BCM Environmental & Land Law, PLLC
Solutions for Northern New England

April 21, 2016

Via Email and U.S. Mail
Department of Environmental Services
Attn: Craig D. Rennie
craig.rennie@des.nh.gov
29 Hazen Drive
Concord, NH 03301

Re: Wetland File No. SEC -2-15-02817
Northern Pass Transmission, LLC and Public Service Company of New Hampshire d/b/a Eversource Energy
Request to Deny Wetlands Permit Application

Mr. Rennie,

We write on behalf of our client, the Society for the Protection of New Hampshire Forests ("Forest Society"), to respectfully request that the Department make a final decision to not authorize the "Application for State of New Hampshire Department of Environmental Services Wetlands Permit For Major Dredge and Fill Project for the Northern Pass Transmission Project New Hampshire" ("Wetlands Application").

As you know, we have also written you with respect to information that the application lacks. Even if those information deficiencies are corrected, the Department of Environmental Services ("Department") should decide to not authorize the wetlands permit because of the following three substantive deficiencies. First, with over 141 acres of wetland impacts, the project, as currently proposed, does not demonstrate need, as required by Env-Wt 302.01(b) and 302.04(a)(1). Second, the project, as currently proposed, is not the alternative which avoids the maximum amount of wetland practicable, as required by Env-Wt 302.03(a)(1) and 302.04(a)(2). Third, the project, as currently proposed, fails to minimize impacts as required by Env-Wt 302.03(a)(2).

As part of the SEC process, the Department has a key role in deciding those portions of SEC applications within the Department's permitting jurisdiction. In particular, the law requires that "[a]ll state agencies having permitting or other regulatory authority shall make and submit to the committee a final decision on the parts of the application that relate to its permitting and other regulatory authority." RSA 162-H:7, VI(c). Accordingly, the SEC process requires the Department to submit to the SEC "a final decision" on the joint applicants' wetlands permit application. The SEC shall then "incorporate in any certificate such terms and conditions as may be specified" by the Department. RSA 162-H:16, I. However, the SEC "shall not issue any certificate" of site if the Department "denies authorization for the proposed activity over which it has permitting or other regulatory authority." Id. It is in this context of the Department being required to decide the wetlands permit application that the Forest Society raises its

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concerns to you and respectfully requests that the Department submit to the SEC a final decision to not authorize the wetlands permit.

Following is a brief summary of our rationale and a brief explanation of the Forest Society's interest. The remainder of the letter is a detailed description supporting our conclusions.

In summary, buried alternatives impact wetlands far less than the proposed configuration. Underground portions of the proposed configuration impact wetlands far less than overhead portions. Other projects demonstrate the viability and reduced water resource and wetlands impacts of burial. Burial decreases permanent impacts to wetlands functions and values. Consequently, the project, as currently proposed, may not be permitted because it does not demonstrate need, is not the least-impacting alternative, and does not minimize impacts.

As described in detail in our letter of the same date requesting more information, the Forest Society is duty-bound to protect its extensive property and conservation interests on and near the proposed route of the Northern Pass project.

1. Buried Alternatives Impact Wetlands Far Less than Proposed Alternative

The "Draft Northern Pass Transmission Line Project Environmental Impact Statement Supplement" (DEIS)[1] analyzed 12 project alternatives. Under the Department of Energy analysis, the proposed project (Alternative 7) indicates wetland impacts of 95 acres of direct, temporary, and secondary wetland impacts. Six of the other alternatives disturb less wetland than the proposed alternative. As shown in Table 1 below, Alternatives 4a, 4b, and 4c (underground in roadway corridors) impact 10.1, 10.3, and 10.1 acres of wetland respectively. This represents a 9-fold decrease in wetland impacts from the proposed configuration.

Table 1
Comparison: Wetland Impacts (acres)

Water Resource Summary Impacts (Table 19)	Proposed Alternative (7)	Alternative 4a	Alternative 4b	Alternative 4c
Wetland Direct	23	2	2	2
Wetland Temporary	65	8	8	8
Wetlands Secondary	7	<.1	.3	<.1
Vernal Pools	<.1	None	None	None

Source: US Department of Energy, *Draft Northern Pass Transmission Line Project Environmental Impact Statement Supplement,* 11/2015, Table 19.

[1] US Department of Energy, Draft Northern Pass Transmission Line Project Environmental Impact Statement Supplement, November, 2015.

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The draft DEIS also analyzes a number of other environmental impacts, some of which relate to wetland functions and values. As shown in Table 2, most of the impacts are significantly less in the bury alternatives (Alternatives 4a, 4b, and 4c) than in the proposed configuration.

Table 2
Comparison: Potential Environmental Impact (acres)

Potential Impacts	Proposed Alternative	Alternative 4a	Alternative 4b	Alternative 4c
Total ground disturbance	1019	275	292	291
Overlying Aquifers	382	216	226	219
Disturbance in Flood Zones	1124	255	272	262
Wildlife Habitat Impacts	1019	253	270	261
Vegetated Habitat Impacts	882	230	243	228
Land Use Conversion	454	28	28	28
Disturbance of Farmland	227	105	115	119

Source: U.S. Department of Energy, *Draft Northern Pass Transmission Line Project Environmental Impact Statement Supplement*, 11/2015 (Total Ground Disturbance: Table 20; Overlying Aquifers: Table 19; Disturbance in Flood Zones: Table 19; Wildlife Habitat Impacts: Table 15; Vegetated Habitat Impacts: Table 17; Land Use Conversion: Table 9; Farmland: Table 20).

2. Underground Portions of Proposed Configuration Impact Far Less Than Overhead Portions

The alternatives that disturb the smallest amount of wetland and have the least impact on wetland functions and values are those that bury the entire line along existing roadway corridors. This is shown not only in the DEIS alternatives analysis but also in the wetlands application and the proposed project plans submitted by the applicant.

Table 3 on the following page compares the wetland impacts within two sections of the proposed transmission line: Section UG-Central is the 52.3 mile section proposed to be buried within roadway corridors from Bethlehem to Bridgewater. Section N2 is the 30.2 mile section just to the north, which is proposed to be overhead and above ground within the existing PSNH d/b/a Eversource right-of-way.

In every wetland impact category the buried section minimizes and often avoids wetland impacts. On a per mile basis the total wetland impacts, when buried, are 71 square feet per mile compared to 90,828 square feet per mile overhead. Table 4 on the following page summarizes the secondary wetland impacts for the same two sections as submitted as part of the application.

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Table 3
Comparison: Wetland Impacts for Buried versus Above Ground

Wetland Impacts	Section N2- (Over-head)	Section UG-Central (Under-ground)	Section N2 (Over-head) per mile	Section UG-Central (Underground) per mile
Section Length (Miles)	30.2	52.3	-	-
Permanent Wetland Impacts (SF)	6,518	0	215.8	0
Temporary Impacts (SF)	2,718,940	0	90,031	0
Permanent Stream Impacts (SF)	0	0	0	0
Temporary Stream Impacts (SF)	14,531	3722	481	71
Permanent Vernal Pool Impacts (SF)	20	0	0.66	0
Temporary Vernal Pool Impacts (SF)	2,996	0	99.2	0
Total Wetland Impacts (SF)	**2,743,005**	**3,722**	**90,828**	**71**

Source: Table 90, "Northern Pass Transmission Project Wetlands, Rivers, Streams, and Vernal Pools Resource Report and Impact Analysis," Normandeau Associates, October 1, 2015.

For each secondary impact shown the wetland impacts related to the buried sections are either zero or substantially less than the proposed project.

When discussing the Section UG-Central portion, the joint applicants themselves extol the advantages of burying the transmission lines: "This substantially reduces impacts on sensitive plant communities, wildlife habitat, wetlands, and streams along that entire stretch of the route"[2] and "… reduced direct, permanent wetland impacts by approximately 0.6 acres, reduced temporary impacts by over 30 acres, and reduced secondary impact to wetlands, stream and vernal pools by over 70 acres."[3]

[2] Normandeau Associates Inc., *Northern Pass Project Natural Resource Mitigation Plan*, 10/2015, page 2-2.
[3] Normandeau Associates Inc., *Northern Pass Project Natural Resource Mitigation Plan*, 10/2015, page 2-2.

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Table 4
Comparison: Secondary Wetland Impacts

Secondary Wetland Impacts	Section N2 (Over-head)	Section UG-Central (Under-ground)	Section N2 (Over-head) per mile	Section UG-Central (Underground) per mile
Forest Wetland Conversion (SF)	24,628	0	815	0
Temporary Impacts to Deep Organic Soils(SF)	1,166,183	0	38,615	0
Clearing within 1000 foot Vernal Pool Buffer(SF)	39,616	0	1,312	0
Clearing within 1000 foot Stream Buffer(SF)	110,701	0	3,666	0

Source: Table 91, "Northern Pass Transmission Project Wetlands, Rivers, Streams, and Vernal Pools Resource Report and Impact Analysis", Normandeau Associates, October 1, 2015.

3. Other Projects Demonstrate Viability and Reduced Impacts of Burial

A buried, high voltage direct current ("HVDC") electric transmission line has received state and federal wetlands permits in Vermont[4] and has been shown to have much less wetland impact than the proposed Northern Pass project, both overall and on a per mile basis. The proposed Clean Power Link Project is 154 miles in length. The project involves 97 miles to be laid under Lake Champlain. The under-lake portion of the project does not need a Vermont wetlands permit. The remaining 57 miles is to be buried under land within existing roadways, rather than constructed overhead in new or existing utility rights-of-way.

As shown in Table 5 on the following page, the Clean Power Link wetland permit calls for no permanent wetland impacts along the entire 57 miles and approximately 2.29 acres of temporary wetland and wetland clearing impacts (1,755 square feet per mile) compared to 139 acres (31,567 square feet per mile) for Northern Pass, as proposed. Additionally, the project recently obtained an individual permit from the U.S. Army Corp of Engineers which allows 4.5 acres of temporary wetland impacts and 1.43 acres of temporary stream bottom impacts with no permanent impacts.[5] This compares to NP's proposed federal wetland impacts of 2.53 acres of permanent impact to wetlands and streams and 139.96 acres of temporary impacts.

[4] VT Agency of Natural Resources, Individual Permit, File 2013-280, Approved 11/23/2015.
[5] US Army Corps of Engineers, Region 1, Wetland Permit No. NAE-2-13-2689, January 29, 2016.

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Table 5
Comparison: Clean Power Link and Northern Pass (Square Feet)

Wetland Impacts	Clean Power Link-57 miles buried	Clean Power Link - Wetland Impacts per mile	Northern Pass Proposed-192 miles overhead/buried	Northern Pass - Wetland Impacts per mile
Permanent (fill)	0	0	109,040	568
Temporary (wetland and wetland clearing)	100,039	1,755	6,061,013	31,568

Source: Table 3, Individual Wetland Permit #2013-280; Champlain VT, LLC; VT Agency of Natural Resources, 11/23/15. Vermont buffer impacts (480,133 square feet) not included.

Thus, on a per mile basis, the proposed Vermont project avoids all permanent wetland impacts and substantially more temporary impacts by burying the entire line.

4. Burial Decreases Permanent Impacts to Wetland Functions and Values

With regard to wetland functions and values, the proposed project is not the least impacting alternative for the majority of the 13 functions and values considered. According to the joint applicants, no principal wetland functions and values are permanently impacted in the buried Section UG Central.[6] In the above ground Section N2, of the 13 wetland functions evaluated, 12 have permanent impacts including: groundwater recharge, floodflow, fish and shellfish habitat, sediment/toxicant retention, nutrient removal, production export, sediment/shoreline stabilization, wildlife habitat, recreation, uniqueness/heritage, visual quality aesthetics, and endangered species habitat.[7] Burying the line in road rights-of-way not only decreases the number of wetland impact sites and extent; it also significantly decreases impacts to wetland functions and values

5. Conclusion

Burying the entire proposed transmission line within existing public roadways is by far the least impacting alternative for the Northern Pass project. Of course, burying the line with blasting and/or trenching must be done with care. Nevertheless, whether directional drilling, trenching, and even if blasting is needed, burial along existing transportation corridors will have less wetlands and environmental impacts than would the placement of the transmission line on towers above ground within existing and new utility rights-of-way.

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[6] Normandeau Associates Inc., *Northern Pass Transmission Project Wetlands, Rivers, Streams, and Vernal Pools Resources Report and Impact Analysis*, October, 2015. Section 4.7.1, page 4-25

[7] Normandeau Associates Inc. , *Northern Pass Transmission Project Wetlands, Rivers, Streams, and Vernal Pools Resources Report and Impact Analysis*, October, 2015, Section 4.5.1, Table 46.

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Even with the limited burial proposed, the project still calls for the disturbance of 1,011 acres of land and the impacting of over 141 acres (6,061,013 square feet) of wetlands and streams. If the entire line was buried, assuming similar overall impacts on a per mile basis as shown above for Section UG-Central, wetland impacts could be reduced from 141 acres to 10 acres or less and overall land disturbance could be reduced from 1.011 acres to less than 300 acres—and these impacts would occur along existing roadways. This would represent a two-thirds reduction in land disturbance and possibly a 90% or more reduction in total wetland impacts. The configuration that maximizes avoidance of and minimizes impacts to wetlands and has the least environmental impacts is the alternative that buries the entire line in road right-of-ways. The Joint Applicants have not shown any need for the impacts their current proposal would create.

As noted in our letter to you of the same date, we respectfully request to meet with you next week to discuss the concerns we have raised.

Very truly yours,

Ray D. Lobdell, CWS, CSS

Amy Manzelli, Esq.

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