



February 10, 2017

Craig Rennie  
NH Department of Environmental Services  
Wetlands Bureau  
29 Hazen Drive  
PO Box 95  
Concord, NH 03302-0095

Re: Northern Pass Wetland Application - Wetland File No. SEC -2-15-02817

Dear Mr. Rennie:

On behalf of Northern Pass Transmission LLC, Normandeau Associates Inc. is submitting at your request this revised wetland impact summary table for your records. The changes to the original (2015) submittal are explained below. These changes, as well as changes in the compensatory mitigation report submitted on December 15, 2016, have been incorporated into the attached Project description.

The original October 2015 wetland permit application for Northern Pass addressed 6,170,053 square feet of impact and included a check for \$ 1,234,210.55. In December 2016, we submitted additional information about 29 culverts that would also need to be replaced, repaired or re-installed to meet stream rules, with associated impacts to 4,253 square feet of wetland and streambed resources, and 1,204 linear feet of streams/banks. The wetland permit application fee for the additional impacts is \$850.60, and a check in this amount was attached to our December 2016 submittal to NHDES.

On January 25, 2017, Normandeau submitted plans with structure, work pad and access road revisions that reduced impacts. Most of these changes were in response to data request #9 in your May 2016 progress report to the SEC. The January cover letter accompanying the revised plans indicated that temporary impacts were reduced by 76,009 sf and permanent impacts were reduced by 732 sf. We have since determined that the temporary impact reduction included 436 sf of ephemeral streams for matted crossings. As discussed with you by phone on February 9, 2017, temporary crossings of ephemeral streams do not require a permit, and they were never included in the original wetland application fee worksheet (although they were included in our Wetlands, Rivers, Streams, and Vernal Pools Resource Report and Impact Analysis, October 2015). Accordingly, the revised fee worksheet will not reflect temporary impact reductions to ephemeral streams.

As you pointed out in that February 9, 2017 phone call, however, permanent impacts to ephemeral streams should be included in our impact fee worksheet, and we have now added the 15 sf of permanent ephemeral stream impacts (for nicks by structure foundations at two locations) to the worksheet, as these were omitted in our October 2015 submittal. The 15 sf impact was added to the intermittent stream impact quantity. In reality, these locations are likely to be avoided during construction.

Finally, we have also subtracted the \$200.00 that was included in the original application fee on the line for projects proposing shoreline structures, as this was an error.

The fee worksheets for both the additional culvert impacts and the design impact reductions are attached, along with a revised worksheet for the total requested impact quantity for the Northern Pass Project. The total impact area is now 6,098,016 square feet (5,985,440 sf temporary and 112,576 sf permanent) and the total fee is \$ 1,219,603.20. This fee is \$15,457.95 less than the total wetland application fees paid to NHDES for the Northern Pass Project.

Please feel free to call me with any additional questions. Thank you very much for your assistance with this application.

Sincerely,



Lee E. Carbonneau, CWS, PWS  
Normandeau Associates, Inc.  
as agent for:  
Northern Pass Transmission, LLC.

Attach.

Cc: Lori Sommer, NH DES  
David Keddell, US Army Corps of Engineers  
Kevin McCune, Eversource Energy  
Pamela G. Monroe, SEC Administrator

**14. IMPACT AREA: for the additional impacts associated with ORAR culvert replacements, repairs and re-installations only submitted on December 15, 2016.**

JURISDICTIONAL AREA	PERMANENT	TEMPORARY
Forested wetland	86 <input type="checkbox"/>	0 <input type="checkbox"/>
Scrub-shrub wetland	270 <input type="checkbox"/>	0 <input type="checkbox"/>
Emergent wetland	0 <input type="checkbox"/>	0 <input type="checkbox"/>
Wet meadow	234 <input type="checkbox"/>	0 <input type="checkbox"/>
Intermittent stream	1487 <input type="checkbox"/>	0 <input type="checkbox"/>
Perennial Stream / River	2176 / 158 <input type="checkbox"/>	0 / 0 <input type="checkbox"/>
Lake / Pond	0 / 0 <input type="checkbox"/>	0 / 0 <input type="checkbox"/>
Bank - Intermittent stream	incl. above / incl. above <input type="checkbox"/>	0 / 0 <input type="checkbox"/>
Bank - Perennial stream / River	incl. above / incl. above <input type="checkbox"/>	0 / 0 <input type="checkbox"/>
Bank - Lake / Pond	0 / 0 <input type="checkbox"/>	0 / 0 <input type="checkbox"/>
Tidal water	0 / 0 <input type="checkbox"/>	0 / 0 <input type="checkbox"/>
Salt marsh	0 <input type="checkbox"/>	0 <input type="checkbox"/>
Sand dune	0 <input type="checkbox"/>	0 <input type="checkbox"/>
Prime wetland	0 <input type="checkbox"/>	0 <input type="checkbox"/>
Prime wetland buffer	0 <input type="checkbox"/>	0 <input type="checkbox"/>
Undeveloped Tidal Buffer Zone (TBZ)	0 <input type="checkbox"/>	0 <input type="checkbox"/>
Previously-developed upland in TBZ	0 <input type="checkbox"/>	0 <input type="checkbox"/>
Docking - Lake / Pond	0 <input type="checkbox"/>	0 <input type="checkbox"/>
Docking - River	0 <input type="checkbox"/>	0 <input type="checkbox"/>
Docking - Tidal Water	0 <input type="checkbox"/>	0 <input type="checkbox"/>
<b>TOTAL</b>	<b>4253 / 158</b>	<b>0 / 0</b>

**15. APPLICATION FEE:** See the Instructions & Required Attachments document for further instruction

Minimum Impact Fee: Flat fee of \$ 200

Minor or Major Impact Fee: Calculate using the below table below

Permanent and Temporary (non-docking)	<u>4253</u> sq. ft.	X	\$0.20	<u>\$ 850.60</u>
Temporary (seasonal) docking structure:	_____ sq. ft.	X	\$1.00	<u>\$</u>
Permanent docking structure:	_____ sq. ft.	X	\$2.00	<u>\$</u>
<b>Projects proposing shoreline structures (including docks) add \$200 =</b>				<u>\$</u>
			Total =	<u>\$ 850.60</u>
The Application Fee is the above calculated Total or \$200, whichever is				<u>\$ 850.60</u>

**14. IMPACT AREA: for the impact reductions associated with design modifications only submitted on January 25, 2017.**

JURISDICTIONAL AREA	PERMANENT	TEMPORARY
Forested wetland	-682 <input type="checkbox"/>	-40,389 <input type="checkbox"/> ATF
Scrub-shrub wetland	1 <input type="checkbox"/>	-20,425 <input type="checkbox"/> ATF
Emergent wetland	0 <input type="checkbox"/>	0 <input type="checkbox"/> ATF
Wet meadow	-47 <input type="checkbox"/>	-13,815 <input type="checkbox"/> ATF
Intermittent stream	-4 <input type="checkbox"/>	-395 <input type="checkbox"/> ATF
Perennial Stream / River	0 / 0 <input type="checkbox"/>	-549 / -6 <input type="checkbox"/> ATF
Lake / Pond	0 / 0 <input type="checkbox"/>	0 / 0 <input type="checkbox"/> ATF
Bank - Intermittent stream	incl. above / incl. above <input type="checkbox"/>	0 / 0 <input type="checkbox"/> ATF
Bank - Perennial stream / River	incl. above / incl. above <input type="checkbox"/>	0 / 0 <input type="checkbox"/> ATF
Bank - Lake / Pond	0 / 0 <input type="checkbox"/>	0 / 0 <input type="checkbox"/> ATF
Tidal water	0 / 0 <input type="checkbox"/>	0 / 0 <input type="checkbox"/> ATF
Salt marsh	0 <input type="checkbox"/>	0 <input type="checkbox"/> ATF
Sand dune	0 <input type="checkbox"/>	0 <input type="checkbox"/> ATF
Prime wetland	0 <input type="checkbox"/>	0 <input type="checkbox"/> ATF
Prime wetland buffer	0 <input type="checkbox"/>	0 <input type="checkbox"/> ATF
Undeveloped Tidal Buffer Zone (TBZ)	0 <input type="checkbox"/>	0 <input type="checkbox"/> ATF
Previously-developed upland in TBZ	0 <input type="checkbox"/>	0 <input type="checkbox"/> ATF
Docking - Lake / Pond	0 <input type="checkbox"/>	0 <input type="checkbox"/> ATF
Docking - River	0 <input type="checkbox"/>	0 <input type="checkbox"/> ATF
Docking - Tidal Water	0 <input type="checkbox"/>	0 <input type="checkbox"/> ATF
<b>TOTAL</b>	<b>-732 / 0</b>	<b>-75,573 / -6</b>

**15. APPLICATION FEE:** See the Instructions & Required Attachments document for further instruction

Minimum Impact Fee: Flat fee of \$ 200

Minor or Major Impact Fee: Calculate using the below table below

Permanent and Temporary (non-docking)	<u>-76.305</u> sq.	X	\$0.20	<u>\$ -15,261</u>
Temporary (seasonal) docking structure:	_____ sq. ft.	X	\$1.00	<u>\$ _____</u>
Permanent docking structure:	_____ sq. ft.	X	\$2.00	<u>\$ _____</u>

**Projects proposing shoreline structures (including docks) add \$200 =** \$ \_\_\_\_\_

Total = \$ -15,261

The Application Fee is the above calculated Total or \$200, whichever is \$ -15,261

<b>14. IMPACT AREA - For the entire Northern Pass project, addressing changes for new culvert-related impacts, design modifications, and other minor edits* .</b>				
<b>JURISDICTIONAL AREA</b>	<b>PERMANENT</b>		<b>TEMPORARY</b>	
Forested wetland	75,080	<input type="checkbox"/>	740,790	<input type="checkbox"/> ATF
Scrub-shrub wetland	11,944	<input type="checkbox"/>	2,928,925	<input type="checkbox"/> ATF
Emergent wetland	see Wet Meadow	<input type="checkbox"/>	see Wet Meadow	<input type="checkbox"/> ATF
Wet meadow	20,773	<input type="checkbox"/>	2,162,876	<input type="checkbox"/> ATF
Intermittent stream	2,469	<input type="checkbox"/>	33,459	<input type="checkbox"/> ATF
Perennial Stream / River	2176 / 160	<input type="checkbox"/>	54,282 / 20,754	<input type="checkbox"/> ATF
Lake / Pond	134 / 0	<input type="checkbox"/>	65108 / 0	<input type="checkbox"/> ATF
Bank - Intermittent stream	incl. above / incl. above	<input type="checkbox"/>	incl. above / spanned	<input type="checkbox"/> ATF
Bank - Perennial stream / River	incl. above / incl. above	<input type="checkbox"/>	incl. above / spanned	<input type="checkbox"/> ATF
Bank - Lake / Pond	incl. above / incl. above	<input type="checkbox"/>	incl. above / spanned	<input type="checkbox"/> ATF
Tidal water	0 / 0	<input type="checkbox"/>	0 / 0	<input type="checkbox"/> ATF
Salt marsh	0	<input type="checkbox"/>	0	<input type="checkbox"/> ATF
Sand dune	0	<input type="checkbox"/>	0	<input type="checkbox"/> ATF
Prime wetland	0	<input type="checkbox"/>	0	<input type="checkbox"/> ATF
Prime wetland buffer	0	<input type="checkbox"/>	0	<input type="checkbox"/> ATF
Undeveloped Tidal Buffer Zone (TBZ)	0	<input type="checkbox"/>	0	<input type="checkbox"/> ATF
Previously-developed upland in TBZ	0	<input type="checkbox"/>	0	<input type="checkbox"/> ATF
Docking - Lake / Pond	0	<input type="checkbox"/>	0	<input type="checkbox"/> ATF
Docking - River	0	<input type="checkbox"/>	0	<input type="checkbox"/> ATF
Docking - Tidal Water	0	<input type="checkbox"/>	0	<input type="checkbox"/> ATF
<b>TOTAL</b>	<b>112,576 / 160</b>		<b>5,985,440 / 20,754</b>	

**15. APPLICATION FEE:** See the Instructions & Required Attachments document for further instruction

Minimum Impact Fee: Flat fee of \$ 200

Minor or Major Impact Fee: Calculate using the below table below

Permanent and Temporary (non-docking)	<u>6,098,016</u> sq.	X	\$0.20 =	<u>\$ 1,219,603.20</u>
Temporary (seasonal) docking structure:	_____ sq. ft.	X	\$1.00 =	<u>\$</u>
Permanent docking structure:	_____ sq. ft.	X	\$2.00 =	<u>\$</u>
<b>Projects proposing shoreline structures (including docks) add \$200 =</b>				<u>\$ 0</u>
			Total =	<u>\$ 1,219,603.20</u>
				<u>\$ 1,219,603.20</u>

The Application Fee is the above calculated Total or \$200, whichever is greater = \_\_\_\_\_

\*This sheet includes the addition of 15 sf of permanent ephemeral stream impacts, and the subtraction of the \$200 fee for shoreline structures, as well as increases for the culvert replacement impacts, and reductions for the design modifications.

PROJECT DESCRIPTION:

Dredge and fill ~~108,069~~107,797 square feet (~~2.48~~2.47 acres) of palustrine wetlands, ~~986~~4,645 square feet (~~0.02~~11 acres) of intermittent and perennial streams impacting ~~272~~707 linear feet, and 1,208 square feet (0.03 acres) within 4 vernal pools to construct an electrical transmission line and associated substations and transition stations, that will deliver 1,090 megawatts of hydroelectric energy 192 miles from the international border between Canada and Pittsburg, New Hampshire to Deerfield, New Hampshire. The project will also replace or repair 29 deficient culverts on proposed construction access roads. The project will also temporarily impact ~~5,972,328~~5,832,591 square feet (~~137.11~~133.9 acres) of palustrine wetlands, ~~112,273~~87,741 square feet (~~2.58~~2.01 acres) of intermittent and perennial streams impacting ~~26,476~~30,389 linear feet, and ~~12,056~~9,354 square feet (~~0.28~~0.21 acres) within ~~42~~40 vernal pools, ~~3~~1 of which ~~are~~is considered high quality. Compensatory mitigation for wetland impacts includes the preservation of approximately ~~1,654~~1,621 acres of land divided among eight sites comprised of ~~17~~16 parcels located in the towns of Pittsburg, Clarksville, Dixville, Columbia, Stewartstown, ~~New Hampton~~ and Pembroke. High elevation habitat of 220 acres of forest land above elevation 2,500 feet and 77 acres above 2,700 feet will be protected through a conservation easement. A 6.9-acre parcel within the Concord Pine Barrens area for increasing Karner blue butterfly habitat will also be provided as a component of the mitigation plan.

Compensation for impacts in the Salmon Falls-Piscataqua, Pemigewasset, Upper Androscoggin and Middle Connecticut River service areas include a one-time payment into the Aquatic Resource Mitigation (ARM) Fund payment of ~~\$3,070,336.34~~\$3,379,280.59. The complete mitigation package shall be carried out in accordance with the Northern Pass Transmission Project Natural Resource Compensatory Mitigation Plan prepared by Normandeau Associates, Inc. dated ~~April~~December 2016 and received by DES on ~~April~~December 15, 2016.

Additional compensatory mitigation measures includes a partnership with the National Fish and Wildlife Foundation (NFWF) and Northern Pass and Eversource for providing \$3,000,000 of funding over a three-year period for science-based conservation projects with the goal of restoring and sustaining healthy forests and rivers in the state.

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