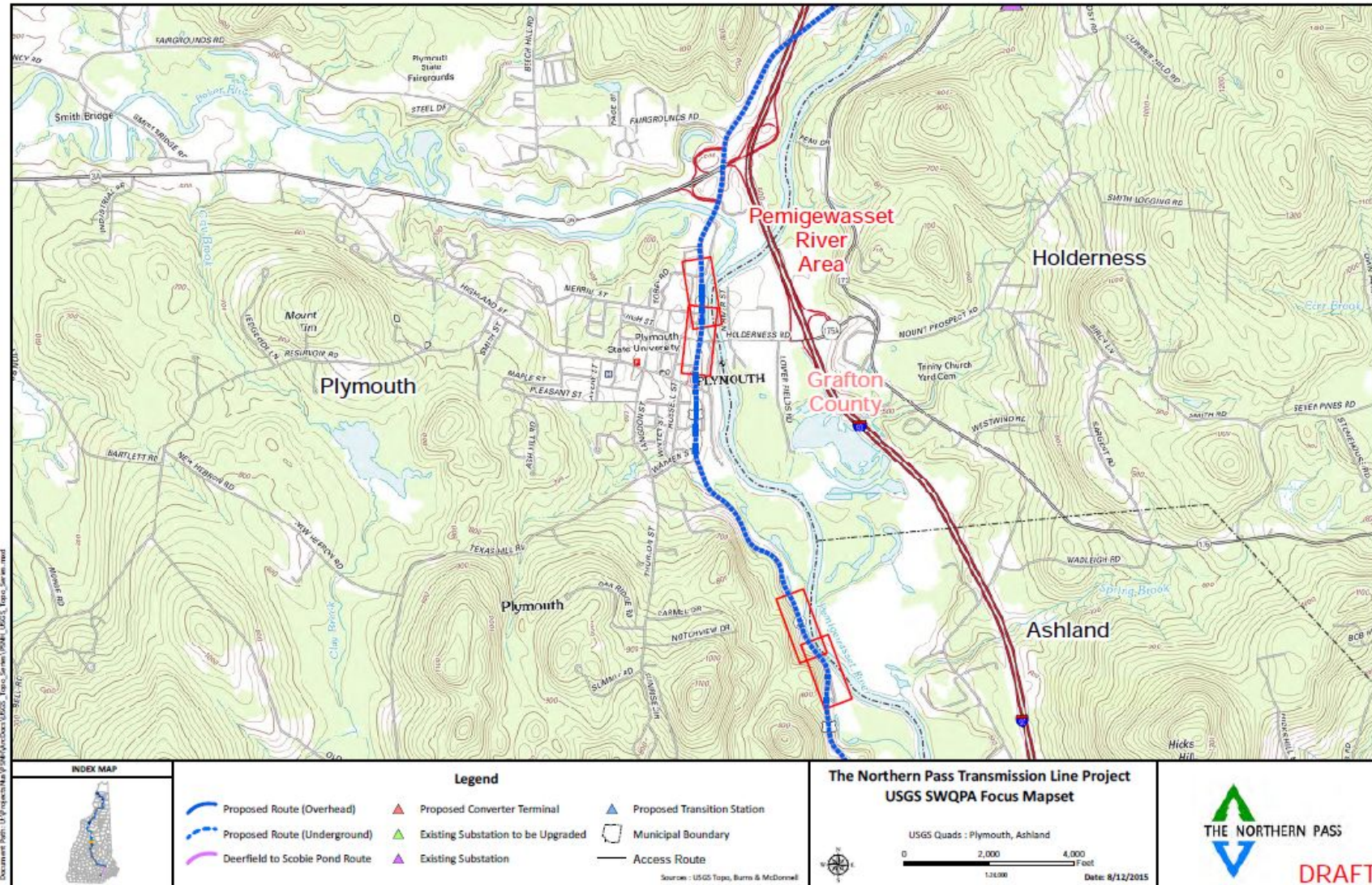
Source: NHDOT 2010 and 2011 Aerials; New Hampshire GRANIT GIS Data; Coler & Colantonio; Normandeau; Burns & McDonnell.

■ Appendix B

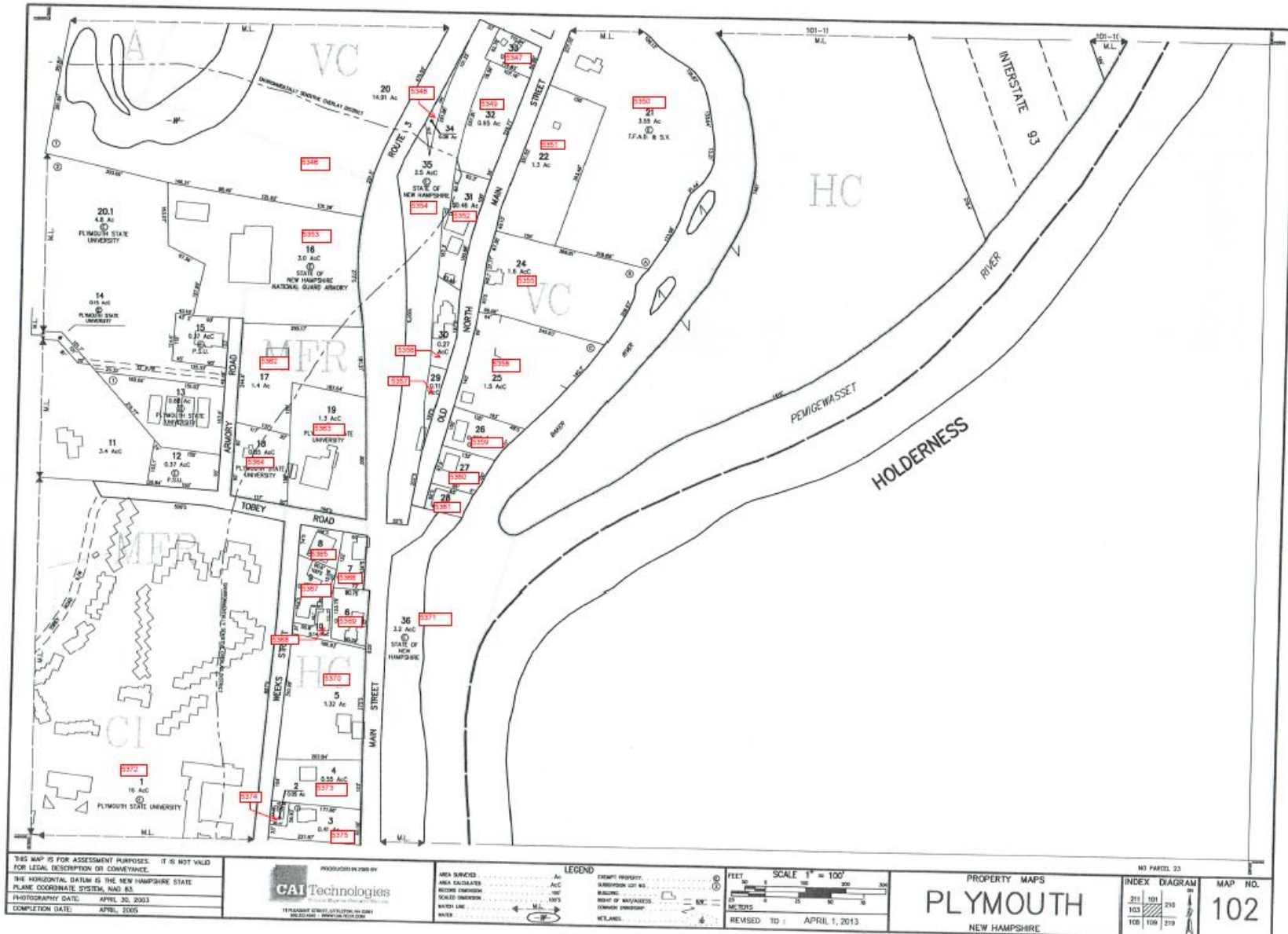
Property Deeds

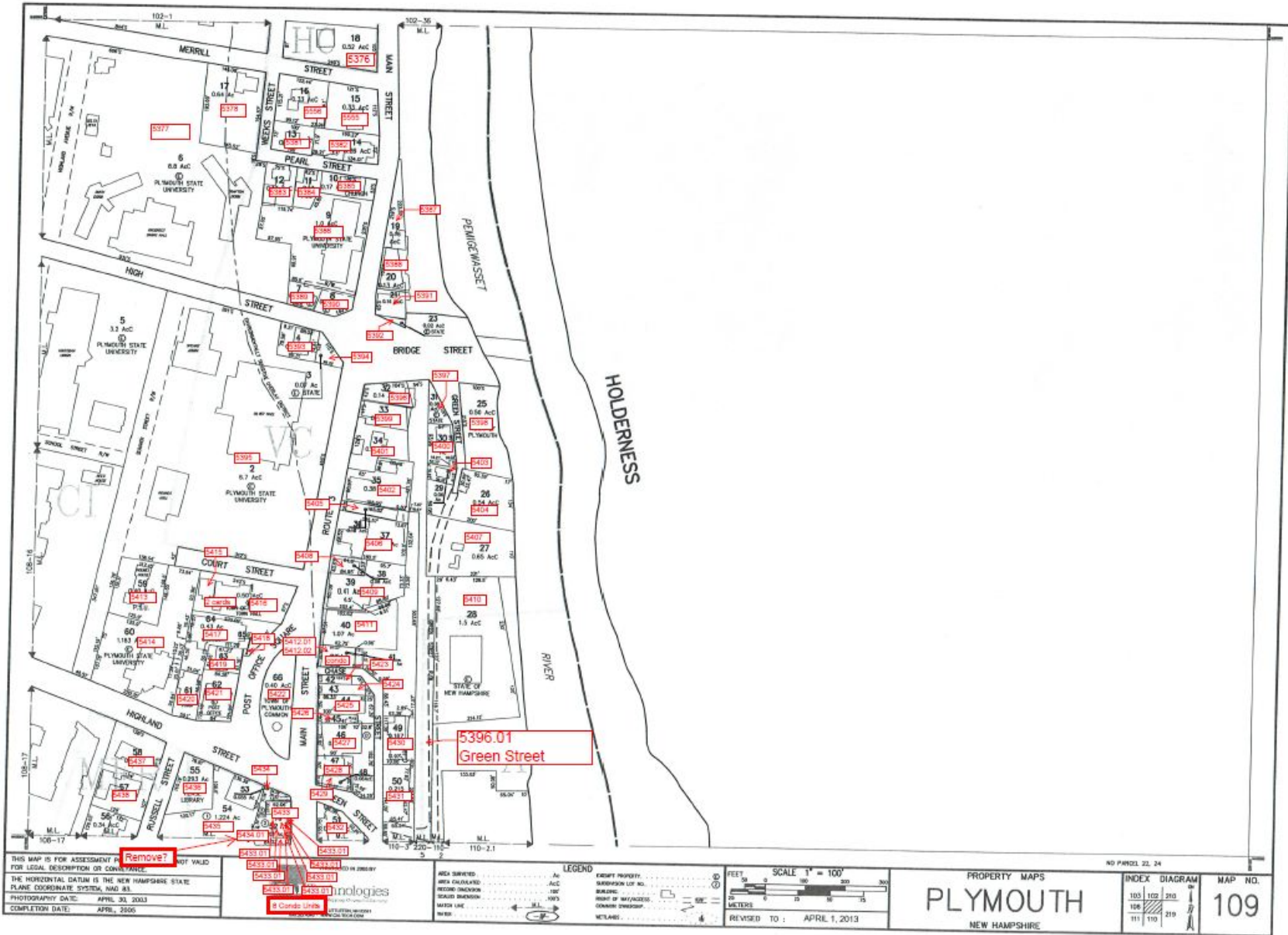
Per recommendation of the NH Department of Environmental Services Shoreland Bureau, legal documents associated with easements and other property rights, including deeds, are being submitted separately via CD to NHDES. NPT will install underground transmission facilities pursuant to authority provided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

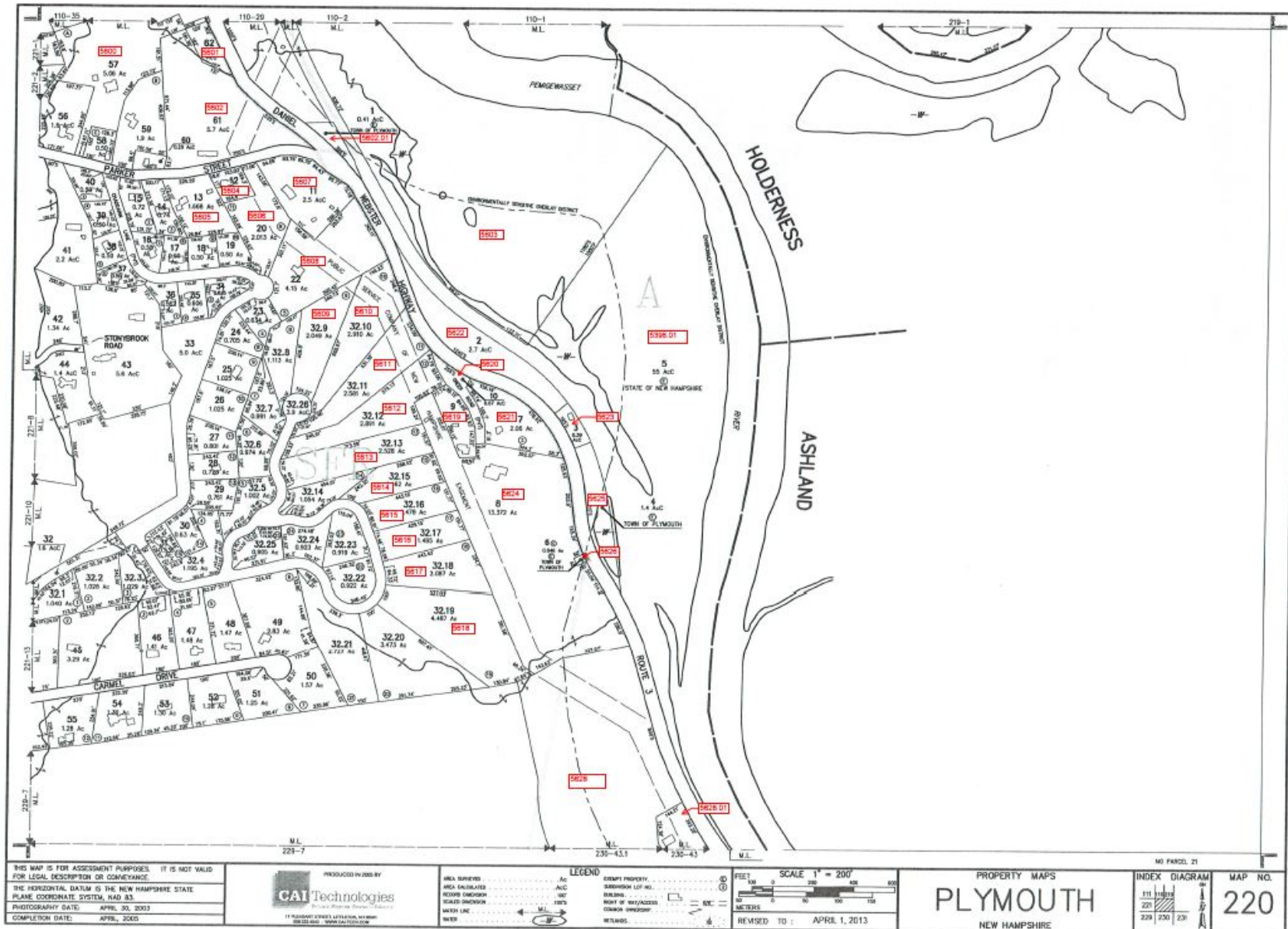
■ Appendix C USGS Locus Maps

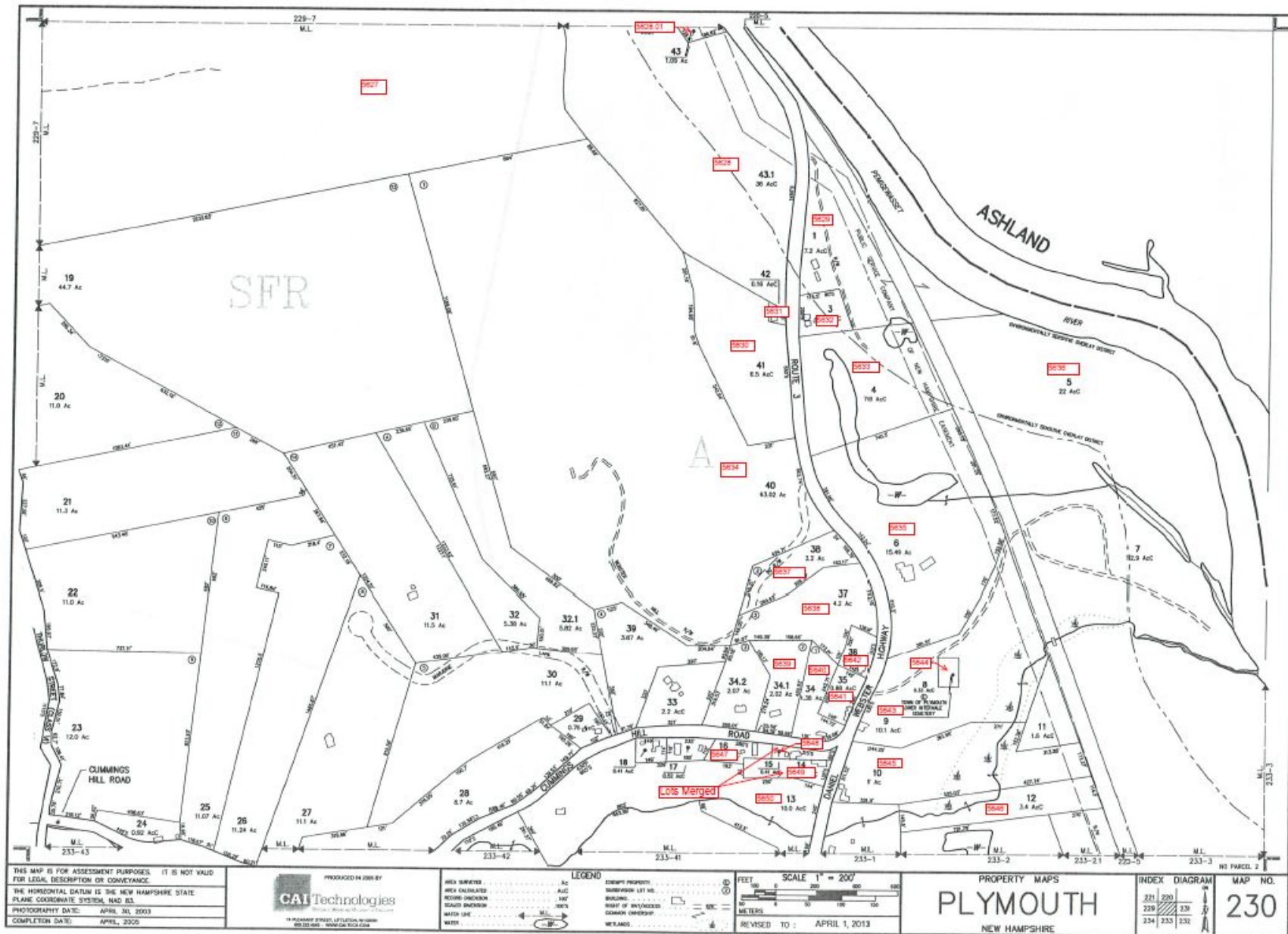


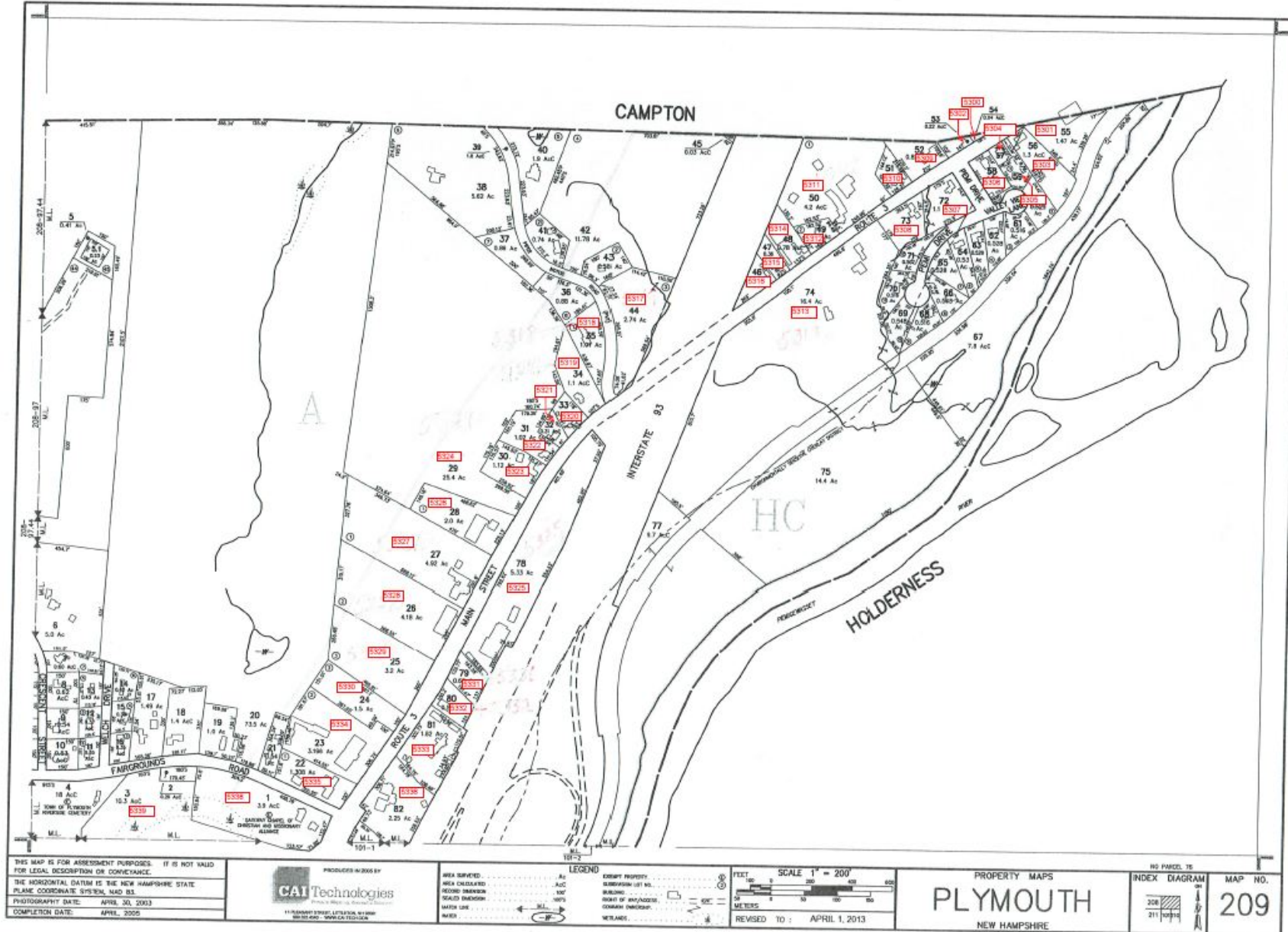
■ Appendix D NH Tax Maps











■ Appendix E Representative Photos



Photo 1. The NPT line follows Route 3 and crosses the protected Shoreland buffer of the Pemigewasset in Plymouth, NH as part of the Underground Line (UG1). The underground cable will be trenched in this portion of the Protected Shoreland within the Road ROW. View South.



Photo 2. The NPT line follows Route 3 and crosses the protected Shoreland buffer of the Pemigewasset in Plymouth, NH as part of the Underground Line (UG1). The underground cable will be trenched in this portion of the Protected Shoreland within the Road ROW. View South



Photo 3. The NPT line follows Route 3 and crosses the protected Shoreland buffer of the Pemigewasset in Plymouth, NH as part of the Underground Line (UG1). The underground cable will be trenched in this portion of the Protected Shoreland within the Road ROW. View South.



Photo 4. The NPT line follows Route 3 and crosses the protected Shoreland buffer of the Pemigewasset in Plymouth, NH as part of the Underground Line (UG1). The underground cable will be trenched in this portion of the Protected Shoreland within the Road ROW. View South

■ Appendix F NHB Report and Correspondence



NEW HAMPSHIRE NATURAL HERITAGE BUREAU

DRED - DIVISION OF FORESTS & LANDS

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

(603) 271 -221 4

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

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

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

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



New Hampshire Natural Heritage Bureau

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

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

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

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

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

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

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

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

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

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

Normandeau Associates has coordinated with the NH Natural Heritage Bureau since 2010 to obtain information on known locations of rare species and exemplary natural communities within a half mile of the Northern Pass Project. Normandeau was provided with a digital data set for known locations and, per the request of NHB, Normandeau consultants conducted rare plant and natural community surveys within the proposed project area. No known or surveyed locations of rare species and natural communities were identified within a half mile of the Protected Shoreland of the Pemigewasset River in Plymouth, NH.

■ Appendix G Certified Mail Notifications and Receipts

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

Via Certified Mail

October 14, 2015

Town of Plymouth
6 Post Office Square
Plymouth, NH 03264

Re: Shoreland Permit Application – The Northern Pass Project

Dear Sir or Madam:

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

Sincerely,



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

Via Certified Mail

October 14, 2015

Pemigewasset River Local Advisory Committee
Max Stamp, Chair
2110 Summer St.
Bristol, NH 03222

Re: Shoreland Permit Application – The Northern Pass Project

Dear Mr. Stamp:

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

Sincerely,



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