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April 24, 2020

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : North River Bank Stabilization Project
PROJECT MUNICIPALITY : Colrain
PROJECT WATERSHED : Deerfield River
EEA NUMBER : 16163
PROJECT PROPONENT : New England Power Company d/b/a National Grid
DATE NOTICED IN MONITOR : March 11, 2020

Pursuant to the Massachusetts Environmental Policy Act (MEPA) (M.G. L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project will install sheet piles to form cells around the bases of four electric transmission support structures on or adjacent to the banks of the North River. Eroded sections of bank adjacent to two of the proposed sheet pile cells will be stabilized by log jam structures. The riverbanks in this location were badly eroded by Tropical Storm Irene in 2011.

Two of the sheet pile cells will have a diameter of 36 feet (ft) and one will have a diameter of 56 ft. The fourth sheet pile cell will have an irregular shape with a maximum dimension of approximately 55 ft. The sheet pile cells will be installed by first excavating a trench around the transmission support structures and installing a 15-ft high circular section of sheet piling to a depth of 15 ft. A 20-ft high sheet pile will then be placed on top of the 15-ft high section and installed to a depth of approximately 35 ft. Two feet of soil will be excavated from within the sheet pile cell and replaced with a geotextile fabric and crushed stone. Guy wires will be attached to the sheet piling and secured by anchor piles.

Two sections of the bank totaling 317 linear feet (lf) will be stabilized using a series of wood log jams extending approximately 20 ft into the river from the bank. The log jams will be located immediately upstream of two transmission line support structures located on the East Branch of the North River and are designed to direct current away from the riverbank. The log jams will be comprised of vertical logs driven into the river bottom intertwined with horizontal logs layered perpendicularly on top of each other. The horizontal logs will be embedded in the bank and in the river bottom. Excavated stream bed material will be placed between the logs as each layer is installed. The top layer of logs will be cabled to vertical pile logs and the log jam covered with soil and planted.

The project includes clearing of vegetation and the installation of construction mats to provide an access road to the structures from the Branch Cemetery to the north. Mats will also be placed around each structure to provide a platform for construction equipment and protect soils from compaction and rutting.

Project Site

The project site is located in southern Colrain and is bounded by Branch Cemetery to the north, Adamsville Road to the west and Jacksonville Road (Route 112) to the east. The site is on a peninsula separating the East and West Branches of the North River, which converge at the southeastern tip of the peninsula. A dam owned by the Barnhardt Manufacturing Company (Barnhardt) is located approximately 250 ft downstream (south) of the confluence of the branches of the river.

Four of National Grid's overhead electric transmission lines, designated as D4, E205E, Y177 and A127/B128, converge at the site. Line D4 crosses the area in a north-south orientation. Lines A127/B128, E205E and Y177 share a common right-of-way (ROW) west of the site, but Line A127/B128 continues along the peninsula in a northwest-southeast route while Lines E205E and Y177 turn to the east at the northern end of the peninsula. The project involves stabilizing the base of support structure 177/179 carrying Line Y-177 and the bases of structures 98, 99 and 100 carrying Line A127/B128.

The East and West Branches of the North River are designated as Cold Water Fisheries in the Massachusetts Water Quality Standards (314 CMR 4.00). As shown on the Federal Emergency Management Agency's (FEMA) National Flood Insurance Rate Map (FIRM) number 2501130010B, (effective July 2, 1980), the project site is located within the 100-year floodplain (Zone A) with a Base Flood Elevation (BFE) of 528 ft NAVD 88. According to the Natural Heritage and Endangered Species Program (NHESP), the site is located within mapped *Priority* and *Estimated Habitat* of the Longnose Sucker (*Catostomus catostomus*) and Ocellated Darner (*Boyeria grafiana*), which are listed as Species of Special Concern.

According to *A Watershed-based Plan to Maintain the Health and Improve the Resiliency of the Deerfield River Watershed* published in 2015 by the Franklin Regional Council of Governments (FRCOG), the North River was among the watersheds most impacted by Tropical Storm Irene. It experienced severe erosion of streambanks and agricultural fields. The Connecticut River Conservancy has proposed a project to stabilize eroded banks in an upstream

section of the East Branch of the North River; this project completed MEPA review in 2019 (EEA# 16001).

High stream flows overtopped both branches of the North River during the storm and a large deposit of unconsolidated material blocked the flow of the West Branch downstream of the site. As a result of the blockage, a new channel was eroded across the peninsula approximately 1,200 ft upstream of the confluence of the East and West Branches. The Proponent undertook emergency restoration activities after the tropical storm, including replacement of Structure 100 and placement of riprap on the shoreline around its base. The Proponent conducted these activities in accordance with emergency procedures adopted by the Massachusetts Department of Environmental Protection (MassDEP), NHESP and the U.S. Army Corps of Engineers (ACOE). The downstream dam was also damaged in the storm. Barnhardt has received authorizations from MassDEP, NHESP and the ACOE to repair the dam and remove a blockage in the West Branch of the North River.

Environmental Impacts and Mitigation

Potential environmental impacts of the project include alteration of 455 lf of Bank, 10,168 sf of Land Under Water (LUW), 66,500 sf of Bordering Land Subject to Flooding (BLSF) and 66,500 sf of Riverfront Area. These resource areas provide habitat for rare species.

The project is intended to protect the electric transmission support structures and make this infrastructure more resilient to future storm and flooding events. Measures proposed to avoid, minimize and mitigate environmental impacts include designing the log jams to provide aquatic habitat. Construction mats will be used to minimize impacts from construction equipment, and sedimentation and erosion controls will be installed around work areas to minimize impacts to water quality. As described below, the Proponent has selected an overall project design that meets project goals while minimizing impacts to surrounding wetlands compared to other alternatives.

Permitting and Jurisdiction

The project is undergoing MEPA review and requires the filing of an ENF because it will require an Agency Action and it meets the review thresholds at 301 CMR 11.03(3)(b)(1)(e), new fill or structure within a regulatory floodway, and 301 CMR 11.03(3)(b)(1)(f), alteration of ½ or more acres of any other wetlands (LUW, BLSF and Riverfront Area). The project requires a Section 401 Water Quality Certificate (WQC) from MassDEP and a Conservation and Management Permit (CMP) from NHESP.

The project requires an Order of Conditions from the Colrain Conservation Commission (or, on appeal, a Superseding Order of Conditions from MassDEP). It requires the filing of a Pre-Construction Notification (PCN) with the ACOE and may require a National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the U.S. Environmental Protection Agency (EPA).

Because the Proponent is not seeking Financial Assistance from the Commonwealth for the project, MEPA jurisdiction for any future review would extend to those aspects of the project

that are within the subject matter of required or potentially required Agency Actions and that may cause Damage to the Environment as defined in the MEPA regulations.

Review of the ENF

The ENF provided a detailed description and plans of existing and proposed conditions, analyzed alternatives, and identified potential impacts and mitigation measures.

Alternatives Analysis

The ENF reviewed a No Action alternative and three design alternatives, including Sheet Pile Cells, Transmission Line Relocation and Bank Armoring. The alternatives were compared qualitatively with respect to their impacts on rare species habitat and wetland resource areas and effects on river hydrology. The No Action alternative would not provide additional protection of the transmission support structures, likely leading to failure of the structures after future storm events. The Sheet Pile Cells alternative is similar to the Preferred Alternative, but does not include bank stabilization with log jams. Aside from the No Build, this alternative was determined to have the fewest environmental impacts. The use of sheet pile cells around the base of the structures would minimize intrusion into the river and impacts associated with the installation of log jams would be avoided. This alternative determined to be less preferable because it does not provide additional protection from scour and flooding to the sheet piles and anchor piles that log jams would provide by directing flow away from the bank.

The Transmission Line Relocation alternative would relocate Line A177/B178 away from the peninsula to the ROW shared by Lines Y177 and E205E to minimize the likelihood of damage to support structures from flooding. Three sections of bank adjacent to existing transmission line support structures would be stabilized with log jams to provide short-term protection while the relocation of the line was designed and constructed. According to the ENF, this alternative would require expanding the ROW through an area with steep terrain, which would require significant environmental impacts, including earthwork and wetlands alteration, to provide safe conditions for its construction and maintenance. According to the ENF, this alternative would have greater impacts than the Sheet Pile Cells alternative and Preferred Alternative.

Several techniques were considered for use in the Bank Armoring alternative, including the use of sheet pile cells extending beyond the bank and into the river channel to enclose each structure and guy wire anchor piles; gabion walls or stone revetments around the electric transmission structures and anchor piles; and riprap and/or stone mattresses along the bank to reduce long-term bank erosion and meandering of the river channel toward the structures. This alternative would have the greatest impact of all alternatives because of the amount of proposed fill and structures in the river and impacts to rare species habitat. The installation of hard structures in the river also would have the potential to cause erosion along other sections of riverbank. In addition, this alternative would not be reliable over the long term because hard structures are more prone to being undermined by scour than log jams.

The Preferred Alternative will use sheet pile cells around the base of the electric transmission structures to limit impacts to the river and associated wetland resource areas. It will avoid the placing hard structure on the riverbanks or in the river channel by using log jams to

protect the bank and transmission structures from erosion. This technique, which is designed to mimic natural conditions as compared to the harder structures proposed in the Bank Armoring alternative, provides protection against scour and flooding by directing flow away from the riverbank.

Wetlands and Waterways

According to the ENF, the project will permanently impact 317 lf of Bank and 3,200 sf of LUW by embedding log jams in the bank and river bottom. The use of logs for shoreline stabilization is intended to mimic natural conditions within the river and provide aquatic habitat. Construction activities will temporarily alter 138 lf of Bank, 6,968 sf of LUW and an area of 66,500 sf that includes both BLSF and Riverfront Area. Temporary impacts will be largely due to the use of construction mats, which, while not allowing total avoidance of temporary disturbance to wetland resources areas, will minimize impacts to soil and vegetation by preventing direct contact to these areas from construction machinery.

The plans included in the ENF indicate that relatively small parts of three of the proposed sheet pile cells will extend into the bank and be covered by soil to provide a natural covering. During the WQC permitting process, the Proponent and MassDEP should review alternatives that further minimize the extent of sheet piling within the bank of the river. While the sheet piling is intended to stabilize the electric transmission structures and make them more resilient to weather events, they could also lead to more bank erosion as these structures become exposed by future storm events.

Rare Species

Project activities will take place within rare species habitat and NHESP has determined that the project will result in a Take of the Oscellated Darner and Longnose Sucker. Issuance of a CMP requires that a project avoid and minimize impacts to state-listed species in accordance with the following performance standards: 1) assess alternatives that avoid or minimize temporary and permanent impacts to the state-listed species, (2) demonstrate that an insignificant portion of the local population will be impacted or that no viable alternative exists, and (3) develop and implement a conservation plan that provides a long-term net benefit to the conservation of the local population of the impacted species. The Proponent has consulted with NHESP during the design of the project to avoid, minimize and mitigate impacts to rare species. According to NHESP, potential mitigation measures that would provide long-term benefits to populations of these species are being reviewed and may include conservation research on the affected species or funding of relevant research on the species.

Climate Change

As noted above, the North River is susceptible to extreme flooding from high intensity storms. The region's climate is expected to experience more frequent and intense storms. The Northeast Climate Science Center at the University of Massachusetts at Amherst has developed projections of changes in temperature, precipitation and sea level rise for Massachusetts. This data is available through the Climate Change Clearinghouse for the Commonwealth at www.resilientMA.org. These projections indicate that by 2100, the average annual total

precipitation in the Deerfield River Basin may increase by 2.5 to 9.0 inches, which may be associated with more frequent and more intense storms.

The ENF did not review potential conditions at the site under future climate change scenarios or how the project design will make this infrastructure resilient under those conditions. I encourage the Proponent to consider future climate change conditions as the design of the project is finalized and proceeds to permitting. I note that the MEPA statute directs all State Agencies to consider reasonably foreseeable climate change impacts, including additional greenhouse gas emissions, and effects, such as predicted sea level rise, when issuing permits, licenses and other administrative approvals and decisions. M.G.L. c. 30, § 61.

Construction

The Proponent will implement sediment and erosion control measures, including silt curtains in the river surrounding work areas, to minimize water quality impacts. Mats will be used to minimize direct contact between construction machinery and habitat and resource areas. The Proponent should minimize the potential for releases of oil and/or other hazardous materials and consider requiring that construction equipment working near the river use biodegradable hydraulic fluid and through the development and implementation of a spills contingency plan. The project must comply with the Solid Waste and Air Pollution Control regulations. I refer the Proponent to comments from MassDEP regarding construction-period requirements regarding air quality, spills prevention and solid waste management. The Proponent should notify MassDEP in accordance with the Massachusetts Contingency Plan (310 CMR 40.00) if oil and/or hazardous materials are found during construction.

Conclusion

The ENF has adequately described and analyzed the project and its alternatives, and assessed its potential environmental impacts and mitigation measures. Based on review of the ENF and comments received on it, and in consultation with State Agencies, I have determined that an EIR is not required.



April 24, 2020

Date

Kathleen A. Theoharides

Comments received:

03/31/2020 Massachusetts Department of Environmental Protection (MassDEP) – Western Regional Office (WERO)
04/14/2020 Natural Heritage and Endangered Species Program (NHESP)

KAT/AJS/ajs



Commonwealth of Massachusetts
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Department of Environmental Protection

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Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

March 31, 2020

Kathleen A. Theoharides, Secretary
Executive Office of Energy & Environmental Affairs
Massachusetts Environmental Policy Act Office
Alex Strysky, EEA No. 16163
100 Cambridge Street, 9th Floor
Boston, MA 02114-2524

Re: North River Bank Stabilization Project
Colrain ENF

Dear Secretary Theoharides,

The Massachusetts Department of Environmental Protection (MassDEP), Western Regional Office (WERO) appreciates the opportunity to comment on the Environmental Notification Form (ENF) submitted for the proposed North River Bank Stabilization Project in Colrain, Massachusetts. The applicable MassDEP regulatory and permitting considerations regarding waterways, air pollution, solid waste, hazardous waste and waste site cleanup are discussed.

I. Project Description

The New England Power Company d/b/a National Grid (NEP), Proponent, is proposing bank stabilization and restoration of two areas of the Bank at the East and West Banks of the North River in Colrain, (EEA # 16163). A transmission line structure was toppled as a result of the flooding that occurred during Tropical Storm Irene in August 2011. Stability of the banks on a peninsula was reduced and the stability of other power company structures was undermined. Sheet pile cells will be driven and log jams will be created to ensure river flow does not undermine the transmission line structures. A temporary access road through an agricultural field will be utilized for equipment and the field will be restored at the conclusion of the project.

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

TTY# MassRelay Service 1-800-439-2370

MassDEP Website: www.mass.gov/dep

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Environmental impacts associated with this project include:

- 66,500 sf (temporary) new acres of land altered (1.5 acres)
- 3,200 sf Land Under Water (permanent alteration)
- 6,968 sf Land Under Water (temporary alteration)

II. Required Mass DEP Permits and/or Applicable Regulations

Water Quality Certificate

314 CMR 9.00

Waterways

310 CMR 9.00

Air Pollution

310 CMR 7.00

Solid Waste

310 CMR 16.00

Hazardous Waste

310 CMR 30.00

Bureau of Waste Site Cleanup

310 CMR 40.000

III. Permit Discussion

Bureau of Water Resources

Water Quality Certificate

This project as presently proposed will require a Water Quality Certification for both a "discharge of dredged or fill material" subject to 314 CMR 9.06 and for "dredging" subject to 314 CMR 9.07. Please submit a WW 07 Application to MassDEP Western Region Division of Wetlands and Waterways, and make sure to fill out those portions of this form that apply to "discharges of dredged or fill material". Upon receipt, MassDEP will review the required alternatives analysis per 314 CMR 9.06.

As part of this analysis, MassDEP will work with the Proponent to ensure that any approved discharges are conducted in compliance with a previously issued and still active Water Quality Certification governing activities at the Project Site, and allied compliance requirements imposed by MassDEP and other cooperating agencies.

Waterways

At a minimum the proposed dredging component of the work will require a Waterways Permit per 310 CMR 9.05(2)(b). Other aspects of this project may require a Waterways License depending upon final design. MassDEP will continue to work with other agencies that have been coordinating efforts while providing guidance to the

Applicant over the last few years and will provide guidance on permit sequencing in concert with these agencies. MassDEP advises, but does not require that the Applicant seek and obtain a Water Quality Certification prior to requesting the closing of a public hearing and issuance of an Order of Conditions under 310 CMR 10.00.

Bureau of Air and Waste

Air Quality

Construction Equipment

MassDEP recommends that the project proponent participate in the MassDEP Diesel Retrofit Program. All non-road engines shall be operated using only ultra low sulfur diesel (ULSD) with a sulfur content of 15 ppm pursuant to 40 CFR 80.510.

Solid Waste

The proponent shall properly manage and dispose of all solid waste generated by this proposed project pursuant to 310 CMR 16.00 and 310 CMR 19.000, including the regulations at 310 CMR 19.017 (waste ban).

The project proponent should be advised that construction activity at the site must comply with both Solid Waste and Air Quality Control regulations. The appropriate Solid Waste provisions addressing this include M.G.L. Chapter 40, Section 54.

Hazardous Waste

If any hazardous waste, including waste oil, is generated at the site, the proponent must ensure that such generation is properly registered with the Department and managed in accordance with 310 CMR 30.00.

Bureau of Waste Site Cleanup

If soil and/or groundwater contamination is encountered during excavation activities, the proponent should retain a Licensed Site Professional (LSP); the MCP details procedures to follow for the parties conducting work. MassDEP staff are available for guidance.

Spills Prevention

A spills contingency plan addressing prevention and management of potential releases of oil and/or hazardous materials from pre- and post-construction activities should be presented to workers at the site and enforced. The plan should include but not be limited to, refueling of machinery, storage of fuels, and potential releases.

IV. Other Comments/Guidance

MassDEP staff is available for discussions as the project progresses. If you have any questions regarding this comment letter, please do not hesitate to contact Kathleen Fournier at (413) 755-2267.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Michael Gorski
Regional Director

cc: MEPA File



MASSWILDLIFE

DIVISION OF FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581
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MASS.GOV/MASSWILDLIFE

April 14, 2020

Matthew A. Beaton, Secretary
Executive Office of Energy and Environmental Affairs
Attention: MEPA Office
Alex Strysky, EEA No. 16163
100 Cambridge St.
Boston, Massachusetts 02114

Project Name: National Grid North River Bank Stabilization Project, Colrain
Proponent: New England power Company d/b/s National Grid (NEP)
Location: North River at confluence with the East and West Branches of the North River
Document Reviewed: Environmental Notification Form
EEA No.: 16163
NHESP No.: 15-34071

Dear Secretary Beaton:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (the "Division") has received and reviewed the *Environmental Notification Form* (ENF) for the proposed *National Grid North River Bank Stabilization Project, Colrain* (the Project) and would like to offer the following comments regarding state-listed species and their habitats.

Based on a review of the information provided and the information currently contained in our database, the proposed project will occur within the mapped *Priority* and *Estimated Habitat* for the following state-listed species:

Scientific name	Common Name	Taxonomic Group	State Status
<i>Boyeria grafiana</i>	Ocellated Darner	Dragonfly	Special Concern
<i>Catostomus catostomus</i>	Longnose Sucker	Fish	Special Concern

The species listed above are protected under the Massachusetts Endangered Species Act (MESA) (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00). State-listed wildlife are also protected under the Wetlands Protection Act (WPA) (M.G.L. c. 131, s. 40) and its implementing regulations (310 CMR 10.00). Fact sheets for most state-listed rare species can be found on our website (www.mass.gov/nhesp).

The proposed project described in the ENF is focused on the repair and protection of structures to support four overhead electric transmission utility lines that cross over the river. The structures are located on a peninsula of sands and sediments at the confluence of the East and West Branches of the North River. The structures were damaged due to flood waters from Hurricane Irene in August 2011.

MASSWILDLIFE

NEP conducted emergency restoration actions immediately following Hurricane Irene in consultation with the Division. Since 2015, NEP has consulted with the Division and other state and federal agencies to develop a bank stabilization plan - largely reliant upon biostabilization methods and sheet-pile cell structures - to protect the utility structures.

The Division anticipates that the proposed Project will result in a Take (321 CMR 10.18) of state-listed species based upon a review of the information contained in the ENF, discussions during pre-filing consultations, and the information contained in our database. Projects resulting in a Take of state-listed species may only be permitted if they meet the performance standards for a Conservation and Management Permit (CMP; 321 CMR 10.23). In order for a project to qualify for a CMP, the applicant must demonstrate that the project has avoided, minimized and mitigated impacts to state-listed species consistent with the following performance standards: (a) adequately assess alternatives to both temporary and permanent impacts to the state-listed species, (b) demonstrate that an insignificant portion of the local population will be impacted, and (c) develop and agree to carry out a conservation and management plan that provides a long-term net benefit to the conservation of the state-listed species.

The Proponent has proactively consulted with the Division during pre-filing consultation to avoid, minimize and mitigate impact to state-listed species and their habitat associated with proposed Project. The Proponent is still exploring options to achieve a long-term net benefit for the affected species and likely will need to consider off-site options. Further consultation will be required to determine the final mitigation and long term Net Benefit plan, but we are confident that all outstanding issues can be resolved during the MESA permitting process. The Division will not render a final decision until the MEPA review process and its associated public comment period is complete, and until all required application materials have been submitted to the Division. No alteration to the soil, surface, or vegetation associated with the proposed Project shall occur on the property until the MESA permitting process is complete.

If you have any questions about this letter, please contact Misty-Anne Marold, Senior Endangered Species Review Biologist, at (508) 389-6356 or misty-anne.marold@mass.gov. We appreciate the opportunity to comment on this project.

Sincerely,



Everose Schlüter, Ph.D.
Assistant Director

cc: Colrain Conservation Commission
Colrain Selectboard
Dan Herzlinger, TRC
David Foulis, MA DEP Western Regional Office, Wetlands
David Cameron, MA DEP Western Regional Office, Wetlands
Paul Sneeringer, U. S. Army Corps of Engineers, New England Regional Office