STATE OF NEW HAMPSHIRE
SITE EVALUATION COMMITTEE

Docket No. 2015-06

Joint Application of Northern Pass Transmission, LLC
and Public Service Company of New Hampshire
d/b/a Eversource Energy for a Certificate of Site and Facility

PREFILED DIRECT TESTIMONY OF RICK VAN DE POLL ON BEHALF OF THE CITY OF CONCORD

December 30, 2016

Background and Qualifications – Rick Van De Poll

Q. Please state your name and business address.

A. Rick Van de Poll, 30 North Sandwich Road, Center Sandwich, NH 03227

Q. Please describe your educational background and work experience, and list any professional degrees and licenses that you hold.

A. I own and operate a sole proprietor LLC that I started in 1988 called Ecosystem Management Consultants ("EMC"). This consultancy provides natural resource and particularly wetland consulting services to the public and private sector of New England. Since its inception, EMC has provided natural resource consulting services to over 80 towns in New Hampshire, Maine, Vermont, Massachusetts, and New York. Inventories and assessments have been completed on over 300,000 acres of land. I received my Bachelors Degree in Outdoor Education from The Evergreen State College in Olympia, Washington in 1977, my Masters Degree in Environmental Science and Communications from Antioch New England University in 1986, and my Ph.D. in Natural Resource Management from The Union Institute in 1996. I am a Certified Wetland Scientist in the state of New Hampshire. For 20 years before and during my consulting business I taught graduate and undergraduate courses at Antioch New England and Plymouth State University.

Purpose of Testimony

Q. What is the purpose of this prefiled direct testimony?

A. My testimony is to address the wetlands impacts associated with the proposed Northern Pass project in the City of Concord, as well as the potential impacts relating to natural resources such as wildlife habitat fragmentation.

Wetland Impacts

Q. Please discuss generally the wetlands impacts in the City of Concord associated with the proposed Northern Pass project.

A. The October 2015 Wetland Permit Application filed with the NH Department of Environmental Services by Normandeau Associates, Inc. indicated permanent impacts to wetlands in Concord of 501 square feet (s.f.) and temporary impacts to wetlands that equaled approximately 7.3 acres. The permanent impacts were almost exclusively associated with the placement of utility poles within existing marshes. Temporary impacts were primarily identified as staging areas for the construction of transmission and distribution structures as well as access roads to work sites. After a careful review of current color infrared aerial photography, it is clear that both permanent and temporary impacts to be incurred by this project are significantly more than stated. A review of the 28 map sheets pairs for Concord resulted in a tally of 38 errors representing approximately 71,610 s.f. (1.64 acres) of additional, probable wetland impacts. In most cases these involved wetlands where poles were being placed that were not indicated as wetlands on the permit application map sheet. In other instances, access roads were indicated in wetland areas that were marked as uplands. For example, at the proposed access road to pole

3132-85 off of Route 132, it appeared that the entire access road of 550 s.f. was within a wetland. This estimate of additional impacts included approximately 720 s.f. of additional permanent impacts from pole placement, assuming an average of 60 s.f. per pole.

Q. What are some of the long-term effects resulting from a wetland impact that has been classified as "permanent"?

A. Long-term effects of what has been classified as "permanent" include a number of reduced wetland functions. In approximate order of importance, these include wetland-dependent wildlife habitat, fish & aquatic life habitat, scenic quality, flood storage, groundwater recharge, and loss of rare & endangered species habitat. Wetland-dependent wildlife loss will mostly affect birds and bats, which have been shown to suffer some mortality during night migration across and along transmission lines. Fish & aquatic life habitat will be compromised by the direct placement of fill, alteration of local hydrology, and indirect impacts of losing temperature-regulating vegetation cover. Scenic quality function will be particularly impacted, especially at Turkey Pond where 330.61 acres of conservation land provides a permanent, development-free zone for public enjoyment of this recreational resource. Some flood storage will be lost due to fill placement in floodplains notably along the third-order Burnham and Hayward Brooks. Groundwater recharge will mostly be compromised by the compaction of soils during the construction phase of the project. In spite of the claim that the access roads and construction pads will only create "temporary" impacts, it is clear that the use of 50 – ton pieces of equipment over soft hydric soils will have a permanent, compacting effect regardless of the protective mats that are intended to be used.

Q. What are the some of the long-term effects resulting from a wetlands impact that has been classified as "temporary"?

A. As noted above, the "temporary" impacts associated with this project, which is now estimated to be more on the order of 9.0 acres rather than 7.3 acres, will actually effect *permanent* impacts to wetland function. Besides the placement of over 1100 tons of fill at some of the 9,000 s.f., "temporary" construction pads, existing access roads will be regraded, filled, and then "returned to their original condition." This will alter surface water run-off patterns, infiltration rates, and likely result in much larger impervious areas than what currently exists. These temporary impacts will affect a number of wildlife species in Concord, especially nesting amphibians, reptiles, and birds that will be displaced by the construction activities. Although temporally short in nature, these impacts could cause irreparable long-term harm to habitat sensitive species such as grassland and marsh-nesting birds.

Q. What are your concerns about the mitigation proposed by the Northern Pass project applicants?

A. Relative to direct and indirect impacts to wetlands, the applicant signed an agreement with the Department of Environmental Services to provide upland buffer protection by direct payments into the Aquatic Resource Mitigation Fund. Whereas these monies can provide great assistance to certain organizations and agencies who wish to conserve land permanently, there is no requirement for the mitigation funds to be spent near or adjacent to the impact site, let alone in the City of Concord. In short, there is no intended effort short of using best management practices ("BMPs") to remove the old towers and construct the new ones to

restore wetland functions *where they are being directly impacted*. As stated above, the +/- 1200 s.f. of permanent impact to wetlands in Concord is not as great a concern as the nine acres of temporary impacts, which by law *they do not have to mitigate for*.

Q. Please summarize your findings and conclusions regarding the potential ecological impacts to wetlands in the City of Concord that you reviewed.

A. It is apparent that the construction of 189 new transmission structures and 154 distribution structures along the 8.1 miles of right-of-way in Concord will have tremendous effects on wetlands and other natural resources. The loss of 10-11 acres of vegetative cover and nine acres of temporary impacts will have direct, detrimental effects on feeding and nesting vertebrates, upland insects, and aquatic life. The construction phase could span as much as three seasons, especially if impacted locales need to be replanted or otherwise restored. Because only a selection of "special species" were assessed for direct impacts it is unclear what the impacts will be to the remaining 10,000+ species that were not studied or considered. Wetland mitigation will not be required for 99.7% of the impacts, yet hundreds of acres of upland buffer *that directly contribute to wetland function* will be altered in ways that are largely unknown. Because of the impossibility of perfectly restoring the temporary impacts associated with this project, it is likely that the overall wetland resources of Concord will suffer as a result.

Impacts to Natural Resources – Wildlife Fragmentation

Q. What are some of the impacts to wildlife habitat that will result from the proposed Northern Pass project, including wildlife habitat fragmentation?

A. A decrease of 10-11 acres of vegetation cover will add to the fragmenting effects of the proposed NP project on residential wildlife. Forest-dependent species will be directly affected and the potential for an increase in invasive species is very high. Although the habitat for wildlife that prefers non-forest areas will be improved, this may not be the case for some of the rare wildlife species, notably upland invertebrates that currently rely on scrubby, pine barrens conditions for survival. For the federally threatened Karner blue butterfly alone, the applicant has stated that over 60% of the wild lupine population upon which they depend, will be impacted by the construction efforts. It is acknowledged by the applicant that these "unavoidable impacts" will result in a permanent loss of an estimated 208 butterfly eggs, and that mitigation measures will be limited to providing habitat elsewhere. It is noteworthy that the other 15 state-listed rare insects that occupy these dry, riverbluff and pine barrens habitats in south Concord have not been studied, and that the applicant has presumed that the same mitigation measures afforded the Karner blue butterfly will benefit these species as well. On the whole, very few wildlife species were studied with great intensity and therefore the direct and indirect impacts to most species will remain unknown.

Q. What is the concern about wildlife habitat fragmentation for the natural resource community and the City of Concord?

A. Perhaps the greatest concern is for species that will be lost during and after the construction of the towers and distribution structures. Many of these species will not have been tallied or documented, and many will not recover from the impacts of construction and permanent habitat alteration. Equally as important are those species, some which we do not fully understand or have not yet seen, that will proliferate along with the increase in disturbance to the existing right-of-way. Although we understand a great deal about invasive plants, we know little of the invertebrate fauna that optimize these plants, or how they compete directly for food sources that support some of our rarest species. With increased shifts in dramatic weather patterns and the possibility of more frequent and severe drought, these "newcomers" may gain a foothold in the ecological fabric of the natural resource base of the City and permanently alter the trophic levels of our native flora and fauna. Aside from the potential for remediation we have through permitting, we have very little recourse of impacts that occur unknowingly or in a way that has longer term effects than what the permit conditions require.

Q. Does this end your testimony?

A. Yes.