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MCLANE MIDDLETON

VIA ELECTRONIC MAIL AND HAND DELIVERY

March 29, 2017

New Hampshire Site Evaluation Committee
Pamela G. Monroe, Administrator
21 South Fruit Street, Suite 10
Concord, NH 03301

Re: SEC Docket No. 2015-04: Public Service Company of New Hampshire d/b/a Eversource Energy for a New 115k Transmission Line from Madbury Substation to Portsmouth Substation

Dear Ms. Monroe:

Enclosed for filing in the above-referenced docket, please find one hard copy and one electronic copy of following documents that were previously submitted to the New Hampshire Department of Environmental Services:

- PSNH Response to DES Wetlands Bureau November 10, 2016 Progress Report
- May 12, 2016 Shoreland Permits originals
- Supplemental Information Reclassification of a Permanent Pond to a Vernal Pool
- Supplemental information on Permittee-Responsible Compensatory Wetland Mitigation Proposals for Durham and Newington
- 2014 Vibracore Data Logs for Little Bay

Due to the size of the enclosed documents, the Applicants are providing the filing on a thumb drive for posting to the Committee's website.

Please contact me directly should you have any questions.

Very truly yours,

Adam M. Dumville

AMD:
Enclosure

PSNH RESPONSE TO DES WETLANDS BUREAU NOVEMBER 10, 2016 PROGRESS REPORT
January 11, 2017

ADDITIONAL DATA REQUIREMENTS:
In order for the New Hampshire Department of Environmental Services (NHDES or DES) to render a decision on your application, the information requested below must be addressed in full. NHDES will make a final determination based upon the information provided in your response.

1. Normandeau Associates has informed DES that contaminant sediment sampling and testing was conducted within the submarine cable crossing corridor located in Little Bay during the week of 9/19/2016. Please provide the results of this testing, as well as the potential impact of the results on natural resources identified as occurring or potentially occurring within Little Bay, and any remedial or protective actions to be taken as a result of this information.

   Response: The Applicant has sampled sediments three times: once via benthic grabs which sampled the top six inches of substrate; and twice via vibracore: in 2014 to test for thermal resistance capacity, and in 2016 to test sediment quality. See the Characterization of Sediment Quality Along Little Bay Crossing (supplemental report submitted to the SEC and NHDES on December 1, 2016 and available online) and the Natural Resource Impact Assessment (Appendix 34, Sections 3.4.4, page 26 and all of 3.4.5). The vibracore sampling results from the 2014 survey are attached electronically.

2. Review of the Environmental Maps finds that the proposed impacts within Newington stream crossings identified as NS14 and NS107, and wetlands identified as NW12, NW17, NW34 are proposed to occur in Town of Newington wetlands designated as Prime, pursuant to RSA 482-A:15; therefore, please address the additional application criteria for projects proposed within designated prime wetlands as described in Part Env-Wt 703 Permit Process.

   Response: A supplemental analysis of impacts to prime wetlands is provided in Attachment A.

3. Review of the plans and application materials regarding constructing timber mat bridges over waterbodies does not adequately address how sediment, plant material, and/or other organic matter will be removed prior to machinery traversing these structures over NHDES jurisdiction, or when mats are transferred to new locations. Please provide clarification to ensure no water quality violations occur.

   Response: All contractors will be required to clean construction mats prior to their placement within jurisdictional areas to prevent water quality violations. The placement and condition of matting in jurisdictional areas will be observed and inspected by Eversource's environmental monitor and the selected contractor will be required to certify that the mats are clean prior to installation.

   Timber mats will be placed above the water surface in stream crossings through the construction of a temporary matting air bridge. Timber mat bridge construction is typically completed by placing small sections of mats outside the jurisdictional banks and parallel to the flow of water that act as supports. Mats may then be placed perpendicular to the stream, resting on top of the initial swamp mat supports. It may be necessary to place a large steel plate along the top of the swamp mats for extra stability and to minimize the amount of sediment that could fall between the spaces of each timber. Mats will be removed by the contractor prior to any anticipated significant storm event that could result in the overtopping/flooding of the mats and potential erosion and sediment deposition. Lastly, mats will be removed from wetland and stream crossing areas promptly once the crossing or maintenance activity is completed. The surrounding area will be stabilized and restored to prevent sedimentation and erosion.

Contractors are required to bring clean equipment to the site and remove plant material from the machinery when the contractor moves between work sites to prevent the spread of invasive species. It is expected that small amounts of sediment will be tracked onto the construction mats as the machine moves from dirt access ways to the construction mats. The amount of sediment on the mats will be monitored by the designated environmental monitor and will be manually removed if there is a water quality concern. If there are specific locations where there is a repeated concern, crushed stone or wood chip ramps may be placed within the upland areas at the entrance and exits of a matted water resource crossing to dislodge sediment from vehicle tracks/wheels prior to traversing the construction mats. A geotextile fabric may be added beneath the stone or wood chip transition to facilitate removal of material following construction.

Lastly, in areas where temporary timber matting is required for access and sediment deposition onto and through the mats is a concern, an enhanced method of sediment containment that may be applied involves inserting a layer of geotextile fabric under the uppermost layer of matting and wrapping it upward over the edges of the matting and over a straw waddle (or similar) resulting in a continuous sediment barrier along the edge of the matted work area. This works well in areas of standing water or near open water or streams.

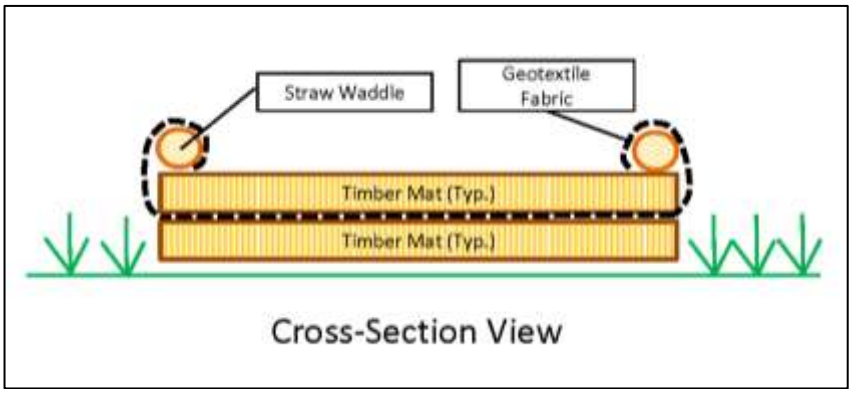


Figure 1. Cross-section view of enhanced sediment protection method for high-risk areas (not to scale)

4. Review of the Environmental Maps finds that insufficient detail is presented for clear understanding and assessment of impacts for the following stream crossings, tree clearing, or tidal buffer zone areas. Please provide standard drawn plans for items 5a-fbelow. Please provide both plan and elevation views, to done at engineering scale of 1" = 50' or similar, for review.
   a. installation of timber mat bridges at locations DS92, DS60, DS 46, DS8, NS14, NS107

Response: Detailed, site-specific maps and cross-section views for the specified temporary stream crossings are included in Attachment B. Erosion control measures will be installed parallel to the stream banks prior to the installation of the timber matting and will be maintained throughout construction. Typical measures include the use of a staked straw waddle due to a lower profile than silt fence at the bridge location and silt fence in upland areas. In addition, geotextile fabric (or similar material) will be inserted between timber mat bridge spans over streams at temporary crossings to capture any sediment and prevent deposition into the waters (see figure above). These crossing detail maps are intended to provide additional and sufficient detail to supplement the Environmental Maps provided previously, however minor changes may be needed based on the selected contractor and site-specific conditions encountered during construction. Applicable BMPs will be followed in all cases.

   b. installation of culvert crossing and mat installation at DS74

Response: The installation of a temporary culvert and/or timber mat bridge may be required to allow safe and reliable access to the proposed underground line crossing of College Brook (DS74) in Durham. Installation of timber mat bridges are described above (Response 4(a)). A

detailed map and cross section view of the proposed work area along DS74 College Brook is included in Attachment C.

c. dewatering and diversion of stream at College Brook

Response: A detailed drawing that includes the dewatering and diversion at College Brook is included in Attachment C. The diversion will include temporary coffer dams, typically large sand bags, and care will be taken to avoid disturbing or destabilizing the banks and to minimize impacts. The stream will be briefly diverted to install the underground line using a flexible diversion pipe and pump that are sufficient to handle the current and immediately anticipated flows during work in the stream. A filter at the intake and energy dispersion apparatus at the discharge site will be deployed to prevent scour or other detrimental effects where the diverted water is re-introduced to the stream.

d. tree clearing access appears to go through the stream at location D61, 61a, 61b – please clarify

Response: One temporary stream crossing is proposed of stream DS61 located between proposed structures 28 and 29 near the Oyster River (see Environmental Maps, Map 5A). Installation of timber mat bridges are described above (Response 4(a)). The remainder of the clearing in that area will be accomplished using non-mechanized methods including climbing and hand cutting given the steep slopes and wetland resources in the vicinity.

e. installation of the in-ground cable access vaults in the upland tidal buffer zone on both the east and west shores of Little Bay

Response: A detailed set of drawings showing the proposed in-ground cable access vault near the east shore of Little Bay are included in Attachment D. There is no vault proposed on the west shore; the marine cable will run directly to the transition structure where it transitions to overhead cable.

f. "Wetlands and Streams" sheet 4 shows the line crossing Pickering Brook, but this is not carried on to Environmental Map 23. Please clarify and provide detail of any associated means of stream crossing.

Response: Pickering Brook as depicted on the Wetlands and Streams mapping does cross the ROW; however the site is flooded due to beaver impoundment and no discernable flow or channel were observed at the time of flagging. The area was consequently flagged only as wetland NW34 (PSS1E/PUBb). Temporary work areas will be established using a combination of timber matting and timber mat bridges based on wetland/hydrologic conditions present at the time of construction (Installation of timber mat bridges are described above (Response 4(a)). Care will be taken to allow for adequate flow through the area using timber mat bridges.

5. Review finds that the RSA 483-B Shoreland submission was not presented accurately. Please revise the Shoreland submission to reflect only the regulated work within the area beginning at a point 100' landward from the highest observable tide line ("HOTL") to 250' landward of HOTL, rather than including work from 0' to 250' from HOTL as presented. Work within the first 0' to 100' from highest observable tide is regulated by RSA 482-A Fill and Dredge in Wetlands, as tidal buffer zone, and has also been applied for within the wetlands application, and will be reviewed herein. Please return to DES any documents which may have been sent to the Applicant as a result of this inadvertent overlap.

Response: The Little Bay Shoreland figures and applications have been revised to remove calculations within the Tidal Buffer Zone and are included in Attachment E. The Shoreland Permit dated May 12, 2016 has been returned to you under separate cover.

6. Review finds that with respect to the wetland impacts on Designated Rivers, comments have not been received from either the Oyster River Local Advisory Committee ("LAC") or the Lamprey River LAC. If such comments have been provided to the Applicant please forward to DES for review.

   Response: Eversource has not received comments on the application from either the Oyster River or Lamprey LAC.

7. Review finds only one comment from NOAA National Marine Fisheries ("NMFS"). NMFS staff recently communicated to DES that the project has not had NMFS review at this time. NMFS is a commenting agency with respect to the NHPGP. Within this the federal/state partnership DES relies on NMFS to provide comment on potential concerns on Essential Fish Habitat impacts, time of year restrictions, additional analysis of sediment contaminant testing results, and additional evaluation of the effects of the turbidity plume. Please provide materials to Mike Johnson- Mike R Johnson- NOAA Federal mike.r.johnso n@noaagov , for review and comment to DES.

   Response: NMFS has participated in three pre-application meetings (Jan 6, 2015, March 3, 2015, and January 12, 2016). Per request of the US Army Corps of Engineers, Eversource provided copies of the relevant portions of the application and reports to NMFS Habitat Conservation and Protected Resources Divisions.

8. DES did not receive comments from any of the four municipal conservation commissions, who have statutory ability to comment on wetlands applications pursuant to RSA 482-A. If any Conservation Commission comments have been received by the Applicant, please provide to DES for review.

   Response: Eversource has not received comments from any of the four conservation commissions.

Attachment A. Prime Wetlands

The Town of Newington's Prime Wetland Report (West Environmental Inc, May 2005) was reviewed for additional information on the existing conditions of Prime Wetlands F, K and Q as shown on the Newington Prime Wetland Map. While limited information on the character and functions and values of the freshwater prime wetlands is provided in the report, PSNH reviewed aerial imagery and relied on observations close to the SRP right-of-way to address the five requirements under Env-Wt 703.01 (b) below.

PART Env-Wt 703 PERMIT PROCESS Env-Wt 703.01 Criteria for Approval.

(b) Prior to approving an application for any project in or contiguous to a prime wetlands, the applicant shall show, and the department shall find, as required under RSA 482-A:11, IV, based on clear and convincing evidence, that:

(1) There will be no significant net loss of values set forth in RSA 482-A:1;

(2) The project is consistent with the purpose specified in RSA 482-A:1; NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES 70 Env-Wt 300-700

482-A:1 Finding of Public Purpose. – It is found to be for the public good and welfare of this state to protect and preserve its submerged lands under tidal and fresh waters and its wetlands, (both salt water and fresh-water), as herein defined, from despoliation and unregulated alteration, because such despoliation or unregulated alteration will adversely affect the value of such areas as sources of nutrients for finfish, crustacea, shellfish and wildlife of significant value, will damage or destroy habitats and reproduction areas for plants, fish and wildlife of importance, will eliminate, depreciate or obstruct the commerce, recreation and aesthetic enjoyment of the public, will be detrimental to adequate groundwater levels, will adversely affect stream channels and their ability to handle the runoff of waters, will disturb and reduce the natural ability of wetlands to absorb flood waters and silt, thus increasing general flood damage and the silting of open water channels, and will otherwise adversely affect the interests of the general public.

(3) The project could not be relocated to avoid impacts on prime wetlands without either reducing the public value of the project, or negatively affecting the public health or safety;

(4) The project's impacts on prime wetlands are the minimum practical without either reducing the public value of the project, or negatively affecting the public health or safety; and

(5) The project incorporates appropriate and practicable compensatory mitigation for each of the wetland functions and values of RSA 482-A:1, and each of the functions and values ranked by the municipality, that are impacted by the project. The mitigation proposed shall be appropriate in terms of matching the proposed benefit given the relative harm of the project. The mitigation shall be practicable given the technology available at the time of the application.

PSNH Response

Prime Wetland Q. Mapped wetland NW12 and stream NS14 (Environmental Map 21).

1.) The SRP is proposed to traverse Newington Prime Wetland Q in one location, crossing wetland NW12 and stream NS14, which forms an intermittent tributary to Knights Brook. Based on its irregular configuration, springs, and habitat diversity, Wetland Q can be assumed as a whole to have principal functions of wildlife habitat and groundwater recharge/discharge. The wetland is also likely

functional for sediment and toxic retention, production export, floodflow alteration, and sediment and shore stabilization. The section of the wetland that SRP traverses was evaluated during field work to provide wildlife habitat and production export as principal functions, and was also functional for groundwater recharge/discharge, floodflow alteration, sediment/toxic retention, and sediment and shoreline stabilization. No permanent impacts to this wetland will result from construction of the SRP. Temporary construction will affect approximately 3,332 square feet (SF) of scrub-shrub and emergent wetland from the placement of matting in the wetland and the placement of a temporary mat bridge over the stream. Work will also include the clearing of approximately 11,700 SF of forest along the right of way corridor which is necessary to ensure the safety of the line. The tree clearing will result in conversion of approximately 1% of the 24-acre Prime Wetland Q from forested to shrub and emergent wetland. No measureable loss of wetland functions or values in Prime Wetland Q will occur during the construction of this project because of its small footprint, lack of permanent impact, limited temporary impact and very minor tree clearing.

2.) The project is consistent with the purpose of 482-A:1: it utilizes an existing right of way, and has negligible effects on the functions and values of this designated prime wetland. During the construction phase, all best management practices will be followed to ensure the wetland is not adversely impacted to affect the interests of the general public.

3.) The SRP cannot be relocated to avoid impacts to prime wetlands in Newington. This project utilizes a powerline right of way that is already in existence. Relocating the line to avoid prime wetlands is not practicable and would result in greater impacts to the environment elsewhere in Newington.

4.) The project's impact on Prime Wetland Q is the minimum practicable without reducing the value of this reliability project or negatively affecting public health and safety. All direct impacts within the wetland will be temporary and will be restored after construction is completed. Tree clearing and trimming within the wetland are necessary to ensure the safety of the powerline and will reduce issues associated with power loss from tree and limbs falling on the line.

5.) Mitigation is being negotiated with the regulatory agencies during the permitting process, and is currently calculated through the NHDES In-Lieu-Fee calculator. In Newington, the final mitigation cost is proposed to be applied to purchasing a conservation easement on a 10-acre parcel that includes wetlands and upland buffer to Prime Wetland Q and Knights Brook.

Prime Wetland K: Mapped Wetlands NW17+NW34 (Environmental Maps 23 and 24)

1.) The SRP is proposed to traverse Newington Prime Wetland K in two locations: wetlands NW17 and NW34. NW17 includes a flooded section of Pickering Brook possibly due to beaver activity downstream of the right of way. Based on field observations, its irregular configuration, and forested habitat, Prime Wetland K as a whole is assumed to have principal functions of wildlife habitat, groundwater recharge/discharge, and sediment and toxicant retention. The wetland is also likely functional for production export, floodflow alteration, and sediment and shore stabilization. During field work, the principal wetland functions within the right-of-way were wildlife habitat, groundwater recharge and discharge, and sediment and toxic retention. The wetland was also functional for floodflow alteration, production export, and sediment and shoreline stabilization. Work within wetlands NW17 and NW34 will include 12,081 SF of temporary impacts including the placement of temporary construction matting. Eleven (11) SF of permanent impacts will result from the placement of a drilled pier structure in NW34. Work will also include the clearing of 3,320 SF of forest along the right of way corridor which is necessary to ensure the safety of the line. The tree clearing will result in conversion of approximately 1% of the 6.9-acre Prime Wetland K from forested to shrub and emergent wetland. No measureable loss of

wetland functions or values in Prime Wetland K is anticipated during the construction of this project because of its very minor permanent impact, and proportionally small temporary impact and tree clearing.

2.) The project is consistent with the purpose of 482-A:1: it utilizes an existing right of way, and has negligible effects on the functions and values of this designated prime wetland. During the construction phase, all best management practices will be followed to ensure Prime Wetland K is not adversely impacted to affect the interests of the general public. Eleven (11) SF of permanent impacts will result in NW34 but will not result in a measurable loss of function or value to the wetland. During the construction phase, all best management practices will be followed to ensure the wetland is not adversely impacted to affect the interests of the general public.

3.) The SRP cannot be relocated to avoid impacts to prime wetlands in Newington. This project utilizes a powerline right of way that is already in existence. Relocating the line to avoid prime wetlands is not practicable and would result in greater impacts to the environment elsewhere in Newington. The 11 SF of permanent impact result from the proposed placement of a drilled foundation at the edge of the wetland. The placement of this angle structure was evaluated to remove it from the edge of the wetland but the design and safety of the line does not allow for its movement.

4.) The impact of the SRP on Prime Wetland K is the minimum practicable without reducing the value of this reliability project or negatively affecting public health and safety. With the exception of the 11 SF of unavoidable permanent impact, all direct impacts within the wetland will be temporary and will be restored after construction is completed. Tree clearing and trimming within the wetland are necessary to ensure the safety of the powerline and will reduce issues associated with power loss from tree and limbs falling on the line.

5.) Mitigation is being negotiated with the regulatory agencies during the permitting process, and is currently calculated through the NHDES In-Lieu-Fee calculator. In Newington, the final mitigation cost is proposed to be applied to purchasing a conservation easement on a 10-acre parcel that includes wetlands and upland buffer to Prime Wetland Q and Knights Brook.

Prime Wetland F. Mapped wetland NW1 and NW45 (Environmental Map 26)

1.) The SRP is proposed to cross the eastern edge of Newington Prime Wetland F in two locations, mapped as wetlands NW1 and NW45. NW1 is predominantly an emergent marsh of cattail, purple loosestrife and low shrubs. NW45 is in a more woody section of Prime Wetland F, and is a mix of scrub-shrub and forested wetland. Based on its irregular configuration, and forested habitat, Prime Wetland F as whole is assumed to provide wildlife habitat, and groundwater recharge/discharge, sediment and toxic retention, nutrient removal and floodflow alteration as principal functions of the wetland. The wetland is also likely functional for production export. The section of the wetland that SRP traverses was evaluated during field work to principally function as groundwater recharge/ discharge, sediment and toxic retention, nutrient removal, wildlife habitat, production export, and floodflow alteration. The wetland was also functional for visual quality and aesthetics due to its proximity to the Spaulding Turnpike. Work within NW1 will include 20 SF of permanent impact will result from the placement of a direct embed structure. The new structure will be placed adjacent to existing structures in the right-of-way, and will be mostly offset by the removal of the existing distribution pole it is replacing. Temporary construction impacts from the placement of timber matting will affect 20,695 SF in NW1 and NW45. Work will also include the clearing of 10,070 SF of trees along the right of way which is necessary to ensure the safety of the line. The tree clearing will result in conversion of approximately 1% of the wetland from forested to shrub and emergent wetland. No measureable loss of wetland functions or values in Prime Wetland F is anticipated during the construction of this project because of its very minor permanent impact, and proportionally small temporary impact and tree clearing.

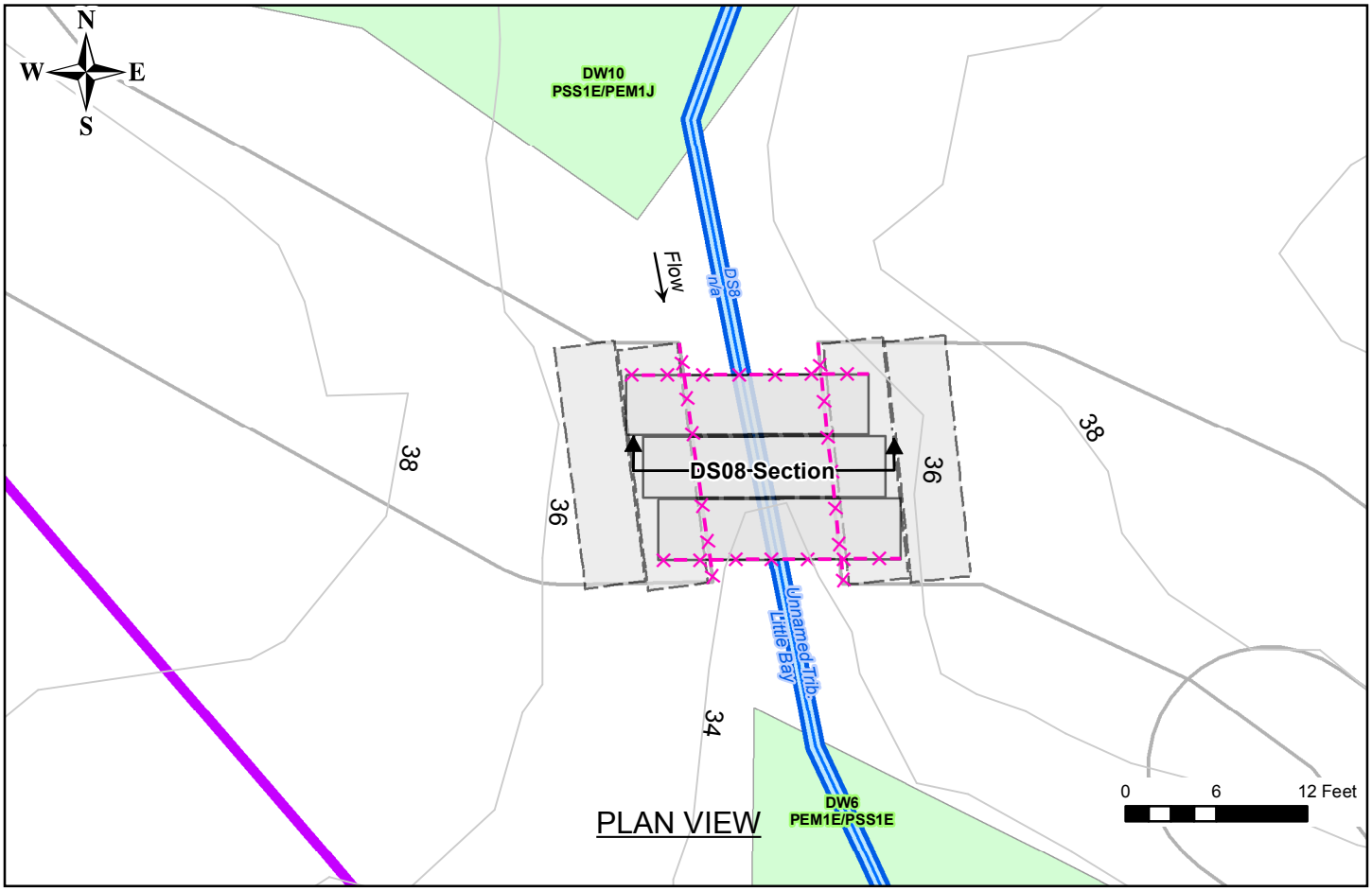
2.) The project is consistent with the purpose of 482-A:1: it utilizes an existing right of way, and has negligible effects on the functions and values of Prime Wetland F. During the construction phase, all best management practices will be followed to ensure Prime Wetland F is not adversely impacted to affect the interests of the general public. Twenty (20) SF of permanent impacts will occur in NW1 but will not result in a measurable loss of function or value to the wetland. The new structure will be placed adjacent to existing structures in the right-of-way, and will be partially offset by the removal of the existing distribution pole it is replacing. During the construction phase, all best management practices will be followed to ensure the wetland is not adversely impacted to affect the interests of the general public.

3.) The SRP cannot be relocated to avoid impacts to prime wetlands in Newington. This project utilizes a powerline right of way that is already in existence. Relocating the line to avoid prime wetlands is not practicable and would result in greater impacts to the environment elsewhere in Newington. Twenty (20) SF of permanent impacts will result from the placement of a direct embed pole in NW1. The placement of this pole has been evaluated to remove it from the wetland but the function and safety of the line does not allow for its removal from the wetland.

4.) The impact of the SRP on Prime Wetland F is the minimum practicable without reducing the value of this reliability project or negatively affecting public health and safety. With the exception of the 20 SF of unavoidable permanent impact in NW1, all direct impacts within the wetland will be temporary and will be restored after construction is completed. Tree clearing and trimming within the wetland are necessary to ensure the safety of the powerline and will reduce issues associated with power loss from tree and limbs falling on the line.

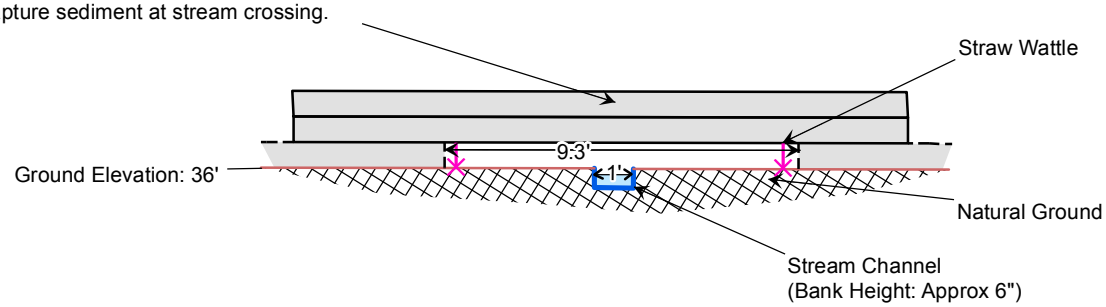
5.) Mitigation is being negotiated with the regulatory agencies during the permitting process, and is currently calculated through the NHDES In-Lieu-Fee calculator. In Newington, the final mitigation cost is proposed to be applied to purchasing a conservation easement on a 10-acre parcel that includes wetlands and upland buffer to Prime Wetland Q and Knights Brook. The wetland cover types within the conservation parcel include the emergent and scrub-shrub cover types that are affected in NW1 and NW45.

Attachment B. Stream Crossing Details



PLAN VIEW

Double layer of timber mats (16' x 4' x 8")
Filter fabric to be inserted between matting
to capture sediment at stream crossing.



Rails may be installed within the matting foot print
as necessary for additional structural support.

0 2.5 5 Feet
Horizontal and Vertical

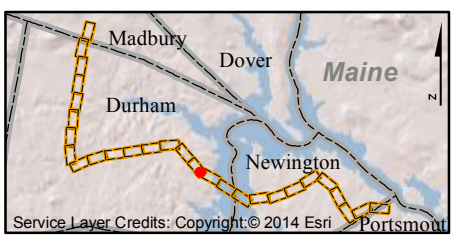
SECTION VIEW

Legend

- 2ft Contour *
- Stream Centerline
- Wetland Extends
- Silt Fence, Hay Bale, Erosion Control Mix Berm
- Straw Wattle
- Project Corridor
- Temporary Access Road
- Stream Channel
- Timber Mat
- Wetland
- Prime Wetland

* Contours derived from LIDAR data; not field surveyed: some edits made for consistency.

Project No: 22860.003
Date : 1/3/2017
Drawn By: ssherman



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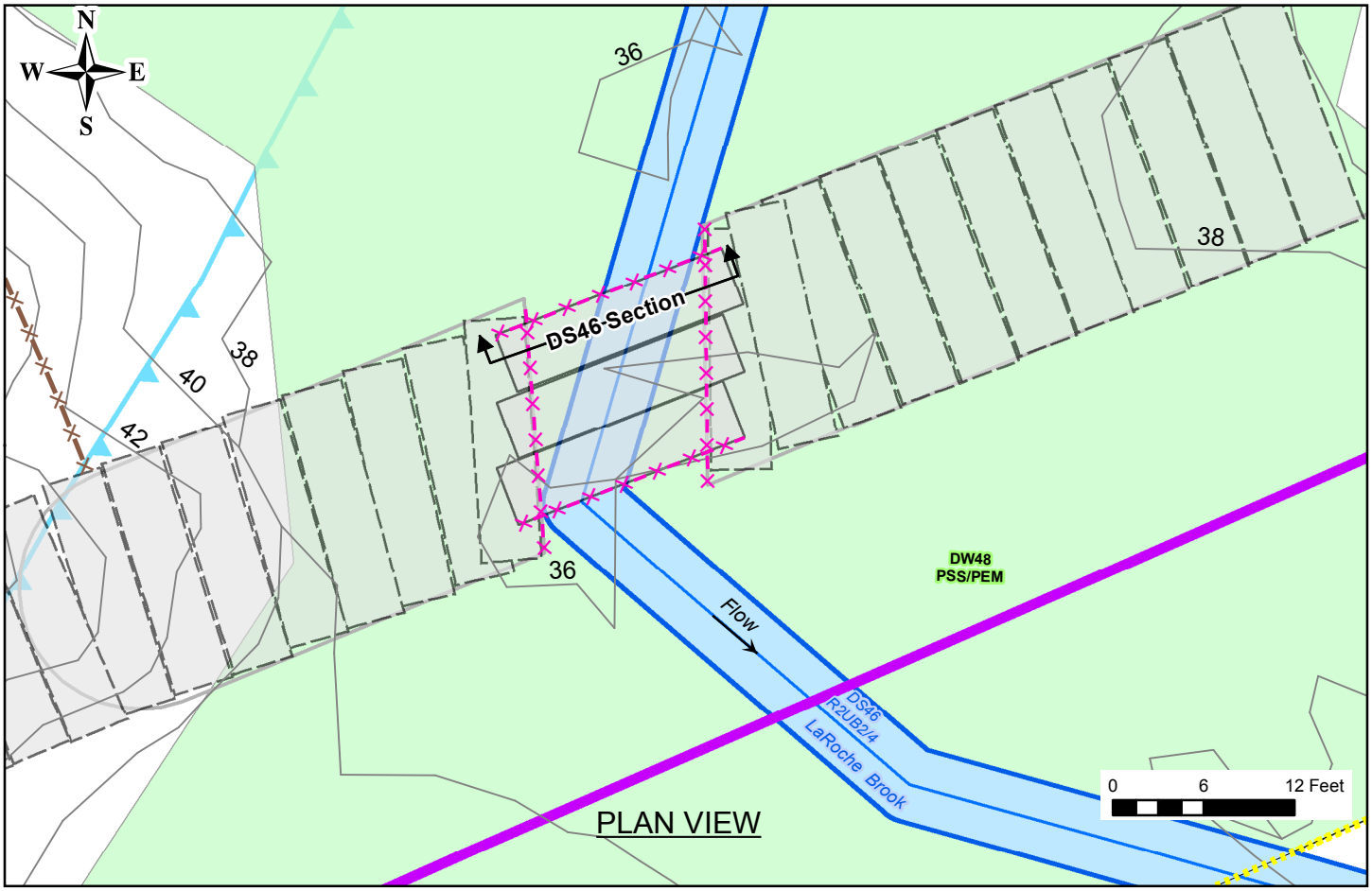
EVERSOURCE ENERGY

NORMANDEAU ASSOCIATES
Environmental Consultants

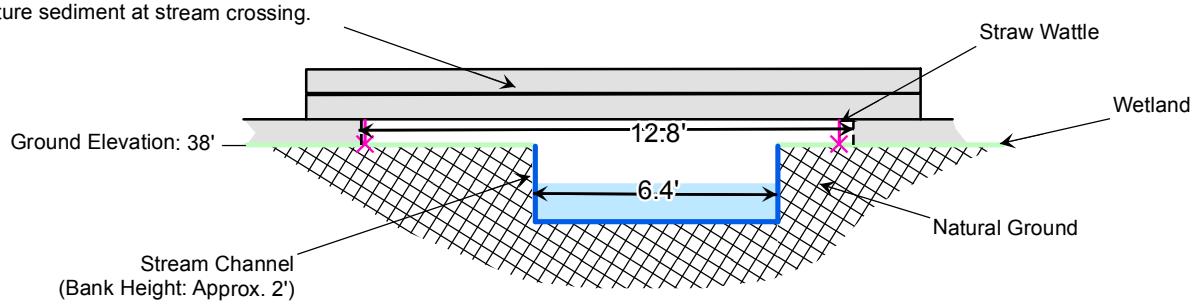
Seacoast Reliability Project

DS8
Stream Crossing Detail



PLAN VIEW

Double layer of timber mats (16' x 4' x 8")
Filter fabric to be inserted between matting
to capture sediment at stream crossing.



Rails may be installed within the matting foot print
as necessary for additional structural support.

0 2.5 5 Feet
Horizontal and Vertical

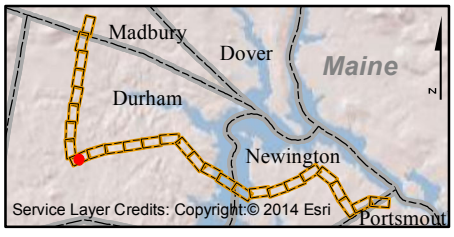
SECTION VIEW

Legend

- 2ft Contour *
- Stream Centerline
- Wetland Extends
- Silt Fence, Hay Bale, Erosion Control Mix Berm
- Straw Wattle
- Project Corridor
- Temporary Access Road
- Stream Channel
- Timber Mat
- Wetland
- Prime Wetland
- 100 Year Floodplain

* Contours derived from LIDAR data; not field surveyed.

Project No: 22860.003
Date : 1/3/2017
Drawn By: ssherman



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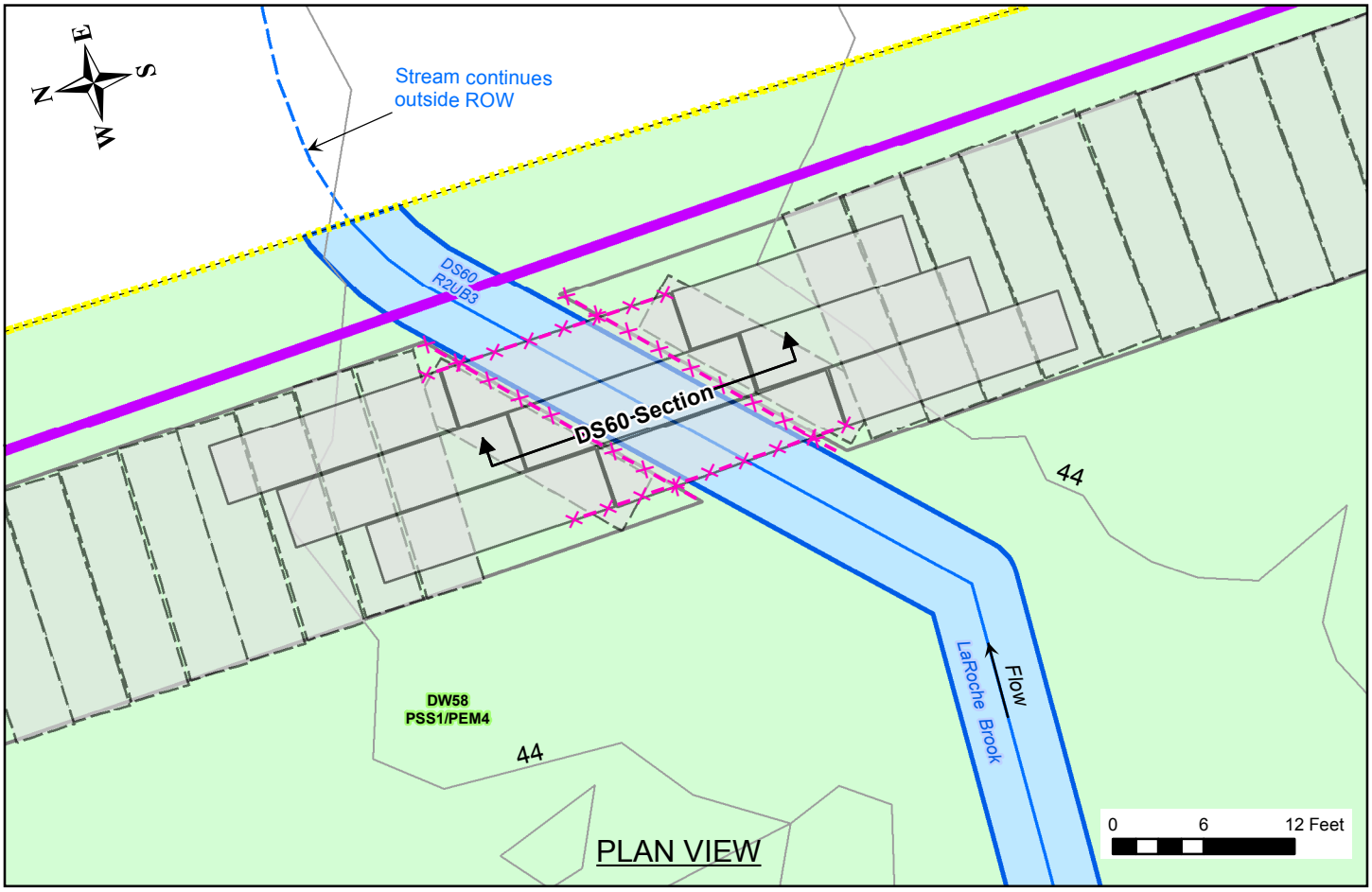
EVERSOURCE ENERGY

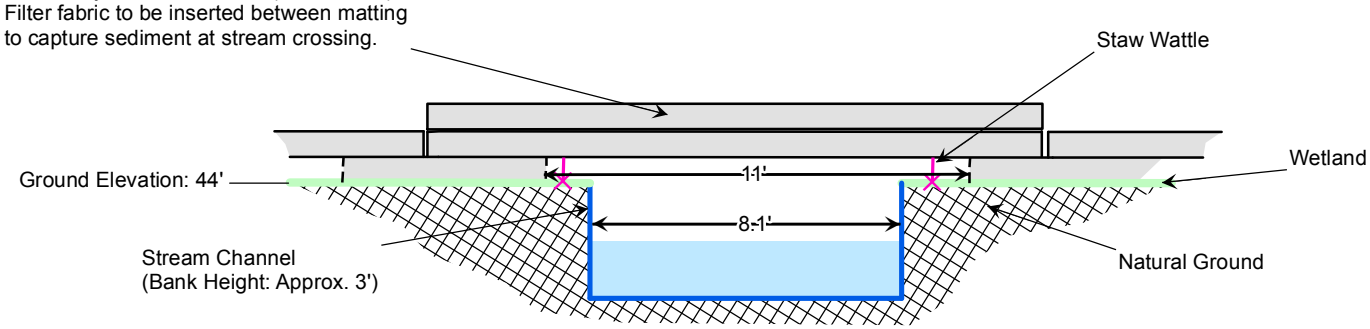
NORMANDEAU ASSOCIATES
Environmental Consultants

Seacoast Reliability Project

DS46
Stream Crossing Detail



PLAN VIEW



Rails may be installed within the matting foot print as necessary for additional structural support.

SECTION VIEW

0 2.5 5 Feet
Horizontal and Vertical

Legend

- 2ft Contour *
- Stream Centerline
- Wetland Extends
- Silt Fence, Hay Bale, Erosion Control Mix Berm
- Straw Wattle
- Project Corridor
- Temporary Access Road
- Stream Channel
- Timber Mat
- Wetland
- Prime Wetland

* Contours derived from LIDAR data; not field surveyed.

Project No: 22860.003
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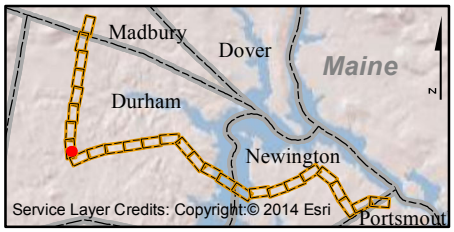

EVERSOURCE ENERGY

NORMANDEAU ASSOCIATES
Environmental Consultants

Seacoast Reliability Project

DS60
Stream Crossing Detail

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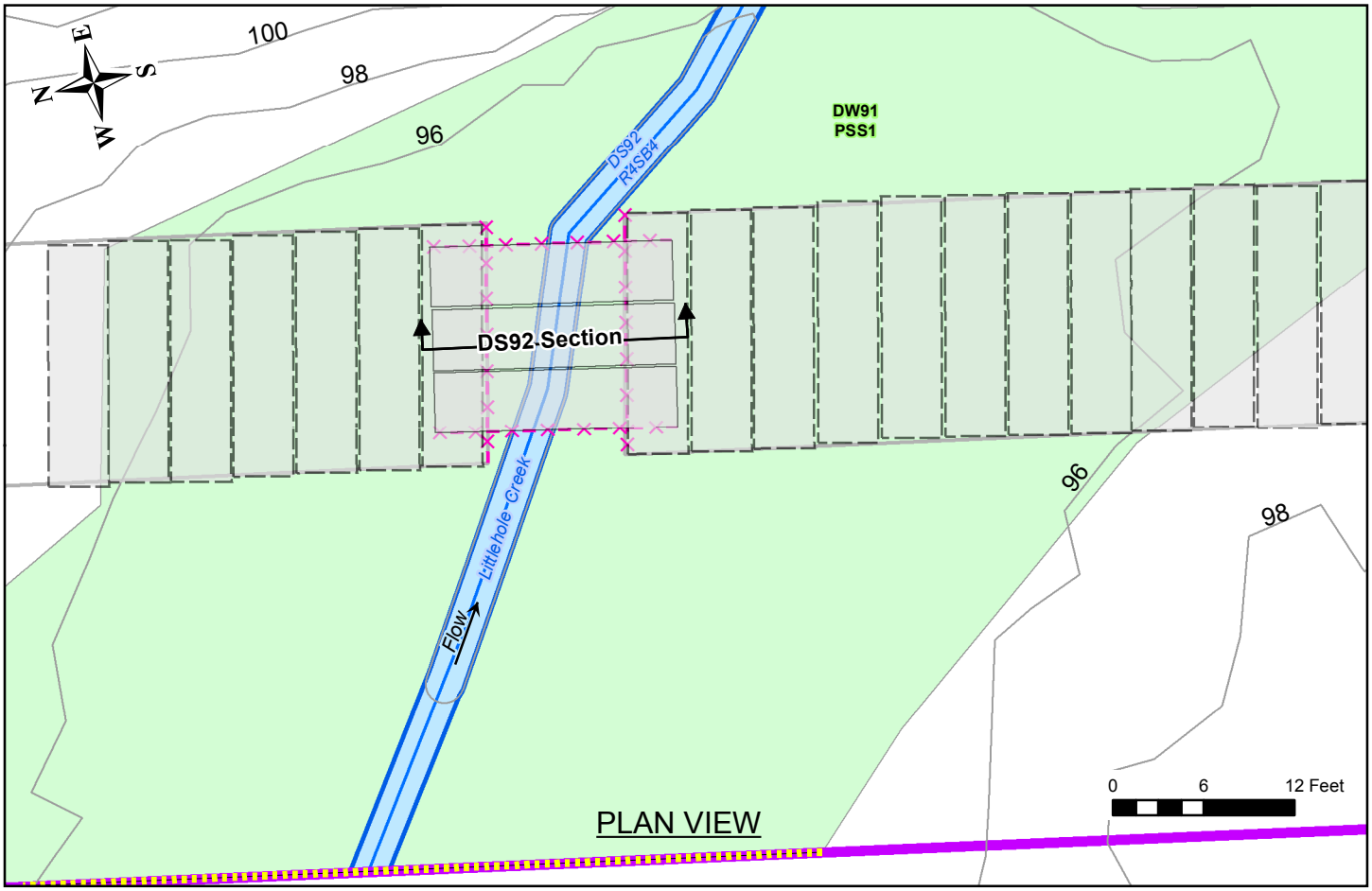
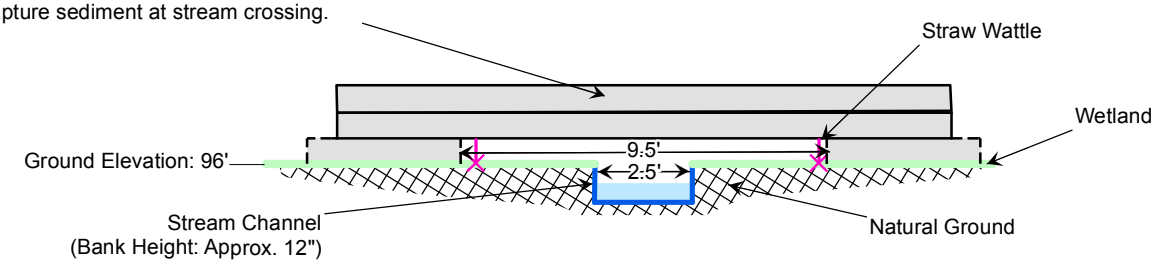


PLAN VIEW

Double layer of timber mats (16' x 4' x 8")
Filter fabric to be inserted between matting
to capture sediment at stream crossing.



Rails may be installed within the matting foot print
as necessary for additional structural support.

SECTION VIEW

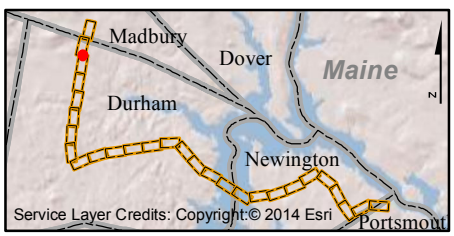
0 2.5 5 Feet
Horizontal and Vertical

Legend

- 2ft Contour *
- Stream Centerline
- Wetland Extends
- Silt Fence, Hay Bale, Erosion Control Mix Berm
- Straw Wattle
- Project Corridor
- Temporary Access Road
- Stream Channel
- Timber Mat
- Wetland
- Prime Wetland

* Contours derived from LIDAR data; not field surveyed.

Project No: 22860.003
Date : 1/3/2017
Drawn By: ssherman



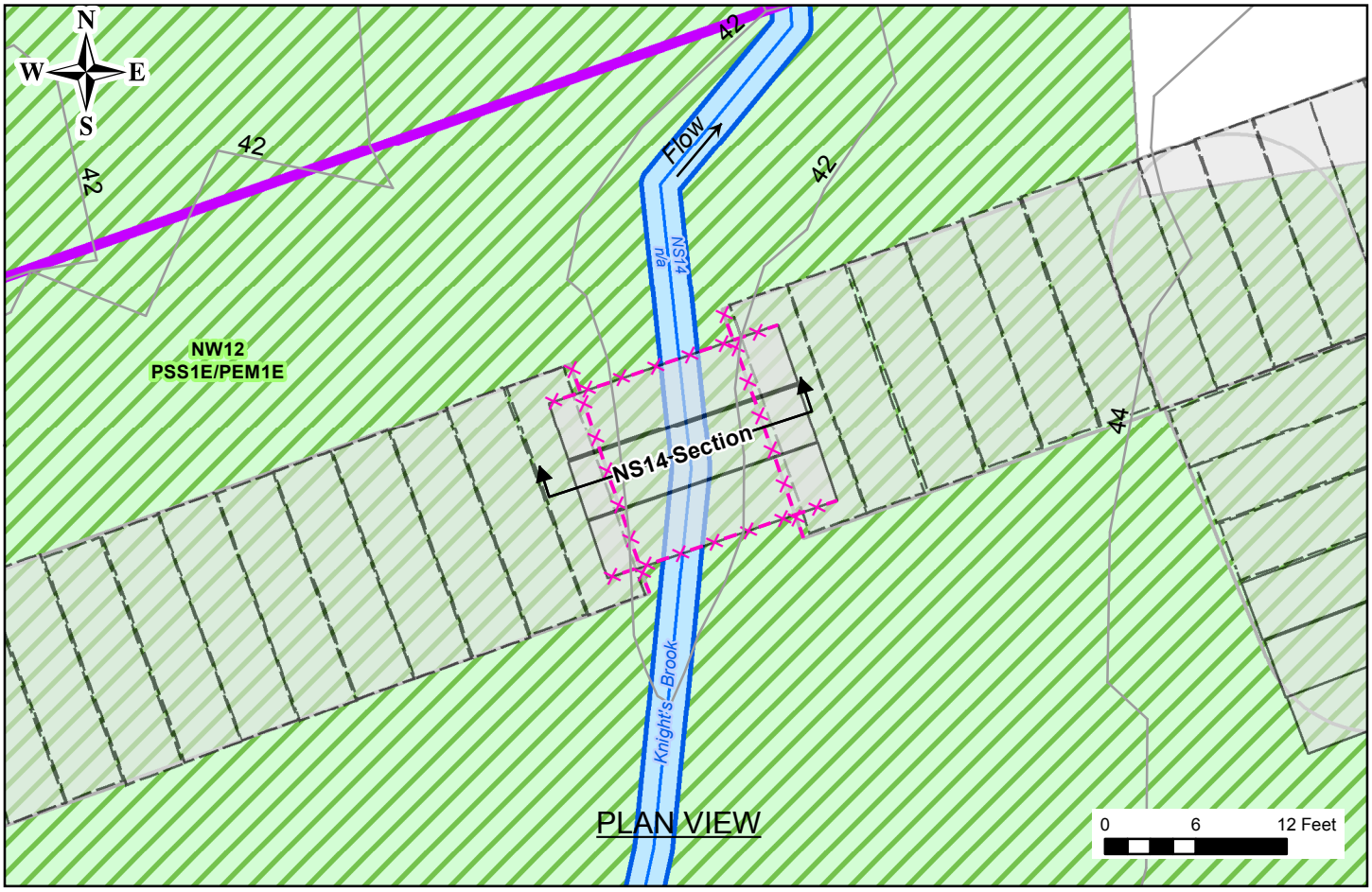
Path: J:\Projects\PSNH_F107\MXD\SRP_StreamDetail_DS92.mxd

EVERSOURCE ENERGY

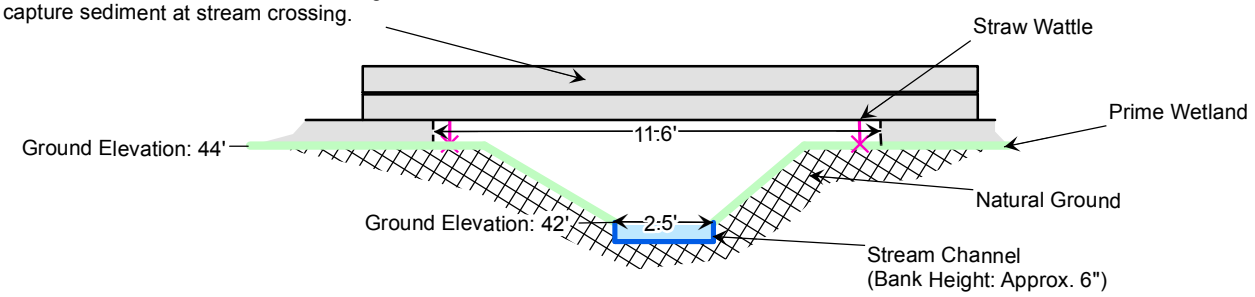
NORMANDEAU ASSOCIATES
Environmental Consultants

Seacoast Reliability Project

DS92
Stream Crossing Detail



Double layer of timber mats (16' x 4' x 8")
Filter fabric to be inserted between matting
to capture sediment at stream crossing.



Rails may be installed within the matting foot print
as necessary for additional structural support.

SECTION VIEW

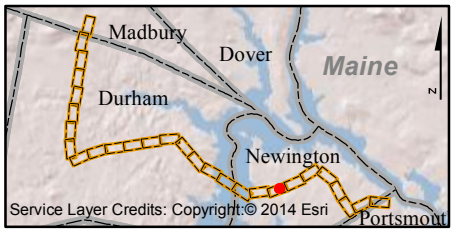
0 2.5 5 Feet
Horizontal and Vertical

Legend

- 2ft Contour *
- Stream Centerline
- Wetland Extends
- Silt Fence, Hay Bale, Erosion Control Mix Berm
- Straw Wattle
- Project Corridor
- Temporary Access Road
- Stream Channel
- Timber Mat
- Wetland
- Prime Wetland

* Contours derived from LIDAR data; not field surveyed; some edits made for consistency.

Project No: 22860.003
Date : 1/3/2017
Drawn By: ssherman



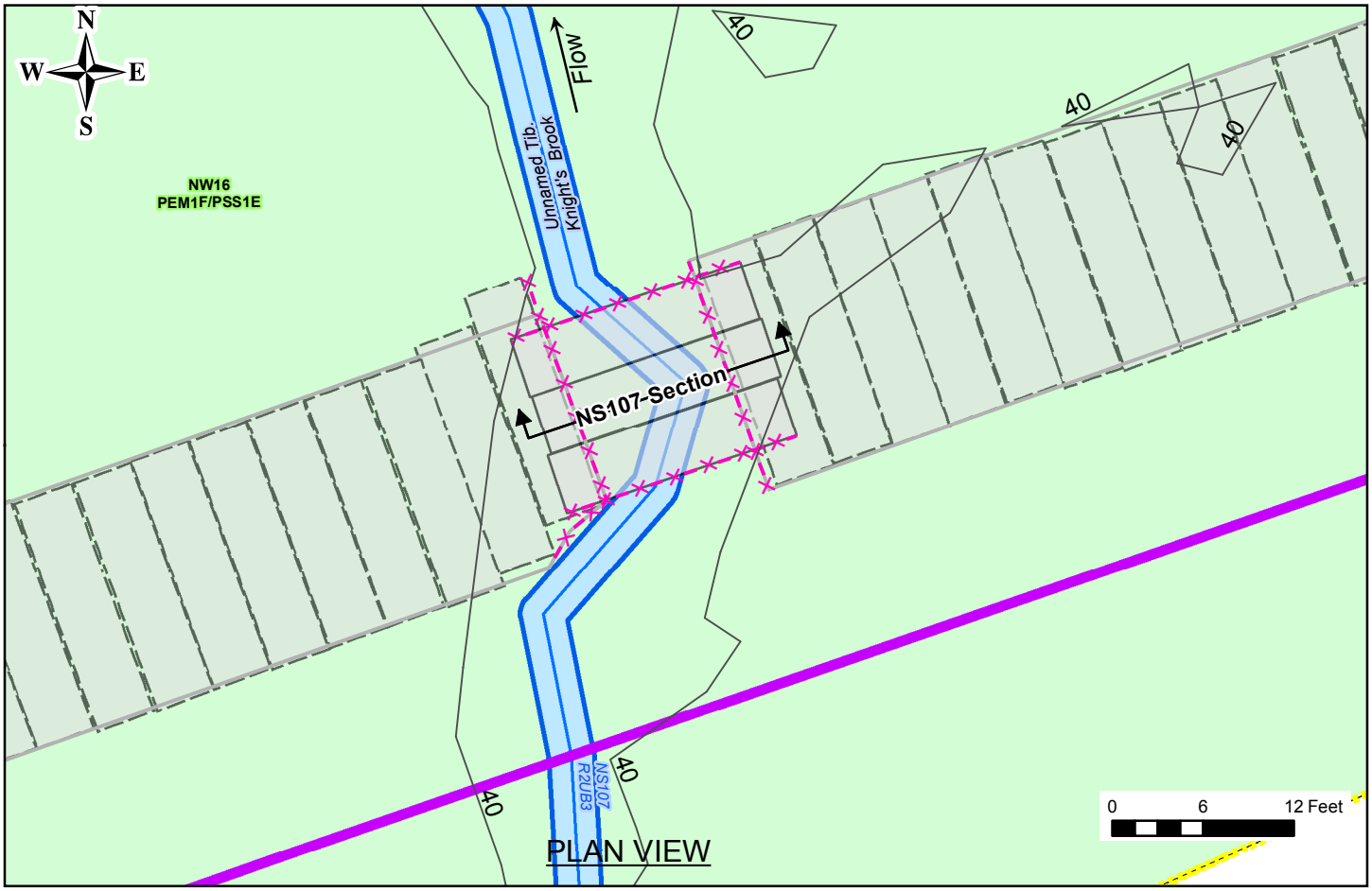
EVERSOURCE ENERGY

NORMANDEAU ASSOCIATES
Environmental Consultants

Seacoast Reliability Project

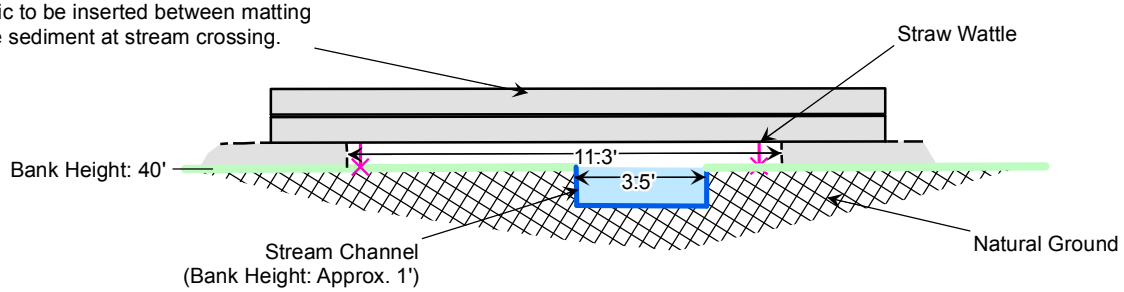
NS14
Stream Crossing Detail

Path: J:\Projects\PSNH_F107\MXD\SRP_StreamDetail_NS14.mxd



PLAN VIEW

Double layer of timber mats (16' x 4' x 8")
Filter fabric to be inserted between matting
to capture sediment at stream crossing.



Rails may be installed within the matting foot print
as necessary for additional structural support.

0 2.5 5 Feet
Horizontal and Vertical

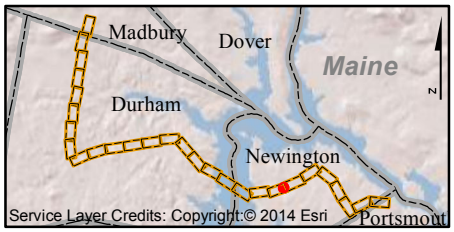
SECTION VIEW

Legend

- 2ft Contour *
- Stream Centerline
- Wetland Extends
- Silt Fence, Hay Bale, Erosion Control Mix Berm
- Straw Wattle
- Project Corridor
- Temporary Access Road
- Stream Channel
- Timber Mat
- Wetland
- Prime Wetland

* Contours derived from LIDAR data; not field surveyed: some edits made for consistency.

Project No: 22860.003
Date : 1/3/2017
Drawn By: ssherman



EVERSOURCE ENERGY

NORMANDEAU ASSOCIATES
Environmental Consultants

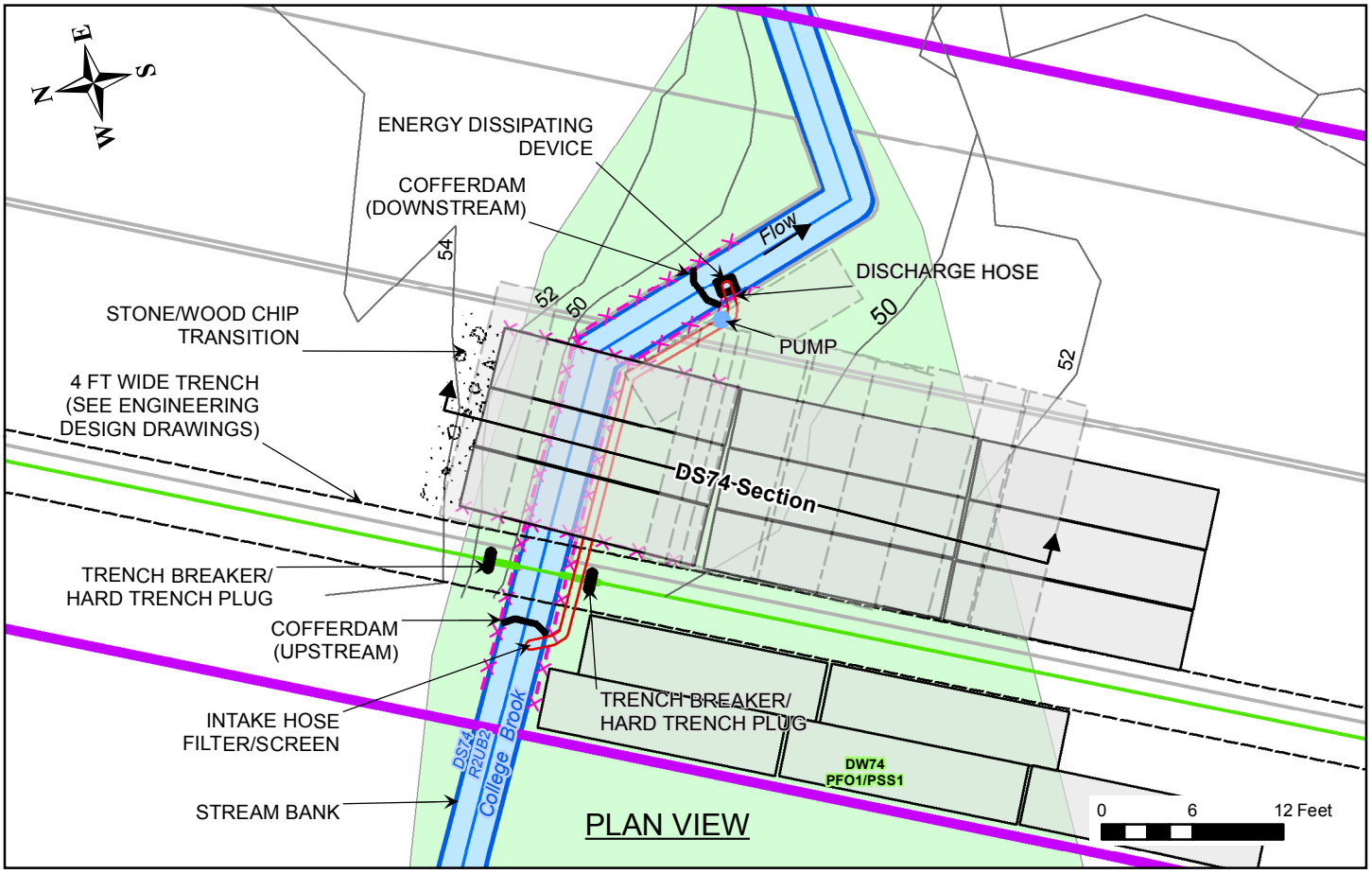
Seacoast Reliability Project

NS107
Stream Crossing Detail

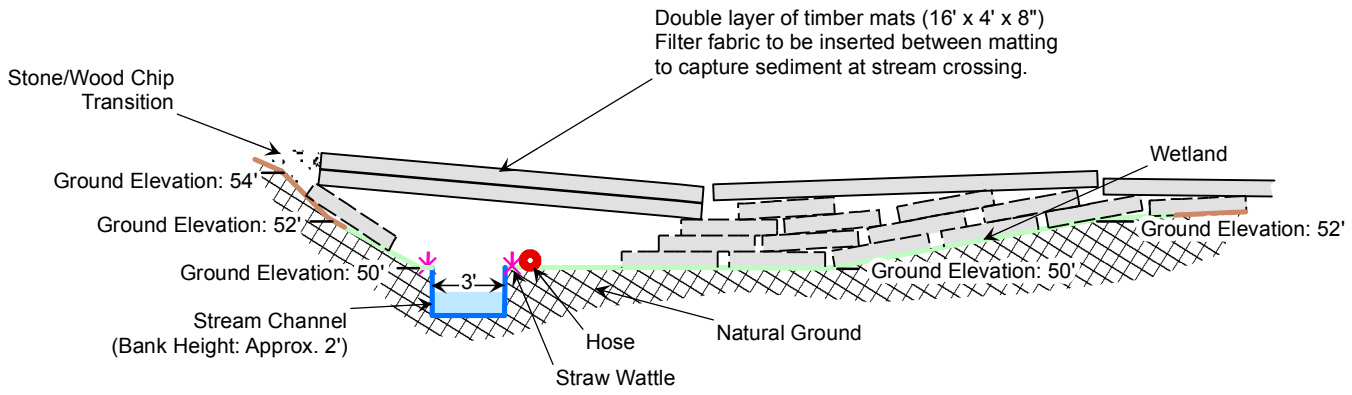
Path: J:\Projects\PSNH_F107\MXD\SRP_StreamDetail_NS107.mxd

Attachment C.

College Brook Crossing and Stream Diversion Detail



PLAN VIEW



Rails may be installed within the matting foot print as necessary for additional structural support.

SECTION VIEW

Legend

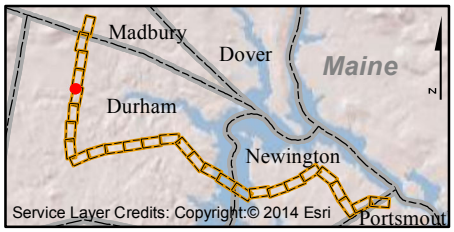
- 2ft Contour *
- Stream Centerline
- Wetland Extends
- Underground Cable
- Silt Fence, Hay Bale, Erosion Control Mix Berm
- Straw Wattle
- Project Corridor
- Temporary Access Road
- Stream Channel
- Timber Mat
- Wetland
- Prime Wetland

* Contours derived from LIDAR data; not field surveyed: some edits made for consistency.

Project No: 22860.003

Date : 1/3/2017

Drawn By: ssherman



Path: J:\Projects\PSNH_F107\MXD\SRP_StreamDetail_DS74.mxd

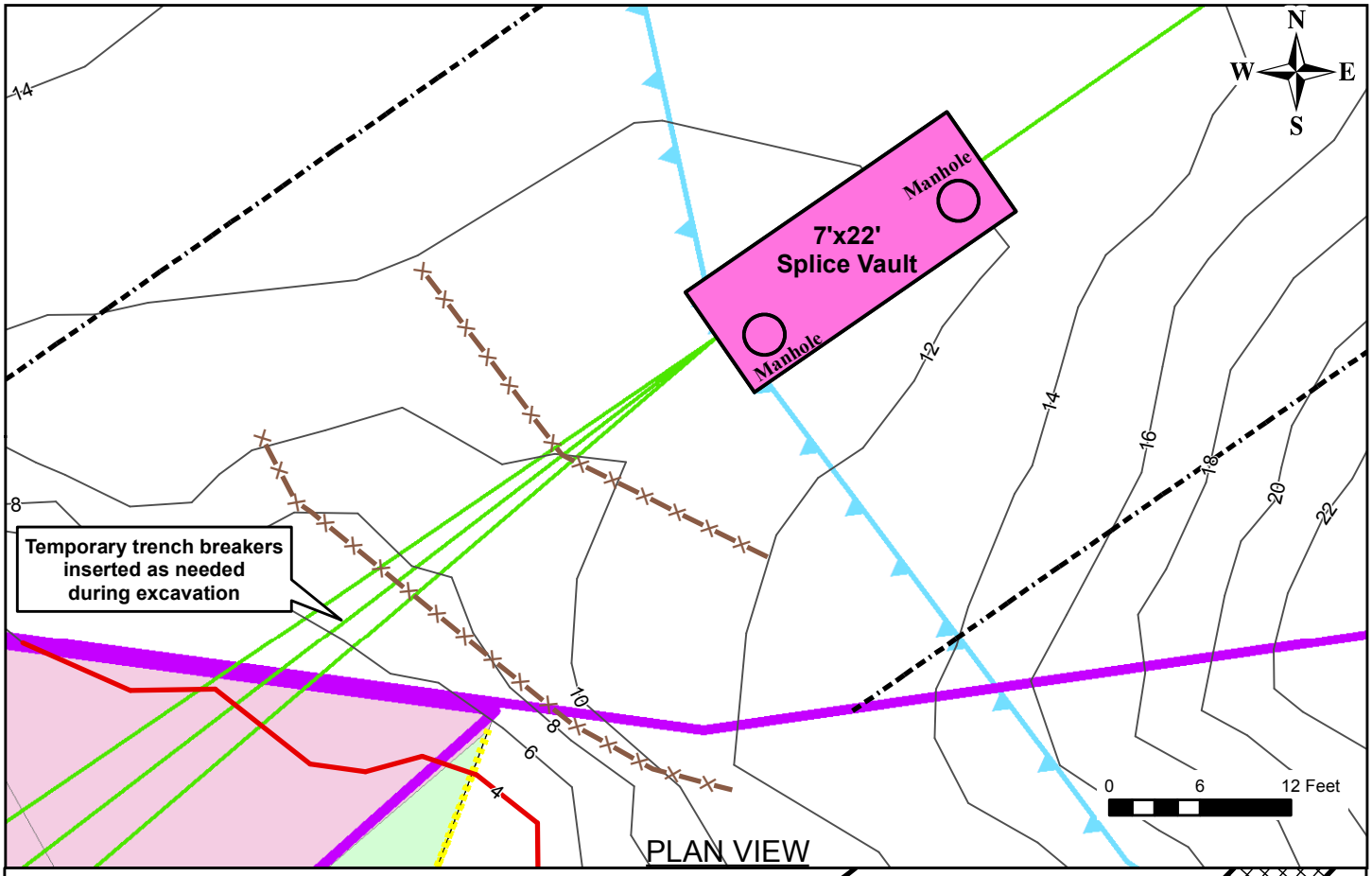
EVERSOURCE ENERGY

NORMANDEAU ASSOCIATES Environmental Consultants

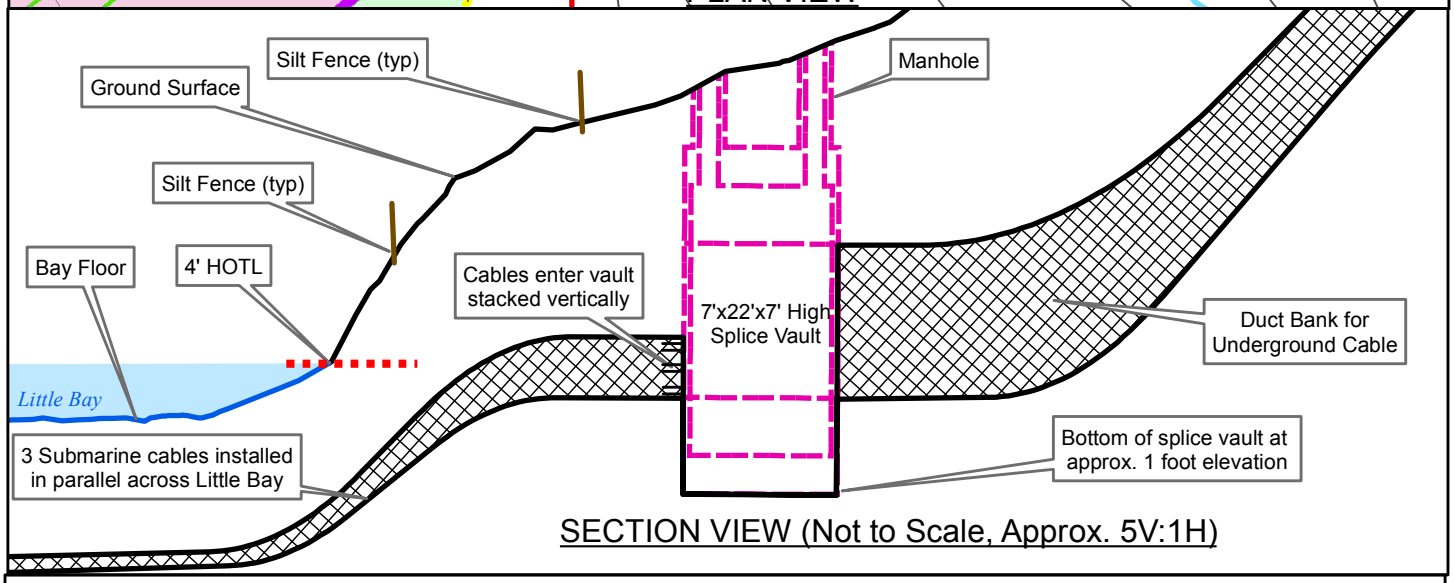
Seacoast Reliability Project

DS74 Stream Crossing and Diversion Detail

Attachment D. Splice Vault Detail



PLAN VIEW



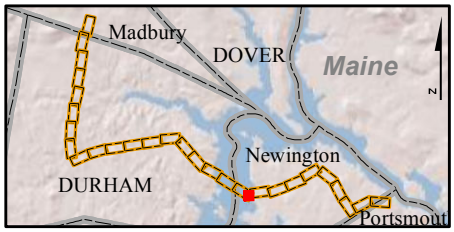
SECTION VIEW (Not to Scale, Approx. 5V:1H)

Highest Observable Tide Line (HOTL)
SRP Easement Access
Silt Fence
2ft Contour *
Wetland Extends
Underground Cable
Splice Vault
Project Corridor
Temporary Impact
Wetland
100 Year Floodplain

NOTES:
1. Dewatering will be determined by the Contractors and approved by Eversource prior to construction. Dewatering will occur in such a manner to avoid direct discharge into Little Bay and controlled to avoid erosion. All relevant DES permit conditions shall be met.
2. Splice vault is designed to be wet and partially flooded.
3. Datum shown is NAD 1988.

* Contours derived from LIDAR data; not field surveyed.

Project No: 22860.003
Date : 1/3/2017
Drawn By: dpelletier



Path: J:\Projects\PSNH_F107\MXD\SRP_Splice_Vault.mxd

EVERSOURCE ENERGY

NORMANDEAU ASSOCIATES
Environmental Consultants

Seacoast Reliability Project

Splice Vault Details

Attachment E. Revised Shoreland Application and Plan View

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: Energy Park, 780 Commercial Street	TOWN/CITY: Manchester	STATE: NH	ZIPCODE: 03101
PHONE: 603-634-3526	EMAIL: kurt.nelson@nu.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 17,311 Total square feet of new impervious area 0 **Please note this does not include theTBZ, which is included in the Wetland Permit Application.**

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 will consist of trenching and 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.

associated with landscaping activities.

Total Area Impacted within 250 Of the Reference Line. = 17,311 **(A) Square Feet** **Please note this does not include theTBZ, which is included in the Wetland Permit Application.**

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.

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

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

KW 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: 1-11-17
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.		_____ FT^2	_____ 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
	Driveway	**1205** FT^2	**1205** FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ 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.

TOTAL:	**(A) 1205** FT^2	**(B) 1205** FT^2
Area of the lot located within 250 ft of reference line: excluding TBZ		**(C) 17,311** 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) 7.0%**
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) 7.0%**

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

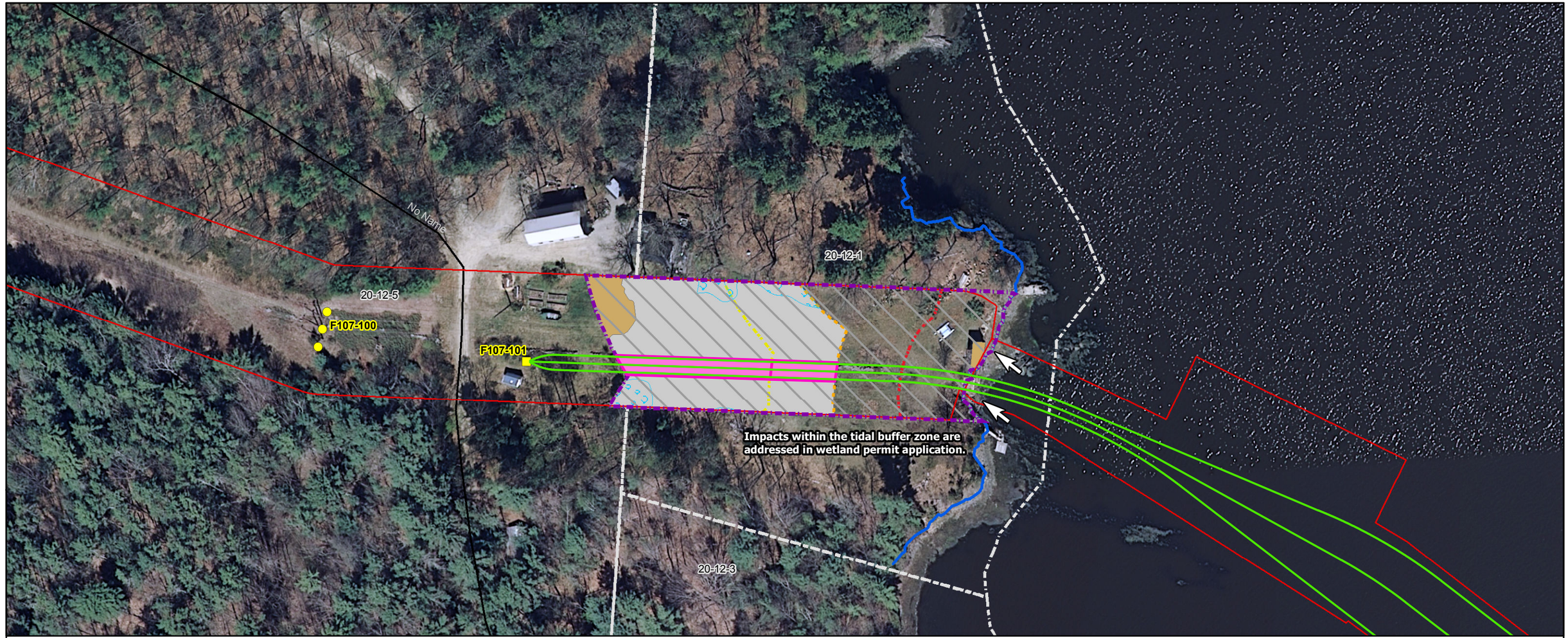
UNALTERED STATE REQUIREMENT

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) Sarah Allen**
Name and date of the plan this worksheet is based upon:	**(K) Seacoast Reliability Project Environmental Maps, Feb 25, 2016**
SIGNATURE: Sarah Allen	DATE: 1/10/17

***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.



Note: Every effort will be made to retain remaining native vegetation

SWQPA Areas	Construction Impacts (sq. ft.)			Impervious Surface (sq. ft)	
	Temporary Excavation	Temporary Staging	Permanent	Pre-Construction	Post-Construction
100' Tidal Buffer Zone Limit to 150' Natural Woodland Buffer	735	5042	0	0	0
150' Natural Woodland Buffer to 250' Protected Shoreland	1694	9840	0	1205	1205

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

N

1 inch = 75 feet
when printed at 11" x 17"

0 75 150 Feet

Seacoast Reliability Project

NHDES Shoreland Permit
Existing and Proposed Conditions

Little Bay
Durham, NH

NORMANDEAU ASSOCIATES
Environmental Consultants

Date: 12/16/2016
Drawn By: dpelletier
Project Number: 22860.003

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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.: PSNH, c/o Kurt Nelson			
ADDRESS: Energy Park, 780 Commercial Street	TOWN/CITY: Manchester	STATE: NH	ZIPCODE: 03101
PHONE: 603-634-3526	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 6,078 Total square feet of new impervious area 0 **Please note this does not include theTBZ, which is included in the Wetland Permit Application.**

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 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: 51 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. = 6,078 **(A) Square Feet** **Please note this does not include theTBZ, which is included in the Wetland Permit Application.**

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: 1-11-17
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.	**Driveway**	**105** FT^2	**105** 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	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ FT^2	_____ FT^2
	_____	_____ 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.

and sheds.			
	TOTAL:	**(A) <u>105</u>** FT^2	**(B) <u>105</u>** FT^2
Area of the lot located within 250 ft of reference line: excluding TBZ			**(C) <u>5,917</u>** 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) <u>1.8</u> %**
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) <u>1.8</u> %**

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

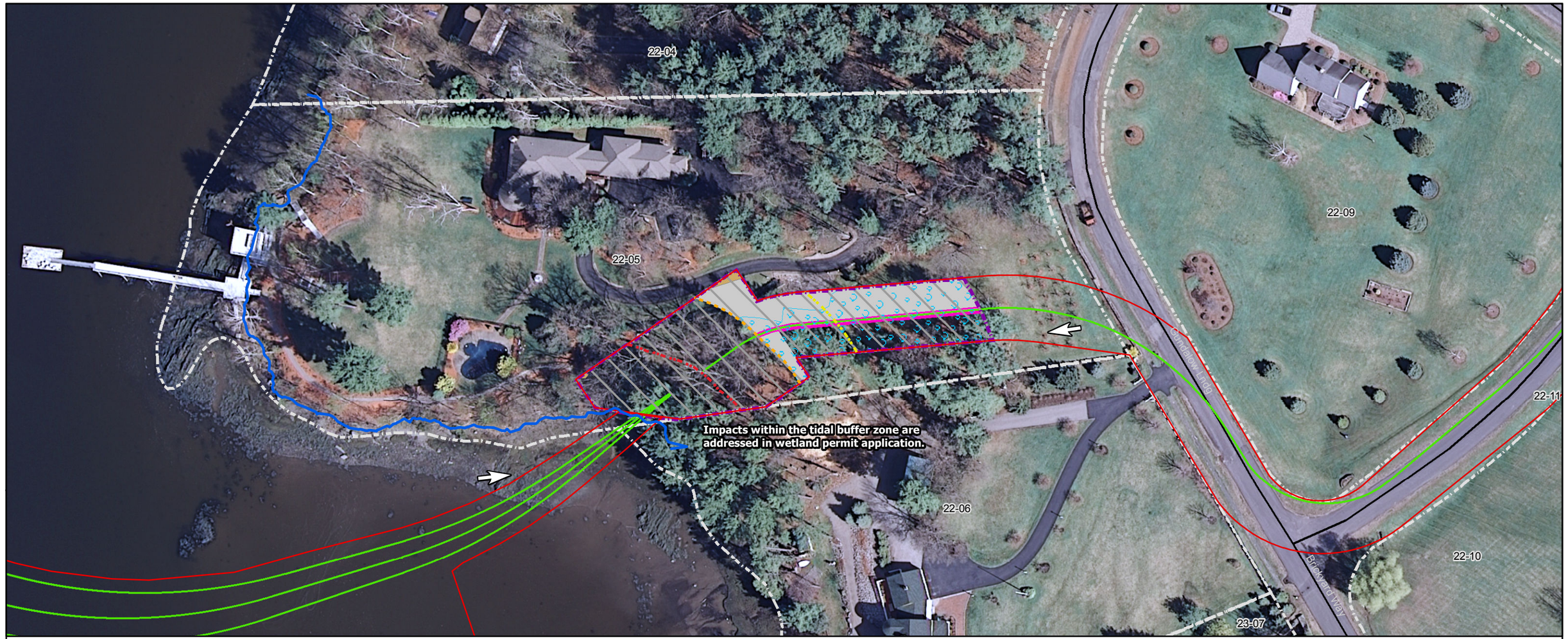
UNALTERED STATE REQUIREMENT

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) Sarah Allen**
Name and date of the plan this worksheet is based upon:	**(K) Seacoast Reliability Project Environmental Maps, Feb 25, 2016**
SIGNATURE: Sarah Allen	DATE: 01/10/17

***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.



Note: Every effort will be made to retain native trees during construction

SWQPA Areas	Construction Impacts (sq. ft.)			Impervious Surface (sq. ft)		Clearing in Altered Upland (sq. ft)
	Temporary Excavation	Temporary Staging	Permanent	Pre-Construction	Post-Construction	
Tidal Buffer Zone (100') to Natural Woodland Buffer (150')	247	2673	0	105	105	2394
Natural Woodland Buffer (150') to Protected Shoreland (250')	446	2712	0	0	0	0

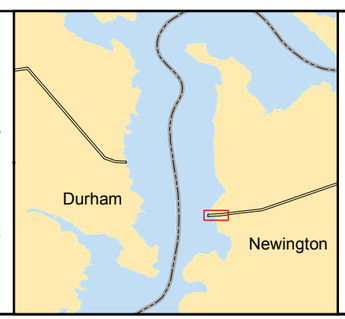
- SRP Right of Way
- Shoreland Buffer Zone (250ft)
- Natural Woodland Buffer (150ft)
- Tidal Buffer Zone (100ft)
- Waterfront Buffer (50ft)
- Highest Observable Tide Line/Reference Line (4ft Contour)
- Pre-Construction Impervious Areas
- Existing Altered Areas
- Temporary Staging
- Temporary Excavation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

N

1 inch = 75 feet

when printed at 11" x 17"

0 75 150 Feet



Seacoast Reliability Project

NHDES Shoreland Permit
Existing and Proposed Conditions

Little Bay
Newington, NH

NORMANDEAU ASSOCIATES
Environmental Consultants

Date: 12/16/2016
Drawn By: dpelletier
Project Number: 22860.003

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