



The State of New Hampshire
Department of Environmental Services

Clark B. Freise, Assistant Commissioner



March 1, 2017

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

Re: Joint Application of Northern Pass Transmission, LLC and Public Service Company of
New Hampshire d/b/a Eversource Energy
Site Evaluation Committee (SEC) Docket No. 2015-06

Dear Ms. Monroe:

This letter is to notify you that the NH Department of Environmental Services (DES) Water Division staff have completed their technical review of the application and have made a final decision on the parts of the application that relate to DES permitting or regulatory authority relative to a Wetland permit, Alteration of Terrain permit, 401 Water Quality Certificate, and Shoreland permits. DES recommends approval of the application with the conditions that are enclosed with this letter.

This concludes DES review of the project which we hope will assist the SEC to complete its project evaluation process and render a final decision. If you have any questions, please contact me at 271-2951 or email at: Rene.Pelletier@des.nh.gov

Sincerely,

Rene Pelletier, PG
Assistant Director
Water Division

cc: Michael J. Iacopino, Counsel SEC
ec: Robert P. Clark, Eversource, Applicant
Kevin F. McCune, Eversource, Applicant
Lee Carbonneau, Normandeau Associates, Inc.
George Dana Bisbee, Devine Millimet
Clark Freise, Asst. Commissioner, DES
Gene Forbes, Water Division Director, DES
David Keddell, ACOE
Mark Kern, EPA
Amy Lamb, NHB
Carol Henderson, NHFG

NORTHERN PASS, NHSEC DOCKET #2015-06
WETLANDS BUREAU
MARCH 1, 2017 FINAL DECISION

RECOMMEND APPROVAL WITH THE FOLLOWING PERMIT CONDITIONS:

PROJECT DESCRIPTION:

Dredge and fill 107,797 square feet (2.47 acres) of palustrine wetlands, 4,645 square feet (0.11 acres) of intermittent and perennial streams impacting 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 and repair 29 existing deficient culverts on proposed construction access roads. In addition, the project will temporarily impact 5,832,591 square feet (133.9 acres) of palustrine wetlands, 87,741 square feet (2.01 acres) of intermittent and perennial streams impacting 30,389 linear feet, and 9,354 square feet (0.21 acres) within 40 vernal pools, 1 of which is considered high quality.

Compensatory mitigation for wetland impacts includes the preservation of approximately 1,621 acres of land divided among eight sites comprised of 16 parcels located in the towns of Pittsburg, Clarksville, Dixville, Columbia, Stewartstown 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 protected 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 payment into the Aquatic Resource Mitigation (ARM) Fund of \$3,379,280.59. 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.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with revised wetland impact plans by Normandeau Associates dated May 2016, as received by the NH Department of Environmental Services (DES) on May 10, 2016, and the revised plan sheets submitted by the Permittee on December 14, 2016 and January 25, 2017.
2. All work shall follow the construction and operational standards, and time of year restrictions as detailed on the Wetland Plan Note Sheets (4 pages) dated January 24, 2017 and as revised on February 28, 2017 and March 1, 2017; as described on Sheet 1 as "General/Erosion & Sediment Control Notes/Construction Monitoring Notes"; as described on Sheet 2 as "Plant Protection Avoidance and Minimization Measures"; as described on Sheet 3 as "Wetland Restoration Notes/Standing Water Construction Notes"; and as described on Sheet 4 as "Avoidance and Minimization Measures/Time of Year Restrictions for Wildlife Resources, by Resource".
3. This permit is not valid unless an Alteration of Terrain permit or other method of compliance with RSA 485-A:17 and Env-Wq 1500 is achieved.
4. All development activities associated with this project shall be conducted in compliance with applicable requirements of RSA 483-B and Env-Wq 1400 during and after construction.

5. This permit is not valid until the Permittee/owner obtains construction easements on abutting parcels or written permission from abutting property owners if work is beyond the right-of-way (ROW). The Permittee shall submit a copy of each recorded easement to the DES Wetlands Program prior to construction.
6. This permit is contingent on review and approval by the DES Wetlands Program of all final stream diversion plans and associated erosion controls when necessary for stream impact areas. Those plans shall detail the timing and method of stream flow diversion during construction, and show temporary siltation/erosion/turbidity control measures to be implemented.
7. Prior to tree clearing, site preparation or project construction, the Permittee shall coordinate with the NH Fish and Game Department (NHFG) to finalize the Wildlife Avoidance and Minimization Measures and Time of Year Restrictions for protected wildlife and all rare, threatened, endangered species found to be associated with the project, which provide the best resource protection timing requirements practicable as agreed to by the agency and in consideration of the seasonal temperature variations, logistics, and project schedule. The Wildlife Avoidance and Minimization Measures and Time of Year Restrictions shall be submitted to DES for review and approval and shall be implemented by the Permittee.
8. Prior to tree clearing, site preparation and project construction, the Applicant shall coordinate with NHFG to establish protocols for encounters with any rare, threatened, or endangered species during the project. The Permittee shall submit the protocols to DES for review and approval and shall implement the approved protocols.
9. Prior to and during construction, the Permittee shall notify and coordinate with the NH Natural Heritage Bureau (NHB) regarding the need for any additional monitoring requirements or avoidance measures that may be necessary to minimize potential impacts to sensitive species.
10. All seed mixes and plantings used for restoration activities shall be reviewed and approved by the NHB prior to their use.
11. Not less than 5 state business days prior to starting work authorized by this permit, the Permittee shall notify the DES Wetlands Program and the local conservation commission in writing of the date on which work under this permit is expected to start.
12. Prior to construction, all wetland and surface water boundaries adjacent to construction areas shall be clearly marked to prevent unintentional encroachment on adjacent wetlands and surface waters.
13. The Permittee shall develop and implement a water quality monitoring program in accordance with requirements established by the DES Watershed Management Bureau.
14. No person undertaking any activity shall cause or contribute to, or allow the activity to cause or contribute to, any violations of the surface water quality standards in RSA 485-A and Env-Wq 1700, unless specifically authorized by the DES Watershed Management Bureau.
15. Any further alteration of areas that are subject to RSA 482-A jurisdiction will require a new application and further permitting.
16. Appropriate siltation/erosion/turbidity controls shall be in place prior to construction, shall be maintained during construction, and shall remain until the area is stabilized. Temporary controls shall be removed once the area has been stabilized.
17. Work shall be conducted in a manner so as to minimize turbidity and sedimentation to surface waters and wetlands.
18. All dredged and excavated material and construction-related debris shall be placed outside of the areas subject to RSA 482-A. Any spoil material deposited within 250 feet of a surface water shall comply with RSA-483-B.

19. The contractor responsible for completion of the work shall use techniques described in the New Hampshire Stormwater Manual, Volume 3, Erosion and Sediment Controls During Construction (December 2008).
20. Erosion control products shall be installed per manufacturers recommended specifications.
21. Proper headwalls shall be constructed over the ends of the upgraded culverts within seven days of culvert installation.
22. DES shall be notified of any additional laydown areas that are needed for construction purposes. Additional laydown areas must be reviewed and approved by DES prior to any such activity if DES permit requirements are triggered.
23. DES shall be notified of any additional work pads that are needed for construction purposes. Any additional work pads shall be reviewed and approved by DES prior to any such activities if DES permit requirements are triggered.
24. Authorized in-stream work shall be carried out such that there are no discharges in or to fish spawning or nursery areas during spawning seasons. Impacts shall be avoided or minimized to the maximum extent practicable during all other times of the year.
25. All in-stream work shall be conducted during low flow or dry conditions to the extent practicable and in a manner that will not cause or contribute to any violations of surface water quality standards in RSA 485-A or NH Code Admin. Rules Env-Wq 1700.
26. Extreme precautions shall be taken within riparian areas to prevent unnecessary removal of vegetation during construction. Areas cleared of vegetation must be stabilized and revegetated with native species within three days of the completion of the disturbance.
27. The contractor shall restore stream banks to their original grades and to a stable condition with plantings within three days of completion of construction. Angular rock shall not be used unless it is on the approved plans. Any planting of shrubs and other woody vegetation must be completed at the first seasonally appropriate opportunity following completion of construction.
28. Riverbank and stream bank stabilization areas shall have at least 75% successful establishment of wetlands vegetation after two (2) growing seasons, or shall be replanted and re-established in a manner satisfactory to DES.
29. Work within emergent marsh areas shall be carried out in a time and manner to avoid disturbances to migratory waterfowl breeding and nesting areas.
30. Tree removal in wetland areas that are inaccessible by forestry equipment staged in upland areas shall be done in winter under frozen conditions or by hand.
31. All temporary crushed-stone fords and culverts installed along the ROW shall be removed immediately following completion of the project.
32. The contractor shall re-grade temporary wetland impacts to pre-construction conditions and seed native plant species similar to those within the wetland prior to impact. The Permittee shall implement corrective measures if needed to ensure the plantings survive.
33. The Permittee or Permittee's contractor shall properly restore and monitor the temporary wetland impact areas. If monitoring reveals that restoration has failed, remedial measures shall be done to reestablish wetlands functions at the site. Such remedial measures may include replanting, relocating plantings, removal of invasive species, changing soil composition and depth, changing the elevation of the wetland surface, and changing the hydrologic regime.
34. Seed mix within the restoration area shall be a wetland seed mix appropriate to the area and shall be applied in accordance with manufacturers' specifications.
35. The Permittee shall notify the DES Wetlands Program in writing of the certified wetlands scientist or qualified professional, as applicable, who will be responsible for monitoring and ensuring that the

restoration areas are constructed in accordance with the approved plans. The Permittee shall re-notify the DES Wetlands Program if the identity of the individual changes during the project.

36. A certified wetlands scientist or qualified professional, as applicable, shall monitor the project during construction to verify that all work is done in accordance with the approved plans and narratives, adequate siltation and erosion controls are properly implemented, and no water quality violations occur. A report including photographs of all stages of construction shall be submitted to the DES Wetlands Program within 60 days of final site stabilization, in accordance with construction schedule phasing. Similar inspections, reports and restoration work shall be undertaken in at least the first, second and third full growing seasons following the completion of each restoration site.
37. All temporary access roads installed along the 192 mile project not otherwise authorized by DES shall be removed and areas shall be restored to their pre-construction condition upon completion.
38. Restoration of temporary impact areas shall have at least 75% successful establishment of wetlands vegetation after two (2) growing seasons, or they shall be replanted and re-established until a functional wetland is replicated in a manner satisfactory to the DES Wetlands Program.
39. Restoration of temporary impact areas shall not be considered successful if sites are invaded by nuisance species such as common reed or purple loosestrife during the first full growing season following the completion of construction. The Permittee shall submit a remediation plan to DES that proposes measures to eradicate nuisance species during this same period.
40. Work shall be done during frozen conditions whenever possible to minimize temporary impacts to wetland areas; otherwise timber matting or specialized low ground pressure equipment shall be used.
41. All weight distribution mats shall be removed from the wetland as soon as practicable, but no more than 7 days from when construction is complete in the location where the mats are used and the equipment that uses the mats is removed.
42. Mulch used within the wetland restoration areas shall be natural straw or equivalent non-toxic, non-seed-bearing organic material.
43. When driving over wetlands, construction equipment shall have specialized low-ground-pressure tracks that impact less than four (4) pounds per square inch when loaded, or the Permittee shall place timber or plywood mats on wetlands prior to construction equipment driving over such wetlands.
44. No excavation shall be done in flowing water. No construction equipment shall be operated in flowing water.
45. Construction equipment shall be inspected daily for leaking fuel, oil, and hydraulic fluid prior to entering surface waters or wetlands or operating in an area where such fluids could reach groundwater, surface waters, or wetlands.
46. The Permittee's contractor shall maintain appropriate oil/diesel fuel spill kits on site that are readily accessible at all times during construction, and shall train each operator in the use of the kits.
47. All refueling of equipment shall occur outside of surface waters or wetlands during construction. Machinery shall be staged and refueled in upland areas only. When equipment cannot practicably be moved away from a wetland, refueling in a wetland can be allowed if secondary containment is provided in accordance with the guidance in DES Fact Sheet WD-DWGW 22-6, dated 2010, and all other practices described in that Fact Sheet are complied with.
48. Faulty equipment shall be repaired immediately prior to entering areas that are subject to RSA 482-A jurisdiction.
49. Filter fabric shall be installed under the temporary wetland fill areas to isolate fill from the natural hydric soils.

50. Discharge from dewatering of work areas shall be to sediment basins that are: a) located in uplands; b) lined with hay bales or other acceptable sediment trapping liners; c) set back as far as possible from wetlands and surface waters, with a preferred undisturbed vegetated buffer of at least 50 feet and a minimum setback from wetlands and surface waters of at least 20 feet.
51. Dredged materials, whether to be stockpiled or disposed of, shall be dewatered in sedimentation basins lined with siltation and erosion controls, and located outside of areas subject to RSA 482-A jurisdiction.
52. Within three days of final grading or temporary suspension of work in an area that is in or adjacent to wetlands or surface waters, all exposed soil areas shall be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching with tackifiers on slopes less than 3:1 or netting and pinning on slopes steeper than 3:1.
53. For the nine (9) development sites, where construction activities occur between November 30 and May 1, all exposed soil areas shall be stabilized within 1 day of establishing the grade that is final or that otherwise will exist for more than 5 days. Stabilization shall include placing 3-inches of base course gravels, or loaming and mulching with tack or netting and pinning on slopes steeper than 3:1.
54. Precautions shall be taken to prevent import or transport of soil or seed stock containing nuisance or invasive species such as Purple Loosestrife, Knotweed, or Phragmites. The contractor responsible for work shall appropriately address invasive species in accordance with the NHDOT Best Management Practices for Roadside Invasive Plants (2008).
55. To prevent the introduction of invasive plant species to the site, the Permittee's contractor(s) shall clean all soils and vegetation from construction equipment and matting before such equipment is moved to the site.
56. The Permittee shall control invasive plant species such as Purple loosestrife (*Lythrum salicaria*) and Common reed (*Phragmites*) by measures agreed upon by the DES Wetlands Program if any such species is found in the stabilization areas during construction or during the early stages of vegetative establishment.

Mitigation:

57. 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 December 2016 and as received by DES on December 15, 2016.
58. The Permittee shall make a total payment of \$3,379,280.59 to the DES Aquatic Resource Mitigation (ARM) Fund, to be paid as follows:
 - a) The Permittee shall remit payment of \$844,820.15 to DES within 120 days of the issuance of the SEC certificate.
 - b) The Permittee shall remit payment of \$1,689,640.30 to DES within 1 year of the first payment.
 - c) The Permittee shall remit payment of \$844,820.15 to DES within 2 years of the first payment.
59. The Permittee shall submit draft deed language for the 9 conservation easements for approval by DES within 60 days prior to recordation.
60. The Permittee shall convey the 9 areas identified in the Final Compensatory Mitigation Plan dated December 2016 in conservation easements as follows:
 - a) The effective date of the easement recordation for Preservation Sites A and B in Pittsburg and Site Z1 in Concord shall be before construction, but after approval of the project by the SEC.
 - b) The effective date of the easement recordation for Preservation Sites C and E in Clarksville and

Site Z3 in Pembroke shall be within 1 year of the start of construction.

- c) The effective date of the easement recordation for Preservation Sites K in Dixville and N in Stewartstown shall be within 2 years of the start of construction.
 - d) If the preservation of land cannot be finalized within 1 year of approval of the project by the SEC, an additional ARM Fund payment shall be required.
61. Monuments or blazing of the preservation site boundaries will need to be completed within 120 days of recordation of the easement by the grantee unless specifically noted.
 62. Draft management plans for the preservation sites shall be provided to DES that includes trail maintenance and construction, timber harvesting and agricultural goals and public access, pursuant to the terms of the easement deeds.
 63. Following the SEC certificate issuance and prior to recording of the conservation easement deed, the natural resources existing on the conservation easement parcel shall not be removed, disturbed, or altered without prior written approval of DES and the easement holder, or as otherwise permitted.
 64. The conservation easements to be placed on the preservation sites shall be written to run with the land, and both existing and all future property owners shall be subject to this easement.
 65. The plan noting the conservation easement with a copy of the final easement language shall be recorded with the applicable County Registry of Deeds for each lot that is subject to the easement. The permittee shall submit a copy of the recording from the Registry of Deeds to the DES Wetlands Program.
 66. The Permittee/Permittee's contractor shall notify the DES Wetlands Program when the easement monuments are placed, and coordinate an on-site review of their location.
 67. There shall be no placement of fill, construction of structures, or storage of vehicles or hazardous materials on the conservation parcels.
 68. Activities in contravention of the conservation easement shall be deemed to be a violation of RSA 482-A, and shall be subject to enforcement under RSA 482-A.
 69. Northern Pass shall provide yearly reports for five years after construction is complete on the funds allocated to NFWF funding. The report shall include funds provided, organizations or municipalities receiving funds, and a description of the funded projects.
 70. The Permittee shall continue pursuing practicable minimization measures during final design and construction stages in an attempt to further avoid or minimize wetland impacts and sensitive areas.
 71. The Permittee shall provide quarterly reports documenting the total impacts completed throughout the duration of construction. The reports will document impacts permitted and impacts completed in order to determine whether additional compensatory mitigation is required.
 72. Final permanent and secondary impact amounts shall be provided to DES for any adjustments to the compensatory mitigation amounts.
 73. Any proposed management of existing or created grassland and shrubland Preservation Sites to benefit migratory songbirds and wood turtles shall be coordinated with NHFG and NHB. DES shall be provided draft and final management plans for approval.
 74. Appropriate barriers and signage shall be placed at locations along the new ROW where it intersects with roads to discourage unauthorized ATV activity in jurisdictional areas. Such preventive steps will not be required for existing authorized trails and for any trails that may be

permitted in the future. This information shall be noted on plan sheets.

75. Low-canopy connections across the ROW on Preservation Sites B and C to enhance travel corridors for wildlife species shall be provided as part of the management plans for Preservation Sites B and C as shown on Baseline Documentation Report plans, where not in conflict with safety requirements.
76. Failure to complete the restoration of temporarily impacted wetlands/stream and bank/vernal pool areas in accordance with plans constitutes a violation of RSA 482-A.
77. The Permittee shall provide DES information on any transfer of ownership of the conservation easement parcels.

FINDINGS:

1. This project is classified as a Major Project per NH Administrative Rule Env-Wt 303.02(c), as wetland impacts are greater than 20,000 square feet.
2. On October 19, 2015, DES received a wetland application (file #2015-02817) which requested 6,170,053 square feet of wetland impact as part of the 192 mile long project, of which 109,040 square feet is permanent wetland impact, and 6,061,013 square feet is temporary wetland impact.
3. The project proposes approximately 32 miles of new overhead line, 60.5 miles of underground line, and using 99.5 miles of existing powerline ROW.
4. The need for the proposed impacts has been demonstrated by the applicant per Rule Env-Wt 302.01, as described and detailed in the wetland and SEC applications.
5. The applicant has provided evidence which demonstrates that this proposal is the alternative with the least adverse impact to areas and environments under the department's jurisdiction per Env-Wt 302.03, and are listed in greater detail as follows:
 - a) The original project location and routing effort was conducted by the applicant to minimize environmental impacts through GIS analysis of publically available social and natural resource data. Based on this information, a preferred northern route and three alternatives were identified in October 2010, and the international border crossing was later identified in February 2011 (see Maps 1-4 dated March 11, 2011 which label the "2010 Preferred Route").
 - b) During the applicant's March 2011 scoping meetings, public concerns were raised about the visibility of the project and its impact on private landowners, therefore the applicant reconfigured the north segment to a less populated area, as complete underground construction was not considered a practicable option for the project.
 - c) A landscape level analysis of sensitive natural resources along 38 alternative route segments was conducted as shown on Maps 1-4 labeled March 2011 Alternative Routes, segments A through MM. These routes were evaluated based on their intersection with conservation lands, rivers and streams, lakes and ponds, National Wetlands Inventory (NWI) maps, hydric soils, and Tier 1 and Tier 2 Ranked Wildlife Habitat from Wildlife Action Plan (WAP) maps. This analysis revealed that 21 segments were located in conservation lands in Odell and Stratford (see Table 1 and Map 4); therefore additional alternative segments were investigated and prioritized to avoid these areas.
 - d) The applicant then commenced property acquisition efforts for segments with the fewest natural resources and visual impacts, and in areas that did not cross conservation lands. The

preferred route was then again revised based on successful acquisition of property rights, and after avoiding other sensitive visible areas in the Dixville Notch area. Also, an effort was made to use more of the existing Coos Loop ROW (see Maps 4 and 5 labeled "Coos Loop").

- e) In 2012, the applicant then conducted "hot spot" mapping and GIS modeling within 3 miles of the entire proposed route to identify locations with the greatest sensitivity and regulatory concerns. The model included the natural features mentioned above, along with ridgetops/mountain tops, headwater streams, fragile soils, wildlife corridors and unique habitats, calcareous soils, known threatened and endangered species/habitat locations, known deer yards, archeologically sensitive areas, streams and rivers with added regulations (i.e. Shoreland Protection, Outstanding Resource Waters, Class A, Designated Rivers) and areas where ROW maintenance would be more difficult. In addition, reconnaissance level field investigations were done across the northern route parcels to better define environmental and other sensitive natural resources. This information along with consideration of existing infrastructure, potential visual impacts, and landowner's forest planning and land management goals, were used to determine the ultimate route on properties acquired or leased for the project. The hot spot mapping was also used to evaluate off-ROW access road selections.
- f) To avoid crossing over or under conservation land in Stewartstown where four parcels meet along the 2012 proposed route, two underground alternative routes were considered in Clarksville and Stewartstown along existing road ROWs (See Map dated March 25, 2013 showing Option 2 Blue Route and Option 3 Green Route). These alternatives were then evaluated for natural resource issues and found that Option 2 Blue Route is shorter in length and intersects fewer wetlands and streams; therefore the decision was made to proceed with the Option 2 Blue Route.
- g) Additional field work within the 2013 proposed ROW revealed sensitive areas in Dixville that were worthy of further avoidance efforts. Although not all areas could be avoided without creating greater wetland and stream impacts, the ROW was shifted to avoid a moose concentration area at a sensitive rocky ridge, and temporary access roads and structure locations were shifted to minimize resource impacts.
- h) In summary, the resulting northern section of the project route is located slightly further east than the original 2010 route, maximized use of existing ROW (Coos Loop), traverses less populated areas, and relies in large part on property that was acquired or leased from willing landowners. Approximately 7.5 miles of this route is located underground within existing road ROWs, while the overhead is generally situated along the mid-slope landscape position to avoid sensitive high elevation areas, as well as the valleys where streams, wetlands, riparian corridors, archeological resources and the highest ranked wildlife habitats are most abundant. This portion of the project involves 155 fewer landowner parcels than would have been required for the original 2010 route.
- i) Finally, the result of the entire project routing effort is that the selected route eliminates potential visual impacts in the White Mountain National Forest (WMNF), Franconia Notch area, and along the Appalachian Trail by proposing 52 miles of underground transmission lines in public roadways and eliminating more than 400 structures. Overall, 60 miles of underground

construction is proposed that would make the project the largest underground DC cable in North America, and greater than 80 percent of the overall project is located within existing transmission corridors or underground in public roadways.

6. On May 16, 2016, and after DES review of the proposed project, additional information was requested in the form a written Progress Report to the Site Evaluation Committee (SEC), in which several comments specifically requested that the applicant further avoid and minimize wetland and surface water impacts.
7. The applicant provided partial responses to the DES Progress Report on July 12, 2016, July 15, 2016, July 18, 2016, July 28, 2016, August 11, 2016, December 14, 2016, and January 25, 2017.
8. Based on a change in use on existing forest access roads, and at the request of DES, the applicant submitted updated plans on December 14, 2016 to replace and upgrade 29 deficient culverts on proposed construction access routes to meet the standard of the DES Stream Crossing Rules of Env-Wt Chapter 900. The impacts associated with upgrading 29 existing culverts equates to 4,253 square feet of additional permanent wetland impact.
9. On January 25, 2017, the applicant submitted revised plans that further reduce wetland impacts as requested by DES request in the May 16, 2016 Progress Report. Overall temporary wetland impacts were reduced by 76,009 square feet (which includes avoiding 2 high value vernal pools) and permanent wetland impacts were reduced by 732 square feet. In addition, 15 square feet of permanent ephemeral stream impacts were added to the plans, as these areas were omitted in the October 2015 application.
10. Based on the latest revised plans submitted on January 25, 2017, the applicant is requesting 6,098,016 square feet of wetland impact as part of the project, of which 112,576 square feet is permanent wetland impact, and 5,985,440 square feet is considered temporary wetland impact that will be restored upon completion.
11. Tree clearing will result in the loss of portions of forested community types, including portions of 2 potentially exemplary northern white cedar-balsam fir swamps (S2 ranked) and 1 potentially exemplary northern hardwood seepage forest (S3 ranked).
12. The project will impact 3 state endangered and 1 state threatened plant species; none of which occur in wetland areas.
13. The applicant has coordinated directly with the Natural Heritage Bureau (NHB) regarding impacts to plant communities from the proposed project, and the applicant will directly coordinate with the NHB prior to and during construction to minimize other potential impacts to sensitive plant species and exemplary natural communities.
14. A total of 271 vernal pools were identified along the ROW, and 8% are considered to high value (23 total pools). The project proposes to permanently impact 1,208 square feet (0.03 acres) within 4 vernal pools (not high quality), and temporarily impact 9,354 square feet (0.21 acres) within 40 vernal pools, only 1 of which is considered to be high quality.
15. A total of 25.6 acres of identified Deer Wintering Areas (DWA) will be cleared as a result of the project.
16. The project will likely have a "High" impact to several species, including the Karner blue butterfly, frosted elfin, persius duskywing skipper, and the common nighthawk. "High" impact is defined as

“locally to regionally important effect” and “demographic changes leading to local population decline possible”.

17. The applicant has coordinated directly with the NH Fish & Game Department (NHFG) regarding impacts to sensitive species and habitats from the proposed project, and the applicant will directly coordinate with the NHFG prior to and during construction to minimize other potential impacts to sensitive species and habitats.
18. The applicant has demonstrated by plan and example that each factor listed in Rule Env-Wt 302.04(a), Requirements for Application Evaluation, has been considered in the design of the project.
19. In most areas where temporary wetland impacts occur within the ROW, construction equipment will require 20' wide access roads with 16' feet of drivable surface to install towers along the ROW.
20. All temporary wetland impact areas will be stabilized and restored once construction is completed in each section, and in accordance with the plans entitled “Wetland Restoration Notes/Standing Water Construction Notes” dated January 24, 2017.
21. Per Env-Wt 501.01(c), abutter notification is not required for projects within ROW's. Abutter notification was provided for those portions of the project that occur outside of the defined ROW's (e.g. transition stations and substations).
22. The project occurs within 5 Designated River corridors – Connecticut River, Ammonoosuc River, Pemigewasset River, Merrimack River, and the Lamprey River. The above ground line will span all of the Designated Rivers with the exception of the Connecticut River, where directional boring is proposed under the river.
23. DES received written comments expressing concerns about the project from the Lamprey River Local Advisory Committee (LAC) on August 4, 2016, the Pemigewasset River LAC on May 9, 2016, and from the Ammonoosuc River LAC on January 11, 2016.
24. In the May 16, 2016 Progress Report, DES requested that the applicant address each of the LAC's concerns.
25. On July 18, 2016, the applicant provided DES with copies of each response to the above mentioned LACs in order to address their concerns.
26. The project will have negligible impacts within identified 100 year floodplains and there will be no loss of flood storage as a result of the project.
27. DES received written comments and concerns regarding the project from several local Conservation Commissions in 2015 and 2016, including Ashland, Bethlehem, Bristol, Campton, Canterbury, Concord, Deerfield, Easton, Franklin, Pembroke, and Raymond.
28. In the May 16, 2016 Progress Report, DES requested that the applicant address each of the Conservation Commission's concerns.
29. On July 18, 2016, the applicant provided DES with copies of each response to the Conservation Commissions in order to address their concerns.
30. DES received written comments expressing concerns about the project from the Society for Protection of New Hampshire Forests (SPNHF) on April 25, 2016 and the applicant responded directly to SPNHF on April 27, 2016 to address those concerns raised.

31. In the May 16, 2016 Progress Report, DES stated that several of the concerns raised by SPNHF are similar to questions that DES is requesting clarification on, and to adequately address each question in the request.
32. DES also received written comments expressing concerns about the project from Mr. John Petrofsky of Stewartstown, NH on June 14, 2016, June 21, 2016, July 26, 2016 and February 21, 2017. The applicant responded directly to Mr. Petrofsky on January 25, 2017 to address those concerns, and the applicant responded to DES on February 24, 2017 to address additional concerns raised in Mr. Petrofsky's February 21, 2017 email.
33. Compensatory mitigation for wetland impacts includes the preservation of approximately 1,621 acres of land divided among eight sites comprised of 16 parcels located in the towns of Pittsburg, Clarksville, Dixville, Columbia, Stewartstown 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 protected 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 payment into the Aquatic Resource Mitigation (ARM) Fund of \$3,379,280.59. 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.
34. The mitigation package described above also accounts for all secondary wetland impacts (e.g. clearing upland buffer adjacent to wetlands), as determined and required by the Army Corps of Engineers.
35. Overall, DES has determined that the proposed mitigation plan meets the intent of the Mitigation Rules of Chapter 800.
36. DES granted approval to waiving specific requirements of Rule Env-Wt 501.02(a)(3) and Rule Env-Wt 505.01(i) regarding the application requirement to provide photographs of all wetlands where proposed impacts occur. The application did include photographs of all wetlands, streams and vernal pools that are proposed to be permanently impacted, as well as any high value wetland areas that would be temporarily impacted by the project, but did not include photographs of every affected resource. Given the size and scale of the project, DES finds that granting the waiver would not have an adverse impact on the application process, and that granting the request is consistent with the intent and purpose of the rule waived.
37. Public hearings will be held by the New Hampshire SEC to allow citizens the opportunity to comment on the overall project.
38. The New Hampshire SEC has jurisdiction over the entire project and therefore will ultimately decide if the project is approved or denied.

NORTHERN PASS, NHSEC DOCKET #2015-06
SHORELAND PROTECTION PROGRAM
MARCH 1, 2017 FINAL DECISION

RECOMMEND APPROVAL WITH THE FOLLOWING PERMIT CONDITIONS:

PERMIT CONDITIONS APPLICABLE TO ALL SHORELAND PROJECTS:

1. There shall be no unnecessary removal of vegetation from the waterfront buffer.
2. Ground cover as defined per RSA 483-B:4, VII within at least 25% of the area of the Natural Woodland Buffer beyond the primary building setback must remain in an unaltered state in order to comply with RSA 483-B:9, V, (b), (2).
3. All activities conducted in association with the completion of this project shall be conducted in a manner that complies with applicable criteria of Administrative Rules Chapter Env-Wq 1400 and RSA 483-B during and after construction.
4. Erosion and siltation control measures shall be installed prior to the start of work, be maintained throughout the project, and remain in place until all disturbed surfaces are stabilized.
5. Erosion and siltation controls shall be appropriate to the size and nature of the project and to the physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to wetlands or surface waters.
6. No person undertaking any activity in the protected shoreland shall cause or contribute to, or allow the activity to cause or contribute to, any violations of the surface water quality standards established in Env-Ws 1700 or successor rules in Env-Wq 1700.
7. Any fill used shall be clean sand, gravel, rock, or other suitable material.
8. The individual responsible for completion of the work shall utilize techniques described in the New Hampshire Stormwater Manual, Volume 3, Erosion and Sediment Controls During Construction (December 2008).
9. Within three days of final grading or temporary suspension of work in an area that is in or adjacent to wetlands or surface waters, all exposed soil areas shall be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching with tack or netting and pinning on slopes steeper than 3:1.

2015-02828 Pemigewasset River

Ashland

PROJECT DESCRIPTION:

Impact 95,552 sq. ft. of protected shoreland to install four new lattice structures, two footings of another lattice structure, and temporary access for construction resulting in 226 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated October 8, 2015 and September 14, 2015, as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.04% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02829 Ammonoosuc River

Bethlehem

PROJECT DESCRIPTION:

Impact 33,254 sq. ft. of protected shoreland to install two monopole structures and provide temporary access for construction resulting in 127 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated October 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 6% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02830 Miller Pond

Bethlehem

PROJECT DESCRIPTION:

Impact 45,226 sq. ft. of protected shoreland to install buried cable, construct a transition station, and provide temporary access for construction resulting in 19,892 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 14, 2015 and September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 22.6% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.
3. The proposed stormwater management plan shall be designed, installed and maintained to effectively absorb and infiltrate stormwater.

2015-02831 Pemigewasset River

Bridgewater

PROJECT DESCRIPTION:

Impact 43,043 sq. ft. of protected shoreland to install two new monopole structures, relocate another monopole structure, and provide temporary access for construction resulting in 147 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated October 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.15% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02832 Pemigewasset River

Bristol

PROJECT DESCRIPTION:

Impact 23,944 sq. ft. of protected shoreland to install one new monopole structure, relocate a monopole structure, and provide temporary access for construction resulting in 83 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated October 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.09% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02833 Pemigewasset River

Campton

PROJECT DESCRIPTION:

Impact 105,375 sq. ft. of protected shoreland to install buried cable resulting in no additional impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015, and revised plans dated May 2, 2016, as received by the NH Department of Environmental Services (DES) on October 20, 2015, and May 6, 2016.
2. No more than 25.14% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02834 Connecticut River

Clarksville

PROJECT DESCRIPTION:

Impact 20,827 sq. ft. of protected shoreland to install buried cable and improve access for construction resulting in no additional impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 8.7% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02835 Soucook River

Concord

PROJECT DESCRIPTION:

Impact 10,876 sq. ft. of protected shoreland to install one monopole, relocate one monopole, remove one monopole, install two footings for a three pole structure, and provide temporary access for construction resulting in 47 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 14, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.05% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02836 Turtle Pond

Concord

PROJECT DESCRIPTION:

Impact 53,744 sq. ft. of protected shoreland for installation, relocation, and removal of multiple structures, and temporary access for construction resulting in 72 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 14, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 1.08% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02837 John's River

Dalton

PROJECT DESCRIPTION:

Impact 7,710 sq. ft. of protected shoreland to install one new lattice structure and provide temporary access for construction resulting in 13 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 14, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.01% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02838 Lamprey River

Deerfield

PROJECT DESCRIPTION:

Impact 5,154 sq. ft. of protected shoreland to install one new monopole structure, relocate one monopole structure, and provide temporary access for construction resulting in 68 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated October 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 4.87% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02839 Nathan Pond

Dixville

PROJECT DESCRIPTION:

Impact 21,985 sq. ft. of protected shoreland to improve access for construction resulting in no new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No portion of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02840 Gale River

Franconia

PROJECT DESCRIPTION:

Impact 27,348 sq. ft. of protected shoreland to install buried cable resulting in no new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 63.23% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02841 Merrimack River

Franklin

PROJECT DESCRIPTION:

Impact 12,783 sq. ft. of protected shoreland to relocate one monopole and provide temporary access for construction resulting in 20 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 14, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.05% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02842 Pemigewasset River

Hill

PROJECT DESCRIPTION:

Impact 11,946 sq. ft. of protected shoreland to install one new H-frame structure and provide temporary access for construction resulting in 14 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated October 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.02% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02843 Israel River

Lancaster

PROJECT DESCRIPTION:

Impact 39,379 sq. ft. of protected shoreland to install two new monopole structures, remove and relocate two existing transmission structures, and provide temporary access for construction resulting in 134 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.07% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02844 Otter Brook

Lancaster

PROJECT DESCRIPTION:

Impact 23,042 sq. ft. of protected shoreland to install one new monopole structure, relocate one transmission structure, and provide temporary access for construction resulting in 71 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.09% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02845 Squam River

New Hampton

PROJECT DESCRIPTION:

Impact 7,263 sq. ft. of protected shoreland to install two footings for a lattice structure and provide temporary access for construction resulting in 25 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 14, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.3% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02846 Pemigewasset River

New Hampton

PROJECT DESCRIPTION:

Impact 109,134 sq. ft. of protected shoreland to install three new monopole structures, relocate two monopole structures, remove two monopole structures, and provide temporary access for construction resulting in 230 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015, October 8, 2015, and October 12, 2015, as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.03% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02847 Merrimack River

Northfield

PROJECT DESCRIPTION:

Impact 13,187 sq. ft. of protected shoreland to install one new H-frame structure, relocate one monopole structure, and provide temporary access for construction resulting in 21 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 14, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.04% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02848 Soucook River

Pembroke

PROJECT DESCRIPTION:

Impact 29,984 sq. ft. of protected shoreland to install one new 3-pole structure, replace a single pole structure, and provide temporary access for construction resulting in 79 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.05% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02849 Suncook River

Pembroke

PROJECT DESCRIPTION:

Impact 18,336 sq. ft. of protected shoreland to install one new monopole structure and provide temporary access for construction resulting in 64 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated October 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 10.37% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02850 Connecticut River

Pittsburg

PROJECT DESCRIPTION:

Impact 20,827 sq. ft. of protected shoreland to install buried cable, improve access, and provide temporary access for construction resulting in 3,843 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with revised plans by Normandeau Associates, Inc. dated January 23, 2017 as received by the NH Department of Environmental Services (DES) on January 25, 2017.
2. No more than 9.1% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02851 Pemigewasset River

Plymouth

PROJECT DESCRIPTION:

Impact 37,338 sq. ft. of protected shoreland to install underground transmission cable and provide temporary access for construction resulting in no new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 30.1% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02852 Upper Ammonoosuc River

Stark

PROJECT DESCRIPTION:

Impact 30,070 sq. ft. of protected shoreland to install two new monopole structures, relocate two transmission structures, and provide temporary access for construction resulting in 141 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.08% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02853 Coffin Pond

Sugar Hill

PROJECT DESCRIPTION:

Impact 9,107 sq. ft. of protected shoreland to install underground transmission cable.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 34.09% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02854 Gale River

Sugar Hill

PROJECT DESCRIPTION:

Impact 26,176 sq. ft. of protected shoreland to install underground transmission cable resulting in no new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 21.86% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02855 Beaver Pond

Woodstock

PROJECT DESCRIPTION:

Impact 16,871 sq. ft. of protected shoreland to install underground transmission cable resulting in 390 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 22.79% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02856 Moosilauke Brook

Woodstock

PROJECT DESCRIPTION:

Impact 76,858 sq. ft. of protected shoreland to install underground transmission cable resulting in 1,065 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 19.83% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02857 Pemigewasset River

Woodstock

PROJECT DESCRIPTION:

Impact 45,198 sq. ft. of protected shoreland to install underground transmission cable resulting in no new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015, April 11, 2016 and April 20, 2016, as received by the NH Department of Environmental Services (DES) on October 20, 2015, and May 9, 2016.
2. No more than 23.92% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02858 Walker Brook

Woodstock

PROJECT DESCRIPTION:

Impact 10,132 sq. ft. of protected shoreland to install underground transmission cable resulting in no new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 8, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 25.62% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2015-02859 Squam River

Ashland

PROJECT DESCRIPTION:

Impact 22,892 sq. ft. of protected shoreland to install two footings for a lattice structure and provide temporary access for construction resulting in 25 sq. ft. of new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated September 14, 2015 as received by the NH Department of Environmental Services (DES) on October 20, 2015.
2. No more than 0.03% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

2016-01293 Pemigewasset River

Thornton

PROJECT DESCRIPTION:

Impact 31,919 sq. ft. of protected shoreland to install underground transmission cable resulting in no new impervious surface.

PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by Normandeau Associates, Inc. dated April 11, 2016, as received by the NH Department of Environmental Services (DES) on May 9, 2016.
2. No more than 31.9% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.

NORTHERN PASS, NHSEC DOCKET #2015-06
WATERSHED MANAGEMENT BUREAU
MARCH 1, 2017 FINAL DECISION

RECOMMEND APPROVAL WITH THE FOLLOWING CONDITIONS:

§ 401 WATER QUALITY CERTIFICATION CONDITIONS:

Unless otherwise authorized by the New Hampshire Department of Environmental Services (DES or Department), conditions for § 401 Water Quality Certification (WQC or Certification) approval are provided below where the terms "Permittee" and "Activity" are defined as follow:

Permittee: The "Permittee" for this 401 Water Quality Certification (WQC or Certification) is Northern Pass Transmission, LLC and Public Service Company of New Hampshire d/b/a Eversource Energy.

Activity: The "Activity" for this 401 WQC is the construction and operation of the Northern Pass Transmission Project (SEC Docket No. 2015-06) as described in the application filed by the Permittee with the New Hampshire Site Evaluation Committee (SEC) on October 19, 2015 and accepted by the SEC on December 18, 2015, as well as supplemental information filed on July 12, 2016, December 14, 2016 and January 25, 2017. The application and supplemental information filed with the SEC includes, but is not limited to, applications for § 401 WQC, DES Alteration of Terrain and DES Wetlands permits, and a detailed description of the Activity. In general, the Activity includes the construction and operation of a new 192+/- mile transmission line that will carry 1,090 MW of renewable hydroelectric power from Canada to the State of New Hampshire and the New England region. The Activity also includes 158 miles of direct current ("DC") transmission line from the Canadian border to a new converter terminal in Franklin, and 34 miles of alternating current ("AC") transmission line from the converter terminal to the Deerfield Substation. The 192 miles of transmission lines, includes 102 miles of existing transmission right-of-way ("ROW"), 58± miles of underground ("UG") cable in existing road ROW and 32 miles of new overhead ("OH") transmission line ROW between the Canadian border and Dummer, NH. In addition to the new converter terminal in Franklin, the Activity includes six new transition stations, and expansion of the Deerfield Substation in the Deerfield and the Scobie Pond Substation in Londonderry. Upgrades (the modification of ten existing structures) are also required to two existing 345-kV transmission lines extending 18 miles along existing PSNH ROW, between the two substations.

The proposed route follows existing PSNH transmission line ROW or public road ROW for over 80% of its length. Total permanent alteration of terrain associated with the proposed Activity components will be approximately 35.3 acres, the majority (approximately 33.7 acres or 95% of the total permanent alteration of terrain) of which will be associated with the proposed converter station, transition stations, and substation expansions (development sites). The construction of the transmission line portions of the Project will involve approximately 1.5 acres (or 5% of the total permanent alteration of terrain) of permanent impacts (with temporary access roads and work pads restored following construction). There are 313 perennial streams, 350 intermittent streams, 483 ephemeral streams and two ponds within the proposed limits of the Activity.

1. **Change in Ownership:** Should there be a change in ownership; contact information for the new owner (including name, address, phone number and email) shall be provided to the DES Watershed Management Bureau within 30 days of the transfer.
2. **Prior Approval of Modifications:** This Certification is based on the plans and information filed by the Permittee with the SEC on October 19, 2015 and accepted by the SEC on December 18, 2015 in support of DES 401 Certification, and DES Alteration of Terrain and Wetlands permits, as well as subsequent documentation submitted in response to DES requests for additional information including information filed with the SEC on July 12, 2016, December 14, 2016 and January 25, 2017. The Permittee shall receive DES approval prior to implementing any proposed modifications to the Activity, including construction or operation, that may influence the quality or quantity of surface waters.
3. **Compliance with Surface Water Quality Standards:** The Activity shall not cause or contribute to a violation of New Hampshire surface water quality standards as provided in RSA 485-A:8 and Env-Wq 1700. The terms and conditions of this 401 Certification may be modified and additional terms and conditions added as necessary to ensure compliance with New Hampshire surface water quality standards.
4. **Outstanding Resource Waters (ORWs):** Surface waters of the national forests and surface waters designated as natural under RSA 483-A:7-a, I are considered Outstanding Resource Waters [Env-Wq 1708.04(a)]. In accordance with Env-Wq 1708.04(b), the Activity shall only result in temporary or short term changes in water quality in ORWs that are limited to the shortest possible time after all practicable means of minimizing degradation are implemented. The Activity shall not permanently degrade water quality or cause a violation of water quality standards in ORWs.
5. **Inspection:** The Permittee shall allow DES to inspect the Activity and its effects on affected surface waters at any time to monitor compliance with the conditions of this 401 Certification.
6. **Compliance with Alteration of Terrain and Wetland Bureau Permit Conditions:** The Permittee shall comply with the permit conditions submitted to the New Hampshire Site Evaluation Committee (SEC) by the DES Alteration of Terrain Bureau and the DES Wetlands Bureau, including any amendments.
7. **Plan to Minimize Temperature Increases in Cold-Water Fisheries:** At least 90 days prior to construction (or within another time period acceptable to DES), the Permittee shall develop and submit a plan to the New Hampshire Fish and Game Department and DES for approval, to minimize the potential for increases in stream temperature in cold-water fisheries due to clearing of vegetation associated with the Activity. Vegetated buffers adjacent to surface waters shall be maintained to the maximum extent practicable. The Permittee shall then implement the approved plan.
8. **Permanent Stormwater Treatment Practices:** Prior to construction, the Permittee shall receive NHDES approval of pollutant loading analyses for the six transition stations, the Franklin Converter Station or the two substations (Deerfield and Scobie Pond). Should there be any proposed changes to the permanent stormwater treatment practices proposed at any of these nine facilities, the Permittee shall consult with DES to determine if revisions to the pollutant loading analyses are

necessary. If so, the Permittee shall submit revised pollutant loading analyses to DES for approval prior to construction and, if necessary, make appropriate revisions to the proposed permanent stormwater treatment practices.

9. **Construction General Permit (CGP).** The Permittee shall comply with the requirements of the U.S. Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP). If requested, the Permittee shall submit a copy of the Stormwater Pollution Prevention Plan (SWPPP) prepared for the CGP to DES within seven days of receiving request.
10. **Monitoring and Operations Plan for Installation of Underground Cable at Surface Water Crossings:** At least 90 days prior to construction of the underground segment (or within another time period acceptable to DES), the Permittee shall submit a Monitoring and Operations Plan (MOP) to DES for approval that identifies the method that will be used to cross each surface water, measures that will be taken to ensure compliance with surface water quality standards (Env-Wq 1700) and the process for notifying the appropriate state agencies if situations occur that are adversely impacting surface water quality. For crossings employing Horizontal Directional Drilling (HDD), the MOP shall describe actions taken when operating under normal drilling conditions, when there is loss of circulation during drilling, and when there is a release of drilling fluids. If the circulation loss is a "fracout", the MOP shall describe the actions that will be taken to stop, contain and or control the size of the drilling mud loss to the environment.
11. **Construction BMP Inspection and Maintenance Plan** The Permittee shall submit a Construction BMP Inspection and Maintenance Plan to DES for approval at least 90 days prior to construction (or within another time period acceptable to DES). At a minimum, the plan shall include the construction BMP inspection and maintenance requirements specified in the DES Alteration of Terrain project documents and in the NPDES CGP (see condition 9). If considered necessary by DES to assure compliance with surface water quality standards, DES may include additional requirements in the plan, including, but not limited to, some or all of the elements described in Appendix A (Enhanced Construction BMP Inspection and Reporting Requirements) of this 401 Certification. The Permittee shall then implement the approved plan.
12. **Turbidity Sampling and Sediment Deposition Inspection Plan:** The Permittee shall prepare a turbidity sampling and sediment deposition inspection plan to confirm that measures to control erosion during construction are not causing or contributing to surface water quality violations. Unless otherwise authorized by DES, the turbidity sampling and sediment deposition inspection plan shall include the elements specified in the August 14, 2013 DES Inter-Department Communication entitled "Guidance for SWPPPs, BMP Inspection and Maintenance, Turbidity, and Sediment Monitoring for NHDOT Projects with 401 Water Quality Certification" for sampling, inspecting and reporting results to DES. The plan shall be submitted to DES for approval at least 90 days prior to construction (or within another time period acceptable to DES). The Permittee shall then implement the approved plan.
13. **Water Quality Monitoring Plan to Assess Operation:** Unless otherwise authorized by DES, the Permittee shall develop and submit a Water Quality Monitoring Plan to DES for approval at least 90 days prior to construction (or within another time period acceptable to DES). The purpose of the plan is to confirm that operation of the Activity is not causing or contributing to violations of state

surface water quality standards and , if determined necessary by DES, shall include pre- as well as post-construction monitoring. The plan shall include the parameters to be sampled, the location, timing and frequency of sampling, sampling and laboratory protocols, quality assurance / quality control provisions as well as when data will be submitted to DES. The Permittee shall consult with DES and submit the monitoring data in a format that can be automatically uploaded into the DES Environmental Database. Once approved by DES, the Permittee shall implement the sampling plan.

14. **Operation Spill Prevention, Control and Countermeasures Plan:** The Permittee shall prepare and submit a Spill Prevention, Control, and Countermeasures plan (SPCC) for the Activity in accordance with federal regulations (40 CFR part 112). The plan shall include a certification by a Professional Engineer licensed in the State of New Hampshire. The Permittee shall submit the plan to DES Watershed Management Bureau for review and approval at least 90 days prior to the construction (or within another time period acceptable to DES). The SPCC Plan shall include, but not be limited to, operating procedures to prevent oil spills, control measures installed to prevent oil from entering surface waters, countermeasures to contain, clean up and mitigate the effects of an oil spill, and facility inspections. The Permittee shall then implement the approved plan and maintain records demonstrating compliance with the plan. Such records shall be made available to DES within 30 days of receiving a written request by DES.
15. **Concrete Wash Water Plan:** The Permittee shall submit a plan to prevent water quality violations due to discharges of concrete wash water during construction. The Permittee shall submit the plan to the DES Watershed Management Bureau for review and approval at least 90 days prior to placement of any concrete within the Activity area (or within another time period acceptable to DES). The Permittee shall then implement the approved plan.
16. **Surface Water Withdrawals:** The Activity shall not result in any permanent withdrawals from surface waters. Prior to any temporary withdrawals from surface waters, the Permittee shall receive DES approval and shall submit the purpose, location, timing, rate and total volume of each withdrawal as well as the estimated impact on source water quantity. The Permittee shall also consult with the DES Water Use Registration and Reporting Program staff to determine if the withdrawals require registration in accordance with Env-Wq 2102. If determined by DES to be necessary, the Permittee shall register the withdrawals with the DES Water Use Registration Program.
17. **Pesticides (Herbicides and Insecticides):** Pesticides (including herbicides and insecticides) shall not be used during construction or operation of the Activity unless otherwise authorized by DES. If authorized by DES, use of pesticides shall be minimized to the maximum extent possible and shall only be allowed on a limited, as-needed basis, and shall be applied in accordance with the manufacturer's recommendations and all applicable laws and regulations.
18. **Road Salt (Chloride):** Unless otherwise authorized by DES, de-icing materials containing chloride (such as road salt) shall not be used during construction or operation of any portion of the Activity. If application of road salt containing chloride is authorized by DES, all applicators shall, as minimum, be certified in accordance with RSA 489-c and shall, for each impacted surface water, annually track and record the amount of salt used and the area (in square feet or acres) on which it was applied within the limits of the Activity (see <http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/salt-applicator->

[certification.htm](#)). Evidence of certification and tracking reports shall be provided to DES within 15 days of receiving a request from DES.

19. **Fertilizer:** Unless otherwise authorized by DES, fertilizers shall only be applied on soils disturbed during construction to support the initial establishment of vegetation. Prior to fertilizer application, soils shall be tested to determine the minimum amounts of lime, nitrogen (N), phosphorus (P) and potassium (K) needed to support vegetation. Lime application rates, fertilizer selection (in terms of N, P and K content) and fertilizer application rates shall be consistent with the soil test results. Fertilizers shall not contain any pesticides. Where possible, fertilizer with slow release nitrogen shall be used. Soil test results, the name, brand and nutrient content (N, P and K) of fertilizer and application rates for lime and fertilizer shall be provided to DES within 15 days of receiving a request from DES.

Appendix A
Enhanced Construction BMP Inspection and Reporting Requirements

- A. Weekly Erosion Control Meeting: The Permittee's prime Contractor for the Activity (prime Contractor) shall hold weekly erosion control meetings with the Monitor. Minutes of the meeting shall be kept on file and made available to DES upon request.
- B. Inspection Frequency
 - 1. Daily Inspections: The prime Contractor shall inspect all erosion control measures every day that work is conducted from the time construction commences and earth is disturbed until construction is complete.
 - 2. Weekly Inspections: After construction has commenced and earth has been disturbed, the Monitor shall conduct weekly erosion control site inspections to verify all erosion control measures are maintained properly to protect surface waters and wetlands. The Monitor shall document and report its findings, including recommendations for maintenance of BMPs or the addition of new control measures to the prime Contractor.
 - 3. Pre-storm inspections: The Monitor shall print the 5-day forecast once daily (7-9 am) for the duration of the project. All forecasts shall be clearly marked with the date and time, kept on file, provided to the prime Contractor. In addition, the 5-day forecast on the day of the weekly meeting shall be attached to the weekly meeting minutes distributed by the Monitor. Inspection shall occur within 24 hours prior to the start of any rain event of 0.5 inches or more in a 24-hour period that is predicted to occur during the workweek. A normal workweek is Monday through Friday. Holidays and weekends are included as part of the normal workweek when work is anticipated to occur on those days. If the predicted event occurs outside of the normal workweek, the inspection shall occur on the normal workday just before any scheduled days off, such as holidays and weekends. Unless otherwise approved by DES, the Accuweather website (<http://home.accuweather.com/index.asp?partner=accuweather>) shall be used for the purpose of predicting future precipitation amounts. Future precipitation amounts on the Accuweather web site may be determined by typing in the location of the project (city, state and/or zip code), clicking on the link for Days 1-5 forecasts and then clicking on the day(s) of interest.
- C. Emergency Inspections During Storm Events: Inspections shall occur during the daylight hours (Monday through Sunday, including holidays) during storm events whenever plumes are visible or if turbidity sampling indicates water quality standards are exceeded due to turbid stormwater from the construction site. Inspections and corrective action shall be implemented during the daylight hours (Monday through Sunday, including holidays) until turbidity water quality standards are met.
- D. Post Storm Inspections: Inspections shall occur on the first workday following storms of greater than 0.5 inches in a 24-hour period. Precipitation amounts shall be based on precipitation recorded at a rain gauge installed at the construction site or other approved method.

Inspections and corrective action shall be implemented during the daylight hours (Monday through Sunday, including holidays) until turbidity water quality standards are met.

- E. Winter Shutdown Inspections: Inspections during winter shut down shall occur as specified in the NPDES General Permit for Stormwater Discharges from Construction Activities (commonly known as the Construction General Permit)
- F. Provisions for Handling Emergencies: Contact information shall be provided to DES for at least two people that DES can contact at any time regarding construction related stormwater concerns. The Permittee shall prepare an Emergency Procedures Plan describing procedures to address and correct emergency, construction related stormwater issues in an expeditious manner. The plan shall include the responsibilities of key individuals, the availability of equipment, and the availability of erosion control and BMP supplies. All emergency erosion control and BMP supplies must be kept on-site.
- G. Inspection and Maintenance Plans and Reports: Written inspection and maintenance reports shall include the items stipulated in the EPA NPDES General Permit for Stormwater Discharges from Construction Activities, as well as the predicted 24-hour rainfall for pre-storm inspection reports, measured rainfall amounts for post-inspection reports. The reports shall also indicate if erosion control measures "pass" or "fail". Unless otherwise authorized by DES, the reports shall be submitted to DES by electronic mail (email) within 24 hours of each inspection.
- H. Weather Station Specifications: Unless otherwise authorized by DES, the Permittee shall be responsible for maintaining a weather station that can measure rainfall to an accuracy of 0.01 inches, monitor temperature to an accuracy of 1 degree Fahrenheit or Celsius, and has hourly data storage and download capabilities.
- I. Precipitation Notification Plan: The Permittee shall specify how the Monitor, and others, will be notified when precipitation has occurred that will trigger the need for inspections and/or turbidity sampling. Automatic notification is preferred. If considered necessary and feasible by DES, the weather station shall be equipped to send automatic email notifications to notify the Monitor when construction BMP inspections and/or turbidity sampling is necessary. Should automated email notification be considered necessary, it shall be capable of the following: Start of rain event: Once 0.25 inches of rain or rain-mix precipitation has been measured an automated email notification will be sent to the prime Contractor, the Monitor, and any other interested parties. The email shall provide hourly rainfall, and time of rainfall for the previous 24 hours. End of rain event: Once six hours without rain or rain-mix precipitation has passed an automated email notification will be sent to the prime Contractor, the Monitor and DES. The email shall provide hourly rainfall and time of rainfall from the start of the rain event to the end of the rain event, including the six hour "dry" period.

NORTHERN PASS, NHSEC DOCKET #2015-06
ALTERATION OF TERRAIN BUREAU
MARCH 1, 2017 FINAL DECISION

RECOMMEND APPROVAL WITH THE FOLLOWING PERMIT CONDITIONS:

PROJECT SPECIFIC CONDITIONS:

1. In order to confirm data obtained from test borings, the basis for current stormwater design assumptions, prior to construction activities at Transition Stations 2, 3, and 6, the Deerfield Substation, the Scobie Pond Substation Expansion, and the Franklin Converter Station, the Permittee shall perform test pit explorations at proposed stormwater treatment facilities and provide to DES the estimated seasonal high water table elevation at each proposed stormwater treatment facility location. Based upon the results of the explorations, proposed stormwater treatment facilities shall be modified, if necessary, to meet applicable design requirements of Env-Wq 1500.
2. In order to confirm data obtained from test borings, the basis for current stormwater design assumptions, prior to construction activities at Transition Station 1, the Permittee shall perform test pit explorations at the proposed wet pond/detention basin facility and provide to DES the estimated seasonal high water table elevation at the facility location, and, if necessary, a hydrologic budget to demonstrate a permanent pool can be sustained at the facility. Based upon the results of the explorations and the hydrologic budget, the proposed stormwater treatment facility shall be modified, if necessary, to meet applicable design requirements of Env-Wq 1500.
3. Activities shall not cause or contribute to any violations of the surface water quality standards established in Administrative Rule Env-Wq 1700
4. Revised plans shall be submitted for an amendment approval prior to any changes in construction details or sequences. The DES must be notified in writing within ten days of a change in ownership.
5. The DES must be notified in writing prior to the start of construction and upon completion of construction. Forms are available at:
<http://des.nh.gov/organization/divisions/water/aot/categories/forms.htm>.
6. All activities shall comply with the plans and information provided with the Alteration of Terrain application submitted as part of the application to the New Hampshire Site Evaluation Committee on October 19, 2015, and with the revised and new plan sheets submitted by the Permittee on December 14, 2016 and January 25, 2017, and the conditions provided herein. Any proposed modifications which may affect surface water quality or quantity, shall receive DES approval prior to implementation.
7. All activities shall comply with Best Management Practices (BMP) identified in the application, and subsequently incorporated in any DES approvals.
8. No construction activities shall occur on the project after expiration of the approval unless the approval has been extended by the New Hampshire Energy Facility Site Evaluation Committee (SEC).
9. The Permittee shall identify to DES all laydown areas, and off-right-of-way access roads not currently identified for review prior to their construction, if DES permit requirements are triggered.
10. The Permittee shall comply with requirements of the EPA NPDES Construction General Permit (CGP) including, but not limited to, preparation and implementation of a Stormwater Pollution

Prevention Plan (SWPPP) and inspection, maintenance and reporting of construction activity. A copy of the SWPPP and/or construction inspection and maintenance logs shall be provided to DES within seven days (or other timeframe acceptable to DES) of receiving a request from DES.

11. Removal of vegetation within 50 feet of all surface waters (including wetlands) shall be minimized to the maximum extent practicable to reduce the potential for erosion and deposition of material into the surface waters, to protect rare, threatened and endangered species and habitats and to minimize the potential for increases in water temperature increases that could be harmful to aquatic life. Limits of clearing will be clearly marked in the field prior to construction to prevent inadvertent excursion of clearing beyond what is necessary.
12. This permit does not relieve the Permittee from the obligation to obtain other local, state or federal permits that may be required (e.g., from US EPA, US Army Corps of Engineers, etc.). Projects disturbing over 1 acre may require a federal stormwater permit from EPA. Information regarding this permitting process can be obtained at:
<http://des.nh.gov/organization/divisions/water/stormwater/construction.htm>.
13. The smallest practicable area shall be disturbed during construction activities.
14. Unless otherwise authorized by DES, the Permittee shall keep erosion control supplies on the site at all times during construction to facilitate an immediate response to any construction related erosion issues on the site.