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

PROJECT NAME	: E131 Asset Condition Refurbishment (ACR) Project
PROJECT MUNICIPALITY	: Adams, North Adams, Florida, and Monroe
PROJECT WATERSHED	: Hoosic and Deerfield
EEA NUMBER	: 16663
PROJECT PROPONENT	: New England Power Company (NEP)
DATE NOTICED IN MONITOR	: February 8, 2023

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Section 11.06 of the MEPA Regulations (301 CMR 11.00), I have reviewed the Expanded Environmental Notification Form (EENF) and hereby determine that this project **requires** the preparation of a Draft Environmental Impact Report (DEIR). The EENF identifies baseline environmental conditions and potential environmental impacts but contains an inadequate alternatives analysis and a limited description of mitigation measures. In particular, the DEIR should explore alternatives to reduce the extent of tree clearing so as to avoid or minimize impacts to environmental resources. The DEIR should discuss whether Article 97 legislation is needed, and if so, include a full description of how the project will comply with applicable requirements. The Proponent should offer meaningful mitigation measures to offset the environmental impacts in project areas where impacts to wetlands and undisturbed forests cannot be avoided or minimized. As an adequate alternatives analysis is a central component of the MEPA review process, the request to file a Single EIR is denied.

Project Description

As described in the EENF, the project is part of a larger refurbishment effort that continues north of the Massachusetts border and ends at the Harriman Substation in Readsboro, Vermont. The E131 Transmission Line right-of-way (ROW) runs for ±11.4 miles in Massachusetts through Adams, North Adams, Florida, and Monroe. The project includes replacement of ±160 structures (H-frame, steel triple pole, steel lattice) with new steel structures and removal of five structures. Most structure replacements

will be directly embedded into the ground; however, where soil or line conditions necessitate, concrete caisson foundations will be installed at 24 structure locations, a micropile foundation system will be installed at one structure location, and pad foundations will be installed at three structure locations. Additional work includes construction of new permanent access roads (±5 miles), improvement of existing access roads, replacement of insulators and hardware, replacement of existing shield wire with Optical Ground Wires (OPGWs),[1] installation of three new switch structures,[2] and replacement of conductor in four sections. Vegetation removal within the proposed limits of disturbance will include routine mowing as well as trimming of low-growth vegetation, and proposed both within the ROW and "off-ROW" areas where new access roads are proposed. Approximately 86 acres of vegetation impact is proposed project-wide including ±17.6 acres of tree removal associated with construction of off-ROW access roads. Once trees are removed, these access roads will continue to be maintained. Expansion of the existing maintained ROW will be limited to some discrete areas as required for the safe replacement of structures, placement of work pads, access roads and for future operation of the line within required safety clearances. Project construction timeline is anticipated to be from mid-2024 to 2027.

Project Corridor

The project corridor consists of the Line E131 ROW, which includes a ±13-mile 115 kilovolt (kV) overhead electric transmission line supported by wooden H-frame structures (and access roads within and outside of the ROW) extending from the Harriman #8 Substation in Readsboro, Vermont to the Adams #21 Substation in Adams, Massachusetts. The portion of the ROW within Massachusetts is ±11.4 miles with a total limit of work of ±463 acres within the Towns of Adams, North Adams, Florida, and Monroe, of which ±9 acres are located beyond the existing ROW easement. The E131 line was constructed in 1925 and existing wooden H-frame transmission structures are from its original construction. In 1971, upgrades including reconductoring and shield wire installation were conducted throughout the line. Select replacement structures, replacement and upgraded insulators, and improved grounding were installed in 2004. Currently, the line is comprised primarily of wooden H-frame structures. Various inspections of the E131 line over the past several years have identified deteriorated wood pole assets and loadbreak switches on structures were also noted as poorly operational and in need of replacement.

This line is part of the interconnected New England transmission system; it carries network power flows and supplies distribution load-serving stations in Vermont and Massachusetts, including some Green Mountain Power feeders from the Harriman Substation. The project corridor includes portions of the adjacent J10 Line and Bear Swamp Tap Line. The J10 Line splits from Line E131 in Adams where it runs roughly parallel to the Line E131 ROW for ±3 miles before rejoining Line E131 in Florida. Approximately two miles northeast of the junction of Line E131 and the J10 Line, a second split occurs along the Line E131 ROW, forming the Bear Swamp Tap Line, which extends roughly perpendicular from Line E131 for ±0.20 miles. According to the EENF, the E131 transmission line easement rights range between 200 and 400 feet wide, with the existing line at the approximate center of the easement. The current (periodically) maintained width ranges from ±100 to ±150 feet[3] and includes uplands, wetlands, perennial and intermittent streams, unimproved access routes, and improved gravel access roads. Approximately six miles of Line E131 passes through the Massachusetts Department of

[1] OPGW will replace existing shield wire and will provide high-speed communication between substations.
[2] Switch structures are H-frame utility poles that support transmission line switches, which allow sections of the line to be isolated when maintenance is needed.
[3] The EENF also indicates the maintained ROW width is between 125 and 150 feet.

Conservation and Recreation (DCR) owned Monroe, Florida, and Savoy Mountain State Forests. Line E131 traverses through mountainous terrain with steep slopes, rocky outcrops, cliffs, and large boulders. Although it passes through some rural residential areas in Florida and Monroe, the ROW and surrounding areas are generally densely forested.

The ROW contains Bordering Vegetated Wetlands (BVW), Inland Bank, Land Under Water (LUW), Bordering Land Subject to Flooding (BLSF), Riverfront Area (RFA), and associated Buffer Zones. The EENF states that one vernal pool was observed within the ROW (between structures 85 and 86); one Certified Vernal Pool (CVP) is located within the ROW (near access road to structures 141-143) and one Potential Vernal Pool (PVP) is located within (or near) the ROW (near access road to structures 59-70). Additional PVPs may exist on the ROW. The project corridor includes areas that are inundated during a 100-year storm as mapped on the Federal Emergency Management Act (FEMA) Flood Insurance Rate Maps (FIRMs). The ROW crosses over Phelps Brook, which is a tributary to Phelps Brook Reservoir, an Outstanding Resource Water (ORW). The EENF identifies areas of Priority and Estimated Habitat as determined by the 15th Edition of the Massachusetts Natural Heritage Atlas for several rare species. The corridor contains several historic and archaeological sites previously recorded in the Massachusetts Historical Commission's (MHC) Inventory of Historic and Archaeological Assets of the Commonwealth.

The ROW is within the Designated Geographic Area (DGA) of Environmental Justice (EJ) populations[4] located in whole or in part within 1 mile of the project site as stated in 301 CMR 11.02 (definition of "DGA"). The ROW crosses two EJ populations characterized by Income (North Adams and Monroe) and is located within 1 mile of five EJ populations characterized by Income (two in North Adams, one in Monroe, one in Adams, and one in Rowe). The ROW is within 5 miles of an additional 14 EJ populations characterized by Income, and Minority and Income.

Environmental Impacts and Mitigation

According to the EENF, potential environmental impacts associated with the project include the alteration of ±111 acres of land, of which 92 acres will be permanent (permanent gravel access roads and work pads) and 19 acres will be temporary. It is unclear how the project is accounting for up to ±250 acres of alteration of DCR land associated with new, permanent access roads within ROW boundaries and off-ROW access. This should be clarified in the DEIR. Potential impacts to wetland resource areas are listed in the table below.

Wetland Resource Area	Temporary Impacts (sf)	Permanent Impacts (sf)	Total Impact (sf)
BVW	617,322 (14.2 acres)	700	618,022 (14.2 acres)
LUW	0	32	32
BLSF	146	0	146
RFA[5]	74,451 (1.7 acres)	102,971 (2.4 acres)	177,422 (4.1 acres)
Bank[6]	0 linear feet (lf)	64 lf	64 lf
Buffer Zone	158,377 (3.63 acres)	950,564 (21.82 acres)	1,108,941 (25.45 acres)

[4] "Environmental Justice Population" is defined in M.G.L. c. 30, § 62 under four categories: Minority, Income, English Isolation, and a combined category of Minority and Income.
[5] Note that impacts located within the limits of RFA overlap with impacts to BLSF, BVW, and the 100-ft Buffer Zone. Therefore, the total impacts to the project site are not equal to the sum of alterations.
[6] Construction mats will span the Bank of rivers and streams; however, the totals reflect the potential for alteration.

Temporary impacts to BVW and BLSF are due to construction access, staging, and installation of structure foundations, as well as mowing associated with the current Vegetation Management Plan (VMP) (2014-2018). Permanent impacts are associated with the installation of two culverts; a new switch structure (Structure 79A); the installation of concrete caisson foundations for the replacement of Structures 43, 145, 150 and 169; the replacement and relocation of Structures 24, 60, 80, 151 and 172 to BVW via direct embed methods; work envelopes, and pull pads; stabilization material for access roads, and tree removal. The project will impact 1.67 acres of Priority and Estimated Habitat of state-listed species. Greenhouse Gas (GHG) emissions and other air pollutants are associated with construction vehicles and tree clearing. Impacts to historical and archaeological areas are possible.

Measures to avoid, minimize, and mitigate project impacts include use of existing access roads from the adjacent J10 Line and within the E131 ROW to avoid new land disturbance, where feasible; use of temporary construction mats where crossing wetlands or water courses is unavoidable; spanning of streams to avoid impacts to bank; removing five structures from the ROW; use of erosion and sedimentation controls and other best management practices (BMPs) during construction; restoration of any disturbed areas to existing grades to allow for revegetation; restoration of temporarily impacted wetland resources to pre-construction conditions; BVW replication for permanent impacts; and protection of identified rare species throughout construction. As discussed below, the DEIR should expand on the alternatives analysis for the project and include a revised list of mitigation measures.

Jurisdiction and Permitting

The project is undergoing MEPA review and is subject to a mandatory EIR pursuant to 301 CMR 11.03(1)(a)(1)(a) and 11.03(3)(a)(1)(a) of the MEPA regulations because it requires Agency Actions and will result in the alteration of 50 or more acres of land and one or more acres of BVW. The project is also required to prepare an EIR pursuant to 301 CMR 11.06(7)(b) because it is located within a DGA (1 mile) around one or more EJ Populations. In addition, the project exceeds the Environmental Notification Form (ENF) threshold at 301 CMR 11.03(3)(b)(1)(f) for alteration of one-half or more acres of any other wetlands.[7] As discussed below, the project may exceed ENF thresholds at 301 CMR 11.03(1)(b)(3) for disposition or change in use of land or an interest in land subject to Article 97 of the Amendments to the Constitution of the Commonwealth (Article 97).[8] The project requires a 401 Water Quality Certification (WQC) from the Massachusetts Department of Environmental Protection (MassDEP), a Conservation and Management Permit (CMP) from the Natural Heritage and Endangered Species Program (NHESP), a Construction Access Permit (CAP) from the Massachusetts Department of Conservation and Recreation (DCR) and a temporary Access Permit for construction activities and/or a Utility Access Permit from the Massachusetts Department of Transportation (MassDOT). If an Article 97 disposition or change in use is implicated, the project must meet the requirements set forth in the Executive Office of Energy and Environmental Affairs' (EEA) Article 97 Land Disposition Policy and new M.G.L. c. 3, s. 5A. A transfer in ownership or interest in state conservation property would require legislative authorization by the General Court through a two-thirds supermajority roll call vote.

The project requires Orders of Conditions (OOC) from the Adams, North Adams, Florida, and

[7] Although the project will result in a take of a state-listed rare species, it is estimated to impact less than 2 acres of mapped habitat; therefore, 301 CMR 11.03(2)(b)(2) (disturbance of greater than two acres of designated priority habitat that results in a take of a state-listed species) is not exceeded.
[8] The EENF did not identify the potential exceedance of this threshold.

Monroe Conservation Commissions (or in the case of an appeal, a Superseding Order of Conditions from MassDEP); a Section 404 Pre-Construction Notification (PCN) from the U.S. Army Corps of Engineers (ACOE); a National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) from the U.S. Environmental Protection Agency (EPA); and review by MHC acting as the State Historic Preservation Officer (SHPO) pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (36 CFR 800).

The project is not receiving Financial Assistance from the Commonwealth. Therefore, MEPA jurisdiction is limited to those aspects of the project that are within the subject matter of any required or potentially required Agency Actions and that may cause Damage to the Environment, as defined in the MEPA regulations.

Request for Single EIR

The MEPA regulations at 301 CMR 11.06(8) indicate that a Single EIR may be allowed provided I find that the EENF:

a) describes and analyzes all aspects of the project and all feasible alternatives, regardless of any jurisdictional or other limitation that may apply to the Scope;
b) provides a detailed baseline in relation to which potential environmental impacts and mitigation measures can be assessed; and,
c) demonstrates that the planning and design of the project use all feasible means to avoid potential environmental impacts.

For any Project for which an EIR is required in accordance with 301 CMR 11.06(7)(b), I must also find that the EENF:

d) describes and analyzes all aspects of the Project that may affect Environmental Justice Populations located in whole or in part within the Designated Geographic Area around the Project; describes measures taken to provide meaningful opportunities for public involvement by Environmental Justice Populations prior to filing the expanded ENF, including any changes made to the Project to address concerns raised by or on behalf of Environmental Justice Populations; and provides a detailed baseline in relation to any existing unfair or inequitable Environmental Burden and related public health consequences impacting Environmental Justice Populations in accordance with 301 CMR 11.07(6)(n)1.

Consistent with this request, the EENF was subject to an extended comment period under 301 CMR 11.05(8).

Review of the EENF

The EENF provides a description of existing and proposed conditions, preliminary project plans, a limited analysis of alternatives, assessment of impacts, and a review of construction methods; it also identifies measures to avoid, minimize and mitigate environmental impacts. Consistent with the MEPA Interim Protocol on Climate Change Adaptation and Resiliency, the EENF contained an output report from the Climate Resilience Design Standards Tool prepared by the Resilient Massachusetts Action

Team (RMAT) (the "MA Resilience Design Tool"),[9] together with information on climate resilience strategies to be undertaken by the project.

Alternatives Analysis

The EENF describes the need for the project, stating that existing transmission structures have surpassed their life expectancy and inspections have shown deteriorated wood poles with woodpecker damage, thin/rotting pole tops, loss of cross-sectional area of the poles, deterioration of wood spar arms, among other issues. Due to the age of the line, the complex terrain through which it traverses, and lack of recent broad-scale upgrades, access to and along the ROW is limited, and many portions of the line are currently inaccessible except by foot or utility terrain vehicles. The EENF asserts that significant access road improvements or construction of new access roads will be needed due to this limited access to the E131 ROW corridor to facilitate the project and provide safe, reliable, and long-term access.

Based on the project goal to repair and improve existing assets, the EENF includes a limited analysis of a No Build Alternative, a Critical Asset Repair Alternative, and the Preferred Alternative (as described herein). The No Build Alternative establishes a baseline against which the project can be evaluated but is not a feasible option because it would not achieve the project goal and the existing system would remain at risk for failure. This alternative was dismissed based on the asset condition of the E131 line and the need to improve high-speed communications between substations.

The Critical Asset Repair Alternative would address only the most essential asset related issues required to meet electrical safety standards. This alternative would reduce the number of structure replacements/repairs that must be immediately addressed. However, it was dismissed for the following reasons: would not significantly reduce the extent of environmental impacts because it would require repeated access to the ROW with extensive access road improvements and tree removals to address continuing structure deterioration with recurrent impacts to DCR State Forest lands, BVW, other environmental resources and rare species habitat; would not address asset safety and reliability; would increase cost and inefficiency of repeatedly revisiting the same ROW within a short timespan; and would fail to meet the need for improving the reliability of the existing communications between the substations served by the circuit.

The Preferred Alternative proposes full refurbishment of the E131 line with expanded access, replacement of existing structures and replacement of the existing shield wire with OPGW. According to the EENF, the Preferred Alternative will result in a more resilient transmission line which addresses safety, asset reliability and repair requirements; provide improved communication between substations as a result of the installation of OPGW; reduce overall disturbance to wetland resources, rare species habitat and public open space; and not require repeated disturbance along the ROW. As such, the Preferred Alternative was selected as it best addresses the project need, while resulting in the least impacts to the natural and human environment.

The EENF does not identify how the Preferred Alternative was designed to avoid and minimize land clearing and impacts to sensitive resource areas associated with the new access roads, work pads, pull pads, and replacement of poles. It does not clearly describe why permanent access roads are required in certain locations nor explain that the number is minimum required to refurbish the E131 Line.

[9] https://resilientma.org/rmat_home/designstandards/

Environmental Justice

As noted previously, the ROW crosses two EJ populations characterized by Income (North Adams and Monroe) and is located within 1 mile of five EJ populations characterized by Income (two in North Adams, one in Monroe, one in Adams, and one in Rowe). The ROW is within 5 miles of an additional 14 EJ populations characterized by Income, and Minority and Income. There are no communities identified within the DGA in which greater than 5% of the community speak a language other than English, or who do not identify as speaking English "very well."

Effective January 1, 2022, all new projects in the DGA (as defined in 301 CMR 11.02, as amended) around EJ populations are subject to new requirements imposed by Chapter 8 of the Acts of 2021: *An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy* (the "Climate Roadmap Map") and amended MEPA regulations at 301 CMR 11.00.[10] Two related MEPA protocols – the MEPA Public Involvement Protocol for Environmental Justice Populations (the "MEPA EJ Public Involvement Protocol") and MEPA Interim Protocol for Analysis of project Impacts on Environmental Justice Populations (the "MEPA Interim Protocol for Analysis of EJ Impacts") – are also in effect for new projects filed on or after January 1, 2022.[11] Under the new regulations and protocols, all projects located in a DGA around one or more EJ populations must take steps to enhance public involvement opportunities for EJ populations and must submit analysis of impacts to such EJ populations in the form of an EIR.

The EENF describes public involvement activities conducted prior to filing, including advance notification of the project circulated to a list of community-based organizations (CBOs) and tribes/indigenous organizations (the "EJ Reference List") provided by the MEPA Office. Circulated information included the EJ Screening Form which identified ways to request additional information or a community meeting. The EJ screening form included a link to a public project website (https://www.e131project.com) which provides an interactive mapper and contact information. A copy of the EENF, as well as the MEPA remote consultation meeting notice, were distributed to the EJ Reference List. The Proponent also held a virtual public meeting on August 10, 2022 prior to filing the EENF. Information pertaining to this meeting was advertised in the *Berkshire Eagle* and *The Recorder*, and was also provided on the EJ Screening Form. The EENF indicates that there were no attendees at the public meeting. Repositories for hard copies of project materials have been established at the Adams, North Adams, Florida, and Monroe public libraries which will be updated regularly as additional project documents become available.

The EENF contains a baseline assessment of existing unfair or inequitable Environmental Burden and related public health consequences impacting EJ populations in accordance with 301 CMR 11.07(6)(n)1 and the MEPA Interim Protocol for Analysis of EJ Impacts. The EENF indicates that "vulnerable health EJ criteria" for municipalities located within one mile of the project area were identified using the Massachusetts Department of Public Health (DPH) EJ Tool; this term is defined in the DPH EJ Tool to include any one of four environmentally related health indicators that are measured

[10] MEPA regulations have been amended to implement Sections 55-60 of the Climate Roadmap Act and took effect on December 24, 2021. More information is available at https://www.mass.gov/service-details/information-about-upcoming-regulatory-updates.
[11] Available at https://www.mass.gov/service-details/eea-policies-and-guidance.

to be 110% above statewide rates based on a five-year rolling average.[12] Within the project's DGA, the Proponent indicates that the communities of Adams, North Adams, Monroe, and Rowe meet at least one of the four "vulnerable heath EJ criteria"; however, the EENF does not identify which communities and census tracts exceed 110% of the statewide rate for each criteria: Heart Attack Rate, Pediatric Asthma Rate (available at the community level), Low Birth Weight, and Blood Lead Prevalence (available at the census tract level). The DEIR should provide additional analysis of impacts on EJ populations consistent with the MEPA Interim Protocol including fully analyzing the data available in the DPH tool at the municipal and census tract level.

The EENF also includes a review of the mapping layers available in the DPH EJ Tool to identify sources of potential pollution existing within the identified EJ population. The information is summarized in the table below.

Table 4-2
Other Potential Sources of Pollution within the Designated Geographic Area

Municipality	EJ Census Tracts	Toxics Release Inventory Site	M.G.L. c. 21E Sites	" Tier II" toxics use reporting facilities	Public Water Supplier	MassDEP public water suppliers	NPDES Permit	Energy Generation and Supply	Total
North Adams	9214, Block Group 1 and 2	**1**	**2**	**2**	0	0	0	**1**	**4**
Adams	9222, Block Group 4	0	0	0	0	0	0	0	**0**
Monroe	0401, Block Group 1	0	0	0	0	**1**	0	0	**1**
Rowe	0401, Block Group 1	0	0	**1**	0	0	**3**	**2**	**6**

The Environmental Protection Agency (EPA) EJ Screening tool was surveyed to determine whether any of the EJ populations within the DGA are subject to environmental burdens as measured at the 80th percentile of statewide averages or higher. Per the EPA EJ screening tool, no EJ populations within the DGA are subject to environmental burdens exceeding the 80th percentile of statewide averages. The EPA EJ Screening tool was also surveyed to gauge whether any of the EJ populations within the DGA are subject to environmentally related health indicators. The EJ Block Groups 1 and 2, Census Tract 9214 in North Adams currently falls within the 90th to 95th percentiles for asthma cases.

Based on the baseline assessment of existing burdens, the EENF does not conclude whether or not there is an existing "unfair or inequitable" burden; however, it asserts that the project will not result in disproportionate adverse effects on the EJ populations. In particular, the EENF asserts that the project will benefit surrounding communities by increasing reliability of the overall transmission line through refurbishment of existing structures and wires on more robust structures. The EENF notes that the project is not anticipated to increase flooding in the area, and that impacts to 146 sf of BLSF are associated with temporary matting only. The project will also not impact wetland resource areas in or near EJ areas. Impacts to traffic are not anticipated, as the ROW does not cross densely populated areas

[12] See https://matracking.ehs.state.ma.us/Environmental-Data/ej-vulnerable-health/environmental-justice.html. Four vulnerable health EJ criteria are tracked in the DPH EJ Viewer.

and only one high-use roadway (Route 2). The EENF asserts that the project will not result in any new sources of air pollution and as such is not anticipated to impose an undue or added burden to existing environmentally related health indicators. It further asserts that the project will minimize construction-phase impacts to air quality, water quality, and noise using BMPs. The Proponent commits to using ultra-low sulfur diesel fuel, emission control devices, and limits on idling of construction vehicles.

As discussed in the Climate Change section below, the project has a high exposure and risk rating based on the project's location for extreme precipitation (riverine and urban flooding) and extreme heat. Approximately 86 acres of vegetation impact is proposed project-wide including ±17.6 acres of tree removal. Implications for GHG emissions and heat island effects should continue to be analyzed as set forth in the Climate Change Scope below. To the extent tree clearing will affect adjacent EJ populations with heightened vulnerabilities as shown by the DPH EJ Tool or EPA EJ Screen, specific mitigation should be considered.

According to the EENF, portions of the existing transmission line and proposed access road locations intersect recreational trails located in DCR-owned Monroe, Florida, and Savoy Mountain State Forests. Access to these trails may be temporarily restricted during construction activities. The project will not result in permanent impacts to public access to state forests; rather, new access roads constructed within these areas may provide additional access for hikers, snowmobilers, and other outdoor recreationists, at the discretion of DCR. The EENF does not describe potential impacts to open space and DCR land from construction of 5 miles of new access roads or improvement of existing access roads. Comments from DCR indicate concerns regarding recreational impacts associated with temporary closure of trails and roads used for public recreation during active construction. As impacts to public recreation will also affect EJ populations, these issues should be fully explored in the DEIR.

Land Alteration

The EENF indicates that the land area within the project ROW is ±454 acres and outside of the ROW is ±9 acres, for a total project site in Massachusetts of ±463 acres, within which work is proposed on ±111 acres (92 acres permanent and 19 acres temporary). Land uses were evaluated within the ROW and for a 300-ft buffer on either side of the ROW and consist primarily of forest property/open space (25-32%), state forest land (31-40%) and residential uses (21-25%). State-owned lands crossed by portions of the E131 line include the Monroe (1.36 miles), Florida (0.68 miles), and Savoy (1.78 miles) Mountain State Forests. According to the EENF, most new land alteration will occur as the result of construction of new access roads and modification of existing access roads. The EENF notes that only 125 to 150 feet of the existing ROW has been subject to periodic maintenance. These existing maintained ROW limits will not be expanded except at some limited and discrete areas as required for the safe replacement of structures, placement of work pads, access roads and for future operation of the line within required safety clearances. Approximately 789,053 sf (18.1 acres) of temporary construction matting is anticipated. Land alteration will occur both within ROW limits and "off ROW" areas where new access roads are proposed.

Vegetation Removal/Tree Clearing

Vegetation removal prior to construction will include routine mowing as well as trimming of low-growth vegetation within the maintained ROW and removal of vegetation in off-ROW areas where access is required. Approximately 86 acres of vegetation impact is proposed project-wide, of which 17.6 acres of trees will be removed. Tree removal is needed primarily to facilitate the construction of off-

ROW permanent access roads. The EENF does not indicate how much tree removal will occur within the maintained ROW limits (125 to 150 feet) or in the limited areas of expansion of the ROW. All work will be undertaken in accordance with the Proponent's VMP that has been approved by the Massachusetts Department of Agricultural Resources (MDAR).

Work Pads and Pull Pads

The EENF describes work pads (typically ±10,000 sf) and pull pads (typically ±8,000 sf) that will be placed at all structures where work is proposed. Permanent work pads are proposed in upland areas. Grading and establishment of retaining walls at select locations will be required to provide a safe workspace. Temporary work pads and pull pads composed of construction matting will be used to the maximum extent practicable in wetland resource areas. All pull pads will be temporary and restored in situ following completion. Establishment of work and pull pads will result in the disturbance of a total of ±22.35 acres of land. Following construction, work pads will be stabilized and remain for future maintenance and pull pads will be reclaimed, reseeded, and stabilized.

Access Roads

Access road development (to accommodate construction materials and equipment) is comprised of three elements including improvements to existing, historical access routes, construction of new access roads where none presently exist, and placement of temporary construction matting to access areas within or near wetland resource areas. In general, access roads will need to be 16-ft wide with a level stone surface. Historical access roads are categorized as Type R (13,120 lf) where only minor repairs are required (filling ruts and potholes) with no widening needed and Type S (12,270 lf) which potentially required widening. New access roads (26,927 lf) will require grading and placement and compaction of gravel; these are categorized as Type 1 standard 16-foot-wide road and Types 2 to 5 where additional site-specific conditions may require grading, stone addition, and measures to ensure stone remains in place. Approximately 10,698 lf of construction matting will be used.

Stormwater management features such as swales, stone check dams, water bars, or other similar measures will be installed as necessary based on the access road design to reduce impacts from stormwater flows, maintain the longevity of the roads, and reduce maintenance. New access roads were sited within the existing ROW to the extent feasible, however, due to existing site constraints (e.g., steep slopes, rocky outcrops, proximity to wetland resource areas), some access routes are sited beyond the ROW boundaries. The Proponent proposes to maintain all new access roads (including those which extend beyond the existing easement) once they are constructed, meaning that it will need to obtain additional easements from landowners.

Rare Species

Portions of the project area are mapped as *Priority* and *Estimated Habitat* for seven state-listed species (five plants, one fish, and one insect). These species and their habitats are protected pursuant to the Massachusetts Endangered Species Act (MESA; M.G.L. c.131A) and its implementing regulations (321 CMR 10.00). The EENF notes that 1.67 acres of impact from placement of construction matting for the construction of temporary access roads and work pads is within mapped habitat.

According to the EENF, botanical surveys were conducted for state-listed plant species along the E131 line ROW and J10 line ROW in 2017, 2020, 2021 and 2022 by an NHESP-approved botanist.

Survey reports summarizing the findings of these surveys were submitted to NHESP. Following observation of Bailey's sedge (plant) within the project corridor, additional botanical surveys were conducted and populations were observed at specified locations in 2022. In 2020 and 2022, two plant species (Hairy-Fruited Sedge and Foxtail Sedge) were observed within the project footprint based on botanical surveys conducted. According to recent and historical botanical surveys, no instances of Large-Leaved Goldenrod (plant) have been identified on or in proximity to the E131 line ROW; the EENF notes it is unlikely that suitable habitat is available at or near the project corridor. The EENF does not provide any information on the fifth plant species (Woodland Millet).

A 2020 Longnose Sucker (fish) habitat report stated that the reach of the Hoosic River within the limit of work is likely not a breeding area but could serve as a migratory corridor. The EENF does not anticipate any long-term impacts on Longnose Sucker or its habitat in this reach of the Hoosic River based on the results of the survey and the lack of in-water work proposed for this project.

According to the EENF, the Proponent considered the mature fruit season of state-listed sedges to identify time of year (TOY) restrictions, identified and mapped state-listed species in the field along the project corridor and in relation to access road/work pads, reduced the footprint of the limit of work, and evaluated BMPs that will be implemented to protect habitats and water quality. Project-specific mitigation measures will be developed in consultation with NHESP and other agencies, which may consist of state-listed habitat management on the Proponent's property, offsite mitigation, and/or other measures to achieve net benefit for each affected species, in accordance with 321 CMR 10.23.

The Proponent has consulted with NHESP and will continue to coordinate strategies to avoid and minimize permanent and temporary impacts for the project. Temporary construction matting will be used to cross mapped wetlands and rare species habitat to minimize impacts to rare plant species. Other minimization measures include air bridging and removal of mats between activities on-site. Work will be conducted outside the growing season to the extent practicable, however, work is ultimately contingent upon the outage schedule. Identified populations of rare plant species will be flagged by an NHESP-approved botanist and these populations will be avoided.

As recommended by NHESP, rare species habitats will be monitored post-construction to evaluate growth habits and work-related impacts. As the installation of temporary construction matting is required during the growing season, the work will result in a "take" of rare plant species due to the disruption of the natural growth and fruiting cycle of these species. The Proponent is coordinating with NHESP to prepare a CMP pursuant to the MESA for the project and will submit a MESA Project Review Checklist to NHESP for work conducted in rare species habitat.

Wetlands / Water Resources

The four local Conservation Commissions will review the project for its consistency with the Limited Project provisions of the Wetlands Protections Act (WPA), the Wetland Regulations (310 CMR 10.00), and associated performance standards. MassDEP will review the project for its consistency with the 401 WQC regulations (314 CMR 9.00). The EENF indicates that certain structure replacement activities qualify for exemption under the Utility Maintenance Exemption (c. 30, s. 62A) and the WPA.

Water resources, including wetlands and streams, were delineated within the project area. According to the EENF, the project is proposed to result in significant unavoidable temporary and permanent impacts to BVW, Inland Bank, LUW, BLSF, RFA, and associated buffer zones. One CVP

and one PVP are located within or near the ROW; one vernal pool was observed within the ROW and additional PVPs may exist on the ROW. The ROW crosses over Phelps Brook which is as an ORW; project plans do not identify impacts to Phelps Brook. The EENF reviews the performance standards for each wetland resource area and describes the potential temporary and permanent impacts for each activity as detailed in the table below.

Summary of Construction-Period Impacts to Wetland Resource Areas

Resource Area	Impacts[1]		Location	Activity
	Temporary	Permanent		
Bank	0	64 lf	Intermittent stream between STRs 165 and 166	Culvert installation
BVW	617,322 sf	700 sf	Temporary impacts are sitewide. Permanent impacts are located at STRs 24, 43, 60, 79A, 80, 119, 145, 150, 151 and 172	Work pad and laydown area construction (temp); Placement of gravel apron in BVW, access road construction, transition to concrete caissons bases and direct embed of STRs within wetlands (perm)
LUWW	0	32 sf	Intermittent stream between STRs 165-166	Culvert installation
BLSF	146 sf	0 sf	STR 180 work pad construction matting	Access road construction (temp)
Riverfront Area	74,451	102,971 sf	Sitewide	Work pad construction (temp/perm)[2] Access road construction (perm)

[1] Note that impacts located within the limits of Riverfront Area overlap with impacts to BLSF, BVW, and the 100-foot Buffer Zone. Therefore, the total impacts to the Project Site are not equal to the sum of alterations.

[2] Work pads will consist of temporary construction matting within BVW and BLSF and will consist of gravel elsewhere. Where BVW and BLSF overlap with Riverfront Area, these impacts will be temporary; otherwise, work pad construction will be permanent.

Permanent impacts to Bank, BVW, LUW, RFA and Buffer Zone are associated with the installation of two culverts, improvement of access roads, a new switch structure, installation of concrete caisson foundations for the replacement of four structures, and replacement and relocation of five structures to BVW via direct embed methods. Temporary impacts associated with the proposed work will occur in BVW, BLSF and RFA. No permanent roads or grading are proposed in BVW or BLSF.

The EENF states the project requires a WQC due to the permanent fill of ±700-sf of BVW (new switch structure, concrete caisson foundations, and direct embed of five structures to BVW) and ±14.2 acres of BVW temporarily impacted by construction mats. The EENF does not describe any secondary impacts due to tree removal in the ROWN that will alter forested wetlands converting them to scrub shrub wetlands. As previously mentioned, ±86 acres of vegetation impact are proposed project-wide including ±17.6 acres of tree removal associated with construction of off-ROW access roads. The EENF includes a commitment to provide wetland replication to compensate for the ±700 sf of permanent fill within BVW but does not propose replication to mitigate any permanent forested wetland conversion. If the rutting from temporary construction matting is greater than approximately six inches deep, these

areas will be restored to reestablish existing topography and maintain existing wetland hydrology.

The Proponent intends to implement site specific mitigation measures for temporary and permanent impacts to wetland resource areas as required by the WPA and Sections 401 and 404 of the Clean Water Act and related federal and state regulations. The Proponent anticipates that the final mitigation plan will be developed during the federal, state and local permitting processes. The EENF identifies a preliminary mitigation strategy involving the decommissioning, removal and restoration of four structures (101, 144, 153, and 180) located within four separate BVWs which will eliminate the need for future repeated alterations of the associated resource areas for maintenance. Additional information regarding mitigation for permanent wetland impacts should be provided in the DEIR.

Chapter 91/Waterways

The EENF identifies 10 perennial streams and numerous intermittent streams within the ROW. However, it asserts that the project crosses only one jurisdictional waterway (the Hoosic River) subject to licensing by MassDEP under M.G.L. c. 91 and the Waterways Regulations (310 CMR 9.00). MassDEP requires a c. 91 license for electric transmission crossings over rivers and streams even where there is no physical structure in the stream or river. The EENF asserts that the crossing over the Hoosic River is exempt from c. 91 pursuant to 310 CMR 10.00 because it will be covered by a final OOC and will be constructed and maintained in accordance with the National Electric Safety Code (NESC) and will not reduce the space available for navigation per (310 CMR 9.05(3)(g)); the DEIR will be required to confirm this exemption applies. The E131 crossing over the Hoosic River was previously authorized by c. 91 License No. 6274 issued by the Massachusetts Department of Public Works on August 1, 1974, which is an un-termed license according to comments from the MassDEP Waterways Regulation Program (WRP).

Article 97

As previously noted, the E131 line ROW passes through approximately six miles of DCR-owned land (Article 97) in the Monroe, Florida, and Savoy Mountain State Forests. DCR comments note that the project will use and improve roads outside of the ROW to enable access through DCR forest land to the ROW for project activities. Proposed changes to the access corridors include tree clearing, widening, and improving the corridors, which will result in permanent impacts to the state forests and potentially increase total off-ROW impacts on DCR land. Tree clearing related to new permanent access roads is estimated to be 17.6 acres; the EENF does not clarify what amount of tree clearing is located on the ROW versus off-ROW or whether it is all located on DCR land. The proposed work will impact 246 acres of DCR land within the ROW and 4 acres outside the ROW. The EENF provides a table (Table 3-4) which summarizes land alteration associated with access roads (Type R, S, and 1-5) and matting in each state forest. The project will impact BVW (175,353 sf temporary and 517 sf permanent) and RFA (18,452 sf temporary and 64,571 sf permanent) within DCR land. The precise extent of impacts on DCR property should be clarified in the DEIR.

Work activities on DCR property outside of existing ROW/easements, or requiring access across DCR property, will require a CAP. In addition, the acquisition of new easements over DCR property will trigger the requirements of Article 97. DCR comments note that if the off-ROW improved woods roads and trails are to be permanently used for utility maintenance, this could constitute a change in use of DCR property and also trigger Article 97. The EENF states that this project does not involve an Article 97 disposition. Joint comments from MassAudubon, et al. note that it appears Article 97 is

applicable based on the following: new and improved gravel access roads will be built and some parts extend beyond the limits of the existing ROW easement; Monroe is a Reserve in the DCR Landscape Designations which prohibits new roads (similarly in the 1999 Old Growth Policy); and replacement of old poles and towers with new, steel towers includes expanded impacts beyond the existing footprint.

Transportation

According to MassDOT comments, the project route will intersect with state jurisdictional highway layout at multiple locations, including the Curran Memorial Highway in Adams and Mohawk Trail (Route 2) in Florida. Project-related construction in these locations will require a temporary Access Permit for construction activities and/or a Utility Access Permit from MassDOT. Comments from MassDOT note that access permits will be required for temporary construction access, overhead wire crossings of the above listed state routes, and new access roadways proposed within the state highway ROW. To minimize impacts, the Proponent will develop a Traffic Management Plan for review and approval by MassDOT and will establish traffic control plans for construction traffic on busy streets and will limit access to the ROW by installing signage and barriers (large stones) at access points from public roads.

Historic and Archaeological Resources

The project is subject to review under Section 106 of the NHPA of 1966 as amended (36 CFR 800) and M.G.L. c. 9, ss. 26-27C (950 CMR 71.00). As described in the EENF, a cultural resources due diligence review was completed in October 2019, which identified the need to perform a subsequent intensive (locational) archaeological survey. A State Archaeologist's Permit application was submitted to the MHC in April 2021 and MHC issued a permit to conduct the survey on April 13, 2021, which was amended on April 19, 2022 to include access road upgrades. The Proponent conducted fieldwork and testing in 2021 and 2022. The Proponent plans to perform additional required limited archaeological site examination investigations of archaeological sites that are potentially eligible for listing in the National Register of Historic Places in 2023 when ground conditions are suitable for field investigations. A survey report was filed with MHC in 2022. Comments from DCR request coordination with the DCR Staff Archaeologist related to potential archaeological resources on DCR property.

Climate Change

The EENF describes the project as an important component in addressing climate change, noting that the proposed work will result in an improved electrical transmission system which will be more resilient to future extreme storms and will be able to meet peak demand during periods of extreme heat. The EENF describes how the project complies with local climate resilient adaptation strategies which identify aging infrastructure as a vulnerability and indicate the need for improved reliability of electrical service to support economic growth.

Effective October 1, 2021, all MEPA projects are required to submit an output report from the MA Resilience Design Tool to assess the climate risks of the project. Based on the output report attached to the EENF,[13] the project has a high exposure rating based on the project's location for extreme precipitation (urban and riverine flooding) and extreme heat. Based on the ±50-year useful life

[13] The output report from the MA Climate Resilience Design Standards Tool was created on February 4, 2022, prior to revisions of the Tool in 2022.

identified and the self-assessed criticality of the project asset, the Tool recommends a planning horizon of 2070 and a return period associated with a 100-year (1% chance) storm event when designing the project (a "utilities" asset) for the extreme precipitation parameter. The EENF states that the project will result in a more climate-ready and resilient transmission system that can withstand more extreme weather events and provide improved reliability of the electric system during and after storm events. No permanent impacts are proposed to BLSF within the three areas along the project corridor which are mapped as 100-year floodplain. In addition, the Proponent will remove structure 144 from floodplain to allow the line to fully span the floodplain and eliminate future impacts to this area from infrastructure work. Other climate adaptation and resiliency strategies include reinforced structure foundations, replacement of existing wooden structures with stronger and more weather resistant steel structures, stabilization of the site and reestablishment of natural vegetation. The DEIR should address the recommendations from the MA Resilience Design Tool to assess the resiliency of the proposed new structures and stormwater features. It should also address heat effects and GHG emissions from land and tree clearing, in accordance with the Scope below.

Construction Period

During the construction-phase of the project there may be intermittent and localized increases in noise, dust and emissions from construction vehicles and related equipment. The EENF includes a description of the Proponent's transmission line construction procedures for each project activity (tree removal, access road improvements, OPGW installation, etc.) and listed BMPs that will be implemented related to air quality, water quality, and traffic. The EENF also indicates that the project will be overseen by an Environmental Monitor, a qualified environmental professional designated by the Proponent who will monitor on-site construction conditions in relation to permit and regulatory requirements. The Proponent will submit a Stormwater Pollution Prevention Plan (SWPPP) for the project in compliance with the NPDES CGP. The EENF describes the type of equipment that will be used to install the new structures and overhead lines and to remove existing structures. The EENF did not quantify the extent of truck traffic associated with these activities; the Proponent does not anticipate significant impacts to traffic as the corridor does not cross densely populated areas or high-use roadways. Work areas will be accessed primarily from access routes owned by the Proponent or minor town roadways. Once on-site, vehicle traffic will be limited to within or in proximity to the ROW.

All construction activities should be managed in accordance with applicable MassDEP regulations regarding Air Pollution Control (310 CMR 7.01, 7.09-7.10), and Solid Waste Facilities (310 CMR 16.00 and 310 CMR 19.00, including the waste ban provision at 310 CMR 19.017 and the handling of clean wood associated with tree removal). The EENF states the Proponent will incorporate anti-idling measures in accordance with the Air Quality regulations (310 CMR 7.11) including no unnecessary idling. On- and off-road vehicles and engines used during construction will minimize emissions by using vehicles adhering to the more stringent EPA Tier 4 emissions standards or will be retrofitted with USEPA verified emission control devices. The Proponent requires that construction equipment use ultra-low sulfur diesel fuel. If oil and/or hazardous materials are found during construction, the Proponent should notify MassDEP in accordance with the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000). All construction activities should be undertaken in compliance with the conditions of all State and local permits.

SCOPE

General

The DEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope. Recommendations provided in this Certificate may result in a modified design that would further avoid, minimize, and/or mitigate Damage to the Environment. The DEIR should identify measures the Proponent will include to further reduce the impacts of the project since the filing of the EENF, or, if certain measures are infeasible, the DEIR should discuss why these measures will not be adopted.

Project Description and Permitting

The DEIR should describe the project and identify any changes to the project and associated environmental impacts since the filing of the EENF. It should include updated site plans for existing and post-development conditions. It should provide figures that clearly identify any additional permanent and temporary easements that will be required to create access to the ROW. The plans and narrative provided in the DEIR should identify the extent of any off-ROW clearing required for access road construction, and whether permanent easements will need to be acquired to maintain those areas as utility corridors. The DEIR should provide a brief description and analysis of all applicable statutory and regulatory standards and requirements and describe how the project will meet those standards. It should include a list of required Agency Permits, Financial Assistance, or other state or local approvals and provide an update on the status of each. The EENF summary of impacts table notes that the maximum height of existing structures is 85 feet, and the project will result in an increase of this height by 25 feet to a maximum height of 110 feet. The DEIR should explain why the height of structures will be increased. The DEIR should clarify the width of the maintained ROW as the EENF indicates it is both between 100 and 150 feet and between 125 and 150 feet.

The information and analyses identified in this Scope should be addressed within the main body of the DEIR and not in appendices. In general, appendices should be used only to provide raw data, such as drainage calculations, traffic counts, capacity analyses and energy modelling, that is otherwise adequately summarized with text, tables and figures within the main body of the DEIR. Information provided in appendices should be indexed with page numbers and separated by tabs, or, if provided in electronic format, include links to individual sections. Any references in the DEIR to materials provided in an appendix should include specific page numbers to facilitate review.

Alternatives Analysis

The EENF does not describe a Reduced Build Alternative that reduces impacts to or setbacks from wetland resource areas or avoids tree clearing. MassDEP comments emphasize that the alternatives analysis provided in the EENF does not substitute for, nor serve as, the site-specific impact alternatives analysis required in 310 CMR 10.00 and 314 CMR 9.00.

The DEIR should include an expanded alternatives analysis that demonstrates the project is taking all feasible measures to avoid and minimize environmental impacts to wetland resource areas and mapped habitat, as well as tree clearing, which is consistent with requirements pursuant to all applicable

regulations (i.e., WPA, WQC, MESA, M.G.L. c. 3, s. 5A, etc.). It should evaluate at least one Reduced Impact Alternative that provides less impacts and/or greater setback to on-site wetlands, less land clearing and land alteration, and less impacts to mapped habitat than the Preferred Alternative. If this alternative is dismissed, the DEIR should explain why. As noted in the EENF, clearing outside of the ROW (and securing new easements with landowners) is proposed in other locations and should be further explored where sensitive resource areas might be avoided. The DEIR should quantify environmental impacts and provide a conceptual plan for these alternatives. It should compare the environmental impacts with the Preferred Alternatives, in particular, with respect to land alteration, wetland resource areas, vernal pools, rare species habitat, and archaeological resources in a tabular format. The DEIR should describe how more vegetation could be preserved in sensitive areas. The DEIR should provide further justification for relocating structures to BVW and closer to sensitive resource areas within Estimated and Priority Habitat.

Environmental Justice/Public Health

The Proponent should continue to take steps, including undertaking additional measures, to meaningfully engage EJ populations in decision-making for the project. The DEIR should describe a public involvement plan that the project intends to follow for EJ populations within the DGA for the remainder of the MEPA review process, and the Proponent should hold at least one public meeting to provide details of the project prior to filing the DEIR. The DEIR should detail how public involvement efforts will continue throughout subsequent permitting and through the construction period for the project. It should describe any outreach that will be conducted as part of local review processes, including the procedures for providing abutter notice and opportunities for public input into project design and timing. The DEIR, or a summary thereof, should be distributed to the EJ Reference List, and an updated list should be obtained from the MEPA Office.

The DEIR should provide an updated baseline assessment of any existing unfair or inequitable Environmental Burden and related public health consequences impacting EJ Populations in accordance with 301 CMR 11.07(6)(n)1 and the MEPA Interim Protocol for Analysis of EJ Impacts. The DEIR should fully analyze the data available in the DPH tool at the municipal and census tract level to characterize existing unfair or inequitable Environmental Burdens. It should describe in detail the proximity of the project site to those neighborhoods and discuss the specific activities, including the extent of forest clearing and construction activity, that will take place near those neighborhoods. Based on the additional analyses required by the Scope included in this Certificate, the DEIR should provide an updated assessment of whether the project's impacts may result in disproportionate adverse effects, or increase the risks of climate change, on the identified EJ population, particularly in light of the GHG emissions, air pollutants, and heat island effects that may be associated with large-scale forest clearing activities. The DEIR should consider any loss of open space or recreational opportunities that may affect EJ populations lacking access to such resources. It should discuss what mitigation will be provided for any properties located directly adjacent to tree clearing activities, in light of the loss in shading and other impacts that may be anticipated. Analysis of the stormwater should specifically assess whether flooding risks may be exacerbated for nearby EJ populations, including under future climate conditions, and whether existing conditions would be worsened or improved by the project.

Land Alteration

The DEIR should explain the discrepancy between the EENF stating that the project would result in a total of 111 acres of land alteration and will also alter up to 250 acres of land to construct new roads

through DCR land on ROW and off-ROW.

The DEIR should provide updated estimates of land alteration (temporary and permanent) associated with access roadways on ROW and off-ROW (new and improvements to existing), structure installation, work pads, pull pads, vegetation removal/tree clearing on ROW and off-ROW, and other project components in a tabular format. The DEIR should clarify the amount of alteration including the type of vegetation that will be cleared (i.e., mature trees, scrub shrub, etc.). It should clarify the location, type and amount of alteration in previously undisturbed areas. The DEIR should document the land alteration that will occur as a result of the additional tree clearing and permanent conversion of forested area to shrub/scrub area. Land alteration should also include any clearing that may be required off-ROW to improve/widen existing access roads or construct new access roads. Off-ROW impacts to wetlands should also be included and updated as part of wetlands impacts discussed below. The DEIR should identify how the project is designed to avoid and minimize land alteration and preserve open space and tree cover. The DEIR should clarify if permanent work pads are accounted for in the estimate of permanent land alteration. The DEIR should report all impacts associated with access roads both on- and off-ROW.

The EENF indicates that the project will require clearing of 17.6 acres of trees to construct off-ROW permanent access roads. The DEIR should indicate if any other vegetation removal will require additional tree removal and trimming, beyond the scope covered by the current VMP, in all off-ROW locations and within the ROW. The DEIR should indicate the acreage of impact associated with additional clearing beyond that covered by the VMP and include this in the reported permanent land alteration impacts summary. The DEIR should identify, in a narrative that references plans, where vegetation removal will need to be coordinated with private landowners. A summary of all tree removal impacts in the ROW and off-ROW, including within DCR land, should be provided in the DEIR.

The DEIR should describe mitigation for impacts associated with land alteration including, but not limited to, minimizing soil disturbance, retaining scrub/shrub understory and ground cover to help reduce soil erosion, using large woody debris and deadwood to create habitat, mulching/seeding bare soils to stimulate revegetation, and reusing cleared trees for long-lived wood products. The DEIR should describe when the approved Five-Year VMP (2014-2018) will be renewed by MDAR pursuant to 333 CMR 11.00) as it is outdated.

Rare Species

NHESP comments anticipate that the project will likely result in a Take (321 CMR 10.18 (2)(b)) of state-listed plants. A Take of state-listed species may only be permitted if the project meets the following performance standards for a CMP (321 CMR 10.23) to demonstrate that it has avoided, minimized and mitigated impacts to state-listed species: adequately assess alternatives to both temporary and permanent impacts to the state-listed species; demonstrate that an insignificant portion of the local population will be impacted; and 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 should continue to work proactively with NHESP to address outstanding issues, including continuing to assess alternatives to further reduce permanent and temporary impacts to state-listed species and their habitats, and developing a robust conservation and management plan that provides a long-term net benefit to state-listed plants, with a focus on protection of individual plants and plant populations, additional surveys, seed collection, and management to enhance habitat quality in the

immediate vicinity of the project site. The DEIR should summarize the results of consultations with NHESP and address these outstanding issues. The DEIR should clearly identify the project's consistency with the performance standards for a CMP. It should provide an update on potential impacts to state-listed rare species habitat, including the acreage of Priority Habitat both on- and off- ROW impacted by the project. It should identify proposed measures to avoid, minimize and mitigate those impacts. The DEIR should clarify what amount of impact within mapped habitat (1.67 acres) will also impact wetland resources areas and associated buffer zone.

Wetlands and Stormwater

MassDEP comments recommend that the Proponent wait to file Notices of Intent (NOIs) until the conclusion of MEPA review to ensure sufficient opportunities for public involvement and to avoid any potential conflict with the final Certificate, OOCs, or the WQC. If NOIs are filed prior to the conclusion of MEPA review, MassDEP recommends the Proponent request that the local Conservation Commissions defer a decision on the filing and keep the meeting open until the Secretary has issued the final Certificate, and MassDEP has issued the WQC, to ensure consistency with any requirements in the Certificate and conditions of the WQC. MassDEP also recommends coordinated submittal of NOIs and outreach to the affected municipalities due to the complexity and long, linear nature of the project.

The DEIR should identify when delineations of BVW, Inland Bank, LUW, BLSF, RFA were conducted. MassDEP comments note that the site may contain Isolated Vegetated Wetlands (IVW) and Isolated Land Subject to Flooding (ILSF). The DEIR should describe if IVW and ILSF were observed and delineated. The DEIR should consider both surface and subsurface hydrology, wildlife habitat, and comply with BMPs for stormwater management and sedimentation and erosion control to avoid and minimize potential significant changes to the hydrology of the affected resource areas and downstream reaches. The DEIR should include tree work details, potential time-of-year restrictions, specific locations of proposed construction mats, implementation sequencing, and site-specific mitigation details. The DEIR should ensure that estimates for impacts to wetland resource areas are conservative and account for all temporary and off-ROW impacts. It should clearly describe why structures 24, 60, 80, 151, 172 will be relocated from the 100-foot Buffer Zone to BVW and describe efforts to avoid, minimize, and mitigate impacts associated with these structures. The DEIR should confirm that the SWPPP will include clear provisions specific to the management and protection of the resource areas within the project area.

The DEIR should clearly identify the location of Old Growth Forests in the project area. The DEIR should describe how impacts to Old Growth Forest will be avoided and discuss placement of a buffer zone around these sensitive resource areas. The DEIR should discuss how clearing of large diameter trees in the Monroe Reserve will be limited to the maximum extent practicable. The DEIR should describe how impacts to cold water fisheries in the project area will be avoided and minimized.

The DEIR should clearly identify which elements of the project qualify for exemption under the Utility Maintenance Exemption (c. 30, s. 62A) and WPA, and which do not. According to MassDEP comments, portions of the project that do not qualify as exempt activities may be eligible for review under the Limited Project provisions pursuant to 310 CMR 10.53(3)(d) at the discretion of the local Conservation Commission and to the extent practicable, work must comply with General Performance Standards. The DEIR should describe how the project qualifies for Limited Project status for non-exempt activities. It should demonstrate how the project will comply with performance standards to the maximum extent practicable. The DEIR should provide an update to cumulative impacts to IVW, BVW

and LUW for consistency with WQC regulations (314 CMR 9.00). The DEIR should evaluate reasonable alternatives to the proposed activity, the extent to which adverse impacts are minimized, and identify mitigation for unavoidable impacts (including temporary impacts) in accordance with the WPA and WQC regulations. The DEIR should acknowledge the need to demonstrate compliance with the provisions of 314 CMR 9.06(3) if a project design modification occurs or changes during construction involve the discharge of dredged or fill material to an ORW.

The DEIR should provide plans which depict the two proposed permanent stream crossings, and the narrative should identify these plans. It should identify whether the crossings are proposed in intermittent or perennial streams and whether these streams constitute ORWs. The DEIR should include information to confirm that stream crossings will meet the performance standards for Bank (inland) at 310 CMR 10.54(4) and LUW at 310 CMR 10. 56(4) and will be designed to meet the Massachusetts Stream Crossing Standards. Designs should incorporate the upper confidence interval times provided in the NOAA 14 Point Precipitation Frequency Atlas.

The EENF states that stormwater management features such as swales, stone check dams, water bars, or other similar measures will be installed as necessary based on the access road design. MassDEP comments note that such features may constitute stormwater conveyances, in which case, the provisions of 310 CMR 10.05(6)(k) through (q) would apply. The DEIR should confirm that all stormwater conveyances will include stormwater BMPs to attenuate pollutants and provide a setback from the receiving waters and wetlands as described in the *Massachusetts Stormwater Handbook.*

Chapter 91

MassDEP comments note that the Hoosic River crossing is authorized to be maintained pursuant to the existing un-termed license (No. 6274 issued in 1974) provided that the license is valid, and the structures have been maintained in accordance with the specifications therein. The DEIR should confirm the license is valid and the specifications have been adhered to.

As outlined in MassDEP WRP comments, the DEIR should evaluate all waterways within the footprint of the project with respect to the c. 91 jurisdictional standards at 310 CMR 9.04(1)(e). This evaluation should not be based on the MassDEP Technical Advisory #WE03-08[14] which specifically notes that nontidal rivers/streams not identified in the document could potentially be subject to c. 91 jurisdiction. The DEIR should include details on the scope of work within each waterway in c. 91 jurisdiction to allow MassDEP WRP to provide guidance on any c. 91 authorization that may be required. The Proponent should schedule a pre-application consultation with MassDEP Waterways as requested in comments and should provide an update on coordination in the DEIR.

The DEIR should provide additional information regarding which portions of the project cannot be located or operated away from waterways which are non-tidal, navigable rivers/streams subject to jurisdiction pursuant to c. 91 and the Waterways Regulations. The analysis provided in the DEIR should support a finding of water-dependency as required by 310 CMR 9.12(2)(d) and review the project's conformance with the relevant c.91 regulatory standards (if applicable).

[14] MassDEP Technical Advisory #WE03-08, *Jurisdiction Under the Public Waterfront Act in Non-tidal Rivers and Streams*, (revised August 10, 2006)

Article 97

As noted previously, the project will involve construction of ±1,076,044 sf (245.7 acres) of new, permanent access roads within the ROW boundaries and ±165,387 sf (3.8 acres) of off-ROW access (i.e., use and improvement of woods roads) within DCR forest land to enable access to the E131 Line ROW. The Proponent indicates that it may have existing rights to access the ROW through DCR property; however, as indicated in comments from DCR, additional information is needed to determine if new permanent easements are required which would require disposition of state-owned land protected by Article 97.

If required, a disposition of a property interest over this land requires approval by a two-thirds vote of the legislature, and compliance with the EEA Article 97 Land Disposition Policy (the Article 97 Policy) and new M.G.L. c. 3, s. 5A (Public Lands Preservation Act). The Article 97 Policy was established to ensure No Net Loss of public conservation lands under the ownership and control of the Commonwealth. It provides for transfer of ownership or interests in Article 97 Land only under exceptional circumstances. The Policy establishes six criteria for determining when "exceptional circumstances" exist such that a disposition of Article 97 land may be appropriate. These include:

- The Proponent of the disposition must conduct an analysis of alternatives, commensurate with the type and size of the proposed disposition, that achieves the purpose of the disposition without the use of Article 97 land (i.e., use of other land available within the appropriate market area)
- The disposition of the subject parcel and its proposed use may not destroy or threaten a unique or significant resource (e.g., significant habitat, rare or unusual terrain, or areas of significant public recreation)
- Real estate of equal or greater value, and of significantly greater resource value is granted to the disposing agency
- The minimum necessary area of Article 97 should be included in the disposition and the existing resources continue to be protected to the maximum extent possible
- The disposition serves an Article 97 purpose or another public purpose without detracting from the mission, plans, policies and mandates of EEA and its appropriate department or division
- The disposition is not contrary to the express wishes of the person(s) who donated or sold the parcel or interests to the Commonwealth

The DEIR must identify impacts (temporary and permanent) to Article 97 Land and proposed measures to avoid, minimize and mitigate impacts. The alternatives analysis and proposed mitigation (i.e., payments into the DCR Land Conservation Fund, etc.) in the DEIR should address compliance with the EEA Article 97 Policy. The Proponent is directed to consult with DCR regarding the applicability of Article 97 prior to filing the DEIR. As noted above, work activities on DCR property outside of existing easements associated with the ROW, or requiring access across DCR property, will require a CAP. As requested in comments, the Proponent should coordinate with DCR's Senior Ecologist, Staff Archaeologist and Management Foresters related to wetlands, rare species habitat, trails, forest stands identified by DCR's Old Growth Policy and other forest resources, and potential archaeological resources, including the amount of proposed tree clearing within the state forest sections of the ROW, and along access routes identified by the Proponent. Comments from DCR and MassAudubon et al. express concerns about recreational impacts associated with temporary closure of trails and roads used for public recreation during active construction and impacts that may result in increased Off-Highway Vehicle (OHV) access to the state forests, potentially causing degradation of natural and cultural resources. DCR requests coordination with the Proponent to develop and implement

strategies to deter this unauthorized trail use. The DEIR should provide an update on these consultations. The DEIR should identify specific protection and restoration measures to be taken for sensitive natural and cultural resources on public conservation lands.

The DEIR should include maintenance plans (equipment, roadways, vegetation management, etc.) that will ensure ongoing impacts are minimized. The DEIR should describe how maintenance plans will be modified or developed to avoid and minimize impacts to birds, nests, and young during the breeding season, and to reptiles and amphibians that may be vulnerable to operation of trucks or other equipment, especially on protected conservation lands. The DEIR should identify specific plans to regulate and enforce rules on allowable and appropriate types of recreation.

Transportation

The Proponent should continue to work with MassDOT (District 1) to identify any traffic and construction management plans that may be required for temporary work within the state highway layout to minimize traffic disruption during construction. The DEIR should describe the location of all roadways under MassDOT jurisdiction and include a figure that identifies locations within the state highway layout where work or construction access will occur. It should describe the outcome of any consultation with MassDOT. The DEIR should describe the extent of truck traffic that will result from refurbishment and tree clearing activities, including the number of truck trips required.

Historic and Archaeological Resources

An intensive (locational) archaeological survey was conducted in 2021 and 2022 and a limited archaeological site examination investigation will be conducted in 2023 to identify and evaluate historic and archaeological resources throughout the project corridor, and in advance of an archaeological site avoidance and protection plan. The EENF indicates that the Proponent will continue to consult with MHC and Native American Tribes to develop measures to avoid, minimize or mitigate adverse effects to historic and archaeological resources. The DEIR should provide an update on coordination with MHC and the tribes. It should summarize measures in the avoidance and protection plan.

Climate Change

Adaptation and Resiliency

While the EENF describes the general resiliency benefits of the project achieved by updating aging infrastructure to current design standards, it does not specifically address the design recommendations from the MA Resilience Design Tool. The DEIR should include a revised output report, which includes these recommendations. The DEIR should include a narrative explaining whether proposed infrastructure improvements will make the project assets more resilient to risks associated with riverine flooding from a 100-year (1%) storm event estimated as of 2070. It should discuss the extent to which existing electrical lines are exposed to riverine flooding, and what measures the Proponent is taking to improve asset resiliency over a longer-term horizon. In particular, the DEIR should discuss whether new foundations are being elevated above any defined base flood elevations or other similar water/flood elevation measure to ensure that the structures are resilient to future flooding risks. Where impervious/semi-pervious area is created and stormwater management is required, the DEIR should address the recommendations from the MA Resilience Design Tool, including whether the stormwater management designs will be resilient to future climate conditions including the 100-year (1% chance)

storm as of 2070. The DEIR should further describe mitigation in areas of access road creation where there are steep slopes and severe erosion potential including temporary and permanent stabilization methods.

Land Alteration

The DEIR should provide a quantitative carbon analysis of tree clearing activities that should consider both the one-time direct emissions from tree cutting as well as loss of potential carbon sequestration over a certain time period (e.g., 30 or 40 years). While the EENF indicates that 17.6 acres of the total 86 acres of vegetation clearing is associated with tree removal, it did not fully characterize the land cover types for all vegetation clearing. The Proponent has proposed to use LiDAR data on other Asset Condition Refurbishment (ACR) projects (i.e., EEA#16607 A1/B2 ACR Project), confirmed with select sampling, to estimate the age and height of trees to be cleared and to assign carbon values to those trees based on "best available datasets." The Proponent should use a consistent methodology to estimate carbon impacts from all vegetation clearing proposed for the project. The Proponent may, in the alternative, make use of the EVALIDator tool from the U.S. Forestry Service,[15] which provides estimates of carbon stocks (including above ground and below ground biomass) specific to Massachusetts forests and considers variations among forest types based on region. As the EVALIDator tool does not provide an estimate of annual carbon sequestration rates (carbon flux over time), the Proponent may rely on other sources of data, including the EPA GHG Emissions Calculator, for this value and estimate annual rates over a 30-year time period from the date of construction. The DEIR should describe the methodology and data used to develop the analysis, identify associated impacts on GHG emissions, and identify measures to avoid, minimize and mitigate impacts.

The DEIR should identify mitigation measures commensurate with the project's impacts on the project corridor's capacity to sequester and store carbon. Potential mitigation measures may include funding programs that add or maintain biomass for sequestration purposes (such as tree planting, carbon credits, forest conservation or commitments to implement forest restoration practices) and preserving/protecting forested land through a Conservation Restriction or other means. At a minimum, the Proponent should clearly explain its plan for disposition of the trees cleared through the project, including the process for identifying potential markets for reuse of wood and a process for tracking and reporting. The Proponent should commit to reuse of cleared trees for long-lived wood products to the greatest extent practicable and should indicate how the ultimate disposition of the trees will be tracked and documented. Potential mitigation for carbon emissions due to land alteration might include donation of harvested wood to benefit an affordable housing project; tree planting in EJ populations near the project area (recommendation of 50 trees/acre with a commitment to water and replace for two years); and donation of harvested wood (cut and split to a wood bank) in Massachusetts.

Construction

The DEIR should confirm that the project will include a spills contingency plan that addresses prevention and management of potential releases of oil and/or hazardous materials from pre- and post-construction activities. It should confirm that this plan will 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.

[15] https://www.fia.fs.fed.us/tools-data/

Mitigation and Section 61 Findings

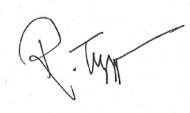
The EENF included draft Section 61 Findings and proposed mitigation measures. The DEIR chapter should include an updated comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the impacts of the project. The DEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. The list of commitments should be provided in a tabular format organized by subject matter (traffic, water/wastewater, GHG, EJ, etc.) and identify the Agency Action or Permit associated with each category of impact. Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project.

Responses to Comments

The DEIR should contain a copy of this Certificate and a copy of each comment letter received. It should include a comprehensive response to comments on the EENF that specifically address each issue raised in the comment letter; references to a chapter or sections of the DEIR alone are not adequate and should only be used, with reference to specific page numbers, to support a direct response. This directive is not intended to, and shall not be construed to, enlarge the Scope of the DEIR beyond what has been expressly identified in this certificate.

Circulation

The Proponent may circulate copies of the DEIR to commenters other than Agencies in a digital format (e.g., CD-ROM, USB drive) or post to an online website. However, the Proponent should make available a reasonable number of hard copies to accommodate those without convenient access to a computer to be distributed upon request on a first come, first served basis. A copy of the DEIR should be made available for review in the Adams, North Adams, Florida, and Monroe Public Libraries.



March 17, 2023
Date

Rebecca L. Tepper

Comments received:

02/23/2023 Richard Chandler, Mohawk Trail Woodlands Partnership
02/27/2023 Andrew Kawczak, Hoosic River Watershed Association
03/08/2023 Massachusetts Department of Conservation and Recreation (DCR)
03/10/2023 Massachusetts Department of Environmental Protection (MassDEP) – Waterways Regulation Program (WRP)

03/10/2023	MassDEP, Western Regional Offices (WERO)
03/10/2023	Berkshire Regional Planning Commission (BRPC)
03/10/2023	Massachusetts Department of Transportation (MassDOT)
03/10/2023	Berkshire Environmental Action Team (BEAT)
03/10/2023	Mass Audubon, Appalachian Mountain Club, Massachusetts Association of Conservation Commissions, Massachusetts Land Trust Coalition, The Nature Conservancy in Massachusetts, Sierra Club Massachusetts Chapter, The Trustees of Reservations, Friends of Mohawk Trail State Forest, and Harvard Forest
03/10/2023	Massachusetts Division of Fisheries and Wildlife (DFW) – Natural Heritage and Endangered Species Program (NHESP)

RLT/PPP/ppp

Patel, Purvi (EEA)

From: Katy L. Wilkins <KLWilkins@tigheBond.com>
Sent: Thursday, February 23, 2023 8:04 AM
To: Patel, Purvi (EEA)
Cc: Tyrrell, Michael; Emmett Lollis-Taylor; ashfield@verizon.net
Subject: FW: E-131 ACR project in western MA by application from Eversource

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Good morning Purvi,

I received this correspondence relative to the E131 ACR Project and am passing along to you per their request.

Thank you,

Katy Wilkins
Project Manager

o. 413.875.1305 | m. 508.272.3172
53 Southampton Road, Westfield, MA 01085
w: tighebond.com | halvorsondesign.com

-----Original Message-----
From: RICHARD CHANDLER <ashfield@verizon.net>
Sent: Wednesday, February 22, 2023 6:59 PM
To: Katy L. Wilkins <KLWilkins@tigheBond.com>
Cc: Hank Art <Henry.W.Art@williams.edu>; Nowak, Joseph <jnowak@bcn.net>; Lisa Hayden <lhayden@newenglandforestry.org>
Subject: E-131 ACR project in western MA by application from Eversource

[Caution - External Sender]

Hello Ms. Wilkins - I will be unable to attend the Zoom meeting on this project that traverses several towns in the Mohawk Trail Woodlands Partnership (name change currently pending to Northwestern Massachusetts Woodlands Partnership). We are a quasi-state body representing 21 Northern Berkshire and Western Franklin County towns including those most impacted by this effort.

I have been asked to forward to MEPA, with you identified as project contact, my previously shared comments (copied in below) with our Board Chair (Hank Art of Williamstown) and our administrative agent Lisa Hayden of the New England Forestry Foundation.

They are also copied here.

Please share these as is appropriate while you consider approval and conditions of this project under MEPA status. Thank you for the opportunity:

"Thanks for the forward of this extensive line upgrade project. I read almost all of the material in the attachment and feel that:

1) This work is necessary to reconstruct and maintain the electrical grid for a healthier distribution network as extra capacity is needed to diversify fossil-fuel exacerbated climate change.

2) The various state and federal government bodies who will oversee this effort have adequate tools at their disposal to assure design and construction compliance to the greatest extent possible - as long as they keep in contact at every step of the work.

3) Our rural towns need to be sure we will benefit from this work that primarily brings power across rather than into our area. This can be aided by understanding the impact modernizing of wires and structures will have - as well as the stated increased maintenance going forward - both positive and potentially negative - at key intersection points like substations, road crossings, view-sheds, nearby residences, etc. Of particular concern are local opportunities and concerns surrounding upgraded regional access points (substations) and potential private and public generating and storage systems that may result from this work over the next decade. These will have significant planning impacts in the rural communities these lines traverse.

4) It looks like quite a few off-right-of-way (ORW) road construction is planned due to terrrain. Much of this is on existing/former woods roads that also may be/could potentially be trails in state forests. A strong effort should be made to condition permits for this work on improving public access to the state land after completion and in using this work to demonstrate proper and innovative developing techniques - potentially during workshops open to the public and land conservation professionals.

5) I don't see much about geology in this filing, except as it serves to inhibit the work. Although there appears to be adequate consideration of historic interests, I personally would love to see some of the end result aimed at educating the public about the ground itself on which they stand. Realizing that most after-completion access to this extensive land cut is to be restricted, I hope particular areas of interest can be designated for educational access for schools and other guided groups.

6) Lastly, and directly relevant to the Northwestern Massachusetts (currently Mohawk Trail) Woodlands Partnership, examples of the forestry impacts and proposed mitigation - along with how the material to be removed is used - would be a great window on how infrastructure development and woodland values can be combined favorably.

I don't expect to attend the Zoom meeting, but perhaps these comments could be passed along."

Rick Chandler, Partnership Vice Chair and Town Representative for Ashfield

View Comment

Comment Details

EEA #/MEPA ID	First Name	Address Line 1	Organization
16663	ANDREW	46 D STREET	Hoosic River Watershed Association
Comments Submit Date	**Last Name**	**Address Line 2**	**Affiliation Description**
2-27-2023	KAWCZAK	--	Proponent
Certificate Action Date	**Phone**	**State**	**Status**
3-10-2023	--	MASSACHUSETTS	Accepted
Reviewer	**Email**	**Zip Code**	
Patel, Purvi	akawczak@yahoo.com	01247	

Comment Title or Subject

Topic: Environmental impacts

Comments

See attachment below

Attachments

powerpoleinstln.docx(null)

Scan2023-02-24_155802natlgrid.pdf(null)

BACK TO SEARCH RESULTS

February 20, 2023

Purvi Patel – MEPA/ENF analyst
Katy Wilkins – National Grid consultant

RE: E131 Asset condition Refurbishment Project (power pole replacement project) Expanded Environmental Notification Form – MEPA project # 16663

Dear Professional:

Established in 1986, the Hoosic River Watershed Association (HooRWA) is a citizens environmental organization dedicated to; the restoration, conservation and enjoyment of the Hoosic River watershed. The watershed size is 720 square miles, covering the three states of; Massachusetts, Vermont and New York. In Massachusetts, the watershed includes the towns of; Lanesboro, Cheshire, **Adams, North Adams**, Clarksburg, New Ashford and Williamstown. (See hoorwa.org for more information)

As such, we have reviewed the subject EENF and truly understand the importance to the area to install and maintain a healthy electrical grid. We do however, have some serious concerns regarding the extensive tree cutting (~~~ < 92 acres for the total project) proposed for developing new access roads. Specific to the communities of **Adams** and **North Adams,** there is extensive road widening (to 16 feet), road stabilization work and the addition of spur roads. Many new road segments and excursions are also proposed in those communities (between pole numbers: old #147 through old #178 **and** old #59 through old #72).

As you likely know:

a) Unnecessary tree cutting removes trees that otherwise perform valuable function of sequestering carbon emissions. Massachusetts' has recently adopted new climate change policies and regulations - that include crediting the importance of carbon sequestration using trees/ forests as the collective sinks. Additionally, the State of Massachusetts recently funded the Woodlands Partnership of North-West Massachusetts - that among other things - advocates the value of forest carbon sequestration - as being important to their goals.

b) Construction of new access roads will ultimately increase the use of ATVs. ATV usage typically results in soil erosion and direct wetland destruction. When wet conditions/rain ultimately arrives, the soil erosion/loose soil - creates mud slurry that can find its way into a wetland, vernal pool or adjacent stream - stressing each - long after this project is complete.

c) New or improved roads will further stress wildlife due to habitat fragmentation. Some of the proposed road excursions enter lands adjacent State lands that were intended to assist wildlife survival through preservation of habitat integrity. Additional cutting of forests, adding or improving roads, challenges that environmental and wildlife benefit.

d) Some road improvements, new road additions - remove wetlands and vernal pools - that are extremely difficult to successfully replicate.

e) New road construction will increase the opportunity to introduce invasive species to the area.

As such, we believe there is a better environmental balance to achieve your objective of installing new poles.

We request that you consider:

a) Use of tracked construction vehicles - within the current rights of way - to negate the need to cut an extensive quantity of trees – in order to construct 16-feet wide access roads.

b) Don't increase the width of existing roads/trails to accommodate normal road-use vehicles - that would no longer be needed - if tracked construction vehicles were used.

c) Don't increase access nor improve access to the power line right of way - to discourage the expected increase in ATV usage.

d) During construction, use industrial-type helicopters (e.g., Carson company) to carry and install; equipment, concrete, piers and poles. Those helicopters were used extensively (and effectively) on/over the rugged terrain surrounding the Bear Swamp Hydroelectric facility and power pole installation project in 1973.

e) By modifying your installation techniques and processes, you can avoid some of the costs of: hauling in tons of rock for stabilization, limit the costs of grading the rock, eliminate much of the need for extensive tree cutting /disposal/disposition.

f) Consult with Robert T. Leverett, a nationally recognized old-growth tree specialist, to review the locations of proposed tree cutting, especially in Florida and Monroe, to ensure old-growth forests will not be overly stressed - and will be protected. He has previously advised the State in protecting these resources.

Fundamentally, we believe a shift in your proposed construction methods and techniques - will result in much less stress on the environment and wildlife -- and still be good for you and the surrounding communities!

Sincerely,

Andrew Kawczak
President, Hoosic River Watershed Association

Hoosic River Watershed Association

February 27, 2023

Purvi Patel – MEPA/ENF analyst
Katy Wilkins – National Grid consultant at Tighe& Bond

RE: E131 Asset condition Refurbishment Project (power pole replacement project) Expanded Environmental Notification Form – MEPA project # 16663

Dear Professionals:

Established in 1986, the Hoosic River Watershed Association (HooRWA) is a citizens' environmental organization dedicated to; the restoration, conservation and enjoyment of the Hoosic River watershed. The watershed size is 720 square miles, covering the three states of; Massachusetts, Vermont and New York. In Massachusetts, the watershed includes the towns of; Lanesboro, Cheshire, **Adams, North Adams**, Clarksburg, New Ashford and Williamstown. (See hoorwa.org for more information)

As such, we have reviewed the subject EENF and truly understand the importance to the area to install and maintain a healthy electrical grid. We do however, have some serious concerns regarding the extensive tree cutting (~~~tbd < 92 acres for the total project) proposed for developing new access roads. Specific to the communities of **Adams** and **North Adams,** there is extensive road widening (to 16 feet), road stabilization work, work terraces and the addition of spur roads. Many new road segments and excursions are also proposed in those communities (between pole numbers: old #147 through old #178 **and** old #59 through old #72).

As you likely know:

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b) Construction of new access roads will ultimately increase the use of ATVs. ATV usage typically results in soil erosion and direct wetland destruction. When wet conditions/rain ultimately arrives, the soil erosion/loose soil - creates mud slurry that can find its way into a wetland, vernal pool or adjacent stream - stressing each - long after this project is complete.

P.O. Box 667, Williamstown, MA 01267 office@hoorwa.org 413-458-2742

c) New or improved roads will further stress wildlife due to habitat fragmentation. Some of the proposed road excursions enter lands adjacent State lands that were intended to assist wildlife survival through preservation of habitat integrity. Additional cutting of forests, adding or improving roads, challenges that environmental and wildlife benefit.

d) Some road improvements, new road additions - remove wetlands and vernal pools - that are extremely difficult to successfully replicate.

e) New road construction will increase the opportunity to introduce invasive species to the area.

As such, we believe there is a better environmental balance to achieve your objective of installing new poles.

We request that you consider:

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b) Don't increase the width of existing roads/trails to accommodate normal road-use vehicles - that would no longer be needed - if tracked construction vehicles were used.

c) Don't increase access nor improve access to the power line right of way - to discourage the expected increase in ATV usage.

d) During construction, use industrial-type helicopters (e.g., Carson company) to carry and install; equipment, concrete, piers and poles. Those helicopters were used extensively (and effectively) on/over the rugged terrain surrounding the Bear Swamp Hydroelectric facility and power pole installation project in 1973.

e) By modifying your installation techniques and processes, you can avoid some of the costs of: hauling in tons of rock for stabilization, limit the costs of grading the rock, eliminate much of the need for extensive tree cutting /disposal/disposition.

f) Consult with Robert T. Leverett, a nationally recognized old-growth tree specialist, to review the locations of proposed tree cutting, especially in Florida and Monroe, to ensure old-growth forests will not be overly stressed - and will be protected. He has previously advised the State in protecting these resources.

Fundamentally, we believe a shift in your proposed construction methods and techniques - will result in much less stress on the environment and wildlife -- and still be good for you and the surrounding communities!

Sincerely,

Andrew Kawczak

Andrew Kawczak
President, Hoosic River Watershed Association

dcr
Massachusetts

March 8, 2023

Secretary Rebecca L. Tepper
Executive Office of Energy and Environmental Affairs
Attn: Purvi Patel, MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Re: EEA#16663 E131 Asset Condition Refurbishment Project EENF

Dear Secretary Tepper:

The Department of Conservation and Recreation ("DCR" or "the Department") is pleased to submit the following comments in response to the Expanded Environmental Notification Form ("EENF") filed by New England Power Company ("NEP" or the "Proponent") for the proposed E131 Asset Condition Refurbishment Project (the "Project") in Adams, Savoy, Florida and Monroe.

NEP's E131 right-of-way ("ROW") ranges between 200 and 400 feet in width. The current maintained width ranges from approximately 100 to 150 feet. NEP proposes to expand the existing maintained ROW in limited areas as required for the safe placement of structures and work pads. Approximately six miles of ROW passes through Monroe, Florida and Savoy state forests. Tree clearing related to new permanent access roads is also proposed. The proposed work will impact approximately 246 acres of DCR land within the ROW and 4 acres outside the ROW.

Article 97

The proposed Project includes the use and "improvement" of woods roads outside of the ROW to enable access through DCR forest land to the NEP ROW for Project activities. Proposed changes to the access corridors include tree clearing, widening, and improving the corridors, which will result in permanent impacts to the state forests. Any permanent changes or improvements to off-ROW access routes on DCR property will require permanent easements, triggering Article 97 of the Amendments to the Massachusetts Constitution. DCR also notes that if the off-ROW improved woods road and trails are to be permanently used for ongoing maintenance on the NEP ROW, that change in use of DCR property would also trigger Article 97.

Pursuant to the Public Lands Preservation Act, codified at M.G.L. c. 3, § 5A, a disposition of land that will trigger Article 97 requires (1) the submission to the Secretary of an alternatives analysis "demonstrating that all other options to avoid or minimize said Article XCVII disposition or change in use have been explored and no feasible or substantially equivalent alternative exists"; and (2) identification of replacement land or an interest in land not already subject to Article 97, in a comparable location that is of equal or greater natural resource value, acreage, and monetary value. The Secretary is authorized to waive or modify the replacement land requirement in limited circumstances, and in accordance with certain conditions. DCR requests that the Proponent become familiar with guidance on the PLPA published by the Executive Office

of Energy and Environmental Affairs ("EEA"), which can be found at https://www.mass.gov/info-details/article-97-the-public-lands-preservation-act.

Transfers of interests in state conservation property must also meet the requirements set forth in the EEA Article 97 Land Disposition Policy (the "Policy"). The Policy has the stated goal of ensuring no net loss of lands protected under Article 97 in the ownership and control of the Commonwealth and its political subdivisions, and states as a general premise that EEA and its agencies shall not sell, transfer, or otherwise dispose of any right or interest in Article 97 lands. Transfer of ownership or interests therein only may occur under exceptional circumstances, as defined in the Policy, including the determination that no feasible alternative is available, and a minimum amount of land or an interest therein is being disposed for the proposed use. Such a transfer also requires legislative authorization by the General Court through a two-thirds supermajority roll-call vote. DCR will continue to coordinate with the Proponent regarding any additional rights needed that would trigger an Article 97 disposition request. Work activities on DCR property outside of existing easements associated with the NEP ROW, or requiring access across DCR property, will also require a Construction and Access Permit ("CAP").

Natural, Cultural and Recreational Resources

DCR requests that the Proponent be required to coordinate with DCR's Senior Ecologist, Staff Archaeologist, and Management Foresters related to wetlands, rare species habitat, trails, forest stands identified by DCR's Old Growth Policy and other forest resources, and potential archaeological resources, including the amount of proposed tree clearing within the state forest sections of the ROW, and along access routes identified by the Proponent. The Senior Ecologist and Foresters will review the flagged work limits and work with the Proponent to minimize impacts to sensitive resources, minimize clearing to the extent possible, and identify mitigation opportunities should a loss or conversion of wetlands, rare species habitat or other forest or recreational resources occur as a result of these work activities. The Staff Archaeologist will coordinate with the Proponent and their cultural resource consultant to develop and implement measures to avoid, minimize, or mitigate adverse effects to significant historic and archaeological resources within DCR property. We look forward to reviewing specific protection and restoration measures to be taken for sensitive natural and cultural resources on public conservation lands. Environmental permit applications for work activities on DCR land, including Massachusetts Endangered Species Act (MESA) and Wetlands Protection Act (WPA) permits, must be signed by the Department as 'Owner' following review by DCR staff members and prior to submission to regulatory agencies.

DCR is concerned about recreational impacts considering that the Project proposes to temporarily close trails and roads used for public recreation during active construction. DCR is also concerned that the Project may result in increased Off Highway Vehicle access to the state forests, potentially causing degradation of natural and cultural resources. The Department requests coordination with NEP to develop and implement strategies to deter this unauthorized trail use.

Thank you for the opportunity to comment on the EENF. If you have any questions regarding these comments, or to request additional information or coordination with DCR, please contact andy.backman@mass.gov.

Sincerely,

Douglas Rice

Douglas J. Rice,
Commissioner

cc: Nancy Putnam, Jonathan Patton, Sean Grant, Katherine Preissler, Peter Church, Tom Brule, Bill VanDoren, Priscilla Geigis, Patrice Kish, Tom LaRosa

BERKSHIRE ENVIRONMENTAL ACTION TEAM
20 Chapel St. Pittsfield, MA 01201 ● thebeatnews.org
413-464-9402 ● team@thebeatnews.org

Protecting the environment for wildlife in support of the natural world that sustains us all.

March 10, 2023

Secretary Rebecca Tepper
Executive Office of Energy and Environmental Affairs
MEPA Office - Purvi Patel - EEA # 16663
100 Cambridge St., Suite 900
Boston, MA 0211

via email

Re: EEA # 16663 - E131 Asset Condition Refurbishment Project
Adams, North Adams, Florida, and Monroe, Massachusetts

Dear Secretary Rebecca Tepper,

Please accept the following comments from the Berkshire Environmental Action Team (BEAT). BEAT's mission is to protect the environment for wildlife in support of the natural world that sustains us all.

Draft Environmental Impact Report
Please require the submission of a Draft Environmental Impact Report, rather than a Single Environmental Impact Report. There are far too many questions and potential impacts that have not been addressed to cover in a Single EIR.

BEAT is extremely concerned about the potential impact of this proposed project directly increasing compacted soils, creating new, larger roads that further fragment wildlife habitat, and decreasing tree cover. We are additionally concerned about the add-on effects caused by Off-Road Vehicle (ORV) use of these new roads, and invasive species introduction both by the construction and the ORV use.

Cumulative Impact Analysis
We agree with Mass Audubon et al, that "The MEPA Office should consider working with the utilities on a programmatic approach to these types of projects, in order to avoid, minimize, and mitigate environmental impacts for transmission system upgrades, including new impacts to conservation lands extending beyond existing footprints and/or ROWs. To the extent individual projects are part of a utility company's overall reliability plans, they should be reviewed as phases of a single program rather than segmented

without evaluation of cumulative impacts. A programmatic approach would also ensure consistency of review and provide efficiencies for the utilities and all agencies involved in reviewing and permitting these projects. In particular, clarification is needed regarding what work constitutes an Article 97 disposition for projects within permanently protected public lands and, and appropriate mitigation for unavoidable Article 97 impacts."

Greenhouse Gas Emissions

Greenhouse gas emissions should include emissions from the project taking into consideration:

- the emissions from the production of carbon-intensive steel as compared to carbon-sequestering wood
- the decrease in soil carbon sequestering of highly compacted roadbed vs. existing soils
- the emissions from tree harvesting and the reduced amount of sequestration that will cause.

In addition, greenhouse gas emissions from wetland disturbance and conversion should be included, as well as the loss of the carbon sequestration that would have occurred if the trees had continued to grow and sequester carbon both above ground and in the soil. As the Certificate for the Eversource project (EEA #16567) said, *"project-related reduction in future carbon sequestration will be calculated as the difference between the amount of carbon that would have been sequestered in the future by the affected forest had it not been cleared and the amount of carbon that will be sequestered by grass-scrub/shrub habitat that replaces the forest. The DEIR should account for carbon sequestration from any trees that are removed and not replaced/converted to scrub shrub."*

Alternatives Analysis

We hope that the proponent will take into consideration the suggestions from the Hoosic River Watershed Association for ways to decrease the construction impacts including using tracked vehicles and using "... industrial-type helicopters (e.g., Carson company) to carry and install; equipment, concrete, piers and poles. Those helicopters were used extensively (and effectively) on/over the rugged terrain surrounding the Bear Swamp Hydroelectric facility and power pole installation project in 1973."

Additional analysis

BEAT believes that upgrading from existing shield wire to new fiber optic ground wire (OPGW) is extremely important. We also believe the utility should be considering other upgrades that would benefit resilience, including:

1. Increasing grid stability by installing grid-scale storage solutions at every substation. This could be standard lithium-ion batteries, or less toxic iron-flow batteries such as ESS or other non-toxic, long-duration batteries, as well as

FORM multi-day batteries. FORM is a Massachusetts company and could be a viable partner as early as next year[1].

2. Grid mapping would determine where the grid needs upgrading. This would allow injection of distributed, zero emissions electricity into the grid, opening the floodgates to allow more renewables and battery storage to serve grid demand. Proper grid mapping and upgrades would facilitate adoption of a largely untapped supply of distributed energy, lowering demand on central generation facilities and lowering emissions in the electric generation sector. It would also incentivize more individual properties to add on-site generation if they could more easily participate in supplying power to the grid.

   Furthermore, the cost of assessing parts of the grid should not be borne by those wishing to add small amounts of generation to the grid, and the mapping should not be done piecemeal but rather done in a comprehensive fashion to allow the utilities and grid operator to determine where injection of electricity into the grid would be most beneficial.

Potential impact to "permanently protected" Article 97 lands

BEAT is very concerned by the apparent oversight in the ENF of mentioning possible impact to Article 97 lands as Mass Audubon et al., point out:

> Article 97 of the Massachusetts State Constitution protects public lands and requires a 2/3 roll call vote of both chambers of the Legislature for any change in use or disposition. *An Act Preserving Open Space in the Commonwealth* (Ch. 274 of the Acts of 2022, aka the *Public Lands Preservation Act*) further established requirements and a process for such dispositions.
>
> The EENF states that this project is not an Article 97 disposition. However, on close review of the work involved, it appears that Article 97 is applicable.
>
> - New and improved, heavy duty gravel access roads will be built.
> - Parts of the access roads extend **beyond the limits of the existing ROW Easement**
> - Monroe is a Reserve in the DCR Landscape Designations[2]. **No new roads are allowed in Reserves** under those designations, nor in Old Growth per the 1999 DEM policy that underwent review in the Environmental Monitor.
> - The replacement of old poles and towers with new, steel towers includes expanded impacts beyond the existing footprint.
>
> The EIR should include information required for Article 97 disposition, including detailed alternatives analysis and specific commitments to mitigation such as payments into the DCR Land Conservation Fund. In addition to compensation for unavoidable impacts, the EIR should include maintenance plans that will ensure ongoing impacts are minimized. This includes maintenance of equipment and roadways, and vegetation management. While the utilities have Vegetation Management Plans that are review through the Department of Agricultural Resources, that process is focused on minimizing impacts from the use of herbicides. Other considerations that should be addressed here include use of mechanical equipment such as mowing or tree cutting, and the operation of heavy equipment. Maintenance plans should avoid

[1] https://techcrunch.com/2022/10/06/form-energys-iron-air-battery-on-pace-for-2024-launch-with-450m-series-e/
[2] www.mass.gov/doc/landscape-designations/download

and minimize impacts to birds, nests, and young during the breeding season, and to reptiles and amphibians that may be vulnerable to operation of trucks or other equipment, especially on protected conservation lands. The EENF indicates that roads will be available for use by the public on DCR lands. Specific plans need to be in place to regulate and enforce rules on allowable and appropriate types of recreation. For example, ATVs are not allowed on DCR lands except in specific designated areas, and not in Reserves.

In Monroe, the line crosses Dunbar Brook, a sensitive cold water fishery in a ravine with Old Growth Forest. It is unclear if Old Growth will be directly impacted – hopefully not since there is less than 1,500 acres of Old Growth remaining statewide[3]. It appears from the plans that access will be to the towers on either side of the ravine rather than directly crossing the brook with equipment, although this should be clearly stated. Clearing is proposed in the area around a tower replacement above the brook – although probably outside the actual Old Growth, there are some remarkably large trees in that area, and any clearing within the Reserve should be limited as much as feasible. The plans also call for widening and hardening Raycroft Road Ext in Monroe State Forest at this location, including outside of the existing utility easement.

Considering the many concerns to be considered, we hope that the Secretary will require a Draft Environmental Impact Report as the next step in the MEPA process.

Thank you for considering our comments.

Sincerely,

Jane Winn, Executive Director

[3] Anthony W. D'Amato, David A. Orwig, David R. Foster "New Estimates of Massachusetts Old-growth Forests: Useful Data for Regional Conservation and Forest Reserve Planning," Northeastern Naturalist, 13(4), 495-506, (1 December 2006) 10.1656/1092-6194(2006)13[495:NEOMOF]2.0.CO;2

BRPC
Berkshire Regional Planning Commission

JOHN DUVAL, Chair
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THOMAS MATUSZKO, A.I.C.P.
Executive Director

March 10, 2023

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
Attn: Purvi Patel
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: New England Power Company E131 Asset Condition Refurbishment Project, EEA# 16663

Dear Secretary Tepper:

The Berkshire Regional Planning Commission (BRPC) hereby submits comments on the Expanded ENF (EENF) for the New England Power Company (NEP) E131 Asset Condition Refurbishment Project (EEA# 16663). The proposed project spans four municipalities in Massachusetts: Adams, North Adams, Florida, and Monroe. The project's stated goals are to upgrade existing electrical utility infrastructure and construct improved roadways by which the transmission line can be accessed. These access roads will facilitate the proposed infrastructure improvements, as well as future maintenance activities and access by emergency personnel. The proposed project has met or exceeded MEPA review thresholds for a Mandatory Environmental Impact Report (EIR) and the proponent has requested a Single EIR.

The proposed project will have extensive impacts including 92 acres of permanently altered land, 102,971 sf of permanently altered Riverfront Area, and new steel structures 25ft higher than the current maximum height of 85ft. Impacts will primarily result from the replacement of structures, installation of new structures and the creation of both temporary and permanent access roads. The EENF states that permanent impacts are associated with the replacement and relocation of five structures to Bordering Vegetated Wetlands (BVW) via direct embed methods. The EENF further states that these areas were closely evaluated for alternatives but designs that relocated structures outside of BVW were deemed infeasible. However, this detail is absent within the alternatives analysis. The EENF presented an alternatives analysis that was limited to a No Build Alternative and options for selective/targeted maintenance and improvements. The EENF states "No new ROW is required for the Project and no new construction is proposed other than for access. Therefore, there are no route alternatives for this Project."

The standard which must be met to allow a Single Environmental Impact Report (SEIR) is the submission of an EENF which must include more extensive and detailed information that describes and analyzes a proposed project and its alternatives and assesses its potential environmental impacts and environmental mitigation measures. It is our opinion that the EENF does not include the level of extensive and detailed information that is warranted in order to grant a Single EIR. The EENF describes the proposed project, however weaknesses and deficiencies remain within the alternatives analysis and the assessment of the potential environmental impacts and environmental mitigation measures.

BRPC offers the following for consideration to be included within a Draft EIR:

1. Include an analysis of alternative methods such as tracked construction vehicles and/or the use of industrial-type helicopters to carry and install; equipment, concrete, piers and poles. BRPC shares the concerns raised by the Hoosic River Watershed Association (HooRWA). Such alternatives would significantly reduce tree cutting and impacts to resource areas.
2. Provide an alternatives analysis relative to the permanent impacts associated with the replacement and relocation of five structures to Bordering Vegetated Wetlands (BVW) via direct embed methods.

3. Provide greater clarification with regard to why permanent access roads that do not currently exist are necessary.
4. Provide clarification with regard to the selection of steel structures and/or an alternatives analysis comparing wooden versus steel structures. The current wooden structures, which are proposed to be replaced with steel structures were installed in 1925 and have withstood the test of time in standing for nearly 100 years.
5. Provide greater detail with regard to proposed mitigation measures including specific details related to wetland mitigation and replication.
6. Clarify what methods will be used to control invasive species if they are to become established within the ROW.

In addition, BRPC has concerns regarding the capacity of the electrical grid in relation to the Commonwealth's electrification goals. The EENF states that in addition to the refurbishment work, the existing circuits will be adapted to provide high speed communications between substations by replacing existing shield wire with fiber optic ground wire (OPGW). The EENF states that a strong and reliable electrical transmission and distribution system is vital to the region's safety, security, and economic prosperity and that benefits of the project include a strengthened transmission system in western New England that offers greater reliability and safety for customers. However, it is not clear whether the project will directly address the anticipated future demand or whether additional work would be needed in the future.

The BRPC Environmental Review Committee endorsed these comments at their meeting on March 9, 2023.

Sincerely,

Thomas Matuszko, AICP
Executive Director

March 10, 2023

Secretary Rebecca Tepper
Executive Office of Energy and Environmental Affairs
Attention: MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Via Email: purvi.patel@mass.gov

Re: **EEA #11663, E131 Asset Condition Refurbishment (ACR) Project, Florida, North Adams, Monroe, and Adams, MA**

Dear Secretary Tepper:

On behalf of Mass Audubon, Appalachian Mountain Club, Massachusetts Association of Conservation Commissions, Massachusetts Land Trust Coalition, The Nature Conservancy in Massachusetts, Sierra Club Massachusetts Chapter, The Trustees of Reservations, Friends of Mohawk Trail State Forest, and Harvard Forest, we submit the following comments on this transmission line refurbishment project. We request that these comments be addressed in the required Environmental Impact Report (EIR), in particular that the Article 97 aspects be carefully addressed.

Transmission System Refurbishment Projects

The Massachusetts Environmental Policy Act (MEPA) Office should consider working with the utilities on a programmatic approach to these types of projects, in order to avoid, minimize, and mitigate environmental impacts for transmission system upgrades, including new impacts to conservation lands extending beyond existing footprints and/or rights of way (ROW). To the extent individual projects are part of a utility company's overall reliability plans, they should be reviewed as phases of a single program rather than segmented without evaluation of cumulative impacts. A programmatic approach would also ensure consistency of review and provide efficiencies for the utilities and all agencies involved in reviewing and permitting these projects. In particular, clarification is needed regarding what

work constitutes an Article 97 disposition for projects within permanently protected public lands and appropriate mitigation for unavoidable Article 97 impacts.

Our organizations are strongly supportive of the Commonwealth's commitment to climate action, including the Decarbonization Roadmap and the 2050 Clean Energy and Climate Plan. We recognize that updating the electric transmission grid is important and necessary. Replacement of poles, towers, wires and associated infrastructure along existing ROW is undoubtedly needed in many locations, taking into account the age of many of these facilities as well as advancements in engineering and technology. We hope that refurbishment projects such as this will not only improve reliability, but also increase the capacity of existing transmission ROW corridors (where feasible and supportive of overall systems operation and decarbonization goals). A robust and resilient transmission grid also provides the backbone connecting to an improved distribution system, including deployment of distributed renewable energy systems and storage.

Project Summary

The project involves replacement of more than 150 existing (mostly wooden H frame) structures with new steel structures, upgrading from existing shield wire to new fiber optic ground wire (OPGW), and related work including at least 24 new concrete foundations. The Expanded Environmental Notification Form (EENF) indicates that the replacement of the structures and wires is exempt from MEPA as a utility maintenance activity. Extensive new permanent and temporary road construction is proposed, both to carry out the infrastructure replacement and for purposes of ongoing maintenance. This roadwork is not exempt from MEPA and exceeds review thresholds for alteration of land and wetlands. The project corridor traverses 6 miles of permanently protected state lands in the Department of Conservation and Recreation's (DCR) Monroe, Florida, and Savoy Mountain State Forests. The new roads on DCR lands will impact 245.7 acres within existing ROW and 3.8 acres outside the existing ROW. The project crosses steep, mountainous terrain including rock outcrops, cliffs, and ravines with cold water fisheries. In some locations, road construction will include retaining walls (sheet pile, gabion baskets, large block gravity walls). There will be impacts to Priority and Estimated Habitat of state-listed species protected under the Massachusetts Endangered Species Act, including five plants, a fish, and a dragonfly. More than 14 acres of wetlands will be altered, with most of this characterized as temporary, with the use of swamp matting to enable equipment access during construction.

The review of this project and other transmission upgrade projects impacting conservation lands (state, municipal, federal, land trust, Conservation Restrictions, water supply lands) and/or sensitive habitats should document best practices for avoiding, minimizing, and mitigating impacts.

Article 97

Article 97 of the Massachusetts State Constitution protects public lands and requires a 2/3 roll call vote of both chambers of the Legislature for any change in use or disposition. *An Act Preserving Open Space in the Commonwealth* (Ch. 274 of the Acts of 2022, aka the *Public Lands Preservation Act*) further established requirements and a process for such dispositions.

The EENF states that this project is not an Article 97 disposition. However, on close review of the work involved, it appears that Article 97 is applicable.

- New and improved, heavy duty gravel access roads will be built.

- Parts of the access roads extend **beyond the limits of the existing ROW Easement**.
- Monroe is a Reserve in the DCR Landscape Designations[1]. **No new roads are allowed in Reserves** under those designations, nor in Old Growth per the 1999 DEM policy that underwent review in the Environmental Monitor.
- The replacement of old poles and towers with new, steel towers includes expanded impacts beyond the existing footprint.

The EIR should include information required for Article 97 disposition, including detailed alternatives analysis and specific commitments to mitigation such as payments into the DCR Land Conservation Fund. In addition to compensation for unavoidable impacts, the EIR should include maintenance plans that will ensure ongoing impacts are minimized. This includes maintenance of equipment and roadways, and vegetation management. While the utilities have Vegetation Management Plans that are reviewed through the Department of Agricultural Resources, that process is focused on minimizing impacts from the use of herbicides. Other considerations that should be addressed here include use of mechanical equipment such as mowing or tree cutting, and the operation of heavy equipment. Maintenance plans should avoid and minimize impacts to birds, nests, and young during the breeding season, and to reptiles and amphibians that may be vulnerable to operation of trucks or other equipment, especially on protected conservation lands. The EENF indicates that roads will be available for use by the public on DCR lands. Specific plans need to be in place to regulate and enforce rules on allowable and appropriate types of recreation. For example, ATVs are not allowed on DCR lands except in specific designated areas, and not in Reserves.

In Monroe, the line crosses Dunbar Brook, a sensitive cold-water fishery in a ravine with documented Old Growth Forest. It is unclear if Old Growth will be directly impacted – hopefully not, since there is less than 1,500 acres of Old Growth remaining statewide[2]. It appears from the plans that access will be to the towers on either side of the ravine rather than directly crossing the brook with equipment, although this should be clearly stated. Clearing is proposed in the area around a tower replacement above the brook – although probably outside the actual Old Growth, there are some remarkably large trees in that area, and any clearing within the Reserve should be limited as much as feasible. The plans also call for widening and hardening Raycroft Road Ext in Monroe State Forest at this location, including outside of the existing utility easement.

Examples of best practices that should be applied to this and other transmission replacement projects may include access from one direction rather than a through road where feasible, temporary roads or matting in sensitive areas (in addition to the existing plans for temporary wetland crossings), and other general standards, applied appropriately to local conditions. There should also be a standardization of mitigation requirements for unavoidable Article 97 impacts. Standard procedures and best practices for these reviews and mitigation would benefit DCR and other local and state agencies, as well as the utilities by creating efficiencies, since several of these kinds of projects are anticipated in various locations across the state.

[1] www.mass.gov/doc/landscape-designations/download

[2] Anthony W. D'Amato, David A. Orwig, David R. Foster "New Estimates of Massachusetts Old-growth Forests: Useful Data for Regional Conservation and Forest Reserve Planning," Northeastern Naturalist, 13(4), 495-506, (1 December 2006) 10.1656/1092-6194(2006)13[495:NEOMOF]2.0.CO;2

Thank you for the opportunity to comment, and for your careful consideration of these comments.

Sincerely,

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Natural Heritage and Endangered Species Program
MassDEP
Berkshire Regional Planning Commission
Towns of Adams, North Adams, Florida, and Monroe Conservation Commissions

OLD GROWTH POLICY
Department of Environmental Management
Division of Forests and Parks
Bureau of Forestry

Massachusetts' Old-Growth Forests

Old-growth forests are valued for their scientific, ecological and social significance. From a scientific perspective they serve as windows to the past. Increment cores of tree growth, microtopography and other features provide information that can be analyzed to ascertain past climatic events, forest fires and insect infestations that may have occurred hundreds of years ago (Henry and Swan, 1974)). Old-growth forests provide opportunities to acquire baseline data that can help us understand how forest ecosystems develop over time without human influence. They are valued ecologically because they provide some habitat components that are not common in young forests. We are not aware of any organisms that are dependent on old growth for their existence in Massachusetts, although a number of organisms preferentially inhabit older forests. Old-growth forests are revered for the social values associated with them. They provide a backdrop for some forms of outdoor recreation and some individuals take great comfort in knowing that there are some areas of forest land set aside in a wild and natural state and allowed to develop free from human influences.

The first formal inventory of old-growth forests in Massachusetts was carried out in 1993 by Dr. Peter Dunwiddie for the Massachusetts Natural Heritage Program. He analyzed 13 stands having a combined area of over 350 acres. These stands averaged approximately 25 acres in size and were located in Berkshire and Franklin Counties. Since that time, Dunwiddie and Robert Leverett have published an article, an update of Dunwiddie's earlier one, in *Rhodora - The Journal of the New England Botanical Club*, entitled *Survey of Old-Growth Forest in Massachusetts*. This survey documented an additional 15 stands in western Massachusetts and one in central Massachusetts. The total acreage reported in this most recent survey was 630 acres. These acreage figures are only approximate because these areas are located in rough, steep terrain and their often indistinct stand boundaries make precise delineation difficult. For the most part, these stands occur on lands administered by the Department of Environmental Management (DEM) although three of them are on private land. Until such time as a more authoritative source or more detailed information becomes available, such as through the development of site-specific plans, the stands on DEM land documented in the two previously cited papers shall be considered to be the old-growth stands to which this policy will apply.

DEM's approach to the management of old-growth forests has always assumed a low profile. Little effort has been made to publicize either the existence or location of these stands and that will continue to be the case. The only attempt to achieve public recognition for any of them took place in the early 1970s when a section of the Mohawk Trail and Savoy Mountain State Forests was dedicated as a Society of American Foresters (SAF) Representative Natural Area. This took place following the recognition accorded the Cold River area by the investigative work by Robert Livingston and Paul Hosier of the University of Massachusetts Botany Department (Hosier, 1969). Shortly after that, the Hopper, on the west slopes of Mt. Greylock, which contains several old growth stands, was dedicated as an SAF Representative Natural Area and as a National Natural History Landmark. Recently, the "discovery" of an old-growth area on Mount Wachusett that, heretofore, did not meet the contemporary definition of an old-growth forest has prompted a great deal of public interest in these areas.

In light of this interest, DEM has developed draft policies that were first presented at a public meeting at Mount Wachusett in July of 1997. Following that, written policies were circulated to the individuals and organizations that had previously expressed an interest in the management of old-growth forests for their comments. The policies were also published in the *Environmental Monitor*, to solicit public comments. A number of comments were received and the draft policies have been modified to accommodate them. The degree to which DEM can implement these policies and fulfill its other commitments will depend on a significant increase in its management resources.

These policies will be reviewed annually to determine if they reflect current scientific thought relating to old-growth forests. At the time of the review any additional old-growth areas that have been noted will be considered for inclusion in the list of areas referenced by these policies.

The policies for the management of old-growth forests on DEM land that were adopted by the DEM Board on December 17, 1998 contain five major sections. They (1) provide a definition of old-growth forests, and (2) in addition to that state that DEM will preserve and maintain the integrity of existing old-growth stands, (3) "restore" old-growth where appropriate and utilize these areas as buffers, (4) prepare site-specific management plans and (5) create old-growth attributes in managed stands. Following is an explanation of these policies in detail.

A Definition of Old Growth:
Various definitions of old-growth forests have evolved over the last several decades and now include stands that previously were not considered to be old-growth. These definitions will, no doubt, continue to evolve and become more quantitative as more becomes known about these forests. A national effort has been underway since 1988 to develop and refine definitions of old-growth conditions in thirty-five eastern forest associations (White and Lloyd, 1994). This effort is being spearheaded by the U.S. Forest Service's Southern Region and is being carried out in cooperation with the Nature Conservancy. In addition to that, a number of scientists are working independently to study old-growth forests in the northeastern United States. Presently, the Department of Environmental Management subscribes to the criteria put forth by Cogbill (Cogbill, 1996) and Dunwiddie (Dunwiddie, 1993) as follows:

Minimum stand size
Stands greater than 5 to 10 acres are considered to be large enough to be self-sustaining in spite of natural disturbances and attrition. From a practical standpoint, stands of this size are also efficient to map and administer.

Lack of disturbance
There should be no evidence of significant, human post-European settlement disturbance - the most common forms of disturbance are either timber harvesting or agricultural use.

Age of older trees
Old -growth forests should have a component of old trees that are greater than 50% of the maximum longevity for that particular species. Little is known about this aspect of forest development. However, several sources of this information are available and will be consulted when appropriate (Fowells, 1965; Harlow, et. al. 1996; and Stahle, 1996).

Regeneration
Although old-growth stands are recognized primarily by the presence of old trees, to be self-perpetuating they must have a component of trees in younger age classes that can be recruited to fill voids in the canopy as overstory trees become senescent and die or as gaps are created by external influences.

In addition to the aforementioned features, old growth stands have other characteristics that are unique. Classic, textbook old-growth stands have a preponderance of large, tolerant, late-successional species such as hemlock, beech and sugar maple. Until recently, stands of this nature were the only ones that were considered as old-growth stands. The composition of stands sampled by Dunwiddie and Leverett (Dunwiddie and Leverett, 1996) ranged from pure hemlock through mixed hemlock-hardwood stands to pure hardwood stands. Early and mid-successional species such as white birch, white ash and black cherry, though not always lacking, do not occur in great numbers in these stands (Dunwiddie and Leverett, 1996). The old-growth stand on Mount Wachusett is the only one east of the Connecticut River in Massachusetts and is the only documented old-growth stand in Massachusetts that has a significant oak component (Cogbill. 1996; Foster, et. al. 1996).

Generally speaking, old-growth stands have greater amounts of coarse woody debris (cwd - dead limbs, stems and other woody material that is on the forest floor and is generally greater than 3" in diameter) than most younger stands. A recent study (Whitbeck, 1995) in the Cold River area of the Mohawk Trail State Forest showed the mean accumulation of cwd to be 30 tons per acre. The mean accumulation in nearby second-growth stands was 9 tons per acre. There was a great deal of variation, however, in both the old-growth and the young stands. Old-growth stands probably have more large, standing dead or structurally unsound live trees than younger stands. Previously disturbed middle-aged stands may have greater numbers of smaller and medium size snags than old-growth stands (McComb and Muller, 1983). However, the basal area of dead trees may remain constant through most developmental stages (Tritton and Siccama, 1990).

Gaps, or openings in the crown canopy, are another structural feature of old-growth stands. These gaps may range in size from a small gap created by the death of an individual tree to a large gap created by an extraordinary meteorological event. These gap-forming events are most often episodic, occurring infrequently after long intervening periods with little or no disturbance. A good example of a recent disturbance of this nature is the beech scale-nectria complex, consisting of a beech scale insect and a nectria fungus that was imported from Europe. It was first noted in the Canadian Maritime Provinces in the late 1800s (Shigo, 1972). The first recorded outbreak occurred 30 years later and the complex slowly spread southwesterly, reaching western Massachusetts in the 1960s. The complex created a tremendous amount of beech mortality (Twery and Patterson, 1984) and led to the establishment of gaps of various sizes, regeneration within them and a surge of coarse woody debris (Houston, 1975). This occurred in both second-growth and old-growth forests and its severity varied depending on stand composition.

Other examples of severe episodic events are the ice storms that the Northeast has experienced in 1921, 1942, 1958 and 1998. The effects of these ice storms are often restricted to a particular elevation with forests above and below the affected elevation remaining unaffected. Hurricanes are the most common, widespread meteorological disturbance in the New England region. The 1938 hurricane and many other lesser hurricanes have caused disturbances that have caused damage across entire landscapes. Tornadoes and microbursts are other gap-forming phenomena that are local in nature, but have significant impacts. It is unlikely that a "steady state" (where annual or periodic growth equals mortality) is ever really achieved in Massachusetts' forests except perhaps on a vast, regional landscape scale.

In Massachusetts, old growth forests are found where they have been protected either by severe topography from anthropogenic disturbance and severe weather and/or they occur on sites where the trees have little value for consumptive uses because the cost of their extraction exceeds their value for commodity uses.

Preserve and Maintain the Integrity of Existing Old-Growth Stands.
Areas that meet the criteria for old growth, as set forth in this policy, are excluded from any manipulative activities. Wildlife habitat improvement, road and trail construction, conversion to other land uses, silviculture and other activities that may have an adverse effect on old-growth forests will not be permitted. A natural disturbance such as a windstorm in an old-growth area will not be cause for its old-growth designation to be withdrawn. In most instances DEM will not implement remedial measures following natural disturbances that occur in old-growth areas. Exceptions to this may occur when intervention is required to reduce or forestall damage to the ecosystem as a whole or to ensure the public's safety. A severe insect or disease infestation, are two examples of situations that might lead to intervention, particularly from introduced pests, and human-caused wildfires. If remedial measures are undertaken it will only be with methods that create minimal disturbance. Guidelines for implementing this policy will be developed locally in the site-specific plans described below. Existing, low-impact uses such as hunting, fishing, pedestrian use on existing trails, etc. will continue to be allowed. The maintenance of existing roads and trails that pass through old-growth areas will be permitted, but will be restricted to the existing corridor.

Buffers adjacent to old-growth stands are necessary to minimize the influence of adverse edge effects and reduce the potential for the invasion of species that may have a deleterious effect on the old-growth ecosystem. In most cases, on DEM lands, old-growth areas are embedded in larger areas of protection forest that will remain unmanaged to serve as buffers and other resource protection functions. DEM will establish and maintain buffers adjacent to isolated old-growth stands that occur outside of protection forests. In so far as possible, these buffers will consist of forested areas where disturbance is either precluded or minimized. The location and extent of these buffers will be dealt with in the site-specific management plans that will be prepared for each stand or aggregation of stands.

Recently, growing interest in old-growth forests has led to the increased use of these areas by the general public and the scientific community. To minimize any deleterious effects that these activities might have, DEM has instituted a policy of requiring special use permits for formal group visits and for research activities that take place in these areas.

The special use permit:

Identifies responsible individuals.
Ensures that the activities are appropriate for the site.
Assigns liability.
Places time limits on the activities.
Requires that any research findings be shared with both DEM and the scientific community.

Utilize Existing Land Use Zoning to "Restore" Old Growth Characteristics.
As stated earlier, most old growth stands occur in areas where timber harvesting and changes in land use have not occurred because of their inaccessibility and/or steep terrain. On DEM land these areas are already classified as protection forests that preclude conventional forest management activities. It shall be DEM's policy to allow these areas to develop, without human intervention into stands that have characteristics of old growth stands. These areas will never meet the strict definition of old-growth forests since they have been disturbed previously. Nevertheless, over a long period of time they will develop most of the attributes of old-growth forests. In addition, these areas will serve as buffers around core old-growth stands.

In 1979, the Bureau of Forestry's *Forest Management Practices Generic Environmental Impact Report*, classified in excess of 12,300 acres that were withdrawn from conventional forest management. As one might imagine, most of this acreage occurred in Berkshire and Franklin counties. The best example of one of these areas is the upper Cold River Valley in the Mohawk Trail and Savoy Mountain State Forests. This area includes a broad range of topography, elevations, aspects, soil types, forest types and some of the most productive soils in the Commonwealth are found there.

Prepare Site-Specific Management Plans for Each Designated Old Growth Area
These plans will deal with issues that can only be addressed locally in the context of their immediate environment. The issuance of special use permits, public access, boundary delineation, buffers, response to insects and disease, wildfire, etc. will be dealt with in these plans. Since the plans for stands that are in close proximity to each other can be dealt with collectively, only a minimal number of them will need to be developed. These plans will be a product of a team effort led by the Management Forestry Program staff and will include the property supervisor and staff from the Forest Health Program and the Bureau of Forest Fire Control.

Manage for Old Growth Attributes
Some attributes of old growth stands can be achieved through management of selected, previously disturbed stands (DeGraaf, 1989; Hunter, 1990). Some of these practices are:

Retain live "cull" and standing dead trees.
Many species of wildlife are dependent on cavities in both live and dead trees for their existence (Tubbs, et. al. 1986). Dead trees are also valuable as a substrate for feeding.

Retain coarse woody debris, either as standing trees or down material.
This will be accomplished either by felling certain trees and leaving them or by allowing some trees to remain unharvested and will eventually die (McMinn and Crossley, 1996; Gore and Patterson, 1986).

Leaving some unharvested trees.
This will be accomplished by leaving individual trees or aggregations of trees in otherwise managed stands. These trees could be left in perpetuity or through long rotations (see below). This practice would be used to create a more complex vertical structure and refugia for species that prefer older forests. One of the best opportunities for implementing this is the practice of creating unharvested or partially harvested riparian buffers (Murray and Stauffer, 1995)

Lengthen rotations.
Rather than utilize rotations (a rotation is the planned length of time it takes a stand or tree to achieve a particular level of maturity) that are often as short as 60 to 100 years, some even-aged stands will be allowed to develop for 120 to 150 or more years of age until they are harvested . Trees in some unevenaged stands will be allowed to achieve larger maximum tree sizes than they ordinarily would (Hannah, 1994). There will be significant variation in exactly how this would be applied from site to site.

Practice single tree selection or group selection.
These practices are an appropriate management strategy for some forest associations and condition classes. (Smith, et. al., 1996). This will provide some structural attributes that are characteristic of old-growth stands that may be lacking in second-growth and even-aged stands.

The first three of these practices can and will be applied to some degree in all silvicultural operations on DEM land. Employing lengthened rotations and unevenaged management will require sophisticated site-specific analyses before their implementation. It should be made quite clear that the foregoing management practices are intended to provide old-growth attributes in stands that are managed and should, in no way, be construed as measures for restoring old-growth forests.

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New Estimates of Massachusetts Old-growth Forests: Useful Data for Regional Conservation and Forest Reserve Planning

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Abstract - Old-growth forests are currently identified as core components of regional conservation and forest-reserve planning efforts by agencies and organizations across the northeastern United States. Despite the importance of these ecosystems from an ecological and conservation standpoint, major questions remain concerning their actual extent, location, and configuration in many states. Here we report a substantially revised estimate for individual tracts and the total area of old-growth forests in Massachusetts based on analysis of historical documents and extensive field research and mapping. We estimate that the total area of old-growth in the state is 453 ha, in 33 stands that range from 1.2 to 80.9 ha in size. Over 80% of these forests occur in the Berkshire Hills and Taconic Mountains in the extreme western part of the state. These forests are structurally unique and contain some of the oldest documented *Tsuga canadensis* (hemlock) and *Picea rubens* (red spruce) in New England, as well as the second-oldest documented *Betula lenta* (black birch) in the country. Due to their relatively small size and isolated character, these areas are susceptible to human and natural disturbance and require protection, including substantial buffer areas. Old-growth stands will enhance the value and function of designated forest reserves and will gradually become surrounded by forests of increasingly similar structure and ecosystem characteristics.

Introduction

The few remaining old-growth forests in New England have long been conservation priorities due to their unusual ecosystem characteristics and value for scientific study (Dunwiddie et al. 1996). Traditionally, many of these areas were protected as small isolated tracts (Cogbill 1985, Peterken 1996); however, recent efforts at broad-scale conservation planning in the northeastern United States have initiated interest in incorporating old-growth forests as core components of large forest reserves and networks of reserves (Jenkins et al. 2004, TNC 2004). For example, recent statewide conservation plans in Massachusetts, a state with scattered old-growth stands, have used the amount of old-growth forest as a primary criterion for prioritizing candidate reserves (EOEA 2005, Foster et al. 2005). While other criteria, such as rare species habitat and the extent of existing protected land, also inform this decision process, old-growth forests play a central role in

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this and other broad-scale forest-conservation efforts in the Northeast (Jenkins et al. 2004, Rusterholz 1996).

Despite the emphasis on old-growth forests in forest-conservation planning in Massachusetts, the data employed in these efforts is of variable and changing quality. Information on the number, location, and extent of old-growth stands has changed greatly over time. Early studies concluded that there were no old-growth forests (Egler 1940), whereas recent estimates have ranged from 260 (Dunwiddie and Leverett 1996) to 1200 ha (R.T. Leverett and G.A. Beluzo, Holyoke Community College, Holyoke, MA, unpubl. data). The wide range of these estimates is due to the limited number of rigorous field-based studies (Dunwiddie 1993, Dunwiddie and Leverett 1996, Hosier 1969) and variation in the definition of old-growth conditions (R.T. Leverett and G.A. Beluzo, unpubl. data). Clearly, the importance of old-growth forests in guiding the large forest-reserve planning process in Massachusetts and other northeastern states warrants the development of accurate maps and data for all remaining stands.

This note summarizes recent efforts to extend prior studies of old-growth forests in Massachusetts (Dunwiddie 1993, Dunwiddie and Leverett 1996) by developing a comprehensive assessment of remaining old-growth stands based upon extensive analysis of historical documents, exhaustive field research (including detailed tree aging at all sites), and the consistent application of stringent definitions. This research is part of a larger study examining the disturbance dynamics, structural and compositional attributes, and ecosystem properties of the eighteen largest old-growth forest stands in western Massachusetts (A.W. D'Amato and D.A. Orwig, unpubl. data).

Methods

A series of hand-drawn maps depicting confirmed (Dunwiddie 1993) and potential old-growth areas based primarily on visual characteristics of trees (Leverett 1996a,b) were used to guide reconnaissance efforts aimed at determining the extent of old-growth on the landscape in western Massachusetts. Field reconnaissance of the potential old-growth areas was conducted in the summers of 2003 and 2004. In addition, extensive historical and dendroecological analyses were used at Wachusett Mt. in central Massachusetts (Princeton) to estimate the extent of old-growth at this location (Cogbill 1995, Orwig 2004, Orwig et al. 2001).

Several criteria were applied in the field to help identify old-growth forests: 1) the absence of any evidence of past land-use (e.g., cut stumps, stone walls or structures, numerous multiple-stemmed trees); 2) the presence of at least 5 old trees (> 225 years old; indicating establishment prior to European settlement in these locations [Field and Dewey 1829] and exceeding 50% of the maximum longevity for species commonly

encountered [Dunwiddie and Leverett 1996]) per hectare in the forest overstory as determined through the collection of increment core samples (see below); and 3) the existence of forest structural characteristics that are often indicative of old-growth condition, such as pit and mounds, large snags, gnarled tree crowns, and the accumulation of large volumes of coarse woody debris (Leverett 1996b).

The age of overstory trees in potential old-growth areas was determined by taking increment cores at 0.3 m in height from at least 10 trees per hectare. Cores were mounted, sanded, and aged under a dissecting microscope. In addition, periods of increased radial growth were qualitatively assessed during age determination to identify patterns of dramatic, sustained growth releases that may indicate past selective logging (Orwig and Abrams 1999). To complement field evidence, extensive historical research was also undertaken to ensure the absence of past land-use at areas designated as containing old-growth forests. Historical maps and documents were utilized to note the location of settlements, sawmills, and other areas of intensive land-use (e.g., tanneries) in relation to the potential old-growth areas (e.g., Beers 1876, Hall et al. 2002, MGS 1940, Nason 1847).

Once an area was confirmed as containing old-growth based on field and historical evidence, a series of three to five 400-m^2 plots were established along transects through the central portion of each stand. Locations of all plots were recorded using a GPS. In addition, boundaries of old-growth stands were determined in the field by extensive visual and dendroecological evidence as mentioned above, delineated onto 7.5-minute USGS quadrangles, and transferred into shape files using GIS (ArcView 3.2). When available, old-growth boundaries were also confirmed with historical evidence. Species and diameter at breast height (dbh) was recorded for all living and dead trees (stems ≥ 1.37 m tall and ≥ 10 cm dbh) within these plots. In addition, increment cores were taken from all trees within these plots and from additional trees outside of the plots for age determination and reconstruction of dendroecological dynamics. Plots were permanently marked to enable long-term investigations of the disturbance dynamics in these areas, comparisons with adjacent managed second-growth forests, and changes associated with pests and pathogens in the region (e.g., *Adelges tsugae* Annand (hemlock woolly adelgid) and beech bark disease (caused by the fungi *Nectria* spp., preceded by the beech scale *Cryptococcus fagisuga* Lind.).

Results and Discussion

Based on our collected field data and historical research, we estimate the total area of old-growth forest remaining on public land in Massachusetts to be 452.8 ha (Table 1). As reported in previous studies (Dunwiddie and Leverett 1996), much of this area is located within the Berkshire Hills and

Taconic Mountains of western Massachusetts; however, a sizable amount (80.9 ha) of old-growth forest also exists on Wachusett Mt. in the north-central portion of the state (Fig. 1, Table 1). Our estimate is greater than the prior published estimate of old-growth forest area in Massachusetts (260 ha; Dunwiddie and Leverett 1996) due largely to the expansion of boundaries for previously recognized old-growth areas on Wachusett Mt., Todd Mt., Clark Mt., Mt. Greylock, and along the Cold River (combined expansion of

Table 1. Characteristics of old-growth forests on public land in Massachusetts. MT = Mohawk Trail State Forest, SM = Savoy Mountain State Forest, M = Monroe State Forest, W = Windsor State Forest, MG = Mount Greylock State Reservation, MW = Mount Washington State Forest, ME = Mount Everett State Reservation, B = Beartown State Forest, EM = East Mountain State Forest, WM = Wachusett Mountain State Reservation.

Location/site name	State forest	Size (ha)	Latitude (N)	Longitude (W)	Elevation (m)	Aspect
Cold River: Route 2 to Black Brook	MT	38.4	42°38'7"	72°58'48"	350–420	NW–NE
Cold River: Route 2 to Black Brook Picnic Area	MT	14.2	42°37'48"	72°58'	320–450	N–NW
Lower Gulf Brook	MT	6.1	42°37'53"	72°59'52"	380–415	NW
Manning Brook	MT	6.1	42°38'23"	72°59'20"	375–420	NE
Black Brook	MT	10.1	42°37'45"	72°58'12"	360–500	N–NW
Tannery Falls	MT	3.6	42°37'39"	73°0'12"	390–420	NW
Todd and Clark Mountains	MT	80.9	42°38'50"	72°56'45"	330–460	Varied
Trout Brook West	MT	6.1	42°37'57"	72°56'19"	410–450	E
Hawks Mountain	MT	2.0	42°37'45"	72°55'34"	360–410	NW
Thumper Mountain	MT	0.8	42°38'23"	72°56'6"	250–270	NE
Middle Cold River to Route 2	MT-SM	18.2	42°38'3"	72°59'29"	360–415	N
Upper Cold River	MT-SM	32.4	42°39'7"	73°1'	390–450	Varied
Upper Gulf Brook	MT-SM	8.1	42°37'59"	73°0'43"	380–415	NE
Bear Swamp	M	12.1	42°41'50"	72°57'31"	360–480	E
Dunbar Brook	M	8.1	42°42'14"	72°58'8"	390–490	NE
Parsonage Brook	M	1.6	42°42'44"	72°58'46"	470–510	NW
Spruce Mountain	M	1.6	42°42'52"	72°59'56"	600–670	SE
Smith Brook-Deerfield River	M	1.6	42°41'58"	72°58'56"	360–450	NE
Hunt Hill	M	2.8	42°41'25"	72°58'53"	520–600	SE
Windsor Jambs	W	1.2	42°31'20"	72°59'35"	430–475	SW
The Hopper	MG	46.5	42°39'2"	73°9'58"	540–720	Varied
Stony Ledge	MG	4.0	42°38'54"	73°11'34"	675–720	NE
Mount Williams	MG	10.1	42°40'32"	73°9'59"	510–600	NW–NE
Roaring Brook	MG	10.1	42°37'44"	73°12'5"	550–630	N–NW
Bash Bish Falls	MW	15.4	42°6'47"	73°29'43"	415–485	N–NE
Mount Race	MW	2.0	42°4'39"	73°25'47"	645–710	Varied
Sages Ravine-Bear Rock Falls	MW	4.9	42°3'18"	73°26'4"	350–420	N
Alander Mountain	MW	2.0	42°5'7"	73°28'48"	585–610	SW
Mount Everett-Glen Brook	ME	14.2	42°6'37"	73°25'32"	490–560	NE
Mount Everett-Guilder Pond	ME	1.6	42°6'36"	73°26'22"	610–630	SW
Burgoyne Pass	B	1.2	42°16'3"	73°17'8"	390–470	S–SW
Ice Gulch	EM	3.6	42°9'30"	73°19'18"	405–440	SE–SW
Wachusett Mountain	MW	80.9	42°29'	71°53'	425–520	Varied
Total		452.8				

areas previously reported by Dunwiddie and Leverett [1996] equaled 181.4 ha). In all cases, the old-growth areas for which boundaries were expanded had not been rigorously sampled in prior investigations (e.g., no quantitative vegetation sampling and/or minimal tree aging [Dunwiddie and Leverett 1996]). In addition to the expansion of boundaries, another factor that contributed to the difference in our estimates from those published by Dunwiddie and Leverett (1996) is the inclusion of several previously unreported areas (e.g., Tannery Falls and Stony Ledge [Table 1]). It is important to note that although our estimates of total area of old-growth forest are higher than previously reported, these estimates are substantially lower than those used in recent forest-reserve planning exercises for western Massachusetts (see below).

Most of the old-growth areas in Massachusetts are small (< 10 ha) and are located in rugged topography (see Dunwiddie and Leverett 1996 for a detailed description of site characteristics), which presumably protected these areas from extensive land-use. Other factors such as Native American hostility (Hosier 1969) and an unfavorable climate for agriculture (Egler 1940) also help explain the persistence of old-growth on these landscapes, particularly in the regions of the state containing the largest areas of old-growth (i.e., Mohawk Trail and Savoy Mountain State Forests [Table 1]). Beyond these physiographic and historical factors, the composition of these old-growth forests may also partially explain their presence on the landscape in Massachusetts. In particular, the majority of these forests are dominated by *Tsuga canadensis* (Table 2), a historically low-value timber species (Howard et al. 2000) that likely limited the

Figure 1. Location of old-growth forests on public land in Massachusetts.

Table 2. Basal area (B, m^2/ha) and density (D, stems/ha) of overstory tree (≥ 10 cm dbh) species in the eighteen largest old-growth areas in western Massachusetts. BASH = Bash Bish Falls, BB = Black Brook, CRA1 = Cold River A1, CRA2 = Cold River A2, CRB = Cold River B, CRC = Cold River C, CRD = Cold River D, DH = Deer Hill, DB = Dunbar Brook, GR = Grinder Brook, HA = Hopper A, HB = Hopper B, MB = Manning Brook, ME = Mt. Everett, MO = Money Brook, TB = Tower Brook, TC = Todd-Clark Mountains, and WB = Wheeler Brook.

	Study area																	
	BASH		BB		CRA1		CRA2		CRB		CRC		CRD		DH		DB	
Species	B	D	B	D	B	D	B	D	B	D	B	D	B	D	B	D	B	D
Tsuga canadensis (L.) Carr.	34.6	431	37.6	468	31.5	119	27.5	275	31.0	375	-	-	34.5	450	33.5	267	-	-
Fagus grandifolia Ehrh.	-	-	1.0	42	5.5	131	5.8	119	-	-	5.4	63	0.1	5	1.8	8	7.0	88
Betula lenta L.	1.2	19	6.0	67	4.9	50	3.0	44	3.1	33	0.1	6	3.2	85	-	-	-	-
Betula alleghaniensis Britt.	-	-	-	-	0.9	19	0.7	25	2.1	33	5.3	44	-	-	-	-	6.1	13
Betula papyrifera Marsh.	0.5	6	-	-	-	-	0.4	6	0.6	8	-	-	0.8	20	-	-	-	-
Picea rubens Sarg.	-	-	0.3	8	-	-	-	-	-	-	-	-	9.3	90	6.2	50	-	-
Acer saccharum Marsh.	0.9	6	-	-	0.9	6	-	-	-	-	17.1	163	-	-	-	-	14.9	113
Acer rubrum L.	-	-	0.4	17	-	-	1.2	25	0.7	17	-	-	1.1	10	-	-	-	-
Acer pensylvanicum L.	-	-	-	-	0.4	31	0.3	13	0.5	33	-	-	-	-	-	-	0.5	31
Quercus rubra L.	-	-	2.0	25	-	-	0.8	6	0.6	17	-	-	-	-	-	-	-	-
Fraxinus americana L.	-	-	-	-	-	-	-	-	-	-	0.2	6	-	-	-	-	7.9	38
Ostrya virginiana (P. Mill.) K. Koch	0.4	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tilia americana L.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pinus strobus L.	10.7	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	48.3	525	47.3	627	44.1	356	39.7	513	38.6	516	28.1	282	49	660	41.5	325	36.4	282

Table 2, continued.

Species	Study area																	
	GR		HA		HB		MB		ME		MO		TB		TC		WB	
	B	D	B	D	B	D	B	D	B	D	B	D	B	D	B	D	B	D
Tsuga canadensis (L.) Carr.	34.8	367	25.9	356	14.3	244	12.5	150	29.2	208	22.2	231	27.5	217	36.4	400	40.4	367
Fagus grandifolia Ehrh.	-	-	1.8	31	0.3	6	4.1	63	-	-	0.9	19	0.3	8	0.2	6	0.7	25
Betula lenta L.	2.0	33	0.4	6	-	-	1.6	38	2.9	42	1.7	13	-	-	2.8	44	4.1	58
Betula alleghaniensis Britt.	1.1	25	6.8	119	13.1	181	2.2	63	2.2	108	2.1	19	8.3	92	0.8	13	-	-
Betula papyrifera Marsh.	-	-	-	-	0.4	6	-	-	0.3	8	-	-	-	-	0.3	6	0.9	8
Picea rubens Sarg.	-	-	6.2	75	7.2	106	-	-	-	-	0.2	13	0.1	8	-	-	0.3	8
Acer saccharum Marsh.	-	-	-	-	-	-	11.6	88	-	-	17.5	125	9.4	108	-	-	-	-
Acer rubrum L.	-	-	-	-	-	-	-	-	0.6	8	-	-	-	-	3.9	63	2.1	42
Acer pensylvanicum L.	0.1	8	0.2	19	0.1	6	0.1	6	0.4	25	0.4	31	0.4	33	0.2	13	-	-
Quercus rubra L.	-	-	-	-	-	-	-	-	-	-	1.7	6	-	-	0.5	6	3.7	25
Fraxinus americana L.	-	-	-	-	-	-	0.1	6	-	-	3.8	6	0.6	8	-	-	-	-
Ostrya virginiana (P. Mill.) K. Koch	-	-	-	-	-	-	-	-	-	-	-	-	0.7	8	-	-	-	-
Tilia americana L.	-	-	-	-	-	-	-	-	-	-	-	-	1.6	17	-	-	-	-
Pinus strobus L.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	38	433	41.3	606	35.4	549	32.2	414	35.6	399	50.5	463	48.9	499	45.1	551	52.2	533

profitability of forest-harvesting activities in these areas. Moreover, the majority of hemlock stands examined in this study were located adjacent to forests that were logged in the past, suggesting that topography alone was not a deterrent for loggers. Due to the impending migration of the hemlock woolly adelgid into Massachusetts, there is a need to document these hemlock stands now, as they all could be substantially and irrevocably altered by this invasive pest (Orwig and Foster 1998).

Despite the relatively small size of these old-growth forests, they represent a rare and unique habitat type within a landscape dominated predominantly by 100–150 year old second-growth forests (A.W. D'Amato, unpubl. data). In addition, many of these parcels are located within the same state forest boundary and/or in different nearby state forests (e.g., MT and SM; Fig. 1, Table 1). These circumstances provide a wonderful opportunity for old-growth reserve efforts because many of the old-growth patches could be easily linked together in several large reserves on state-owned land that would protect and enhance the individual old-growth areas (Foster et al. 2005, Spies and Franklin 1996).

Our study of old-growth forests in Massachusetts differs from past efforts in the state by conducting extensive tree aging and analysis of historical documents for every site. Results highlight the fact that remaining old-growth forests in Massachusetts contain some of the oldest documented trees in New England (Table 3), including *T. canadensis* and *Picea rubens* 488 and 414 years old, respectively (cf. Brown 1996, Cogbill 1996, ITRDB 2006, Tyrrell et al. 1998). In addition, these areas contain some of the oldest known *Betula lenta* (332 years), *Betula alleghaniensis* (380 years), and *Quercus rubra* (325 years) trees in the country (Table 3; Burns and Honkala 1990; ITRDB 2006; Pederson et al., in press). Future comparisons of the structure, composition, and ecosystem properties of these old-growth areas with adjacent second-growth areas will increase our understanding of the importance of these areas as unique habitat types on the landscape.

Table 3. Maximum ages found for species commonly occurring in old-growth forests in Massachusetts.

Species	Age
Tsuga canadensis	488
Picea rubens	414
Betula lenta	332
Betula alleghaniensis[1]	370
Fagus grandifolia	271
Pinus strobus	269
Acer saccharum	242
Acer rubrum	224
Quercus rubra[1]	325

[1]Data from Orwig et al. (2001).

The estimates of the total area of old-growth forest remaining on public land in Massachusetts presented in this paper are much lower than estimates used in recent forest-reserve planning exercises for western Massachusetts (1200 ha; EOEA 2005; R.T. Leverett and G.A. Beluzo, unpubl. data). These higher estimates were generated primarily through the expansion of existing old-growth delineations onto portions of the landscape with similar topography, as well as through the inclusion of second-growth areas containing some trees with old-growth characteristics (e.g., large size; R.T. Leverett and G.A. Beluzo, unpubl. data). Based on our extensive field and archival research, we have confirmed that many of these areas have experienced extensive anthropogenic disturbance and therefore should not be included in delineations of old-growth forest stands on the landscape. While these second-growth forests will constitute important components of forest-reserve networks, the few remaining old-growth forest ecosystems should remain a higher conservation priority in these forest-reserve networks.

Conclusions

Old-growth forests are a rare ecosystem type on the landscape of Massachusetts. While our estimate of the total area of this forest type on the landscape is greater than prior studies, this still represents only 0.1 percent of the total forest area in Massachusetts. Therefore, the protection of these areas is critical as they represent one of the rarest habitat types in the state and region. As forest protection efforts and large-scale reserve planning in New England proceeds, it is crucial that these isolated old-growth areas are incorporated into larger reserve systems to ensure their protection and enhance the functioning of the established reserves. In order to ensure the protection of these unique systems as well as facilitate future old-growth research in Massachusetts, a rigorous, comprehensive estimate of the extent, location, and characteristics of old-growth forests remaining was paramount. By rigorously updating past estimates of old-growth area, we have developed a database that should be central to future legislative efforts aimed at old-growth protection, reserve planning, and comparisons between second-growth and old-growth forest ecosystems. While it is likely that other undocumented old-growth areas may exist within the landscape of Massachusetts, it is unlikely that the total area of old-growth in the state will exceed 500 ha.

Acknowledgments

We thank Robert Leverett for his input regarding the location and extent of old-growth areas in western Massachusetts. Early conversations with Peter Dunwiddie helped focus our efforts in finding and studying these old-growth areas. Comments from Charles Cogbill, an anonymous reviewer, and the

manuscript editor greatly improved this manuscript. We thank Jessica Butler, Glenn Motzkin, Christian Foster, and Ben Ewing for assistance with fieldwork. This work was supported by NSF grant DEB-0236897 and USDA Focus Funding Grant 01-DG-11244225-037 to D.A. Orwig and funding from the A.W. Mellon and Pisgah Foundations to A.W. D'Amato.

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Executive Office of Energy & Environmental Affairs

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Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Gary Moran
Acting Commissioner

March 10, 2023

Rebecca L. Tepper, Secretary
Executive Office of Energy & Environmental Affairs
Massachusetts Environmental Policy Act Office
Purvi Patel, EEA No. 16663
100 Cambridge Street, 9th Floor
Boston, MA 02114-2524

Re: New England Power - E131 Asset Condition Refurbishment Project – Adams, North Adams, Florida, Monroe - EENF

Dear Secretary Tepper,

The Massachusetts Department of Environmental Protection (MassDEP), Western Regional Office (WERO) appreciates the opportunity to comment on the Expanded Environmental Notification Form (EENF) submitted for the proposed New England Power Company (NEP) E131 Asset Condition Refurbishment Project in Adams, North Adams, Florida and Monroe (EEA #16663).

The applicable MassDEP regulatory and permitting considerations regarding wetlands, air pollution, solid waste and waste site cleanup are discussed.

I. Project Description

The Proponent, New England Power Company (NEP) is proposing to upgrade the existing electric grid system over approximately 11.4 circuit miles within the E131 line Right of Way in Adams, North Adams, Florida and Monroe. NEP anticipates project construction timeline will be mid-2024 to 2027. The existing width of the line easement rights is between 200-400 feet, contains the overhead 115 kV transmission line E131 and includes a portion of the adjacent J10 Line and the Bear Swamp Tap Line. Approximately six miles of the project passes through Massachusetts Department of Conservation and Recreation (DCR) properties. The project includes replacement of 157 Wooden H-frame, six steel triple pole structures, three existing steel lattice structures, and removal of four existing H-frame structures and one lattice structure. Approximately twenty-four structures to be installed will require concrete caisson foundations and one structure will require a micropile foundation.

Additional proposed upgrades include installation of three new switch gear structures, replacement of existing shield wire, replacement of conductors in four sections and replacement of all insulators and hardware, construction of new access roads and improvements to existing access roads. The road work includes grading and tree removal within the NEP Right-of-Way.

Temporary impacts are proposed within mapped Priority and Estimated Habitat of seven state-listed species that have been identified by Natural Heritage Endangered Species Program (NHESP). The Proponent is coordinating with NHESP on the project.

Environmental Justice populations are identified within one and five-mile radii of the project site (income criteria). The Proponent posits the project will have neither short-term nor long-term environmental or public health impacts effecting Environmental Justice Populations.

The project exceeds thresholds for a Mandatory Environmental Impact Report (EIR); the Proponent is requesting the Secretary approve a Single EIR.

Environmental Impacts associated with this project include:

- Total site acreage – 463 acres – limit of disturbance
- New acres of land altered – 19 acres – Temporary, 92 acres Permanent
- Acres of Impervious Area – 9 acres existing, no change
- Square feet (SF) of new Bordering Vegetated Wetlands alteration: 617,322 SF – Temporary, 700 SF-Permanent
- Square feet of new other wetland alteration:
  - Bank – 64 Linear Feet
  - Land Under Waterbodies and Waterways – 32 SF – Permanent
  - Bordering Land Subject to Flooding – 146 Square Feet – Temporary
  - Riverfront Area 74,451 Square Feet - Temporary, 102,971 Square Feet – Permanent
- Structures- maximum height, existing 85 feet, change 25 feet, Total 110 feet

II. Required Mass DEP Permits and/or Applicable Regulations

Wetlands
310 CMR 10.000
Water Quality Certificate
314 CMR 9.00
Water Quality Standards
314 CMR 4.00
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

Wetlands Protection Act
The project as described is subject to the Wetlands Protection Act (WPA) and the associated regulations as well as the requirements for a 401 Water Quality Certificate (WQC). The Proponent acknowledges they will file Notices of Intent (NOI) under the WPA with the various Municipalities impacted. MassDEP cannot take any action (issue a permit) until the Secretary has issued a final Certificate for the project. In the event a municipal Order of Conditions is appealed to MassDEP, the subsequent decision regarding a Superseding Order of Conditions cannot be issued until after the project has received a final Certificate from the Secretary. Therefore, to ensure full opportunities for public involvement and to avoid any potential conflict with the final Certificate from the Secretary, MassDEP recommends that no such filing occur until after the project has received a final Certificate from the Secretary. Should the Proponent file a NOI prior to the issuance of a final Certificate from the Secretary, MassDEP recommends the Proponent request that the Conservation Commission(s) defer a decision and keep the meeting open until the Secretary has issued the final Certificate and MassDEP has issued any required 401 WQC.

Due to the complexity and long, linear nature of the project, MassDEP recommends coordinated submittal of NOIs and outreach to the affected municipalities.

Statutory Exemption
The Proponent indicates that certain structure replacement activities qualify for exemption under the Utility Maintenance Exemption (Chapter 30, Section 62A). In addition, the WPA provides exemptions for: *repairing or replacing, but not substantially changing or enlarging, an existing and lawfully located structure or facility used in the service of the public and used to provide electric…services*. Portions of the Project involve repairing or replacing structures, while other portions involve substantially changing or enlarging structures or facilities. The Proponent should clearly identify to the Issuing Authority, which aspects of the project it believes qualify for exemption and which do not.

Resource Area Delineation
The Proponent indicates that the following resource areas are present on the Project Locus: Bank (inland), Bordering Vegetated Wetland, Land Under Water Bodies and Waterways, Bordering Land Subject to Flooding and Riverfront Area. In addition, the Project Locus may contain Isolated Vegetated Wetlands and Isolated Land Subject to Flooding. All Resource Areas and associated features must be identified and delineated in accordance with Regulation 310 CMR 10.00. All such delineations are subject to the review and approval of the Issuing Authority.

Limited Project Status
The portions of the project that do not qualify as exempt activities, as determined by the Issuing Authority, may be eligible for review under the Limited Project provisions contained at 310 CMR 10.53(3)(d). As for all Limited Projects, allowance under these provisions is at the discretion of the local Commission and to the extent practicable, work must comply with the *General Performance Standards*. As described in the EENF, the Proponent proposes to alter the following regulated Resource Areas: Bordering Vegetated Wetland, Bordering Land Subject to Flooding, Bank (inland), Land Under a Water Bodies or Waterway, and Riverfront Area. Activities will also be occurring in the Buffer Zone of Resource Areas. Through the WPA permitting process, the Proponent is required to demonstrate how the project will protect the interests of the Act.

Hydrologic impacts
The proposed project has the potential to result in significant changes to the hydrology of the affected resource areas and downstream reaches. Therefore, the Proponent is advised to consider both surface and subsurface hydrology, wildlife habitat, and comply with Best Management Practices for stormwater management and sedimentation and erosion control. WPA permitting documents should also include tree work details, potential time-of-year restrictions, specific locations of proposed construction mats, implementation sequencing, and site-specific mitigation details.

Stream Crossings
The Project proposes to create two new permanent stream crossings. The narrative should specify which plan sheets depict the crossings. The Proponent should clearly state whether the crossings are proposed in intermittent or perennial streams and whether the streams to be culverted constitute Outstanding Resource Waters. The Stream crossing should at a minimum meet the performance standards for Bank (inland), clarified at 310 CMR 10.54(4), and the Performance Standards for Land Under Water Bodies and Waterways, clarified at 310 CMR 10. 56(4). The Proposed crossings should be designed such that they meet the Massachusetts Stream Crossing Standards. In order to provide resiliency in the face of documented increases in precipitation, MassDEP recommends designing the crossings by incorporating the upper confidence interval times, a factor of the National Oceanic and Atmospheric Administration (NOAA) 14 Point Precipitation Frequency Atlas, rather than utilize precipitation estimates from the older Technical Paper-40 (TP-40).

Wetland Mitigation
The Project proposes both in-situ and created bordering vegetated wetland restoration and replication. As part of the WPA filing, the Proponent should document how the restoration and replication will be accomplished, preserve and protect the Interests of the Act, and be designed in alignment with the recommended procedure identified in the *Massachusetts Inland Wetland Replication Guidelines*, dated March 2002.

Stormwater
The Proponent states the proposed project will not result in any new point source discharges and therefore suggests that the provisions 310 CMR 10.05(6)(k) through (q) (Stormwater Standards) do not apply. However, the Proponent also states that Stormwater management features such as

swales, stone check dams, water bars, or other similar measures will be installed as necessary based on the access road design. MassDEP wishes to clarify that such Stormwater management features may constitute stormwater conveyances. If, upon review of the impact site specific design the issuing authority determines that such features constitute stormwater conveyances, the provisions of 310 CMR 10.05(6)(k) through (q) would apply. All stormwater conveyances should be provided with stormwater best management practices to attenuate pollutants and to provide a setback from the receiving waters and wetlands as described in the *Massachusetts Stormwater Handbook.*

401 Water Quality Certification

The Proponent acknowledges the project will require a 401 Water Quality Certification (WQC). The MassDEP Wetlands program administers the WQC program on behalf of the US Army Corps of Engineers. Under regulation, 314 CMR 9.00, the Proponent is required to provide sufficient information to adequately describe cumulative impacts to "Waters of the Commonwealth" (isolated and bordering vegetated wetlands and land under water). During the WQC permitting process the Proponent will be required to document efforts to avoid, minimize, and mitigate impacts as required by regulation. Mitigation for any unavoidable impacts is a requirement of the regulations. Appropriate mitigation measures will be determined as part of the WQC application process. MassDEP staff are available for consultation.

In accordance with the MEPA process, some Resource Areas and Waters of the Commonwealth impacts are listed as "temporary" in the EENF; the Proponent should be aware that the WPA and associated regulations do not have a designation of "temporary impacts" to resource areas. The WQC regulations, 314 CMR 9.00 specifically include "temporary" activities as being subject to the regulations (314 CMR 9.02). However, temporal impacts to resource areas can be mitigated through "in-situ" replication and/or restoration, as well as via off-site considerations.

Outstanding Resource Waters

Outstanding Resource Waters (ORW) are designated in 314 CMR 4.00: Massachusetts Surface Water Quality Standards. Massachusetts 314 CMR 4.06(2) clarifies that tributaries to public water supplies and their associated vegetated wetlands are also considered ORW's. The Proponent has identified the Phelps Brook (PWS ID 11900000-01S) as an ORW, and the Project plans identify no impacts to Phelps Brook. In the event a project design modification occurs or changes during construction involve the discharge of dredged or fill material to an ORW, the Proponent will need to demonstrate compliance with the provisions of 314 CMR 9.06(3).

Alternatives Analysis

The Proponent provides an alternatives analysis designed to address the General Provisions of the MEPA review process, as articulated at 301 CMR 11.01(b). MassDEP wishes to clarify that the submitted Alternatives Analysis does not substitute for, nor serve as, the site-specific impact *Alternatives Analysis* required in 310 CMR 10.00 and 314 CMR 9.00.

Stormwater Pollution Prevention Plan

The Proponent indicates that the project is subject to the requirements of the EPA Administered National Pollutant Discharge Elimination System regulations and that the Proponent will prepare

a Stormwater Pollution Prevention Plan (SWPPP). MassDEP recommends that the Proponent ensure that the SWPPP includes clear provisions specific to the management and protection of the resource areas within the project.

Chapter 91

The Proponent indicates that the project is exempt from the requirement of MGL Chapter 91 and its regulations, citing 310 CMR 9.05(3)(g). That section refers to the placement of fill or structures: *placement in a non-tidal river or stream subject to jurisdiction under 310 CMR 9.04(1)(e) of fill or structures for which a final Order of Conditions has been issued under M.G.L. c. 131, § 40 and 310 CMR 10.00: Wetlands Protection, and which does not reduce the space available for navigation…* The Project, as currently proposed, does not appear to involve the placement of fill or structures in a non-tidal river or stream subject to the jurisdiction of 310 CMR 9.04(1)(e); it is currently unclear how that provision applies. MassDEP recommends clarifying in the SEIR the applicability of the Chapter 91 regulations and if applicable, that the Proponent file a Request for Determination of Applicability, in accordance with 310 CMR 9.06, to determine the exempt status of the project.

Bureau of Air and Waste

Air Quality

Construction Activities

Construction activity must conform to current Air Pollution Control Regulations. The Proponent should implement measures to alleviate dust, noise, and odor nuisance conditions that may occur. Such measures must comply with the MassDEP's Bureau of Air and Waste (BAW) Regulations 310 CMR 7.01, 7.09, and 7.10.

Construction Equipment

All non-road engines shall be operated using only ultra-low sulfur diesel (ULSD) with a sulfur content of no greater than 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).

Hazardous Waste

Any hazardous wastes generated must be properly managed in accordance with 310 CMR 30.0000. If any hazardous waste, including waste oil, is generated at any of the sites, the Proponent must ensure that such generation is properly registered with EPA and MassDEP.

Bureau of Waste Site Cleanup

Release tracking number (RTN) 1-0019242 has been identified within the project area. This RTN has a Permanent Solution without Conditions (PS). 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.

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.

Asbestos
The Proponent must ensure that any asbestos and asbestos-containing materials are appropriately identified and removed and disposed in accordance with 310 CMR 7.15 and 310 CMR 19.061.

IV. Other Comments/Guidance

The Proponent has requested the Secretary allow the submittal of a Single Environmental Impact Report (SEIR). MassDEP has no objection should the Secretary approve submittal of an SEIR.

Greenhouse Gas (GHG) Emissions
The Proponent indicates that GHG emissions from the project will be minimal during the construction phase of the project, with no long-term impacts and requests a de minimis exemption.

Section 61 Findings
Section 61 Findings, labeled as a summary of mitigation measures to avoid and minimize environmental impacts, was discussed. Proposed Section 61 Findings but must be included in the filing of the Single Environmental Impact Report.

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,

Catherine V. Skiba, P.G. for
Michael Gorski
Regional Director

cc: MEPA File

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
100 Cambridge Street 9th Floor Boston, MA 02114 • 617-292-5500

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Gary Moran
Acting Commissioner

Memorandum

To: Purvi Patel, MEPA Unit

From: Waterways Regulation Program, MassDEP/Boston

cc: Daniel Padien, Program Chief, MassDEP/Boston

Re: E131 Asset Condition Refurbishment (ACR) Project, EENF / EEA #16663
Chapter 91 Waterways Regulation Program Comments

Date: March 10, 2023

The Department of Environmental Protection Waterways Regulation Program (the "Department") has reviewed the above referenced EENF (EEA #16663) submitted by the New England Power Company (the "Proponent") upgrade existing electrical utility infrastructure and construct improved roadways by which the transmission line can be accessed located in Adams, North Adams, Florida, and Monroe (the "Project").

Section 8.2.2. of the EENF includes the Proponent's assessment of the Project relative to Chapter 91 regulations and notes the standards for Chapter 91 jurisdiction with respect to non-tidal rivers and streams pursuant to 310 CMR 9.04(1)(e). The assessment refers to "MassDEP Technical Advisory #WE03-08, *Jurisdiction Under the Public Waterfront Act in Non-tidal Rivers and Streams*, (revised August 10, 2006)" as the basis for the conclusion that the only waterway within the project site subject to Chapter 91 jurisdiction is the Hoosic River. However, the referenced document is not a Jurisdictional Determination, nor does it purport to be a comprehensive list of jurisdictional waterways and specifically notes that "nontidal rivers and streams not shown on this list could potentially be subject to jurisdiction". Therefore, the Proponent should conduct an evaluation of all waterways within the footprint of the project with respect to the standards at 310 CMR 9.04(1)(e) to be included in the Environmental Impact Report.

The EENF characterizes the E131 line over Hoosic River crossing as categorically exempt from Chapter 91 licensing "because it will require an Order of Conditions from the Adams Conservation

Commission". This is not a correct reading of the standards for certain exempt projects as specified at 310 CMR 9.05(3)(g) which do not require Chapter 91 authorization for "…*structures for which a final Order of Conditions has been issued under M.G.L. c. 131, § 40 and 310 CMR 10.00: Wetlands Protection, and which does not reduce the space available for navigation; such fill or structures are limited to: 1. overhead wires, conduits, or cables to be attached to an existing bridge, without substantial alteration thereof, or constructed and maintained in accordance with the National Electrical Safety Code*…". A project may meet this standard, not because it requires an Order of Conditions, but rather because it complies with all provisions as specified therein. However, as noted earlier in the EENF, the E131 crossing over the Hoosic River was previously authorized by Chapter 91 License No. 6274 issued by the Massachusetts Department of Public Works on August 1, 1974 which is an un-termed license. Provided that the license is valid, and the structures have been maintained in accordance with the specifications therein, the Hoosic River crossing is authorized to be maintained pursuant to the existing license.

The Department looks forward to receipt of the necessary evaluation of all waterways within the Project footprint relative to the Chapter 91 jurisdictional standards at 310 CMR 9.04(1)(e), so that substantive comments and licensing guidance may be provided. The Proponent is encouraged to contact the Department at DEP.Waterways@mass.gov for guidance on the necessary information to be provided, and with any questions on these comments, prior to submittal of any subsequent MEPA filing.

Maura Healey, Governor
Kimberley Driscoll, Lieutenant Governor
Gina Fiandaca, Secretary & CEO

massDOT
Massachusetts Department of Transportation

March 10, 2023

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114-2150

RE: Adams et. al. – E131 Asset Condition Refurbishment Project
(EEA #16663)

ATTN: MEPA Unit
Purvi Patel

Dear Secretary Tepper:

On behalf of the Massachusetts Department of Transportation, I am submitting comments regarding the Expanded Environmental Notification Form filed for the proposed E131 asset condition refurbishment project starting in Adams and running through North Adams, Florida, and Monroe as prepared by the Office of Transportation Planning. If you have any questions regarding these comments, please contact J. Lionel Lucien, P.E., Manager of the Public/Private Development Unit, at (857) 368-8862.

Sincerely,

David J. Mohler
Executive Director
Office of Transportation Planning

DJM/jll

Ten Park Plaza, Suite 4160, Boston, MA 02116
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cc: Jonathan Gulliver, Administrator, Highway Division
Carrie Lavallee, P.E., Chief Engineer, Highway Division
Francisca Heming, District 1 Highway Director
James Danila, P.E., State Traffic Engineer
Franklin Regional Council of Governments (FRCOG)
Berkshire Regional Planning Commission (BRPC)

Maura Healey, Governor
Kimberley Driscoll, Lieutenant Governor
Gina Fiandaca, Secretary & CEO

massDOT
Massachusetts Department of Transportation

MEMORANDUM

TO: David J. Mohler, Executive Director
Office of Transportation Planning

FROM: J. Lionel Lucien, P.E., Manager
Public/Private Development Unit

DATE: March 10, 2022

RE: Adams et. al. – E131 Asset Condition Refurbishment Project
(EEA #16663)

The Public/Private Development Unit (PPDU) has reviewed the Environmental Notification Form (ENF) for the E131 Asset Condition Refurbishment Project (the "Project") starting in Adams and running through North Adams, Florida, and Monroe by Tighe and Bond, Inc. on behalf of New England Power Company (the "Proponent"). The Project entails the refurbishment of existing overhead electrical utility lines, including the replacement of 157 existing electrical utility lattice structures with steel H-frame structures. The Project additionally includes the construction of new access drives in order to replace and maintain the electrical infrastructure. The overhead lines to be refurbished in this Project run from the #21 sub-station in Adams to the state line in Monroe and then on to the Harriman sub-station in Readsboro, Vermont.

The Project surpasses MEPA thresholds for review of an Environmental Notification Form (ENF) and an Environmental Impact Report (EIR) due to impacts on land per 301 CMR 11.03(1) and wetlands per 301 CMR 11.03(3). The Project also requires an Environmental Impact Report (EIR) per 301 CMR 11.06(7)(b) as the utility route intersects several Designated Geographic Areas surrounding Environmental Justice (EJ) Populations.

The Project route will intersect with the state jurisdictional highway layout at multiple locations, including the Curran Memorial Highway in Adams and Mohawk Trail (Route 2) in Florida. Project-related construction in these locations will require a temporary access permit for construction activities and/or a utility access permit issued by MassDOT District 1. Further MassDOT permits will be required for temporary construction access, overhead wire crossings of the above-listed state routes, and new access roadways proposed within the state highway right-of-way. As the utility line already exists in place, no additional impacts on the state jurisdictional right of way are anticipated after Project completion.

Once completed, the Project is not expected to result in additional vehicle trips on an average weekday, except for the occasional or yearly maintenance activities. MassDOT does not anticipate that these activities would significantly impact the transportation system and therefore recommends no further review for environmental impacts on the state transportation

system. The Proponent should coordinate with MassDOT District 1 to minimize traffic disruption during Project construction and prevent impacts on state jurisdictional roadways. If you have any questions regarding these comments, please contact *Curtis.B.Wiemann@dot.state.ma.us*.

MASSWILDLIFE

DIVISION OF
FISHERIES & WILDLIFE

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March 10, 2023

Rebecca Tepper, Secretary
Executive Office of Environmental Affairs
Attention: MEPA Office
Purvi Patel, EEA No. 16663
100 Cambridge St.
Boston, Massachusetts 02114

Project Name:	*E131 Asset Condition Refurbishment Project*
Proponent:	*New England Power Company d/b/a National Grid*
Location:	*Adams, North Adams, Florida, and Monroe, MA*
Document Reviewed:	*Expanded Environmental Notification Form (EENF)*
Project Description:	*Complete refurbishment of existing transmission line infrastructure, including access roadway improvements*
EEA No.:	*16663*
NHESP Tracking No.	*22-40756*

Dear Secretary Tepper:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (Division) has reviewed the Expanded Environmental Notification Form (EENF) for the E131 Asset Condition Refurbishment Project (Project) and would like to offer the following comments regarding state-listed species and their habitats.

Portions of the proposed Project are located within Priority Habitat, as indicated in the 15th Edition of the MA Natural Heritage Atlas, and therefore requires review through a direct filing with Division for compliance with the Massachusetts Endangered Species Act (MESA, MGL c.131A) and its implementing regulations (321 CMR 10.00).

The Proponent has engaged the Division in pre-filing consultations to discuss potential impacts associated with the Project. The Proponent has been actively working with the Division to avoid and minimize permanent and temporary impacts to state-listed species and their habitats, including initiating field surveys and habitat assessments. Although a formal MESA filing has not yet been submitted, the Division anticipates – based on previously submitted information and ongoing consultations with the Proponent – that the Project, as proposed, will likely result in a Take (321 CMR 10.18 (2)(b)) of state-listed plants.

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 Division recommends that the Proponent continue to work proactively with the Division to address several outstanding issues, including (1) continuing to assess alternatives to further reduce permanent and temporary impacts to state-listed species and their habitats, and (2) developing a robust conservation and management plan that provides a long-term net benefit to state-listed plants, with a focus on protection of individual plants and plant populations, additional surveys, seed collection, and management to enhance habitat quality in the immediate vicinity of the Project site. The Division anticipates being able to address these issues through the MESA review process, and looks forward to continued consultation with the Proponent.

The Division will not render a final decision until the MEPA review process and its associated public and agency comment period is completed, and until all required MESA filing materials are submitted to the Division. As the MESA review is ongoing, no work associated with the proposed Project shall occur until the MESA permitting process is complete. If you have any questions or need additional information, please contact Lauren Glorioso, Endangered Species Review Biologist, at (508)389-6361 or lauren.glorioso@mass.gov. We appreciate the opportunity to comment on the proposed Project.

Sincerely,

Everose Schlüter

Everose Schlüter, Ph.D.
Assistant Director

cc: Michael Tyrrell, National Grid
Katherine Wilkins, Tighe & Bond
MassDEP Western Regional Office, Wetlands & Waterways
Town of North Adams Board of Selectmen
Town of North Adams Planning Board
Town of North Adams Conservation Commission
Town of Adams Board of Selectmen
Town of Adams Planning Board
Town of Adams Conservation Commission
Town of Florida Board of Selectmen
Town of Florida Planning Board
Town of Florida Conservation Commission
Town of Monroe Board of Selectmen
Town of Monroe Planning Board

Town of Monroe Conservation Commission