



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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REF: Initiation of informal section 7 consultation-
Northern Pass Transmission Line Project, New Hampshire

June 12, 2015

Mr. Brian Mills
U.S. Department of Energy
Office of Electricity Delivery and Energy Reliability
1000 Independence Avenue, SW
Washington, DC 20585-0800

Dear Mr. Mills:

This letter responds to your request, dated December 9, 2014, for review of a list of federally threatened and endangered species, and notification of other concerns relative to the proposed action that the U.S. Fish and Wildlife Service (Service) may have in relation to the Northern Pass Transmission Line Project (Project) proposed to be constructed through northern and central New Hampshire. The proposed Project will transmit electrical power from Hydro-Quebec to the New England Electrical System.

Northern Pass Transmission LLC (Northern Pass) has applied to the Department of Energy (DOE) for a Presidential permit to construct, operate, maintain, and connect an electric transmission line across the U.S. border with Canada in New Hampshire. In order to assess the potential environmental impacts from this proposed Federal action, DOE is preparing an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA) of 1969. Our comments are provided pursuant to the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531, *et seq.*), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (FWCA) (16 U.S.C. 662, *et seq.*). These comments are being provided to assist DOE in assessing the potential impacts of issuing a Presidential permit and the Federal action.

On March 10, 2010, this office provided information to Ed Bowers of Burns and McDonnell on the presence of resources or property under the jurisdiction of the Service within a project study area that included portions of Coos, Grafton, Belknap, Merrimack, Rockingham, and Strafford Counties. On August 24, 2011, the Service provided an updated response to Mrs. Lee Carbonneau of Normandeau Associates, Inc., based upon a review of spatial data depicting preferred and alternative transmission line routes. On July 1, 2013, Northern Pass filed an amended application with DOE which reflected several changes, including a modified northern section for the proposed project route. Your most recent request to the Service asks for our

review of the amended proposed transmission line and alternatives being analyzed in the EIS as described in the Northern Pass Scoping Report,¹ Alternatives Addendum, dated May 2014.

Proposed Action

According to the information provided in the aforementioned Scoping Report, the Proposed Action is the construction of a single circuit 300 kilovolt (kV) High Voltage Direct Current (HVDC) transmission line running approximately 153 miles from the U.S. border crossing with Canada near the Town of Clarksville, New Hampshire, south to a new converter station located in Franklin, New Hampshire, where the HVDC power will be transformed to Alternating Current (AC). From Franklin, New Hampshire, a 345-kV overhead transmission line is proposed that will convey power along a 34-mile segment to the existing Deerfield Substation located in Deerfield, New Hampshire. The total length of the proposed Project would be approximately 187 miles. Several alternatives are being evaluated in the EIS, including variations in the route of the transmission line and the possible burial of certain segments.

Federally Listed Endangered and Threatened Species

Federal agencies have an obligation under section 7 (a) 2 of the ESA to consult with the Service on any action they fund, permit or carry out, to ensure that the action does not jeopardize the continued existence of listed threatened and endangered species. There are five federally listed species known to occur in the vicinity of the Project. Those species include the federally threatened Canada lynx (*Lynx canadensis*), the federally endangered Karner blue butterfly (*Lycaeides melissa samuelis*), the federally threatened northern long-eared bat (*Myotis septentrionalis*), the federally threatened small whorled pogonia (*Isotria medeoloides*), and the federally endangered dwarf wedgemussel (*Alasmidonta heterodon*). No other federally listed or proposed, threatened or endangered species or critical habitats under the jurisdiction of the Service are known to occur in the Project area.

Indiana bat

In your request for review, you listed the Indiana bat (*Myotis sodalis*) as potentially located in the Project area. We are not aware of any confirmed specimens documenting the current or historical presence of the species within New Hampshire. The closest known documented occurrence of the species is from the Lake Champlain region of Vermont, at a location exceeding 40 miles distance to the west. Consequently, we do not consider the Indiana bat to be potentially present. We recognize that acoustic surveys conducted by Ecology and Environment, DOE's consultant for the Project, resulted in the identification acoustic signatures indicative of *Myotis sodalis*. However, considering the close resemblance and potentially indistinguishable acoustic signatures of *Myotis sodalis*, *M. septentrionalis* and *M. lucifugus* (the little brown bat), with the latter two species known to be present in New Hampshire, it is highly probable that the Indiana bat calls were misidentified. This interpretation is supported by the observation that all acoustic software analysis programs are known to provide some false identifications of the presence of *Myotis sodalis*.² Given the known misidentification of *Myotis sodalis* resulting from acoustic

1 Available at http://media.northernpasseis.us/media/The%20Northern%20Pass%20EIS%20Scoping%20Report%20Alternatives%20Addendum_05_01_2014_final.pdf, accessed May 28, 2015.

2 From M. Ford, unpublished report, dated September 15, 2014. Available at http://www.fws.gov/midwest/endangered/mammals/inba/surveys/pdf/USGSTestReport1_201409015.pdf, accessed June 8, 2015.

analysis software and the lack of a physical specimen corroborating the presence of the Indiana bat within the State, we conclude that the Indiana bat is not present.

Canada lynx

As indicated above, the Canada lynx (lynx) is known to occur in northern New Hampshire. Intensive surveys have been conducted from the White Mountain region of New Hampshire north to the international border. These surveys reveal that in the extreme northern portion of the State (north of the Village of Pittsburg), lynx are regularly detected and we conclude that they are resident in the area. From the Village of Pittsburg south through the White Mountain region, including the portions of the proposed Project area, lynx are detected only infrequently and at scattered locations, which suggests that the observations are of transient individuals that are wandering through the area. Consequently, we conclude that the lynx is transient throughout the area evaluated for this Project. We are not aware of potential activities on existing cleared rights-of-way (ROWS) that may result in direct adverse effects to lynx.

Expansion of existing ROW and new ROW alignments require further analysis because habitat used by lynx may be altered. To assess these impacts, a description of the vegetation in areas where new alignment will be constructed is needed so that we can assess potential impacts to lynx and their habitat. Specifically, we are interested in identifying potential denning habitats that may be present in landscapes containing other lynx habitat types, such as young coniferous forests that are occupied by snowshoe hares (*Lepus americanus*), the primary prey species for the lynx throughout its range.

While direct impacts to lynx resulting from activities on existing ROWs are not expected, indirect impacts are anticipated because maintenance activities may influence snowshoe hare abundance. To ensure that impacts to lynx are minimized, we recommend further coordination with this office regarding the development and implementation of vegetation maintenance practices that maintain suitable shrub and young coniferous cover for snowshoe hare.

Karner blue butterfly

The Karner blue butterfly is known to occupy an existing ROW in Concord, New Hampshire that is proposed to be traversed by the Project. The Karner blue butterfly relies upon wild lupine (*Lupinus perennis*) as its only larval host plant. Because of this, adults deposit their eggs on and in close proximity to lupine where, upon hatching, the larvae are provided access to lupine. The larvae consume this lupine and eventually pupate, usually in close proximity to the host plant. Since lupine is present in the existing ROW, Karner blue butterflies will be present within the Project throughout the year.

In addition to the use of wild lupine for mating, adult Karner blue butterflies generally require tall grass for late afternoon basking and overnight roosting, some shading vegetation to prevent overheating, a source of water, and nectar sources for the adults. A variety of understory plants serve as nectar sources for the adults. Consequently, impacts to habitats within the vicinity of occupied lupine patches may affect the Karner blue butterfly by impacting their ability to feed, breed, and shelter.

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ROW construction and maintenance activities can result in adverse effects to the Karner blue butterfly and its habitat. Therefore, further coordination with this office is required, in the event that this portion of the ROW is selected as the preferred alternative. It may be possible to develop conservation measures that avoid or reduce adverse effects to the Karner blue butterfly, while allowing construction in, and maintenance of the ROW. Incorporation of these measures into the Project is advisable, and we are available to assist you in the development of these measures.

Northern long-eared bat

Formerly, the northern long-eared bat was common throughout New Hampshire. However, following the detection of white-nose syndrome (a fungal infection resulting in high mortality of bats) in hibernating bats during the winter of 2008-2009, the abundance of northern long-eared bats in New Hampshire has declined dramatically. Several hibernacula are known to occur in close proximity to the Project and include: (1) a mine in the Town of Woodstock, located approximately 1.0 mile west; (2) a mine in the Town of Campton, located approximately 0.30 mile to the east; and (3) a mine in the Town of Bristol, located approximately 2.8 miles to the west. We are aware of no known occupied roost trees within the Project area.

The Service developed an interim rule specific to the northern long-eared bat under section 4(d) of the ESA.³ Under this interim rule, incidental take is not prohibited when it is associated with the maintenance and minimal expansion of existing ROWs and transmission corridors, when carried out in accordance with the conservation measures provided in the 4(d) rule. Based on our current understanding of the Project, compliance with the conservation measures may not be possible. For example, we are aware that expansion of the ROW may exceed the 100-foot threshold specified in the interim rule.

To complete the effects determination for the northern long-eared bat, we recommend comprehensive surveys be performed that will allow us to determine the current distribution of the species along the Project route. Surveys should be performed in accordance with current Indiana bat summer survey guidelines.⁴ This occurrence information would allow us to assess the Project for take, as defined in section 3(19) of the ESA and 50 CFR §17.3, which could occur by killing or injuring bats during the summer active season, when trees are used for daytime roosting and rearing of pups. Additionally, we have identified the potential for take to occur as a consequence of significant habitat modification or degradation occurring through vegetation management that may significantly impair essential behavioral patterns, such as breeding, feeding or sheltering.

Also, please note that this interim rule under section 4(d) of the ESA does not remove, or alter in any way, the consultation requirements under section 7 of the ESA.

³ 80 FR 17974, April 2, 2015. Available at <http://www.gpo.gov/fdsys/pkg/FR-2015-04-02/pdf/2015-07069.pdf>, accessed May 29, 2015.

⁴ Available at <http://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html>, accessed May 29, 2015).

Dwarf wedgemussel

The dwarf wedgemussel is known to occur within several segments of the Connecticut River that are in close proximity to several of the Project alternatives, including within the segment extending from the vicinity of the Village of Groveton downstream to the upper reaches of Moore Reservoir and in the reach extending from the vicinity of the Village of Woodville downstream through the Town of Haverhill. Since Alternatives 2.4a, 2.4b, 2.6a, 2.6b, and 2.7 involve the placement of underground transmission lines in or adjacent to existing road or railroad ROWs in close proximity to occupied segments of the Connecticut River, further evaluation of these alternatives is needed to determine if dwarf wedgemussels are within the action area impacted by the Project.⁵

Small whorled pogonia

Although there are no records of the small whorled pogonia within the Project area, the species is known to occur in several towns located along the proposed and alternative ROWs. Consequently, we recommend surveys be completed by a qualified botanist to determine the status of the small whorled pogonia along those portions of the Project located within the Towns of Holderness, Ashland, New Hampton, Bridgewater, Concord, Pembroke, Allenstown and Deerfield.

This orchid occurs both in fairly young forests and in maturing stands of mixed-deciduous or mixed-deciduous/coniferous forests. In New Hampshire, many sites that support the small whorled pogonia have “older” canopy trees estimated to be about 75 years of age. The majority of sites share several common characteristics. These include sparse-to-moderate ground cover (except when among ferns), a relatively open understory, and proximity to long persisting breaks in the forest canopy, such as logging roads and streams. For example, the small whorled pogonia has been found growing in and adjacent to recently abandoned, above-ground telephone transmission lines.

The highly-acidic, nutrient-poor soil in which this orchid grows is usually covered with leaf litter. The substrate tends to be variable in texture and ranges from extremely stony glacial till, to stone-free sandy loams, to sterile duff.

Species of Special Interest

Bicknell's thrush

Although not currently listed as a threatened or endangered species, the Bicknell's thrush (*Catharus bicknelli*) may also occur in the vicinity of the Project area. The Service is in receipt of a petition, dated August 24, 2010, to list the Bicknell's thrush as a threatened or endangered species and designate critical habitat. On August 15, 2012, the Service published a determination that there exists substantial information indicating that the petitioned listing may be warranted. On March 19, 2013, the Center for Biological Diversity filed a Notice of Intent to Sue under the ESA, alleging the Service's failure to issue a required finding on the Bicknell's thrush in accordance with the timeframes identified in section 4 of the ESA. Through a court-

⁵ Action area is defined at 50 CFR§402.02 as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.”

approved settlement agreement, the Service committed to publishing a final listing determination for the Bicknell's thrush by September 2017. Consequently, although the Service has yet to make a final listing determination for the species, we recommend the Project be evaluated for impacts to the Bicknell's thrush so that impacts can be addressed and the potential for future Project delays can be minimized or avoided.

The Bicknell's thrush is a rare, range-restricted songbird that breeds in the northeastern U.S. and southeastern Canada, and winters in the Greater Antilles. In the New Hampshire portion of the species range, the Bicknell's thrush breeding activities occur exclusively within high elevation forests dominated by balsam fir (*Abies balsamea*). The degree to which ROW construction and maintenance activities impact Bicknell's thrush habitat is not clear. However, coordination with the Service, the New Hampshire Department of Fish and Game, and New Hampshire Audubon may provide insights that may allow you to avoid adversely affecting the Bicknell's thrush or its habitat.

Migratory Bird Treaty Act

The MBTA prohibits taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. Neither the MBTA nor its implementing regulations at 50 CFR Part 21 provide for permitting of "incidental take" of migratory birds. While take of migratory birds does not include habitat destruction or alteration, direct taking of birds, nests, eggs, or parts thereof is likely to occur if clearing or other ground disturbance occurs within migratory bird nesting habitat during the nesting season, when eggs or young are likely to be present. Vegetation removal activities should not occur during these periods.

A Memorandum of Understanding (MOU) between DOE and the Service regarding Implementation of Executive Order 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds," was signed in 2006. Section F(e) of the MOU obligates DOE to ensure that migratory bird protection and conservation is considered in NEPA project reviews.

Overhead utility lines may cause mortality to birds through electrocution or collision. Any new lines should be installed according to the Avian Power Line Interaction Committee (<http://www.aplic.org/>) (accessed June 2015) standards.

This Project occurs within the Atlantic Northern Forest Bird Conservation Region (BCR) 14. BCRs are ecologically based units for planning, implementing, and evaluating cooperative bird conservation efforts across North America. Activities associated with this Project, particularly the creation of new and the expansion of existing ROWs, may result in direct and secondary impacts to forest-interior breeding birds and their natural habitats. There will be an increase in disturbance of birds from habitat fragmentation, increased populations of some predators due to edge effect, and possibly an increase in the spread of invasive species. These are important issues to consider when developing avoidance, minimization and mitigation measures.

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Bald and Golden Eagle Protection Act

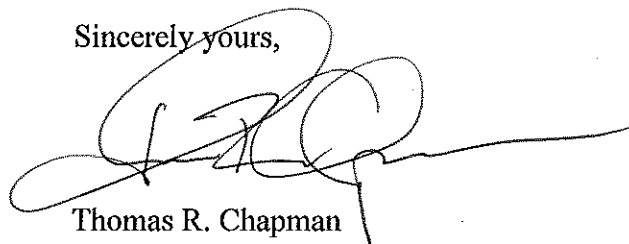
The bald eagle (*Haliaeetus leucocephalus*) is known to frequent several lakes and rivers located throughout the Project area, including the Connecticut, Pemigewasset and Merrimack Rivers. Although delisted from the ESA on August 8, 2007, protection of the bald eagle continues under the MBTA and the Bald and Golden Eagle Protection Act (BGEPA). To facilitate compliance with these laws, the Service developed and distributed the "National Bald Eagle Management Guidelines" that provide recommendations for avoiding deleterious impacts to these birds (<http://www.fws.gov/northeast/ecologicalservices/pdf/NationalBaldEagleManagementGuidelines.pdf>) (accessed June 2015). Several measures that are specific to transmission lines were included among the recommendations in these guidelines, including avoidance of important eagle use areas, such as nesting, foraging and wintering habitats. In instances where avoidance may not be possible, implementation of best management practices to prevent collision or electrocution of eagles is recommended. To address these issues, we advise that you contact the New Hampshire Department of Fish and Game and New Hampshire Audubon to identify important eagle use areas and, where appropriate, eagle protective measures should be implemented. If best management practices to prevent collision or electrocution in important eagle use areas cannot be implemented, we recommend that you coordinate with the Service's Regional Bald and Golden Eagle Coordinator at (413) 253-8592 to determine if an eagle conservation plan and a permit under BGEPA is needed.

U.S. Fish and Wildlife Service Properties

According to the spatial data you provided, the Preliminary Preferred Route for this Project includes the use of an existing transmission line ROW through a portion of the Pondicherry Division of the Silvio O. Conte National Wildlife Refuge, located in Whitefield, New Hampshire. As such, construction and future management of this portion of the line should be closely coordinated with Mr. Andrew French, Project Leader of the Silvio O. Conte National Fish and Wildlife Refuge, at (413) 548-8002.

Thank you for your coordination. Please contact either Anthony Tur or Maria Tur of this office at 603-223-2541 if we can be of further assistance.

Sincerely yours,



Thomas R. Chapman
Supervisor
New England Field Office

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