



December 14, 2016

Mr. Rene Pelletier, PG  
Assistant Director, Water Division  
NH Department of Environmental Services  
PO Box 95  
29 Hazen Drive  
Concord, NH 03302-2964

Re: Joint Application of Northern Pass Transmission, LLC and Public Service Company of New Hampshire d/b/a Eversource Energy: Further Response to NHDES Progress Report

Dear Mr. Pelletier:

On behalf of Northern Pass Transmission LLC, we respectfully submit the enclosed additional responses to the Department of Environmental Services May 16, 2016 Progress Report to the NH Site Evaluation Committee ("SEC"). These responses reflect the completion of work related to a wetlands permit application supplement to address stream crossings along certain access roads and final baseline data reports for the mitigation parcels. The responses also include information related to stormwater redesign based on detailed subsurface data gathered from geotechnical borings. This subsurface data and analysis is incorporated in our responses addressing information requests related to Transition Stations 2, 3, 4, 6 and Scobie Pond Substation. The subsurface data from four sites, namely, Transition Stations 1 and 5, the Deerfield Substation, and the Franklin Converter Terminal, require additional analysis and will be provided by January 25, 2017.

Please find enclosed with this letter four electronic copies on a flash drive of the response and referenced attachments. Four paper copies of this material will be delivered to DES Friday morning, December 16, 2016.

Thanks to you and your colleagues. If you have questions or comments, please do not hesitate to contact me directly at 637-1150 or at [lcarbonneau@normandeau.com](mailto:lcarbonneau@normandeau.com).

Sincerely,

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

Lee E. Carbonneau  
As agent for Northern Pass Transmission, LLC.  
Senior Principal Scientist  
Normandeau Associates, Inc.

Enclosures

Cc: Thomas Burack, Commissioner, NHDES (w/o enclosures)

Collis Adams, NHDES (w/o enclosures)  
Craig Rennie, NHDES  
Gregg Comstock, NHDES  
David Keddell, US ACE (electronic copy only)  
Mark Kern, USEPA  
Pamela G. Monroe, SEC Administrator  
Robert P. Clarke, Eversource (w/o enclosures)  
Kevin F. McCune, Eversource (w/o enclosures)

**RESPONSE TO NH DEPARTMENT OF ENVIRONMENTAL SERVICES**  
**ADDITIONAL DATA REQUESTS**

(December 14, 2016)

**A. WETLANDS BUREAU**

7. There appears to be a change in use on some forestry access roads, as well as some ATV and snow machine trails, that will require additional permitting. See Rule Env-Wt 303.04(g)(1), which states “access shall not be used for subdivision, development, or other land conversion to non-forestry uses...”. Please include in the wetland application any additional wetland impact areas where this change in use occurs. In addition, existing stream crossings may need to be upgraded to meet the stream crossing standards of Chapter Env-Wt 900.

***Response:** Northern Pass completed an initial assessment of the off-ROW access roads (or ORARs) that have been proposed for use during construction of the Project. All access roads that will require temporary widening or fill to support construction vehicles were included in the 2015 permit applications, and these will be restored to pre-construction conditions upon completion of the Project. In 2016, as discussed with NHDES staff, a culvert assessment was conducted along Off-ROW access roads that appeared to be sufficient for construction access purposes, but had been constructed and permitted only for forestry activities. As the survey progressed, the Project identified several off-ROW access roads that could be dropped from the Project, and no further culvert assessment was conducted for those roads. A complete assessment of the remaining 48 Tier 1, 2, and 3 stream crossing was conducted in accordance with Chapter Env-Wt 900*

*Designs for the replacement, re-installation or repair of 29 culverts at those crossings to meet the standards of the stream rules are attached, along with a check to cover the additional permit application fee. These new stream crossing structures will improve aquatic habitat connectivity and stormwater flow in streams that have had substandard culverts for years.*

10. Review of the Deerfield Substation plans finds that most of the proposed wetland impacts are for two stormwater ponds; 9,037 square feet and 19,196 square feet respectively. Impacts to naturally-occurring wetlands for stormwater treatment and attenuation are typically not allowed. It appears that the substation could be shifted further southwest to avoid these wetland areas. Also, the stormwater ponds could be reconfigured to further reduce impacts.

***Response:** The proposed design submitted for the Deerfield Substation is presently being reviewed. The results of this evaluation will be provided to NHDES by January 25, 2017 following completion of the review and incorporation of data collected from subsurface investigations.*

36. The information in the baseline reports submitted with the application materials may need to be supplemented with additional information depending on the parcel and final easement holder. The DES can provide an example final baseline documentation report (BDR) to be the template used for the final documents. The BDR is signed upon recordation of the conservation easement and a final signed copy submitted to DES.

***Response:*** Northern Pass is pleased to submit a revised Compensatory Mitigation Report, which includes baseline documentation reports (BDRs) that adhere to the template provided by NHDES. These BDRs have been updated from previous submittals to include additional information regarding rare or exemplary plant community types, additional wildlife habitat information, and updated conservation easement deeds that specify reserved rights. One site, previously identified as Site Z2 – the Pemigewasset River Shoreline Site, has been dropped from the mitigation package due to real estate transfer complications associated with its relationship to the generation facilities at Ayers Island Dam. The proposed ARM fund payment amount was increased accordingly for impacts within the Pemigewasset River watershed. Site Z1 (Karner Blue Butterfly site in Concord) has been added to the package, after NH Fish and Game and the US Fish and Wildlife Service agreed that this site provides sufficient habitat conservation value to offset construction impacts to Karner blue butterflies and other state-listed lepidoptera.

39. For the final preservation parcels, final recordable surveys for the parcels will need to be provided for recordation. A Phase 1 site assessment may need to be completed and the parcels may need to be reviewed in the field by DES once the following information is provided:

***Response:*** Recordable surveys have been prepared and were submitted to DES on August 11, 2016, and are again included in the updated Baseline Documentation Reports submitted today. Phase I Site Assessments have been completed for all mitigation sites, and are available to NHDES upon request. Information collected during these site assessments have been included in the BDRs, as appropriate, and any recommended site clean-up tasks, such as removal of debris, were completed, with the exception of removal of buildings or foundations. These will be addressed upon approval of the Project. Specific requests regarding trails, forestry activities, etc. have been included in the conservation easement deeds, as noted above, and these are included in the BDRs. Normandeau accompanied Lori Sommer of NHDES and Rick Kristoff of the USACE on site visits to the mitigation sites on November 30 and December 1, 2016.

## **B. WATERSHED MANAGEMENT BUREAU**

3. With regards to the Pollutant Loading Analyses (PLAs):
- f) The sand filters proposed for Transition Stations 4 and 5 and the Deerfield Substation Expansion have underdrains. Therefore, in accordance with the NH

Stormwater Manual (Vol 1), the BMP removal efficiencies in the PLAs should be 51% for TSS, 33% for TP and 10% for TN . Please revise and resubmit.

***Response:*** *The sand filter for Transition Station 4 is proposed in series with a Detention Basin (Wet Extended Detention Pond). Per Appendix E of the New Hampshire Stormwater Manual, when BMPs are placed in series, the BMP with the highest removal efficiency shall be the efficiency used in the model for computing annual loadings. Therefore, removal efficiencies for the Wet Extended Detention Pond (80% for TSS, 68% for TP and 55% for TN) were used. The PLAs for Transition Station #5 and Deerfield Substation will be revised and provided to NHDES following completion of the review and incorporation of data collected from subsurface investigations.*

- g) Please revise the PLAs in response to the comments above and resubmit for approval.

***Response:*** *The revised PLAs for Transition Stations 2, 3, 4, 6 and Scobie Pond are enclosed. The PLAs for Transition Stations 1 and 5, Franklin Converter Station and Deerfield Substation will be revised and provided to NHDES by January 25, 2017 following completion of the review and incorporation of data collected from subsurface investigations.*

### **C. ALTERATION OF TERRAIN BUREAU**

1. For each of the Stormwater Management Study areas (Franklin Converter Station, Substations, Transition Stations) provide the following:

- d) Delineation of pre- and post-development subcatchments on color-coded hydrologic soil group (HSG) plans.

***Response:*** *Separate color figures have been prepared for each pre- and post-development watershed map that depict the color coded hydrologic soil group delineations and total area of each group in table format. The revised watershed maps for Transition Stations 2, 3, 4, 6 and Scobie Pond are enclosed as Appendix A of the Stormwater Management Studies. The revised watershed maps for Transition Stations 1 and 5, Franklin Converter Station and Deerfield Substation will be provided to NHDES by January 25, 2017 following completion of the review and incorporation of data collected from subsurface investigations.*

- e) Computations of the total area of each hydrologic soil group used in the pre- and post-development hydrologic models.

***Response:*** *These computations were added to the revised watershed plans described in our response to Comment 1d above.*

- f) Infiltration Feasibility Reports for each site where infiltration is a component of the stormwater management.

***Response:*** *Infiltration Feasibility Reports for Transition Stations 2, 3, 6 and Scobie Pond are enclosed as Appendix H of the Stormwater Management Studies. Infiltration Feasibility Reports for Franklin Converter Station and Deerfield Substation will be provided to NHDES by January 25, 2017 following completion of the review and incorporation of data collected from subsurface investigations.*

- h) The estimated seasonal high water table in areas where significant earth cuts or stormwater ponds are proposed.

***Response:*** *The estimated seasonal high water table (ESHWT) elevations at Transition Stations 2, 3, 4, 6 and Scobie Pond are discussed within the geotechnical engineering reports in Section 6.5, Groundwater Conditions, and in the boring logs appended to the reports. The geotechnical reports are included as Appendix H of the Stormwater Management Studies. The geotechnical engineering reports for Transition Stations 1, 5, Franklin Converter Station and Deerfield Substation will be provided to NHDES by January 25, 2017 following completion of the review and incorporation of data collected from subsurface investigations.*

- i) Sediment forebays used to satisfy requirements for pretreatment of stormwater runoff must have a minimum depth of 2 feet. In addition, on sites where multiple forebays are proposed it must be demonstrated that each forebay meets the sizing requirement based upon the specific contributing area.

***Response:*** *At Scobie Pond, forebays 2 and 3 were revised to provide a minimum depth of 2 feet. In addition, a forebay sizing calculation sheet is included within Appendix D of the Stormwater Management Study to document sizing requirements for each of the multiple forebays. Transition Stations 1 and 5, Franklin Converter Station and Deerfield Substation will be reviewed and addressed in a similar manner and submitted to NHDES by January 25, 2017 following completion of the review and incorporation of data collected from subsurface investigations.*

5. For Transition Station #1:

- c) The estimated seasonal high water table in areas where significant earth cuts or stormwater ponds are proposed.

**Response:** *The Applicants are in the process of completing the work and analysis associated with responding to this request, and will submit the result by January 25, 2017.*

- d) The proposed treatment swale needs to be designed with a maximum channel width of 8 feet, and be bermed or otherwise separated from the adjacent roadside.

**Response:** *The revised design will be submitted to NHDES by January 25, 2017 following completion of the review and incorporation of data collected from subsurface investigations.*