

State of New York
Public Service Commission

Application of Niagara Mohawk Power Corporation d/b/a
National Grid for a Certificate of Environmental
Compatibility and Public Need for the Reconstruction
Of Approximately 14 Miles of 115 kV Double-Circuit
Electric Transmission Facilities from the Mohican
Substation in Saratoga County to the Battenkill Substation
In Washington County

Case11-T-0068

Niagara Mohawk Power Corporation

d/b/a

nationalgrid

**Environmental Management and
Construction Plan for the
Mohican- Battenkill
Rebuild Project**

January 2015

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Addendum to Phase IB

ESS letter dated May 14, 2013 to NYSOPRHP re: Submission of Phase III Data Retrieval Report

ESS letter dated June 12, 2013 to USACE – New York District re: Jurisdictional Determination Submittal revision

ESS letter dated July 2, 2013 to USACE – Upstate Regulatory Field Office re: Geotech Borings

ESS letter dated September 18, 2013 to NYSDEC Information Services re: State-listed Endangered and Threatened Species and Habitats

ESS letter dated September 18, 2013 to USFWS – New York Field Office re: State-listed Endangered and Threatened Species and Habitats

ESS letter dated September 18, 2013 to NYSDEC – Information Services re: State-listed Endangered and Threatened Species and Habitats

ESS letter dated October 15, 2013 to USACE – New York District re: Jurisdictional Determination Submittal – revision

ESS letter dated October 17, 2013 – Jurisdictional Determination Report: Cover Letter

ESS letter dated December 16, 2013 to USACE – Upstate Regulatory Office re: Section 106 information

ESS letter dated February 6, 2014 to NYSDEC – Information Services re: State-listed Endangered and Threatened Species and Habitats

ESS letter dated March 14, 2014 to USACE – New York District re: Jurisdictional Determination information submittal

ESS letter dated March 21, 2014 to USACE – New York District re: Submittal of Draft Conceptual Mitigation Report

ESS Memo dated August 12, 2014 to USACE – New York District re: Submittal of updates to Jurisdictional Determination and Sections 7 and 106 Consultation

ESS Memo dated October 14, 2014 to Town of Ft. Edward (KS) – Qp and Qf Analysis for Vegetated Swales

ESS Memo dated October 14, 2014 to Town of Ft. Edward (KS) – Qp and Qf Analysis for Vegetated Swales

ESS letter dated October 17, 2014 to USACE – Cover Letter: Phase 1 Archeological Survey

ESS letter dated October 17, 2014 to NYSOPRHP – Cover Letter: Phase 1 Archeological Survey

ESS response letter dated October 17, 2014 to the Town of Ft. Edward (KS)

ESS response letter dated October 17, 2014 to the Town of Monreau (JP)

ESS transmittal memo dated October 20, 2014 to the Town of Ft. Edward

ESS transmittal memo dated October 20, 2014 to the Town of Monreau

ESS transmittal memo dated October 29, 2014 to Ft. Edward

ESS transmittal memo dated October 29, 2014 to Town of Monreau

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ESS letter to USACE dated November 17, 2014 - Cover Letter: Section 404 Permit

Hartgen transmittal memo dated May 22, 2013 to NYSOPRHP re: Requested Site File Forms

National Grid letter dated October 9, 2013 to NYSDPS, NYS Dept. of Ag & Markets and NYSDEC re: Invasive Plant Species of Special Concern

National Grid letter dated October

National Grid letter dated October 15, 2013 to NYSDPS and NYSDEC RE Wetland Delineation Report Submittal

National Grid email correspondence dated October 22, 2013 to NYSDPS, NYS Dept. of Ag & Markets and NYSDEC re: Invasive Species of Special Concern

National Grid email correspondence dated October 22, 2013 to NYSDPS, NYS Dept. of Ag & Markets and NYSDEC re: Invasive Species of Special Concern

National Grid email correspondence dated November 7, 2013 to NYSDPS, Dept. of Ag & Markets and NYSDEC re: Invasive Species of Special Concern

National Grid email correspondence dated November 7, 2013 to NYSDPS, Dept. of Ag & Markets and NYSDEC re: Invasive Species of Special Concern

National Grid letter dated October 16, 2014 – Cover Letter: SWPP MS4 Approval

NYSDEC Division of Fish, Wildlife & Marine Resources, New York Natural Heritage Program May 4, 2010 Response Letter

NYSDEC Bureau of Wildlife Region 5 November 1, 2010 Response Letter

NYSDEC Division of Fish, Wildlife & Marine Resources September 14, 2011 Response Letter

NYSDEC Division of Fish, Wildlife & Marine Resources August 9, 2012 Response Letter

NYSDEC Division of Fish, Wildlife & Marine Resources, New York Natural Heritage Program October 2, 2013 Response Letter

NYSDEC, Division of Fish, Wildlife & Marine Resources letter dated February 24, 2014 re: Response to Request

NYS Office of Parks, Recreation and Historic Preservation letter dated May 26, 2010 re: Phase I Recommendation

NYS Office of Parks, Recreation and Historic Preservation letter dated June 23, 2011 re: Response to Phase 1A Submittal Review

NYS Office of Parks, Recreation and Historic Preservation letter dated July 2, 2012 re: Phase 1B Submittal Review

NYS Office of Parks, Recreation and Historic Preservation letter dated September 12, 2012 re: Phase II Submittal Review

NYS Office of Parks, Recreation and Historic Preservation letter dated November 19, 2012 re: Phase II Revision Submittal Review

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NYS Office of Parks, Recreation and Historic Preservation letter dated May 22, 2013 re: Phase 1B Addendum Submittal Review

NYS Office of Parks, Recreation and Historic Preservation letter dated June 12, 2013 re: Phase III Submittal Review

NYS Office of Parks, Recreation and Historic Preservation response letter dated November 13, 2014 re: Phase 1 Archeological Survey

US Army Corps of Engineer's email Re: Geotechnical boring program under NWP 6 July 25, 2013

US Army Corps of Engineer's letter dated June 24, 2013 re: Jurisdictional Determination and Section 106 consultation

USFWS List Request Response 2010

USFWS letter dated November 6, 2013 re: Response to Request

USFWS Cover Sheet with Information dated May 22, 2014 re: Federally Listed Endangered and Threatened Species and Candidate Species

USFWS Cover Sheet with Information dated May 22, 2014 re: Federally Listed Endangered and Threatened Species and Candidate Species

USFWS letter dated January 24, 2014 re: List of threatened and endangered species that may occur in proposed project location

USFWS November 6, 2013 Response Letter

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I. GENERAL DESCRIPTION OF THE PROJECT

A. Introduction

On February 17, 2011, Niagara Mohawk Power Corporation d/b/a National Grid (“National Grid” or the “Applicant”) filed an Article VII Application (the “Application”) with the New York State Public Service Commission (“PSC”) for a Certificate of Environmental Compatibility and Public Need (the “Certificate”) pursuant to Article VII of the Public Service Law for the Mohican-Battenkill Rebuild Project. In the Application, National Grid sought authorization for the reconstruction and reconductoring of approximately 14.2 miles of two of its existing 115 kV electric transmission lines between the Mohican Substation in Saratoga County and the Battenkill Substation in Washington County (the “Project”). The two lines are the Mohican-to-Battenkill Line 15 (“Line 15”) and a portion of the Mohican-to-Luther Forest Line 3, formerly known as Mohican-to-North-Troy Line 3, (the “Line 3 Segment”). The lines as they existed prior to the Project are collectively referred to as the “Existing Lines,” and as National Grid proposes to rebuild and reductor them in the Project as the “Facility”.

On June 6, 2013, the Applicant submitted a Joint Proposal (“Joint Proposal”) reflecting the terms of settlement of outstanding issues in this proceeding by the Applicant and other settling parties. On September 24, 2013, the Commission issued the Certificate in an *Order Granting Certificate of Environmental Compatibility and Public Need and Clean Water Act §401 Water Quality Certification* (“Order”) in this proceeding.

The Facility has been designed to operate, like the Existing Lines, at a nominal system voltage of 115 kV alternating current (“AC”). The voltage of initial operation of the Facility will also be 115kV.

The proposed conductor type for the Facility is 795,000 circular mills (a thousand circular mills is one “MCM”) 26/7 Aluminum Conductor, Steel Reinforced (“ACSR”) “Drake” conductor. The Facility is designed with a single 795 ACSR “Drake” wire per phase for 14.2 circuit miles from the Mohican Substation to the Battenkill Substation, except in the area of the span across the Battenkill River, which will be 1113 MCM 54/19 “Finch.” The winter STE rating for the Facility where it is conductored with 795 ACSR “Drake” is 1,629 amps; where it spans the Battenkill River, it will have a maximum winter STE rating of 2,030 amps. All conductor utilized will have a non-specular finish.

The aerial ground wire type utilized on the Facility will be 3/8-inch extra high strength (“EHS”) 7 strand steel cable. There will be one aerial ground wire strung over each circuit of the Facility on the single supporting structure, except that directly adjacent to the Mohican Substation (from the Mohican Substation to Mile 0.1) where the circuit is supported by single circuit steel structures, proposed Line 15 will have a single 3/8 inch EHS 7 strand steel cable. The aerial ground wire utilized for the span over the Battenkill River will be ½” EHS steel shield wire. All aerial ground wire utilized will have a non-specular finish.

Insulator design for the Facility will be predominantly suspension-type ball-and-socket insulators. In the majority of suspension applications insulator strings will consist of ten (10) porcelain ball-and-socket insulators. Critical crossing spans in suspension will utilize double-string ten (10) porcelain ball-and-socket insulators. Dead-end and angle structures will utilize either single- or double-string ten (10) porcelain ball-and-socket insulators. Where required, restrained porcelain insulator assemblies will be utilized to mitigate the effects of conductor blow-out and to facilitate appropriate clearance between the

conductor and the grounded surfaces of the structures. Post insulators will be installed as required, depending upon line angle, at dead-end structures. All insulators will be colored dark brown.

Several different structure types will be used for the Project. All permanent structure types will be poles made of self-weathering tubular steel which will, over time, become brown in color and form an original rust color finish. From the Mohican Substation to Mile 0.2, proposed Line 15 will be supported on single circuit tubular steel structures, and the proposed Line 3 Segment will be supported on a single circuit vertically-configured dead-end structure and a single circuit horizontally configured three pole dead-end pull-off structure. From Mile 0.1 to the Battenkill Substation, the Facility, with proposed Line 15 on the east side and the proposed Line 3 Segment on the west side, will be supported by the same double circuit tubular steel structures, replacing the double circuit lattice tower structures currently supporting the Existing Lines.

The predominant structure type proposed for the Facility, for dead-end and suspension applications alike, is a phase-over-phase-configured davit arm monopole structure. A total of approximately 113 structures are proposed. Of these, 102 are to be phase-over-phase configured steel monopole double circuit davit arm suspension structures and eleven (11) are to be phase-over-phase configured steel monopole double circuit davit arm dead-end structures. There are to be two (2) single circuit delta davit arm suspension structures, eight (8) double circuit steel vertical dead-end pull-off structures, three (3) single circuit steel vertical dead-end pull-off structures, one (1) single circuit steel three pole dead-end pull-off structure, and one (1) single circuit steel vertical switch structure. The average structure height proposed for the Facility is approximately 90feet and the average span length is proposed to be approximately 600 feet.

New permanent gravel access roads will be installed where practicable to support the construction and the continued long term maintenance of the Facility. Temporary timber mat access roads will be installed in lieu of permanent gravel roads in sensitive areas. New culverts will be installed where required and deteriorated existing culverts or other drainage devices will be replaced as needed. Stormwater management and erosion and sediment controls will be installed where appropriate in accordance with the Project's Stormwater Pollution Prevention Plan ("SWPPP").

B. Description of Facility Location

The Facility ROW is located in Washington and Saratoga Counties (Northeast Region of Eastern New York National Grid Service Territory). National Grid proposes to construct the Facility so that, where possible, the line of its new double circuit structures is located on the ROW offset from the line of structures for the Existing Lines. The locations and dimensions set forth in the following reflect National Grid's good faith effort to provide specifics prior to final design of the Project.

The width of the existing ROW varies from approximately 100 feet to 175 feet. The existing ROW is generally 150 feet wide from the Mohican Substation to the 115 kV Tap #1 in the Town of Moreau (at approximately Mile 1.0, between existing structures 93 and 94 and between proposed structures 11 and 12). The existing ROW is generally 175 feet wide along a segment of the route in the Town of Fort Edward, where the 34.5 kV Battenkill - Cement Mountain Line #5 (Fort Miller Tap) parallels the Existing Lines to the west for approximately 1.2 miles, at which point (approximately Mile 11.0, existing structure 188 and proposed structure 106) the Fort Miller Tap crosses to the eastern side of the Existing Lines and

continues on toward the Battenkill Substation for approximately 3.2 miles. Approximately 900 feet north of the Battenkill Substation (approximately Mile 14.0, existing structure 207 and proposed structure 125), the Fort Miller Tap turns east and out of the ROW. The existing ROW is generally 125 feet wide in the Town of Easton, for its final 2,000 foot distance to the Battenkill Substation. The existing ROW is generally 100 feet wide along all other segments of the route.

With the exception of certain locations (as noted below), the centerline of the Facility from Mile 0.1 (at approximately existing structure 84B and proposed structure 2) to Mile 11.0 (at approximately existing structure 188 and proposed structure 106) will be placed, for constructability reasons, to the east of the Existing Lines but still inside the existing ROW. This will permit installation of the new structures and conductors along this section of the ROW prior to removal of the existing ones, thus helping to minimize long-duration outages, maximize construction efficiency, and shorten the overall duration of the Project.

Between Mile 11.0 (at approximately existing structure 188 and proposed structure 106) and the Battenkill Substation, a distance of 3.2 miles, the Facility will be offset to the east of the Existing Lines by approximately five feet. The presence of a parallel sub-transmission circuit limits the offset distance between the Facility and the Existing Lines. The five foot offset from the centerline of the Existing Lines is the most viable place within the bounds of the existing ROW to accommodate the Facility.

At the northernmost section of the existing ROW, between Mile 0.0 and Mile 0.2 (existing structures 84C to 86 and proposed structures 1 to 4), the ROW is generally 150 feet wide. Along this segment, existing Line 15 is located on the centerline of the existing ROW, supported first (from north to south) by a vertically-configured single wood pole dead-end structure (existing structure 84C), followed by a single wood pole delta line post structure (existing structure 84B), and then by a three-pole, wooden cross-arm structure (Line 15's existing structure 85). These structures will be replaced by a self-supporting vertically-configured steel pole dead-end structure (proposed structure 1) and self-weathering steel, monopole, delta-configured structures (proposed structures 2 and 3). Existing Line 3, located approximately 29.5 feet from the western edge of the existing ROW, currently is supported by a wooden three pole dead-end pull-off structure (the Line 3 Segment's existing structure 84A) and a steel lattice flex tower (the Line 3 Segment's existing structure 85). The Line 3 Segment's existing structure 85 will be replaced in its current location by a self-weathering steel, monopole, vertically-configured dead-end structure (proposed structure 85). Structure 84A on the Line 3 Segment is to be replaced with a self-supporting steel single circuit three pole dead-end structure.

Between Mile 0.2 and Mile 1.0 (existing structures 86 to 93 and proposed structures 4 to 11); the existing ROW is generally 150 feet wide, with the Existing Lines located approximately 29.5 feet from the western edge of the existing ROW. The Project will position the Facility on the centerline of the existing ROW, approximately 45.5 feet east of the existing structure locations. The Facility will be supported by self-weathering steel, monopole, phase-over-phase, double-circuit structures. The location of the existing sub-transmission 34.5kV Line 17 will not change.

Between Mile 1.0 and Mile 1.9 (existing structures 93 to 102 and proposed structures 11 to 20), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located approximately 39.5 feet from the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double-circuit structures. The Facility cannot be located at the center of the existing ROW in this segment because of

constructability issues given the proximity to the Existing Lines, and it cannot be moved closer to the eastern edge of the existing ROW because of conductor blow-out concerns. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 1.9 and Mile 2.1 (existing structures 102 to 104 and proposed structures 20 to 22), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located on the centerline of the existing ROW, approximately 20.5 feet east of the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. The structures adjacent to those located at Mile 1.9 and Mile 2.1 will be used to angle the Facility's general location of approximately 39.5 feet from the Existing Lines to the centerline alignment. It is noted that as a result of discussions among the Signatory Parties the alignment of this segment of line is different from the alignment that was originally proposed in the Application. The alignment as now proposed will minimize abutter impacts along Fort Edward Road by avoiding the requirement for additional permanent easement rights for vegetation clearing.

Between Mile 2.1 and Mile 2.9 (existing structures 104 to 113 and proposed structures 22 to 31), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located approximately 39.5 feet from the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double-circuit structures. The Facility cannot be located at the center of the existing ROW in this segment because of constructability issues given the proximity to the Existing Lines, and it cannot be moved closer to the eastern edge of the existing ROW because of conductor blow-out concerns. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 2.9 and Mile 3.5 (existing structures 113 to 118 and proposed structures 31 to 36), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located at the centerline of the existing ROW, approximately 20.5 feet east of the Existing Lines. The structures adjacent to those located at Mile 2.9 and Mile 3.5 will be used to angle the Facility's general location of approximately 39.5 feet from the Existing Lines to the centerline alignment. The Facility will be supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. It is noted that as a result of discussions among the Signatory Parties the alignment of this segment of line is different from the alignment that was originally proposed in the Application. The alignment as now proposed will minimize abutter impacts by avoiding the requirement for additional vegetation clearing and will also mitigate potential impacts to the views associated with the Hudson River crossing. Also differing from the Application, it will be necessary due to site constraints to locate one structure (proposed structure 31) in DEC-regulated wetland HF-1 in the Town of Moreau.

Between Mile 3.5 and Mile 8.0 (existing structures 118 to 159 and proposed structures 36 to 77), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located generally 39.5 feet from the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. The Facility cannot be located at the center of the existing ROW in this segment because of constructability issues given the proximity of the Existing Lines, and it cannot be moved closer to the eastern edge of the existing ROW because of conductor blow-out concerns. A twenty-five foot width of

permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 8.0 and Mile 8.1 (existing structures 159 to 160 and proposed structures 77 to 78), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located at the centerline of the existing ROW, approximately 20.5 feet east of the Existing Lines. The structures adjacent to those located at Mile 8.0 and Mile 8.1 will be used to angle the Facility's general location of approximately 39.5 feet from the Existing Lines to the centerline alignment. The Facility will be supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. It is noted that as a result of discussions among the Signatory Parties the alignment of this segment of line is different from the alignment that was originally proposed in the Application. The alignment as now proposed will minimize abutter impacts by avoiding the requirement for additional vegetation clearing.

Between Mile 8.1 and Mile 9.9 (existing structures 160 to 177 and proposed structures 78 to 95), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located approximately 39.5 feet from the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. The Facility cannot be located at the center of the existing ROW in this segment because of constructability issues given the proximity of the Existing Lines, and it cannot be moved closer to the eastern edge of the existing ROW because of conductor blow-out concerns. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner. As discussed in the Joint Proposal, the Signatory Parties agreed to relocate proposed structure 81 to the position shown in the EM&CP (approximately 50 feet north of the location that was originally proposed) in order to avoid a pre-contact archeological site,

Between Mile 9.9 and Mile 11.0 (existing structures 177 to 188 and proposed structures 95 to 106); the existing ROW is generally 175 feet wide. The Existing Lines are located approximately 17 feet to the east of the centerline of the existing ROW. The Facility will be located approximately 39.5 feet east of the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase double-circuit structures. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 11.0 and Mile 13.7 (existing structures 188 to 205 and proposed structures 106 to 123), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 26.5 feet from the western edge of the existing ROW. Each structure in this segment of the Facility will be positioned approximately five feet east of the location of its counterpart on the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase double-circuit structures. On this segment of the existing ROW, positioning the Facility any greater distance from the location of the Existing Lines is restricted by the presence of the sub-transmission 34.5kV Line 5. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 13.7 and Mile 14.0 (existing structures 205 to 207 and proposed structure 123 to 125); the existing ROW is generally 140 feet wide. The Existing Lines are located approximately 26.5 feet from the western edge of the existing ROW. They share the ROW with the sub-transmission 34.5kV Line 5. To facilitate construction on this segment of the existing ROW, National Grid proposes to locate

the centerline of the Facility, supported by self-weathering steel, monopole, phase-over-phase double-circuit structures, five feet to the east of the Existing Lines, which are supported by double-circuit lattice-tower structures. A ten foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 14.0 and Mile 14.2 (existing structures 207 to 208 and proposed structures 125 to 126), the Existing Lines, which are supported by double circuit lattice tower structures, are the sole occupants of the existing ROW. The Facility, which will be supported by self-weathering steel, monopole, phase-over-phase double circuit structures, will be located generally five feet to the east of the Existing Lines. A ten foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

For the purposes of minimizing the duration of outage to a specific transmission-level customer during construction of the Facility, the Company proposes to construct a temporary by-pass line at approximately Mile 1.0 (between existing structures 93.5 and 94 and proposed structures 11 and 12). This temporary by-pass line will consist of two wood pole structures, one structure located in line with the existing Line 15 conductors slightly south of existing structure 93.5 and the other structure located between the existing Line 15 tap to the transmission-level customer and the adjacent 34.5kV Hudson Falls – McCrea Street Line 17. The total length of this proposed by-pass line is approximately 250 feet and would require temporary property rights permitting the conductor to be located above a small parcel of land.

In order to safely construct the Facility, a minor reconfiguration of existing sub-transmission assets in the area approximately between Mile 12.6 (existing structure 199 and proposed structure 117) and Mile 13.3 (existing structure 202 and proposed structure 120) is required. The existing phase spacing on the sub-transmission assets will be condensed by changing structure types from horizontally-configured structures to predominantly vertically-configured structures where they are in close proximity to the proposed transmission line structures, and the new structures will be slightly relocated on the same circuit centerline relative to the existing structures.

C. Project Schedule

Table C-1 Project Schedule Mohican-Battenkill Rebuild Project

Type	Activities	Start Date	End Date	Responsibility
1. Pre-Construction Actions	Surveying and Staking(Facility and Wetland Mitigation Areas) and re-flagging sensitive environmental resources as needed	10/2014	04/2016	National Grid Survey and Environmental Consultant
2. Installation of Erosion and Sediment Control Measures	Installation of erosion and sediment control measures (silt fence, water bars, etc.) per the SWPPP / EM&CP Plan and Profile drawings and Wetland Mitigation Plan	10/2014	04/2016	Line Contractor / Forestry Contractor
3. Vegetation Management	Mowing, clearing and slash disposal	10/2014	2015	Line Contractor / Forestry Contractor
4. Grading and Access Road Construction	Grading for roads and work pads and road construction including both matting and permanent roads	10/2014	04/2016	Line Contractor / Forestry Contractor
5. Line Construction and Conductor Stringing	Erect new structures and pull conductor	11/2014	04/2016	Line Contractor
6. Wetland Mitigation Construction	Construct wetland mitigation areas	10/2014	06/2015	Wetland Mitigation Contractor
7. Line Removal	Remove existing structures	11/2014	04/2016	Line Contractor
8. Environmental Monitoring & EM&CP Plan Update	Daily environmental monitoring to ensure EM&CP compliance and file for Notice of Change as required.	10/2014	04/2016	Environmental Monitor
9. SWPPP Inspections	Weekly SWPPP inspections for SWPPP compliance	10/2014	08/2016	SWPPP Inspector
10. Restoration	Grading, seeding, mulching and removal of erosion and sediment control measures for the permanent restoration of the ROW	10/2014	08/2016	Line Contractor
11. Post Construction Monitoring	Monitoring of Ag Lands and State regulated wetland for 2 years. Monitoring of wetland mitigation site for 10 years. Invasive Species Monitoring	04/2016	2026	National Grid Environmental / Ag Monitor / Environmental Consultant

II. CERTIFICATE OF CONDITIONS AND NATIONAL GRID RESPONSES

In accordance with the Commission's Order Granting Certificate of Environmental Compatibility and Public Need and Clean Water Act §401 Water Quality Certification, National Grid is obligated to comply with the Certificate Conditions. Each Condition of the Certificate is provided verbatim below in this section followed by National Grid's corresponding response.

A. Conditions of the Order

The Commission orders:

1. Subject to the conditions set forth in this Order, Niagara Mohawk Power Corporation d/b/a National Grid (the "Certificate Holder") is granted a Certificate of Environmental Compatibility and Public Need (the "Certificate"), pursuant to Article VII of the New York Public Service Law ("PSL"), authorizing the reconstruction and reconductoring over a distance of approximately 14.2 miles (the "Project") of two of its 115 kV electric transmission lines, the Mohican-to-Battenkill Line 15, and the portion of the Mohican-to-Luther Forest Line 3 (formerly known as Mohican-to-North Troy Line 3) between the Mohican and Battenkill Substations (collectively, as they exist prior to the Project, the "Existing Lines," and as National Grid proposes to rebuild and reconductor them in the Project, the "Facility").

Response 1: *No response required.*

2. The Certificate Holder shall, within 30 days after the issuance of the Certificate, file with the Secretary to the Commission (the "Secretary") either a petition for rehearing or a verified statement that it accepts and will comply with the Certificate. Failure to comply with this condition shall invalidate the Certificate.

Response 2: *A verified statement was filed with the Commission by letter dated October 16, 2013, stating that National Grid accepts and shall comply with the Certificate.*

3. If the Certificate Holder decides not to commence construction of any portion of the Facility, it shall so notify the Secretary in writing within 30 days of making such decision and shall serve a copy of such notice upon all parties in the same manner and at the same time as it files with the Secretary.

Response 3: *National Grid will comply.*

4. If construction of the Project hereby certified is not commenced within 18 months after the Certificate Holder files a verified statement that it accepts and will comply with the Certificate, the Certificate may be vacated with notice to the Certificate Holder.

Response 4: *No response required.*

5. The Secretary may extend any deadlines established by this order for good cause shown.

Response 5: *No response required.*

B. Description of Route

6. The proposed location of the Facility as set forth in Appendix B entitled “Description and Location of Facility” attached to the Joint Proposal is approved.

Response 6: *No response required.*

7. The Facility shall be located on the centerline of the existing ROW at the following three (3) locations (as detailed in Appendix B): (a) between Mile 1.9 and Mile 2.1 (existing structures 102 to 104 and proposed structures 20 to 22); (b) between Mile 2.9 and Mile 3.5 (existing structures 113 to 118 and proposed structures 31 to 36); and (c) between Mile 8.0 and Mile 8.1 (existing structures 159 to 160 and proposed structures 77 to 78).

Response 7: *National Grid will comply.*

C. Laws and Regulations

8. a) Each substantive Federal, State and local law, regulation, code and ordinance applicable to the Facility authorized by the Certificate shall apply, except and to the extent that the Commission has expressly refused to apply any substantive local law or regulation as being unreasonably restrictive as discussed herein.
- b) No State or municipal legal provision purporting to require any approval, consent, permit, certificate or other condition for the construction or operation of the Facility authorized by the Certificate shall apply, except (i) those of the PSL and regulations and orders adopted thereunder, (ii) those provided by otherwise applicable state law for the protection of employees engaged in the construction and operation of the Facility, and (iii) those permits issued under a federally-delegated or -approved environmental permitting program.
- c) The Certificate Holder shall construct the Facility in a manner that conforms to all standards of the American National Standards Institute (“ANSI”) including, without limitation, the National Electrical Safety Code (“NESC”), Institute of Electrical and Electronics Engineers (“IEEE”), Standard IEEE C2-2012, 2012 Edition, and any stricter standards adopted by the Certificate Holder. Upon completion of the Project, the Certificate Holder shall send a letter to the Secretary certifying that the Facility was constructed in full conformance with the NESC.

Response 8: *National Grid will comply.*

9. The Certificate Holder shall maintain the Facility right-of-way (“ROW”) in accordance with the Certificate Holder’s Commission-approved *Transmission Right-of-Way Management Program* adopted pursuant to 16 NYCRR Part 84.

Response 9: *National Grid will comply.*

10. a) The Certificate Holder shall coordinate all work performed at state and municipal road and highway crossings with the appropriate state and municipal officials and shall obtain the

required authorization for such work, subject to the Commission's continuing jurisdiction as appropriate.

- b) The Certificate Holder shall coordinate with the appropriate municipal agencies and police departments for traffic management of roads under municipal jurisdiction.
- c) A copy of each permit or approval received from the issuing agencies shall be provided to the Secretary by the Certificate Holder promptly after receipt by the Certificate Holder of such permit or approval and before commencement of construction across any affected area.

Response 10: *National Grid will comply. National Grid will coordinate all work activities within highway boundaries with the appropriate state and municipal agencies and police departments. Traffic Management Plans developed for the Project are provided in Appendix X. Highway Work Permits for local, county, and NYSDOT jurisdictional road crossings will be obtained and copies of all such work permits will be provided to DPS staff prior to working within the respective highway boundary. Copies of the permits and approvals received to date are provided in Appendix J.*

- 11. If the Certificate Holder believes that any action taken, or determination made, by a State or municipal agency in connection with this Certificate is unreasonable or unreasonably delayed, the Certificate Holder may petition the Commission, upon reasonable notice to that agency, to seek a resolution of any such unreasonable or unreasonably delayed requirement. Such agency may respond to the petition, within five (5) business days, to address the reasonableness of any requirement or delay.

Response 11: *No response required.*

D. Public Health and Safety

- 12. The Certificate Holder shall design, engineer and construct the Project such that its operation shall comply with the electric and magnetic field standards established by the Commission in Opinion No. 78-13, issued June 19, 1978, and the Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities, issued September 11, 1990.

Response 12: *National Grid will comply. The calculations of magnetic field levels associated with the proposed Project in operation showed that the proposed reconstruction and reconductoring of the #3 and #15 transmission lines is consistent with the Commission's interim policy of magnetic fields throughout the proposed, existing route. These calculations were provided in Appendix D of the Article VII Application for this Project. Based on the results of these calculations and analyses, no mitigation measures are warranted.*

- 13. The Certificate Holder shall engineer and construct the Facility to be fully compatible with the operation and maintenance of nearby electric, gas, telecommunication, water, sewer, and related facilities; details of such other facilities and measures to protect the integrity, operation and maintenance of those facilities shall be presented in the proposed EM&CP. The Facility shall be designed and constructed to avoid adverse effects on the cathodic protection system and physical conditions of existing structures and any fuel gas pipelines.

Response 13: *National Grid will comply. The EM&CP Plan and Profile Drawings show the relative locations of all known utilities. National Grid's contractor will be required to verify, locate, and mark, or have marked, all overhead and underground utilities within the bounds of the designated working areas.*

In addition, special precautions, as detailed below, will be taken to prevent damage to other facilities and ensure the safety of workers in all locations where the Facility crosses or parallels other existing overhead or underground utilities. Overhead utilities that will be crossed or paralleled by the Facility and underground utilities located within the Facility's ROW have been identified and are shown on the EM&CP Plan and Profile Drawings provided in Appendix A.

Overhead Electric Facilities

When crossing an existing overhead electric line the following specifications will apply:

- *The utility responsible for the up-keep and maintenance of the overhead electric line will be contacted and consulted concerning the proposed crossing.*
- *The responsible utility will be consulted concerning "safe minimum clearance" for construction machinery.*
- *Any guy wires, ground lines and other surface or subsurface supports or facilities will be located and marked prior to the initiation of construction.*
- *Depending on the voltage of the electric line to be crossed, and the existing weather and topography conditions, the new Facility and the construction equipment installing it may need to be temporarily grounded. This activity will be performed in compliance with the National Electrical Safety Code ("NESC") as applicable to electric transmission line construction.*
- *National Grid will selectively employ temporary protective measures such as guard structures to protect underbuilt overhead facilities. The location and exact nature of such guard structures or other similar devices shall be determined based on coordination between the National Grid Construction Inspector and Environmental Monitor.*

In instances where the Facility parallels existing overhead electric facilities, the following additional specifications will apply:

- *A Safety Inspector will be designated. The Safety Inspector will be in the chain of command for the Project and will have "stop work authority."*
- *The Safety Inspector will:*
 - *Supervise grounding equipment and materials;*
 - *Provide safety training of all individuals expected to work in or visit the Project area adjacent to electric lines;*
 - *Ensure compliance with minimum clearance requirements for machinery and personnel, and;*
 - *Require all workers and others on-site to wear insulated boots, gloves and other protective equipment where circumstances warrant.*
- *If voltage levels so warrant, no ungrounded vehicle will be allowed within 200 feet of the parallel electric line.*
- *All construction vehicles on the ROW will be grounded by use of grounding strips or chain devices.*
- *Vehicles parked overnight on the ROW will be grounded to an embedded ground rod by a cable.*

- *Fuel trucks will have sufficient ground cables and clamps to complete an electrical bond with every vehicle to be refueled.*

Underground Utility Crossings

When constructing in close proximity to underground utilities, construction of the Facility will be performed in accordance with 16 NYCRR Section 255.3-25. In addition, the following specifications will apply:

- *The proposed Project area will be surveyed for the presence of existing underground utility facilities to be crossed or paralleled.*
- *Owners of the underground facilities will be notified in accordance with the requirements of 16 NYCRR Part 753 (Protection of Underground Facilities) so that their facilities will be clearly marked prior to construction.*
- *Owners of the underground facilities to be crossed will be contacted no later than forty-eight (48) hours prior to the start of construction and will be given reasonable opportunity to be present during excavation and construction.*

No construction-related traffic will be allowed to cross gas pipelines until the owner of the pipeline has approved the proposed crossing location and method of crossing. If necessary, physical barriers (such as snow fence) will be installed to prevent equipment and vehicles from crossing over gas pipelines in unauthorized locations. No materials will be staged over gas pipelines.

14. The Certificate Holder shall notify persons who own properties that abut the Facility ROW, and persons who reside on such properties (if different from the owner), of the planned construction activities and schedule affecting their residences at least seven days, but no more than thirty days, prior to the commencement of construction. The Certificate Holder may give such notices by affixing them to the doors of residences. The Certificate Holder shall provide a copy of the generic form of such notice to the Secretary prior to the commencement of construction.

Response 14: *National Grid will comply.*

15. The Certificate Holder shall keep local fire department and emergency management teams apprised of on-site hazardous chemicals and waste. All such chemicals and waste shall be secured in a locked and controlled area.

Response 15: *National Grid will comply. A list of typical chemicals and waste anticipated for the Project as well as National Grid's spill reporting and cleanup procedures are provided in Appendix V. A list of emergency contact personnel and local hospitals along with a map showing the location of the nearest hospitals are provided in Appendix K.*

16. In accordance with New York State Department of Environmental Conservation ("DEC") regulations and guidance, the Certificate Holder shall immediately notify DPS Staff and DEC of any fuel or chemical spills.

Response 16: *National Grid will comply. All spills or releases of oil or any other chemical to the environment in any quantity must be reported to National Grid's Eastern Regional Control Center (ERCC)*

at (518) 356-6471. National Grid's Environmental Guidance Documents EG-501NY for Release Notification and EG-502NY for Spill and Release Cleanup are provided in Appendix V. These guidelines address immediate incident activities, reporting instructions, notifications and general cleanup procedures. On-site and off-site reporting requirements are also summarized in Section III B (14) of this EM&CP.

17. The Certificate Holder shall comply with the requirements for the protection of underground facilities set forth in 16 NYCRR Part 753 "Protection of Underground Facilities."

Response 17: National Grid will comply. The EM&CP Plan and Profile Drawings show the relative locations of known underground utilities. National Grid's contractor will be required to verify, locate and mark, or have marked, all underground facilities within the bounds of the designated working areas. National Grid will require all contractors to comply with the applicable requirements of this regulation.

Notification requirements:

(a) Every notice provided to the one-call notification system concerning planned excavation or demolition will contain at least the following information:

- name of the person serving such notice;
- name, address, and telephone number of the excavator or excavator's company;
- excavator's field telephone number, if one is available;
- name of field contact person, if any;
- address and exact location as well as the approximate extent and dimensions of the planned work area;
- means of excavation or demolition and whether or not explosives are to be used;
- brief description of the planned excavation or demolition, and;
- date and time the excavation or demolition is planned to commence.

(b) When necessary for adequate identification, or as determined by mutual agreement of the operator and excavator, the excavator will delineate the work area with white paint, white stakes or other suitable white markings.

18. The Certificate Holder shall take appropriate measures to minimize fugitive dust and airborne debris from construction activity. Exposed soils and roadways shall be wetted as needed during extended dry periods to minimize dust generation. To the extent practicable, water for dust control shall come from municipal water supplies/sources. If surface waters are used, equipment shall be disinfected afterwards.

Response 18: National Grid will comply. Dust will be controlled in accordance with the procedures in Section 1.4 of Appendix F.

19. Parking for Project construction workers shall be in designated areas which do not interfere with normal traffic, cause a safety hazard, or interfere with existing land uses; these areas shall be designated in the proposed EM&CP.

Response 19: *National Grid will comply. Construction worker parking has been designated at the Project marshalling yards which are shown on the EM&CP Plan and Profile Drawings in Appendix A and listed in Table N-3 in Appendix N.*

20. Direct disturbance to properties shall be avoided by accessing the Facility ROW from existing roadways or approved off-ROW access roads.

Response 20: *National Grid will comply.*

21. For each road crossing and location where construction vehicles will access the Facility ROW frequently from local roadways, the Certificate Holder shall implement a Maintenance and Protection of Traffic ("MPT") plan that identifies procedures to be used to maintain traffic and provide a safe construction zone for those activities within the roadway right-of-way. The MPT plan shall address temporary signage, lane closures, placement of temporary barriers and traffic diversion.

- a) All signage utilized shall comply with the New York State Department of Transportation ("NYSDOT") Manual of Uniform Traffic Control Devices. Placement of signs shall be determined in consultation with the jurisdictional agency. At a minimum, signs shall be placed at the following distances:
- i. Signs announcing construction at 500 feet and 1,000 feet;
 - ii. Signs depicting workers at 300 feet;
 - iii. Where blasting is to take place within 50 feet of a road, a blast-warning sign at 1,000 feet.
- b) Flagmen shall be present at all times when equipment is crossing any road, when equipment is being loaded or unloaded, and where two-lane traffic has been reduced to one lane. All flagging operations shall comply with 17 NYCRR Part 131.

Response 21: *National Grid will comply. MPT plans developed in accordance with the NYSDOT MUTCD Manual for each road crossing are provided in Appendix X. Highway Work Permits for local, county, and NYSDOT jurisdictional road crossings will be obtained prior to work within road ROWs and copies of such work permits will be provided to DPS Staff. Copies of the permits and approvals received to date are provided in Appendix J.*

22. To the extent required in connection with the delivery of oversized components, the Certificate Holder or its suppliers shall obtain any necessary permits from applicable state or local agencies.

Response 22: *National Grid will comply.*

23. The Certificate Holder shall have the right to require that any person seeking to access the Project area first be appropriately trained in environmental protection and safety.

Response 23: *No response required.*

E. Environmental Management and Construction Plan

24. Except where this Certificate requires otherwise, the terms of the Certificate and the environmental protection measures contained in the Application shall be incorporated into the proposed EM&CP. These environmental protection measures shall be applied during construction, operation and maintenance of the Facility. Applicable provisions of the Certificate, proposed EM&CP, and orders approving the proposed EM&CP shall be accommodated in any design, construction, ownership, or maintenance contracts associated with the Facility.

Response 24: *National Grid will comply.*

25. The proposed EM&CP shall be organized and developed in accordance with these Certificate Conditions and with Appendix E entitled "Specifications for the Development of Environmental Management and Construction Plan" attached to the Joint Proposal, and shall not be inconsistent with the Certificate Holder's Commission-approved *Transmission Right-of-Way Management Program* except where a conflict with a provision of the Certificate would be created.

Response 25: *National Grid has complied.*

26. If the Certificate Holder includes in the proposed EM&CP any environmental protection or mitigation measure(s) not set forth in the Certificate Holder's Best Management Practices for Article VII Electric Transmission Line Projects, attached as Exhibit 21 in Appendix A of the Joint Proposal, the Certificate Holder shall also include with such proposed EM&CP a listing of each such measure, where the Certificate Holder proposes to use such measure, and an explanation as to why the Certificate Holder selected that measure rather than a measure in the Best Management Practices for Article VII Electric Transmission Line Projects.

Response 26: *National Grid has complied. A copy of Best Management Practices for Article VII Electric Transmission Line Projects is provided in Appendix F.*

27. During the preparation of the proposed EM&CP, the Certificate Holder shall contact the DEC Regional Supervisor, NYS Natural Heritage Program and USFWS to check for any updates or changes of known RTE species or habitat or Significant Natural Communities in the Project area.

Response 27: *National Grid has complied. The NYSDEC Division of Fish, Wildlife & Marine Resources was contacted on August 1, 2012 to determine if there were any updates or changes to known RTE species or habitat or Significant Natural Communities in the Project area. The response from NYSDEC dated August 9, 2012 is included in Appendix H. In their response the DEC updated previous information to indicate that the Henslow's Sparrow (*Ammodramus henslowii*) was in the vicinity of the Project in Washington County. The DEC Regional Supervisor, NYS Natural Heritage Program and USFWS were contacted on September 18, 2013 in order to update previous information provided regarding RTE species. A copy of the response letters (NYS Natural Heritage Program dated October 2, 2013 and USFWS dated November 6, 2013) are provided in Appendix H. No new species were reported.*

28. Except as provided in Certificate Condition number 7, deviations from the certified centerline, design height, location, number of structures, and structure types as described in Appendix B

shall be allowed for appropriate environmental or engineering reasons, except where a conflict with a provision of the Certificate would be created. An explanation for the proposed deviation and supporting documentation shall be provided in the proposed EM&CP.

Response 28: *National Grid will comply. There are no deviations from the certified centerline, average span length and location of structures as described in the Joint Proposal for this Project. The average structure height and quantity of each structure type has been modified from the information provided in Appendix B.*

Average structure height was originally noted as 85 feet. Due to the need to ensure conformance with conductor clearance criteria set forth by the 2012 National Electric Safety Code and other more stringent criterion imposed by state and private agencies and the engineering refinements associated with the detailed design process, the overall average structure height has been adjusted to 90 feet.

The quantity of structure types as noted in Appendix B has also been modified. No new structure types are proposed. Initially, in Appendix B, it was proposed that a total of 117 double circuit steel monopole davit arm structures would be used, consisting of 109 suspension and eight (8) dead-ends structures. Additionally, the total number of double circuit steel two pole dead-ends was originally proposed to be three (3). This quantity has been increased to a total of eight (8). The change in quantities associated with these three structure types is driven by constructability concerns. The original transmission line design did not incorporate the required three centerline relocations referenced in Condition 7. The use of dead-end structures at the beginning and end of these centerline relocations was determined to enhance the constructability of these line segments and minimize the overall outage durations that would otherwise have been required if the structures in these segments had remained as originally proposed. In locations where the proposed centerline would be in close proximity to the existing centerline, the use of double circuit steel two pole dead-ends was determined to be more appropriate than double circuit steel monopole davit arm dead-end structures as one circuit could be fully installed with the other circuit energized using the two pole structures whereas this was deemed to be more hazardous and labor intensive with a monopole structure.

29. The Certificate Holder shall not begin site preparation or construction with respect to any portion of the Facility (except for surveying, soils testing and such other related activities as are necessary for preparation of the final design plans) and shall not commence any proceedings under the Eminent Domain Procedure Law to acquire permanent ROW, temporary ROW, or off-ROW access with respect to any portion of the Facility until the Commission has approved the proposed EM&CP for such portion of the Facility. To calculate the three-year period for acquisition of property pursuant to the Eminent Domain Procedure Law, the date of Commission approval of the proposed EM&CP covering the affected parcel shall be regarded as the date on which this Article VII proceeding was completed.

Response 29: *National Grid will comply. If and to the extent National Grid needs to acquire permanent ROW, temporary ROW, or off-ROW access for the Project and cannot secure such property rights through voluntary negotiations with property owners, National Grid will seek such rights pursuant to the Eminent Domain Procedure Law. National Grid will not commence such proceeding until the Commission has approved the EM&CP for the relevant portion of the Project.*

30. The Certificate Holder shall file copies of its proposed EM&CP as directed by the Secretary and, unless otherwise directed by the Secretary, serve two electronic copies and one hard copy on the staff of the DEC, Central Office in Albany, one electronic copy and one hard copy on the Region 5

office of the DEC, one hard copy on the staff of the New York State Department of Agriculture & Markets (“Ag&Mkts”), one hard copy on the Region 1 office of the NYSDOT; one hard copy on any other New York State agency (and its relevant regional offices) that requests the document; and one hard copy on any party on the service list who requests the document. Service upon state agencies shall be in the same manner and at the same time as filing with the Secretary. The Certificate Holder also shall place one electronic copy and one hard copy for inspection by the public in at least one public library or other convenient location in each municipality in which construction will take place.

Response 30: *National Grid will comply.*

31. Contemporaneously with the filing and service of the proposed EM&CP, the Certificate Holder shall provide notice, in the manner specified below, that the proposed EM&CP has been filed.
- a) The Certificate Holder shall serve written notice(s), in language reasonably understandable to the average person, of filing the proposed EM&CP on all parties to this proceeding, on each person on the Commission’s service list considered potentially affected by the subject matter in the proposed EM&CP, and on all parties required to be served with the Application by statute or regulation, and on each person from whom property rights are required and shall attach a copy of the notice to each copy of the proposed EM&CP. Further, the Certificate Holder shall publish the notice in a newspaper or newspapers of general circulation in the vicinity of the Facility.
 - b) The written notice(s) and the newspaper notice(s) of filing the proposed EM&CP pursuant to clause (a) above and clause (c) below shall contain, at a minimum, the following:
 - i. a statement that the proposed EM&CP has been filed;
 - ii. a general description of the certified Facility, the need for the Facility, and the proposed EM&CP;
 - iii. a listing of the locations where the proposed EM&CP is available for public inspection;
 - iv. a statement that any person desiring additional information about a specific geographical location or specific subject may request it from the Certificate Holder;
 - v. the name, address, and telephone numbers of an appropriate Certificate Holder representative;
 - vi. the e-mail and physical address of the Secretary; and
 - vii. a statement that any person may be heard by the Commission on any matter or objection regarding the proposed EM&CP by filing written comments with the Secretary and the Certificate Holder within 45 days of the date the proposed EM&CP was filed with the Commission, or within 45 days of the date of the newspaper notice, whichever is later.
 - c) For all ROW to be acquired for the Facility in fee, and for all off-ROW access to be acquired for the Facility in fee, the Certificate Holder shall cause an examination of title (title search) to be conducted in the same manner as would be conducted by a reputable title insurance company to identify all of-record owners, mortgagees, lien holders, leaseholders or others with a recorded interest in such property rights it intends to acquire. For all ROW to be acquired for the Facility by easement, and for all off-ROW access to be acquired for the

Facility by easement, the Certificate Holder shall identify the last owner of record. The Certificate Holder shall provide written notice of filing the proposed EM&CP to: (i) each person identified by a title examination as described in the first sentence of this paragraph or by a last-owner-of-record identification as described in the second sentence of this paragraph, or the attorney of record for such person, (ii) each person with a recorded ownership interest in the underlying land right to an existing easement the Certificate Holder uses for the Facility, and (iii) each person who is a lessee of a portion of any existing ROW to be used for the Facility. Such written notice shall contain the information set forth in clause (b) above and it also shall contain a specific description of the right(s) to be acquired for the Facility with respect to the applicable property.

Response 31: *National Grid will comply. A copy of the typical written notice of National Grid's filing of the EM&CP with the Commission (the "EM&CP Filing Notice") is provided in Appendix I.*

32. A certificate of service indicating upon whom all proposed EM&CP notices were served shall be filed with the Secretary within three (3) business days after the time the proposed EM&CP is filed, and shall be a condition precedent to approval of the proposed EM&CP. When available, proof of publication of the newspaper notice(s) of filing the proposed EM&CP, including a copy of such notice, shall be filed with the Secretary.

Response 32: *National Grid will comply.*

33. After the EM&CP has been approved by the Commission:
- a) The Certificate Holder shall report any changes it proposes to DPS Staff. If the change involves the jurisdictional area of another agency, Staff will consult such agency. DPS Staff will refer any proposed changes that will not result in any increase in adverse environmental impacts or are not directly related to contested issues decided during the proceeding to the Director of the Office of Energy Efficiency and the Environment ("OEEE") for approval. DPS Staff will refer all other proposed changes to the Commission for approval; the Certificate Holder shall not execute any proposed change until it receives written notification from the Director of OEEE or the Commission.
 - b) Upon being advised that DPS Staff will refer a proposed change to the Commission, the Certificate Holder shall notify all parties to the Joint Proposal as well as property owners or lessees whose property is affected by the proposed change. The notice shall: (1) describe the original conditions and the requested change; (2) state that documents supporting the request are available for inspection at specified locations, and (3) state that persons may comment by writing or calling (followed by written confirmation) to the Commission within twenty-one (21) days of the notification date. Any delay in receipt of written confirmation will not delay Commission action on the proposed change.
 - c) The Certificate Holder shall not execute any proposed change until it receives written approval from DPS Staff, except in emergency situations threatening personal injury, property damage, or severe adverse environmental impact, or as specified in the approved EM&CP.

Response 33: *National Grid will comply. A sample copy of the "EM&CP Notice of Change Form" is provided in Appendix P.*

F. Notices and Public Complaints

34. a) The Certificate Holder shall make available to the public a toll-free or local phone number of an agent or employee who will, for the duration of construction of the Facility, be available to receive complaints, if any, from the public about the construction of the Facility. That number shall include a recorded outgoing message that will, when a call is not answered by a person, provide the caller with (i) the number to be called at any time in case of emergency, (ii) the phone number and email address of the Secretary, and (iii) the phone number of the Commission's Environmental Compliance Section.
- b) The Certificate Holder shall report to DPS Staff every complaint that cannot be resolved after reasonable attempts to do so. Such report shall be made within ten (10) business days after receipt of the complaint.

Response 34: *National Grid will comply. Public concerns or complaints regarding the construction of the Project can be conveyed to National Grid via the toll-free telephone number (866)706-5097.*

A Project Contacts list is provided in Appendix K of this EM&CP document which is filed with the Commission and made available for public review at each of the public libraries listed in the EM&CP Filing Notice.

35. a) No less than two weeks before commencing site preparation, the Certificate Holder shall notify the public of the anticipated date that site preparation will commence, as follows:
- i. provide notice to local officials and emergency personnel along the entire Facility route;
 - ii. provide notice to local media for dissemination;
 - iii. provide notice for display in public places (such as general stores, post offices, community centers and conspicuous community bulletin boards).
- b) The notice or notices under this paragraph shall be written in language reasonably understandable to the average person and shall contain:
- i. a map of the Facility;
 - ii. a brief description of the Project;
 - iii. the anticipated date for start of site preparation;
 - iv. the name, mailing address, local or toll-free telephone number, and email address of an employee or agent of the Certificate Holder who will, for the duration of construction of the Facility, be available to receive complaints, if any, from the public about the construction of the Facility; and,
 - v. a statement that the Facility is under the jurisdiction of the New York State Public Service Commission, which is responsible for enforcing compliance with environmental and construction conditions, and which may be contacted at an address, email, and telephone number to be provided in the notice.
- c) Upon distribution, a copy of the form of the notice or notices under this paragraph shall be submitted to the Secretary.

Response 35: *National Grid will comply.*

36. The Certificate Holder shall provide all contractors providing services for construction of the Facility (“Contractors”) with complete copies of the Certificate, the approved EM&CP, the order(s) approving the EM&CP, updated construction drawings, any site-specific plans, the State Pollutant Discharge Elimination System (“SPDES”) General Permit for Stormwater Discharge from Construction Activity (Permit No. GP-0-10-001) (“SPDES General Permit”), any permit issued pursuant to Section 404 of the Federal Clean Water Act and the Section 401 Water Quality Certification. To the extent that the listed documents are available before contracts for construction services are executed, such copies shall be provided to the Contractors prior to the execution of such contracts.

Response 36: *National Grid will comply.*

37. The Certificate Holder shall notify all Contractors that the Commission may seek to recover penalties for violation of the Certificate and other orders issued in this proceeding, not only from the Certificate Holder, but also from its Contractors, and that Contractors also may be liable for other fines, penalties and environmental damage.

Response 37: *National Grid will comply.*

38. The Certificate Holder shall inform the Secretary in writing at least five days before commencing construction or clearing for the Facility.

Response 38: *National Grid will comply.*

39. The Certificate Holder shall provide DPS Staff, Ag&Mkts, and DEC with weekly status reports summarizing construction and indicating construction activities and locations scheduled for the next two weeks.

Response 39: *National Grid will comply. A sample Weekly Status Report Form is provided in Appendix Q.*

40. Within ten (10) days after the Facility is in service, the Certificate Holder shall notify the Secretary in writing of that fact.

Response 40: *National Grid will comply.*

41. Within ten days of the completion of final restoration, the Certificate Holder shall notify the Secretary in writing that all restoration has been completed in compliance with this Certificate and the order(s) approving the EM&CP.

Response 41: *National Grid will comply. Final restoration will be deemed complete upon the SWPPP inspector’s determination that a uniform perennial vegetative cover with a density of 80% has been achieved over all disturbed areas.*

G. ROW Construction, Operation, Maintenance and Restoration

42. a) At least two (2) weeks prior to the start of construction, the Certificate Holder shall hold a preconstruction meeting to which it shall invite DPS Staff, Ag&Mkts, NYSDOT, and DEC. An agenda, the location, and an attendee list shall be agreed upon between DPS Staff and the Certificate Holder.
- b) The Certificate Holder shall supply draft minutes from this meeting to all attendees, the attendees may offer corrections or comments, and thereafter the Certificate Holder shall issue the finalized meeting minutes to all attendees.
- c) If, for any reason, the Contractors cannot finish the construction of the Facility, and one or more new contractors are needed, there shall be another preconstruction meeting with the same format as outlined above.

Response 42: *National Grid will comply.*

43. The Certificate Holder shall confine construction and subsequent maintenance to the Facility ROW as certified and approved additional work areas as detailed in the approved EM&CP.

Response 43: *National Grid will comply. The Facility ROW and all proposed additional work areas are shown in the EM&CP Plan and Profile Drawings provided in Appendix A.*

44. The Certificate Holder shall not commence construction of any part of the Project until the Certificate Holder holds all of the real property rights along the Facility ROW that are required for the Certificate Holder to construct the Project on at least 11.36 contiguous miles of Facility ROW.

Response 44: *National Grid will comply.*

45. A detailed construction schedule and location timeline shall be provided to DPS Staff prior to construction. Each construction activity shall be described in detail in the proposed EM&CP.

Response 45: *National Grid will comply.*

46. At least two weeks before Facility construction begins in any area both edges of the Facility ROW as certified shall be delineated and any known danger trees shall be marked. Also, the Certificate Holder shall stake and/or flag all off-ROW access roads and extra work areas.

Response 46: *National Grid will comply.*

47. Construction activities on the Project shall be confined to the hours of 7:00 a.m. and 6:00 p.m. Monday through Saturday. If, due to safety or continuous operation requirements, construction activities are required to occur on Sundays or after 6:00 p.m., the Certificate Holder shall notify DPS Staff and the affected municipality. Such notice shall be given at least 24 hours in advance unless the Sunday or after 6:00 p.m. construction activities are required for safety reasons that

arise less than 24 hours in advance. The Certificate Holder shall implement noise mitigation measures set forth in Section 4.9 of Exhibit 4 of the Application.

Response 47: *National Grid will comply. Refer to Appendix E for more information regarding noise mitigation.*

48. In connection with the felling of trees, the Certificate Holder shall:
- a) not clear or alter any area outside the boundaries of the fee-owned Facility ROW and permanent easement without prior notice to the owner(s) of the land to be cleared or altered, and the Certificate Holder also shall cause Contractors in its employ to comply with this prohibition;
 - b) negotiate in good faith with each landowner appropriate compensation for the merchantable logs the Certificate Holder has determined it shall remove from such landowner's property;
 - c) comply with the provisions of 6 NYCRR Part 192, Forest Insect and Disease Control, and ECL § 9-1303 and any quarantine orders issued thereunder;
 - d) note the disposal of all woody material resulting from clearing the ROW for the Facility on the EM&CP drawings;
 - e) not create a maximum chip depth greater than three (3) inches, except for chip roads or for invasive species control; and,
 - f) not store chips in wetlands, active agricultural fields, or within 25 feet of streams.

Response 48: *National Grid will comply. All clearing and slash disposal types are identified on the EM&CP Plan and Profile Drawings in Appendix A. Clearing and slash disposal procedures are described in Section 2.0 of Best Management Practices for Article VII Electric Transmission Line Projects in Appendix F.*

49. Unless described otherwise in the approved EM&CP, all trees over two inches in diameter breast height or shrubs over four feet in height damaged or destroyed by activities during construction, regardless of where located, shall be replaced within the following year by the Certificate Holder with the equivalent type of trees or shrubs, except if:
- a) equivalent type replacement trees or shrubs would interfere with the proper clearing, construction, operations or maintenance of the certified Facility;
 - b) replacement would be contrary to sound ROW management practices, or to any approved long-range ROW management plan applicable to the Facility or adjoining transmission facilities; or,
 - c) the owner of land where the damaged or destroyed trees or shrubs were located declines replacement (or other recorded easement or license holder with the right to control replacement declines replacement).

Response 49: *National Grid will comply. All areas where trees and shrubs are to be cleared are shown on the EM&CP Plan and Profile Drawings in Appendix A. Clearing and slash disposal procedures are described in Section 2.0 of Best Management Practices for Article VII Electric Transmission Line Projects in Appendix F. It is noted that the clearing of brush in close vicinity to a danger tree in order to allow the*

safe felling of that tree will not be considered to be “damaged or destroyed” per the provisions of this Certificate Condition.

50. The proposed EM&CP shall include a plan for removal, re-use, recycling and disposal of all existing equipment (e.g., transformers, wood poles, conductors, etc.). Existing transmission facility components removed or replaced as part of construction of the Facility shall be removed from the Facility ROW to appropriate destinations and handled appropriately for re-use as available based on conditions.

Response 50: *National Grid will comply. The Project will involve the installation of approximately 131 self-supporting weathering tubular steel pole structures, two (2) permanent sub-transmission wood pole structures, and two (2) temporary wood pole transmission structures and the removal of approximately 8 wood pole structures and 124 lattice steel towers. National Grid plans to transport used wood poles to the nearest ROW street crossing location that is accessible by truck for subsequent pick up and disposal to a licensed landfill or incinerator. The steel structures that are to be replaced will be cut and stub angles will be left in place and cut off at least 48 inches below grade in agricultural areas, at least 18 inches below grade in all other areas unless otherwise directed by National Grid’s Construction Field Supervisor. The scrap steel will be transported to the nearest ROW street crossing location that is accessible by truck for pickup. To the extent the scrap steel does not contain interior concrete, the scrap steel will be tested for lead paint in accordance with standard National Grid procedures. Steel with excessive levels of metal-containing paints will be placed in open roll-offs and delivered to an approved recycling facility. Special precautions and/or special handling are not required; however, the recycling facility will be notified in writing that the steel is coated with metal-containing paint. National Grid’s Investment Recovery department will facilitate the reuse or recycling of all steel or metal components to be removed, including conductor, cable, wire, etc., as well as the old insulators. Any old concrete foundations will be removed to a minimum of 18 inches below ground level (except in agricultural areas, where they will be removed to at least 48 inches below grade). Any other concrete waste will be removed from the ROW and transported to a concrete salvage facility, if available, or it will be transported to a licensed construction and demolition (C&D) disposal facility or solid waste landfill.*

51. Neither the Certificate Holder nor any Contractors in its employ shall construct any new, or improve any existing, access road unless such road is: (i) located on the ROW authorized for the Facility; (ii) located on other utility ROW to be utilized in the construction or operation and maintenance of the certified Facility; or, (iii) described in the approved EM&CP. Should the need arise for additional off-ROW access, the Certificate Holder shall follow the procedures recited in Certificate Condition number 33.

Response 51: *National Grid will comply. All proposed access roads, including all proposed permanent and temporary off-ROW access roads, are shown on the EM&CP Plan and Profile Drawings. Table N-1 in Appendix N provides a summary of all proposed off-ROW access road requirements for the Project along with the type (permanent or temporary) of landowner agreement being sought for each of the proposed roads. Minor access alignment changes may be necessary and will be made by the contractor in the field following proper approvals from National Grid and DPS Staff.*

52. a) The Certificate Holder shall adhere to NYSDEC's then effective "New York State Standards and Specifications for Erosion and Sediment Control," also known as the "Blue Book" ("NYSSDESC").
- b) The Certificate Holder shall include in the proposed EM&CP the approved Stormwater Pollution Prevention Plan ("SWPPP") for the Project.
- c) The Certificate Holder shall install temporary erosion control devices as soon as practicable and appropriate as indicated in the proposed EM&CP, but in any event no later than the end of the work day in which site disturbance occurs.

Response 52: *National Grid will comply. The approved SWPPP for this Project is provided in Appendix G.*

53. Disturbed areas, ruts, and rills shall be restored to original grades and conditions with permanent re-vegetation and erosion controls appropriate for those locations. Disturbed pavement, curbs and sidewalks shall be restored to their original preconstruction condition or improved.

Response 53: *National Grid will comply.*

54. The Certificate Holder shall be responsible for checking all culverts and assuring that they are not crushed or blocked during construction and restoration of the Facility; if a culvert is blocked, crushed, or otherwise damaged, the Certificate Holder shall repair the culvert or replace it with alternative measures appropriate to maintaining proper drainage.

Response 54: *National Grid will comply.*

55. The Certificate Holder shall, upon completion of the Project:
- a) conduct an assessment of the need for landscape improvements, including vegetation planting, earthwork or installed features to screen or landscape the Facility with respect to road crossings, residential areas, and substations;
- b) prepare plans for any visual mitigation found necessary, and, in connection therewith, removal, rearrangement and supplementation of existing landscape improvements or plantings should be considered, as appropriate;
- c) consult with DPS Staff on the content and execution of its assessment, resultant landscaping plan specifications and materials list; details shall include measures for third party or wildlife damage to any landscape and vegetation plantings; and,
- d) present draft assessments and plans to DPS Staff for review, and file a final plan with the Secretary within one year after the date the Facility is placed in service.

Response 55: *National Grid will comply.*

56. The proposed EM&CP shall include plans to prevent unauthorized access to and along the Facility ROW. Plans shall include the following:
- a) posting signs at the ROW edges in those locations where the ROW intersects public roads;

- b) performing outreach to educate and inform the public concerning the risks and impacts of unauthorized access;
- c) working with local law enforcement officials in an effort to prevent future trespassing;
- d) identifying construction and material details of gates and berms; and,
- e) identifying existing and proposed gate locations on the Plan and Profile drawings. Final determination of locations of gates and berms shall be made during a post-construction assessment of the Facility, in consultation with DPS Staff.

Response 56: *National Grid has complied. The plan to prevent unauthorized access to and along the facility ROW is as follows:*

Response 56a: *National Grid will place signs at the intersection of the Facility ROW edges and all public roads to inform the public that unauthorized access is prohibited and that trespassers will be prosecuted.*

Response 56b: *Upon the completion of construction, National Grid will place an article in a local newspaper(s) that informs the public that the Project has been completed and provides a public reminder that unauthorized access on the Facility ROW is prohibited. A draft of the portion of the article that will address unauthorized access is provided in Appendix W.*

Response 56c: *Upon the completion of construction, National Grid will inform local law enforcement that the Project has been completed and that signs have been placed to inform the public that unauthorized access is prohibited and that trespassers will be prosecuted. National Grid will provide local law enforcement its full cooperation in prosecuting non authorized users and trespassers on the Facility ROW.*

Response 56d and 56e: *The location of all existing fences and gates and the location of all proposed fences, gates and barriers to be initially installed on the Facility ROW are shown on the EM&CP Plan and Profile Drawings. Construction and material details for those installations are shown in Appendix AD .A post construction assessment of the Facility, in consultation with DPS Staff, shall be conducted to determine if any additional fences, gates or berms are necessary to prevent unauthorized access on the Facility ROW.*

H. Herbicide Use

57. Only herbicides specified in the Commission-approved EM&CP may be used in any Federal wetland, State-regulated wetland, or State-regulated wetland 100 foot adjacent area (collectively "Regulated Wetlands").

Response 57: *National Grid will comply. Procedures for herbicide use and a list of herbicides that may be utilized during clearing and maintenance activities are included in Appendix L. Herbicide mix "C"(Rodeo or Accord Concentrate, EPA# 62719-324, 53.8% Glyphosate, 50% Accord C / 50% Water) will be used for stump-treatment within regulated wetlands and associated buffers. Herbicide mix "K" (Rodeo or Accord Concentrate, EPA# 62719-324, 53.8% Glyphosate, 5 gallons in 100 gallons. Water) may also be used within these areas if applied using the backpack low-volume foliar application technique. It is noted that a colored dye may be added to the herbicide mixture to provide a visual indication of which stumps have received herbicide treatment. The dye will be added to the herbicide mixture on site, at a rate of approximately 1 drop per quart. National Grid may add dye to the herbicide to facilitate quality control at the discretion of the Environmental Monitor or Transmission Forester.*

58. The application of herbicides shall be made under the direct supervision of a NYS Certified Applicator who shall own or be employed by a New York State-registered business. The supervising certified applicator shall be familiar with and understand the provisions of this Certificate and shall be present in the field to ensure compliance.

Response 58: *National Grid will comply.*

59. Herbicide spraying within Regulated Wetlands shall be performed only by backpack or squirt bottle treatment.

Response 59: *National Grid will comply.*

60. No equipment wash water or excess herbicide shall be allowed to enter Regulated Wetlands, streams, or waterbodies. Empty containers shall be disposed of in accordance with label instructions and applicable regulations.

Response 60: *National Grid will comply.*

61. The ROW and adjoining properties shall be posted and notified by using the DEC-approved format (ECL Part 33 and 6 NYCRR Part 325).

Response 61: *National Grid will comply.*

I. Environmental Supervision

62. The Certificate Holder shall use at least five (5) inspectors on the Project (or at least four (4) if the Certificate Holder elects to use the same individual as both environmental monitor and agricultural inspector): (a) at least one environmental monitor employed full-time on the Project; (b) at least one construction inspector employed full-time on the Project; (c) at least one agricultural inspector employed part-time on the Project; (d) at least one safety inspector who will inspect the work site from time to time; and (e) at least one quality assurance inspector who will inspect the work site from time to time. The environmental monitor shall have stop work authority over all aspects of the Project.

Response 62: *National Grid will comply. Details regarding the Environmental Monitor are described in Section III B (15) of this EM&CP. Additional details regarding the Environmental Monitor, Construction Inspector, Safety Inspector, Quality Assurance Inspector and Agriculture Inspector can be found in Section 9 of the Best Management Practices for Article VII Electric Transmission Line Projects provided in Appendix F. National Grid's Construction Field Supervisor will function as the Construction Inspector.*

63. The environmental monitor(s) and the construction inspector(s) shall be equipped with sufficient documentation, transportation and communication equipment to effectively monitor each Contractor's compliance with the provisions of every order issued in this proceeding and

applicable sections of the PSL, Environmental Conservation Law, §401 Water Quality Certification and the approved EM&CP.

Response 63: *National Grid will comply. Details regarding the environmental and construction supervision proposed by National Grid are described in Section III B (15) of this EM&CP and in Section 9 of the Best Management Practices for Article VII Electric Transmission Line Projects in Appendix F.*

64. The names and qualifications of the environmental monitor(s) and the construction inspector(s) shall be submitted to the Secretary at least two weeks prior to the start of construction. The environmental monitor's qualifications shall satisfy those of a "Qualified Inspector" pursuant to the SPDES General Permit.

Response 64: *National Grid will comply.*

65. The Certificate Holder's employees, contractors and subcontractors assigned to the construction of the Facility and inspection of such construction work shall be properly trained in their respective responsibilities.

Response 65: *National Grid will comply.*

66. The authority granted in the Certificate and any subsequent order in this proceeding is subject to the following conditions necessary to ensure compliance with such order:

- a) The Certificate Holder shall regard DPS Staff representatives (authorized pursuant to PSL §8) as the Commission's designated representatives in the field. In the event of any emergency resulting from specific construction or maintenance activities that violate or may violate the terms of the Certificate or any other order in this proceeding, such DPS Staff representatives may issue a stop work order for that location or activity.
- b) A stop work order shall expire 24 hours after issued unless confirmed by a single Commissioner. If a stop work order is confirmed, the Certificate Holder may seek reconsideration from the confirming Commissioner or the whole Commission. If the emergency prompting the issuance of a stop work order is resolved to the satisfaction of the Commissioner or the Commission, the stop work order will be lifted. If the emergency has not been satisfactorily resolved, the stop work order will remain in effect.
- c) Stop work authority will be exercised sparingly and with due regard to potential environmental impacts, economic costs involved, possible impact on construction activities, and whether an applicable statute or regulation is violated. Before exercising such authority, DPS Staff representatives will consult (wherever practicable) with the Certificate Holder's representatives possessing comparable authority. Within reasonable time constraints, all attempts will be made to address any issue and resolve any dispute in the field. In the event the dispute cannot be resolved, the matter will be brought immediately to the attention of the Certificate Holder's Project Manager and the Department of Public Service's Director of the OEEE. In the event that a DPS Staff representative issues a stop work order, neither the Certificate Holder nor the Contractor will be prevented from undertaking any safety-related activities as they deem necessary and appropriate under the circumstances. The issuance of

a stop work order or the implementation of measures as described below may be directed at the sole discretion of the DPS Staff representative during these discussions;

- d) If a DPS Staff representative discovers a specific activity that represents a significant environmental threat that is or immediately may become a violation of the Certificate or any other order in this proceeding, the DPS Staff representative may -- in the absence of responsible Certificate Holder supervisory personnel, or in the presence of such personnel who, after consultation with the DPS Staff representative, refuse to take appropriate action -- direct the field crews to stop the specific potentially harmful activity immediately. If responsible Certificate Holder personnel are not on site, the DPS Staff representative will immediately thereafter inform the Construction Inspector or Environmental Monitor of the action taken. The stop work order may be lifted by the DPS Staff Representative if the situation prompting its issuance is resolved;
- e) If the DPS Staff representative determines that a significant threat exists such that protection of the public or the environment at a particular location requires the immediate implementation of specific corrective measures, the DPS Staff representative may, in the absence of responsible Certificate Holder supervisory personnel, or in the presence of such personnel who, after consultation with the DPS Staff representative, refuse to take appropriate action, direct the Certificate Holder or its Contractors to implement the corrective measures identified in the approved EM&CP. The field crews shall comply with the DPS Staff representative's directive immediately. The DPS Staff representative will immediately thereafter inform the Certificate Holder's Construction Inspector or Environmental Monitor of the action taken.
- f) DPS Staff will promptly notify the appropriate DEC representative of any activity that is a significant environmental threat to a State-regulated wetland or its adjacent area, a protected stream or other water body, or a threatened or endangered species, or that may become a violation of the Certificate or other order as described in subparagraph (d) of this paragraph.

Response 66: *National Grid will comply.*

- 67. The Certificate Holder shall organize and conduct site-compliance audit inspections for DPS Staff as needed, but not less frequently than once per month during the site preparation, construction, and restoration phases of the Project. Inspections shall conclude upon the final sign-off of the SWPPP by the SWPPP inspector.
 - a) The monthly inspections shall include a review of the status of compliance with all conditions contained in the Certificate and any other order issued in this proceeding and with all other legal requirements and commitments, as well as a field review of the Facility site, if necessary. The inspections also shall include:
 - i. review of all complaints received, and their proposed or actual resolutions;
 - ii. review of any significant comments, concerns or suggestions made by the public, local governments, or other agencies;
 - iii. review of the status of the Project in relation to the overall schedule established prior to the commencement of construction; and,
 - iv. other items the Certificate Holder or DPS Staff considers appropriate.

- b) The Certificate Holder shall provide a written record of the results of the inspection, including resolution of issues and additional measures to be taken, to all agencies involved in the inspection audit.

Response 67: *National Grid will comply.*

J. Roads and Highways

- 68. The Certificate Holder shall delineate on the proposed EM&CP drawings, the locations of proposed temporary roads, proposed permanent roads and existing access roads. Proposed access road improvements and measures for environmental impact minimization and access control shall be included in the proposed EM&CP.

Response 68: *National Grid will comply.*

- 69. The Certificate Holder shall minimize the impact of the construction of the Facility on traffic circulation. Traffic control personnel and safety signage shall be employed to ensure safe and adequate traffic flow when secondary roadways are affected by construction.

Response 69: *National Grid will comply.*

- 70. The Certificate Holder shall consult periodically with municipal highway transportation agencies about traffic conditions near the Facility site and shall notify each such transportation agency of the approximate date work will begin in its jurisdiction, using access points that take direct access from the highways in that jurisdiction.

Response 70: *National Grid will comply.*

- 71. In preparing the proposed EM&CP, the Certificate Holder shall consult with each transportation department or agency normally having jurisdiction over any roads in the Project vicinity that will be crossed by the certified Facility, or used for direct access to the Facility ROW. If the access road takes direct access from, or lies within the limits of, such roads, the Certificate Holder shall notify each relevant transportation department or agency of the approximate date when work will begin.

Response 71: *National Grid will comply.*

- 72. NYSDOT shall have authority to place inspectors on site to monitor and observe the Certificate Holder's activities on state highways, or to request the presence of state or local police to ensure the safety of freeway travelers, at such times and for such periods as NYSDOT deems appropriate. All costs thereof shall be borne by the Certificate Holder.

Response 72: *National Grid will comply.*

73. The Certificate Holder shall coordinate all State Highway crossings and longitudinal occupations with NYSDOT. The Certificate Holder shall obtain the necessary permits from NYSDOT, including, as appropriate, a Highway Work Permit and Use and Occupancy Permit pursuant to 17 NYCRR Part 131, including, if necessary, the filing by NYSDOT of a request with the Federal Highway Administration for an exception to the Accommodation Plan for Longitudinal Use of Freeway Right-of-Way by Utilities, for the construction, operation and maintenance of the Facility in the right-of-way of State highways. Said Use and Occupancy Permit shall include payment of a fair market value-based fee for use of State property.

Response 73: *National Grid will comply.*

74. The Certificate Holder shall coordinate with DPS Staff and NYSDOT for all work to be performed in the State highway rights-of-way. Prior to submitting its construction plan for any State highway right-of-way segment, the Certificate Holder shall provide to DPS Staff and NYSDOT a preliminary design marked to avoid conflict with potential future transportation projects that NYSDOT may seek to undertake in the future and shall offer to consult with NYSDOT concerning any comments it may offer and shall use reasonable efforts to accommodate any NYSDOT concerns.

Response 74: *National Grid will comply.*

75. All work within State highway rights-of-way shall be designed and performed according to the traffic and safety standards and other substantive requirements contained in 17 NYCRR Part 131, entitled *Accommodation of Utilities Within State Highway Right-of-Way*, and applicable design standards of the American Association of State Highway Transportation Officials, the Manual of Uniform Traffic Control Devices, the Highway Design Manual, the Policy and Standards for Entrances to State Highways, the Requirements for the Design and Construction of Underground Utility Installations within the State Highway ROW, the Accommodation Plan, and the NYSDOT 2008 Standard Specifications.

Response 75: *National Grid will comply.*

76. In preparing the proposed EM&CP, the Certificate Holder shall consult with NYSDOT regarding any State highways and/or related structures in the Project vicinity that will be crossed by the Facility or used for direct access to the Facility ROW. If the access road takes direct access from, or lies within the limits of, such roads, the Certificate Holder shall notify NYSDOT of the approximate date when work will begin.

Response 76: *National Grid will comply.*

K. Cultural Resources

77. The Certificate Holder shall not undertake construction in previously undisturbed areas where archeological surveys have not been completed and until such time as the appropriate authorities, including New York State Office of Parks Recreation & Historic Preservation

("OPRHP") and DPS Staff, have reviewed the results of any additional historic properties and archeological surveys that are required.

Response 77: *National Grid will comply. Contact and consultation information with OPRHP and the Army Corps of Engineers is provided in Appendix H.*

78. Should archeological materials be encountered during construction, the Certificate Holder shall stabilize the area and cease all construction activities in the immediate vicinity of the find, and protect the find from further damage. Within twenty-four (24) hours of such discovery, the Certificate Holder shall notify and seek to consult with DPS Staff and the OPRHP Field Services Bureau to determine the best course of action. No construction activities shall be permitted in the vicinity of the archeological materials until such time as the significance of the resource has been evaluated and the need for and scope of impact mitigation has been determined.

Response 78: *National Grid will comply.*

79. Should human remains or evidence of human burial(s) be encountered during the conduct of archeological data recovery fieldwork or during construction, all work in the vicinity of the find shall be halted immediately and the remains shall be protected from further disturbance. Within twenty-four (24) hours of any such discovery, the Certificate Holder shall notify and consult with DPS Staff and the OPRHP Field Services Bureau. Treatment and disposition of any human remains that may be discovered shall be managed in a manner consistent with the OPRHP's *Human Remains Discovery Protocol*. All archaeological or remains-related encounters and their handling shall be reported in the status reports summarizing construction activities and reviewed in the site-compliance audit inspections.

Response 79: *National Grid will comply.*

80. The Certificate Holder shall avoid creating adverse impacts on heritage resource sites, archeological sites, and historic structures in the vicinity of the Facility by implementing specific Facility location, design, vegetation management, resource protection, and construction scheduling measures described in the approved EM&CP.

Response 80: *National Grid will comply.*

81. The Certificate Holder shall have a continuing obligation during the duration of Facility construction to respond promptly to complaints of negative archeological impacts and to mitigate any negative archeological impacts through on-site design modifications and off-site mitigation techniques developed in consultation with the OPRHP Field Services Bureau.

Response 81: *National Grid will comply.*

L. Terrestrial and Wildlife Resources

82. For the portion of the Facility located in Washington County, the Certificate Holder shall limit tree clearing to between October 1 and March 31 when the Indiana bats are in their hibernacula. Tree clearing between mile 4.1 (existing structure 124 and proposed structure 42) and mile 6.3 (existing structure 144 and proposed structure 62) (the "Existing Structures 124-144 Area") shall be further limited to between October 1 and November 30 to minimize disturbance to a raptor winter concentration area known to occur in this area.

Response 82: *National Grid will comply. These areas are delineated on the EM&CP Plan and Profile Drawings in Appendix A.*

83. Immediately prior to all construction phases occurring from April 23 through August 15 on the portion of the Facility in Washington County in the Existing Structures 124-144 Area, the Certificate Holder shall survey the Facility ROW, access roads and marshaling yards in such portion of the Facility for nesting activity of the northern harrier and the upland sandpiper. The survey procedures and the proposed avoidance or mitigation measures to minimize impacts to the subject species if they are found to be nesting on the ROW shall be included in the proposed EM&CP. Only qualified individual(s) shall perform the avian survey, and each individual's qualifications shall be included in the proposed EM&CP.

Response 83: *National Grid will comply. A copy of the survey plan, which also addresses avoidance and mitigation measures, is provided in Appendix S. The individual conducting the survey shall be a qualified biologist approved by the DPS Staff.*

84. Immediately prior to all construction phases occurring from December 1 through April 15 on the portion of the Facility in Washington County in the Existing Structures 124-144 Area, the Certificate Holder shall survey the Facility ROW, access roads and marshaling yards in such portion of the Facility for the presence of wintering populations of the northern harrier and the short-eared owl. The survey procedures and the proposed avoidance or mitigation measures to minimize impacts to the subject species if they are found to be wintering on the ROW shall be included in the proposed EM&CP. Only qualified individual(s) shall perform the avian survey, and each individual's qualifications shall be included in the proposed EM&CP.

Response 84: *National Grid will comply. A copy of the survey plan, which also addresses avoidance and mitigation measures, is provided in Appendix S. The individual conducting the survey shall be a qualified biologist approved by the DPS Staff.*

85. The Certificate Holder shall promptly notify DPS Staff and the DEC Regional Natural Resources Supervisor if any threatened or endangered plant or animal species or special concern species listed in New York (the Certificate Holder shall refer to 6 NYCRR Part 182 and <http://www.dec.ny.gov/animals/7494.html> for lists of RTE species) is encountered on the Facility ROW, access roads and marshaling yards so as to determine the appropriate measures to be taken to protect such species. If necessary to protect a species or its habitat from immediate harm, the Certificate Holder shall secure the area and cease construction in the area.

Response 85: *National Grid will comply.*

86. The Certificate Holder shall develop a survey and action plan for the northern harrier, upland sandpiper, and short-eared owl to be included in the proposed EM&CP.

Response 86: *National Grid will comply. A copy of the survey and action plan is provided in Appendix S. The Henslow's sparrow has been included in the plan based on updated information provided by the NYSDEC (see response 27).*

M. Waterbodies and Wetlands

87. The Certificate Holder shall minimize adverse effects to streams, waterbodies, wetlands, and the one hundred (100) foot adjacent area associated with any State-regulated wetland during the construction, operation, and maintenance activities of the Facility.
- a) Wetland locations, and wetland adjacent areas located within the ROW or crossed by the ROW or any off-ROW access road constructed, improved or maintained for the Project, shall be delineated in the field as indicated on the proposed EM&CP drawings.
 - b) Any activities which may affect wetlands shall be designed and controlled to minimize adverse impacts, giving due consideration to the environmental features and functions of the wetlands.
 - c) The Certificate Holder shall, to the maximum extent practicable, avoid direct impacts on wetlands and construct access roads outside wetlands and adjacent areas.
 - d) Construction through wetlands shall be done with tracked equipment or on temporary mats or geotextile/gravel access roads and shall be restricted to access roads and work areas set forth in the approved EM&CP.
 - e) Equipment shall not be washed in any stream, waterbody, or wetland.
 - f) Any excess excavated material resulting from structure installation that is to be removed from any stream, waterbody, or wetland shall not be stored inside wetlands or the one hundred (100) foot adjacent areas associated with any State-regulated wetlands. Excavated excess material shall be disposed of in approved upland locations.
 - g) In wetlands, slash that is cut may be left in place (drop and lop). Any slash that is not left in place shall be removed from the wetland. No slash shall be collected and permanently piled in the wetland, whether adjacent to an access road or not.
 - h) Construction vehicle access across streams and waterbodies shall be limited to existing bridges and culverts and to temporary crossings installed in accordance with the provisions set forth in the approved EM&CP.
 - i) Vehicular access shall be prohibited where alternative access can be provided.
 - j) During periods of work activity, flow immediately downstream of the worksite shall equal flow immediately upstream of the worksite.
 - k) There shall be no increase in turbidity downstream of the construction activity that will cause a substantial visible contrast to natural conditions.

- l) Unless otherwise specified in the approved EM&CP, work in streams, when necessary, shall be prohibited between October 1 and May 31 for cold water fisheries habitat, and between March 1 and July 15 for warm water fisheries habitat.
- m) Water from dewatering operations shall be pumped into a temporary straw bale/silt fence barrier or filter bag to settle suspended silt material prior to discharge. Direct discharge to wetlands, streams, and waterbodies shall be avoided.
- n) Where direct impacts to State-regulated wetlands cannot be avoided, such impacts shall be minimized and appropriately mitigated as described in the Wetland Mitigation Plan included in the approved EM&CP. The Certificate Holder shall work with DEC to develop the Wetland Mitigation Plan, following DEC's mitigation guidelines, and include the Wetland Mitigation Plan in the proposed EM&CP.

Response 87: *National Grid will comply. The EM&CP was developed in accordance with Section 3.0 of the Best Management Practices for Article VII Electric Transmission Line Projects (Appendix F) which addresses stream and wetland protection procedures. Measures to protect and minimize disturbance to waterbodies and wetlands will be implemented throughout all phases of the Project.*

As part of the EM&CP preparation, all wetland resources, streams and waterbodies, both on and off ROW that could be impacted by the Project were delineated (flagged) in the field and identified on the EM&CP Plan and Profile Drawings. All wetlands, streams and waterbodies will be re-flagged prior to the start of construction to help ensure their protection.

Table C-1 in Appendix C lists and identifies the location of all wetlands occurring in the Project area. As shown in Table C-1, there are 76 wetlands that were identified within the Project area (which includes 3 ponds). One of the wetlands is also a New York State Department of Environmental Conservation (NYSDEC) regulated wetland (HF-1Table C-1 also puts forth a summary of all of the temporary and permanent wetland impacts associated with the construction of this Project. Permanent wetland impacts associated with the construction of the Project are considered to occur where there will be conversion of "forested wetlands" to "shrub wetlands" and where there will be the filling of wetlands for either new structure placement or construction of gravel access roads. Temporary impacts are considered to occur in all areas where timber matting is placed for the purposes of access or work pads.

National Grid submitted an application package for authorization to proceed under an individual permit to the USACOE on November 17, 2014. A conceptual wetland mitigation plan was submitted previously documenting compensate for impacts to both the State and Federally protected wetlands. A copy of the conceptual wetland mitigation plan is provided in Appendix R.

Table C-2 in Appendix C lists and identifies 56 streams and waterbodies that occur in the Project area which also includes 2 ponds and 3 drainage ditches. The table provides the location and all pertinent information for each stream as well as the proposed crossing method, if applicable. As shown in the table, 4 of the streams identified are NYSDEC-protected waterbodies (class A, B or C(TS) state designated waters) while the others are non-regulated (class C or lower or not listed). National Grid proposes to replace and upgrade an existing culvert in the regulated C(TS) stream that is crossed by an existing farm lane between proposed structures 115-116 (see drawing 101010-C-R-12-F of the EM&CP Plan and Profile Drawings). Also, an existing culvert will be used to cross the regulated AA stream that is presently crossed by a gravel driveway that is proposed for use for off-ROW access to proposed structures 22 and 23 (see drawing 101010-C-R-02A-F of the EM&CP Plan and Profile Drawings). The other two regulated C(T) streams will not be crossed by equipment.

Two major rivers, The Hudson River and the Battenkill River, are traversed by the Project ROW; however, neither River will be affected by the construction of the Facility. The Hudson River crossing is subject to Section 10 of the Rivers and Harbors Act. An application package for a modification to the existing Section 10 permit was included in the above referenced application package submitted to the USACOE on November 17, 2014. A copy of this permit and authorization will be provided to Staff and included in Appendix H upon receipt.

88. A Wetland Delineation Report shall be delivered for review to DPS Staff and DEC at least thirty (30) days prior to the filing of the proposed EM&CP.

Response 88: *National Grid has complied. It provided the Wetland Delineation Report for the Project to the DPS Staff and NYSDEC by letter dated October 15, 2013. A copy of the submittal letter can be found in Appendix H.*

89. The Certificate Holder shall secure and provide copies of the following documents to the Secretary prior to commencement of construction: all U.S. Army Corps of Engineers ("USACE") permits for construction in federal wetlands affected by the Facility, if any, necessary for construction in such Segment; the permit pursuant to §404 of the Federal Clean Water Act, if any, necessary for construction; the permit pursuant to §10 of the Rivers and Harbors Act; the SPDES General Permit; and evidence of a Federal Aviation Administration ("FAA") determination that the final design of the structures proposed for the Facility will have no impact (or will have impacts mitigated by FAA-directed modifications to such final design) on the three public-use airports that are within 20,000 feet of the Facility ROW.

Response 89: *National Grid will comply. All permits received to date are provided in Appendix H.*

90. The Certificate Holder shall inform USACE of any changes in the design of the Facility that have the potential to impact any water resources under USACE jurisdiction and shall provide a copy of such correspondence to the Secretary.

Response 90: *National Grid will comply.*

91. DEC Staff field representatives shall be permitted on the Facility site. DEC Staff field representatives will notify the DPS Staff representative and the Certificate Holder's appropriate representative of any activities that violate or may violate either the terms of the Certificate, any permits issued by DEC, and/or the Environmental Conservation Law. DPS Staff and DEC staff field representatives will cooperate in assessing site conditions and determining whether stop work authority should be exercised, or whether directing the Certificate Holder to take action to minimize further impacts to State-protected streams and State-regulated wetlands is appropriate.

Response 91: *No response required.*

N. Agricultural Resources

92. The Certificate Holder shall retain a qualified Agricultural and Soil Conservation Specialist/Inspector ("Agricultural Inspector") for each phase of Facility development, including: proposed EM&CP development and design, construction, initial restoration, post-construction monitoring and follow-up restoration. The Agricultural Inspector shall be available to provide site-specific agricultural information as necessary for proposed EM&CP development through field review as well as to have direct contact with affected farm operators, County Soil and Water Conservation Districts, Ag&Mkts and others. The Agricultural Inspector shall maintain regular contact with the Environmental Monitor or the Construction Inspector throughout the construction phase. The Agricultural Inspector shall remain on site during all Project activities on agricultural lands. The Agricultural Inspector also shall maintain regular contact with the affected farmers and County Soil and Water Conservation Districts concerning farm resources and management matters pertinent to the agricultural operations and the site-specific implementation of the approved EM&CP. Whenever the Certificate Holder submits a request for a change to the approved EM&CP that might affect agriculture, it shall consult with Ag&Mkts.

Response 92: *National Grid will comply. National Grid has retained a qualified Agricultural Inspector who has contributed to the development of the EM&CP and has initiated direct contact with affected farm operators and County Soil and Water Conservation Districts. Site-specific agricultural information obtained through direct contact with affected farm operators is included, where applicable, on the EM&CP Plan and Profile Drawings and information regarding each of the agricultural properties traversed by the Project is provided in Table D-1 in Appendix D.*

93. The Certificate Holder shall identify Black Cherry trees located on the Facility ROW near active livestock use areas during preparation of the proposed EM&CP. During the clearing phase, such vegetation shall be disposed of in a manner which prevents access by livestock.

Response 93: *Field Inspection was conducted in May 2014 and small black cherry trees were noted between Structure 28 and 29, in the fencerows and in the brushy pasture area and between Structures 29 and 30 in the brushy pasture area.*

94. In agricultural areas, logs, stumps, brush, or chips shall not be piled or buried in active agricultural fields or improved pasture.

Response 94: *National Grid will comply.*

95. As part of the line-location surveys conducted during the preparation of the proposed EM&CP, the Certificate Holder shall locate all commercial sugarbushes maintained for maple syrup production within the Facility ROW. The Certificate Holder shall attempt to adjust the centerline location to avoid such operations.

Response 95: *During the development of the EM&CP there were no commercial sugarbushes identified within the Project ROW.*

96. The Certificate Holder shall design the Facility to the extent possible to avoid or limit the placement of structures on crop fields or on other active agricultural land where the structures may significantly interfere with normal agricultural operations or activities. Where the location of a structure on such agricultural land is unavoidable, the Certificate Holder shall attempt to site the structure in a location that minimizes impact to normal farming operations.

Response 96: *National Grid will comply.*

97. During preparation of the proposed EM&CP, a detailed drainage line repair procedure shall be developed, in consultation with the local Soil and Water Conservation District, for the repair of crushed/severed clay tile and plastic drain lines. Drawings showing the generic technique to be implemented for drain line repairs shall be provided by the Certificate Holder. All new plastic drain tubing shall meet or exceed the AASHTO M252 specifications. The plan for the replacement of functional stone drainage systems severed during construction shall be prepared during the restoration phase, in consultation with Ag&Mkts and the local Soil and Water Conservation District.

Response 97: *National Grid will comply.*

National Grid has retained an agricultural specialist who has obtained information, to the extent available, regarding the locations of existing drainage lines. Letters and questionnaires regarding the location and nature of existing or planned drainage lines within agricultural property that may be affected by the Project were sent to property owners on January 31, 2013. To the extent possible, with the cooperation of the relevant farm owners and operators, the locations of all existing subsurface drain tiles have been identified on the EM&CP Plan and Profile Drawings and are listed in Table D-1 in Appendix D.

When working in these areas, the Agricultural Inspector will consult with the relevant farm owners or operators and the NRCS or Soil and Water Conservation District to determine if plans or recommendations exist for the future installation of drainage improvements in these areas. If so, construction and restoration activities will be conducted to accommodate the future plans. The Agriculture Inspector provided National Grid's Drain Tile Repair Plan to the Saratoga and Washington County Soil and Water Districts on May 22, 2014 via email. Both managers acknowledged receiving the plans and had no substantive comments or questions

During construction, the Agricultural Inspector will mark any exposed or damaged tiles that are observed and repairs will be made in accordance with the typical drawings for drain tile repairs that are included in Appendix AD. If required, a site-specific plan will be prepared in consultation with the affected farm owner or operator, Ag&Mkts and the local Soil and Water Conservation District.

Plans for the replacement of any functional stone drainage systems that are damaged during construction will be prepared in consultation with the affected farm owner or operator, Ag&Mkts and the local Soil and Water Conservation District.

98. Where construction entrances are required from public roadways to the Facility ROW in agricultural fields, an underlayment of durable, geotextile fabric shall be placed over the exposed subsoil surface prior to the use of temporary gravel access fill material. In locations where underground utilities are located within 10 feet of the shoulder of the roadway, the Certificate Holder may elect, in order to minimize disturbance and protect the underground utilities, to place

the geotextile fabric directly over the surface without stripping topsoil. In locations where underground utilities are located 10 feet or more from the shoulder of the roadway but still within the limits of the construction entrance, the Certificate Holder may elect to mat over the underground utilities instead of placing geotextile fabric and gravel access fill material. Complete removal of the construction entrance upon completion of the Facility and restoration of the affected site is required prior to topsoil replacement, except where retention of the construction entrance would be more conducive to the existing land use than removal.

Response 98: *National Grid will comply.*

99. Segments of farm roads utilized for access shall be improved as required following consultation with the farm operator and Ag&Markets prior to use. Such improvements shall include the installation of geotextile fabric and crushed stone.

Response 99: *National Grid will comply. The location of all farm roads proposed to be used for access are shown on the EM&CP Plan and Profile Drawings and are summarized in Table D-1 in Appendix D.*

100. The Certificate Holder shall rebuild to as-good or better condition, at or prior to completion of construction, any of the following that is damaged by construction: (i) fences and gates on the Certificate Holder's fee-owned ROW that are not incompatible with the Facility; (ii) fences and gates off of the Certificate Holder's fee-owned ROW; and (iii) any farm drainage features. The base of all new posts shall be secured to a reasonable depth below the surface to prevent frost heave.

Response 100: *National Grid will comply.*

101. Where repeated temporary access is necessary across agricultural portions of the Facility ROW, topsoil shall be removed, including all of the "A" horizon down to the beginning of the subsoil "B" horizon, generally not to exceed a maximum of 12 inches. Topsoil removal up to a depth of 16 inches may be required in specially-designated soils encountered along the route. All topsoil shall be stockpiled directly adjacent to the travel way on the Facility ROW and separated from other excavated materials. The Agricultural Inspector shall determine depth of topsoil stripping on each affected farm by means of the County Soil Survey and on-site soil augering, if necessary. All topsoil material shall be stripped, stockpiled, and uniformly returned to restore the original soil profile. During the clearing/construction phase, site-specific depths of topsoil stripping shall be monitored by the Agricultural Inspector.

Response 101: *National Grid will comply.*

102. Mats may be installed as an alternative to topsoil stripping. If so, the mats shall be layered where necessary to provide a level access surface. Once access is no longer required across agricultural areas, the mats shall be removed and the Agricultural Inspector shall use a soil penetrometer to determine if soil compaction has occurred as a result of construction activities. All compacted areas shall be remediated as specified below.

Response 102: *National Grid will comply. All compacted areas will be restored as specified in Certificate Condition 105 below and as described in Section 4 of Appendix F.*

103. In agricultural areas of till over bedrock where blasting is required, the Certificate Holder shall use matting or controlled blasting to limit the dispersion of blast rock fragments. All blasted rock not used as backfill shall be removed from croplands, hay lands and improved pastures. The till and topsoil shall be returned in natural sequence to restore the soil profile. Farm owners/operators shall be given timely notice prior to blasting on farm property.

Response 103: *No blasting is anticipated at this time. National Grid will comply with this Certificate Condition and will provide timely notification if blasting becomes necessary.*

104. Temporary work space in agricultural areas shall be of sufficient size to allow for positioning of conductor reels, tensioners, pullers, wire spools and other mechanized equipment required during pulling activities.

Response 104: *National Grid will comply.*

105. In all agricultural sections of the Facility ROW disturbed during construction, the Certificate Holder shall break up the subsoil compaction to a depth of 18 inches (unless bedrock is encountered at a depth less than 18 inches) with deep tillage by such devices as a deep-ripper (subsoiler). Final soil compaction results shall not be more than 250 pounds per square inch (PSI) as measured with a soil penetrometer. Following the deep ripping, all stone and rock material 4 inches and larger in size which has been lifted to the surface shall be collected and taken off site for disposal. The topsoil that has been temporarily removed for the period of construction shall then be replaced. Finally, deep subsoil shattering shall be performed with a subsoiler tool having angled legs. Stone removal shall be completed, as necessary, to eliminate any additional rocks and stones brought to the surface as a result of the final subsoil shattering process. Should subsequent construction and/or restoration activities result in compaction, then restoration activities shall include additional deep tillage.

Response 105: *National Grid will comply.*

106. All structures and guy anchors removed from agricultural areas as part of the construction activities shall be removed to a minimum depth of 48 inches below the soil surface. All holes or cavities created by the removal of the old facilities shall be filled to the same level as the adjacent area, plus 6 to 12 inches of additional soil to allow for settling. All material used for fill shall be similar to native soil. All fill material shall be compacted.

Response 106: *National Grid will comply.*

107. Wherever existing structures are removed from agricultural fields, the area shall be restored to allow agricultural activities. Such restoration shall include the removal of all vegetation from the structure area and grading of the ground surface to match the adjacent field. All rocks 4 inches and greater in size shall be removed from the surface.

Response107: *National Grid will comply.*

108. Excavated subsoil material and stockpiled topsoil shall be used to restore the original soil profile at new structure locations. All holes or cavities created by structure installation shall be filled to the same level as the adjacent area, plus 6 to 12 inches of additional soil to allow for settling. Excess substratum material not used for backfill shall be removed from agricultural areas.

Response 108: *National Grid will comply.*

109. At the end of all construction, the Facility ROW and respective work areas, including guying wire assembly and disassembly sites, shall be thoroughly cleared of debris such as nuts, bolts, spikes, wire, pieces of steel, and other assorted items.

Response 109: *National Grid will comply.*

110. The Certificate Holder shall provide a monitoring and remediation period of two growing seasons following completion of Facility ROW restoration in active agricultural areas. The Certificate Holder shall retain the services of an Agricultural Inspector on at least a part-time basis through this period. The monitoring and remediation phase shall be used to identify any remaining agricultural impacts associated with Project construction that are in need of mitigation and to implement the follow-up restoration. During this phase, the Agricultural Inspector shall maintain a list of invasive species observed on the Facility ROW in agricultural areas. In locations where invasive species are documented, the Certificate Holder will determine whether such species were present during the pre-construction survey of invasive species on the ROW. If the species were not noted prior to construction, the Certificate Holder shall consult with the farm operator, DPS Staff and Ag&Mkts to determine the appropriate control measures to implement.

Response 110: *National Grid will comply.*

111. During the monitoring and remediation period, on-site monitoring shall be conducted at least three times during each growing season and shall include a comparison of growth and yield for crops on and off the Facility ROW. When the subsequent crop productivity within the affected ROW is less than that of the adjacent unaffected agricultural land, the Agricultural Inspector, in conjunction with the Certificate Holder and other appropriate organizations, shall help to determine the appropriate rehabilitation measures for the Certificate Holder to implement (soil de-compaction, topsoil replacement, etc.).During the various stages of the Project, all affected farm operators shall be periodically apprised of the duration of remediation by the Agricultural Inspector. Because conditions which require remediation may not be noticeable at or shortly after the completion of construction, the signing of a release form prior to the end of the remediation period shall not obviate the Certificate Holder's responsibility to fully redress all Facility impacts. After completion of the specific remediation period, the Certificate Holder shall continue to respond to the reasonable requests of the farmland owner/operators to correct Facility-related effects on the impacted agricultural resources.

Response111: *National Grid will comply.*

112. The Certificate Holder shall provide all farm owners/operators with a toll-free or local telephone number to facilitate direct contact with the Certificate Holder and the Agricultural Inspector(s) through all of the stages of the Project. The farm owner/operators shall also be provided with a toll-free or local telephone number to facilitate direct contact with the Certificate Holder's Project Manager for the Facility during operation and maintenance of the transmission line.

Response 112: *National Grid will comply. All farm owners/operators will also be provided with a post construction contact number for concerns during the future operation and maintenance of the transmission line. Contact numbers are provided in Appendix K of this EM&CP document.*

113. The Agricultural Inspector shall work with the farm operators during the planning phase to develop a plan to delay the pasturing of the Facility ROW, following construction until pasture areas are adequately revegetated. The Certificate Holder shall be responsible for maintaining the temporary fencing on the Facility ROW until the Agricultural Inspector determines that the vegetation on the ROW is established and able to accommodate grazing. At such time, the Certificate Holder shall be responsible for removal of the fences.

Response 113: *National Grid will comply.*

114. On affected farmland, restoration practices shall be postponed until favorable (workable, relatively dry) topsoil/subsoil conditions exist. Restoration shall not be conducted while soils are in a wet or plastic state. Stockpiled topsoil shall not be regraded until plasticity, as determined by the Atterberg field test, is significantly reduced. No restoration activities shall occur in agricultural fields between the months of October through May unless favorable soil moisture conditions exist. The Certificate Holder shall monitor and advise Ag&Mkts and DPS Staff regarding tentative restoration planning. Potential schedules shall be determined by conducting the Atterberg field test at appropriate depths into topsoil stockpiles, and below the traffic zone for a mutual determination of adequate field conditions for the restoration phase of the Project.

Response 114: *National Grid will comply.*

115. Following restoration of all disturbed areas, excess topsoil shall be distributed in agricultural areas of the site, provided this is practicable and can be accomplished without having any adverse impact on site drainage. All such activity shall be as directed by the Agricultural Inspector, based on guidance provided by the landowner.

Response 115: *National Grid will comply.*

116. After the moisture of the soil profile on the affected portion of the Facility ROW has returned to equilibrium with the adjacent off-ROW land, subsoil compaction shall be tested using an appropriate soil penetrometer or other soil-compaction measuring device.

Response 116: *National Grid will comply.*

117. Topsoil stockpiles on agricultural areas left in place prior to October 31 shall be seeded with Aroostook Winter Rye or equivalent at an application rate of 3 bushels (168 #) per acre and mulched with straw mulch (or another material acceptable to the Agricultural Inspector) at a rate of 2 to 3 bales per 1000 Sq. Ft. Topsoil stockpiles left in place between October 31 and May 31 shall be mulched with straw mulch (or another material acceptable to the Agricultural Inspector) at a rate of 2 to 3 bales per 1000 Sq. Ft. Straw mulch (or another material acceptable to the Agricultural Inspector) shall be used to prevent soil loss on stockpiled topsoil from October through May.

Response 117: *National Grid will comply.*

118. After topsoil replacement, seedbed preparation (final tillage, fertilizing, liming) and seeding shall follow either Ag&Mkts recommendations as contained in *Fertilizing, Lime and Seeding Recommendations for Restoration of Construction Projects on Farmlands in New York State* (revised 9-25-2012) or landowner specifications.

Response 118: *National Grid will comply. A copy of the document entitled "Fertilizing, Lime and Seeding Recommendations for Restoration of Construction Projects on Farmlands in New York State" (revised 9-25-2012) is provided in Appendix T.*

O. Petroleum and Hazardous Substances

119. The proposed EM&CP shall include Fuel and Chemical Handling Procedures, and a spill response and route emergency plan, including the DEC spill reporting number. This plan shall provide proposed methods of handling spills of petroleum products and any hazardous or controlled substance which may be stored or utilized during construction, operation, or maintenance of this Facility.

Response 119: *National Grid has complied. National Grid and its Contractors will implement precautions during the storage, handling and transporting of fuels, oils, chemicals and other potentially harmful substances to avoid spills and releases to the environment. National Grid and its Contractors will take precautions to prevent spillage and will not store, mix, or load these materials beneath trees or within 100 feet of any wetlands, river, stream, or other body of water. Any hazardous substances will be transported, stored and handled as recommended by suppliers and/or manufacturers and in compliance with all applicable federal or state regulations. Specific procedures for the handling of petroleum and chemicals are put forth in Section III B, Responses B14a and B14b of this EM&CP.*

Typical chemicals and waste anticipated for the Project are identified in Table V-1 in Appendix V along with copies of National Grid's spill reporting and cleanup procedures. A list of emergency contact personnel and area hospitals and a map showing the location of the nearest hospitals are provided in Appendix K.

120. The Certificate Holder shall comply with §175 of the Navigation Law, 6 NYCRR §613.8 (petroleum spills) and 6 NYCRR §595.3(b) (hazardous substance spills).

Response 120: *National Grid will comply.*

P. Contractors and Contractor Supplies/Materials

121. At least two weeks prior to construction, the Certificate Holder shall submit a report to the Secretary confirming that all required construction materials are available. For purposes of this paragraph, an item of construction material is available (i) if it is located at a marshaling yard, (ii) if it's in a Certificate Holder warehouse or other routine Certificate Holder inventory stocking location, or (iii) if it's on order from a vendor with a scheduled delivery date prior to the time scheduled for its use in the Project.

Response 121: *National Grid will comply.*

122. All equipment shall be located at the marshaling yard(s) or on the Facility ROW, provided, however, that if a local contractor is used for the work, the local contractor's facility shall be considered an acceptable marshaling yard.

Response 122: *National Grid will comply. Marshaling yard locations are shown on the EM&CP Plan and Profile Drawings and summarized on Table N-3 in Appendix N.*

123. DPS Staff will provide the name of a contact person(s) ("DPS Staff Representative") and the contact information (mailing address, phone number, e-mail, etc.) of that individual for purposes of this ordering clause and ordering clause numbers 124 through 128 of this Certificate. If a reportable accident occurs in connection with work on the Project, the Certificate Holder shall report any such accident to the DPS Staff Representative as soon as possible. A copy of the accident report, if any, shall be provided to the DPS Staff Representative after it has been finalized.

Response 123: *National Grid will comply.*

124. The Certificate Holder shall provide the DPS Staff Representative with a monthly audit report reflecting material inventory and usage.

Response 124: *National Grid will comply.*

125. The Certificate Holder shall provide the DPS Staff Representative with a copy of any police report and any insurance claim filed in connection with any theft of Project-related materials, as well as a list of the stolen items. Subsequently, the Certificate Holder shall provide the DPS Staff Representative with an accounting of all replacement materials. The accounting of replacement materials shall include documentation of the insurance company's coverage and the contractor's costs for replacement.

Response 125: *National Grid will comply.*

126. Within six (6) months following completion of Project restoration, the Certificate Holder shall provide to the DPS Staff Representative a full accounting of all Project costs incurred to date, including an explanation of variances, if any, between projected and actual costs.

Response 126: *National Grid will comply.*

127. A field review shall be conducted by the Certificate Holder to determine compliance with its design on a bi-weekly basis and prepare a written report of the firm's findings on whether the Project is being constructed in accordance with the approved EM&CP design for the Project. The Certificate Holder shall provide a copy of each such report to the DPS Staff Representative within three (3) business days after the Certificate Holder receives the report. The Certificate Holder shall notify the DPS Staff Representative of when the field reviews will occur.

Response 127: *National Grid will comply.*

128. If the Contractor installs incorrect materials, structures, or components, the Certificate Holder shall, within one month after becoming aware of such incident, prepare and deliver to the Secretary a summary report detailing the incident, the steps to be taken to rectify the mistake, the material and labor costs associated with rectifying the incident, and the manner in which such costs will be accounted for separately from other Project costs.

Response 128: *National Grid will comply.*

129. The Certificate Holder shall develop a quality control plan ("Quality Control Plan") for inclusion in the EM&CP describing how it will ensure that the transmission line structures and components it purchases for the Project conform to the specification for structures and components described in the approved EM&CP. At a minimum, the Quality Control Plan shall include: (i) the name(s) and qualifications of the individual(s) who will conduct audits under the Quality Control Plan ("Quality Control Audits"); and (ii) the frequency with which the Quality Control Audits will be performed.

Response 129: *National Grid has complied. A copy of the Quality Control Plan is provided in Appendix U.*

130. Within 5 days following completion of each Quality Control Audit, the Certificate Holder shall provide to Staff a report of such audit that includes: (i) a description of the results of the audit, particularly with respect to results that identify that one or more structures or components the Certificate Holder purchased for installation in the Project did not conform to the specification for structures or components described in the approved EM&CP; and, (ii) any notes pertinent to the subject matter of such audit which were made at audit meetings by Certificate Holder personnel and contractors who performed the audit.

Response 130: *National Grid will comply.*

131. If any Quality Control Audit conducted by the Certificate Holder identifies that one or more structures or components the Certificate Holder purchased for installation in the Project did not conform to the specification for structures and components described in the approved EM&CP, the Certificate Holder shall: (i) provide written notification to the Secretary within 24 hours of the Certificate Holder's discovery of such non-conformity; and (ii) describe the steps the Certificate Holder will take to correct the non-conformity, including whether any components must be

dismantled and sent back to the manufacturer, as well as a detailed estimate of all costs and expected delays in construction resulting from such non-conformity.

Response 131: *National Grid will comply.*

132. All costs incurred by the Certificate Holder as a result of its purchase of a structure or component for installation in the Project that did not conform to the specification for structures and components described in the approved EM&CP shall be accounted for separately from the Certificate Holder's overall Project costs.

Response 132: *National Grid will comply.*

133. To better ensure a safe working environment for all persons at each Project work site, the Certificate Holder shall require its contractors or subcontractors, before any person who is authorized by the Certificate Holder to be present at the site that day, or any representative of a regulatory agency present on official business, commences performing or observing Project activities, to give such person an on-site tailboard safety briefing. The Certificate Holder shall ensure that: (a) any document that a person participating in a tailboard safety briefing is required to sign at such briefing is legible; and (b) the person conducting the briefing shall use his/her best efforts to give accurate and complete responses to all requests by such persons for clarification of the scope of work, construction methodology, and other pertinent personal safety information. If a person participating in a tailboard safety briefing who signed such a document desires a copy thereof, he/she shall request it in writing and the Certificate Holder shall provide a copy thereof to the requester within 48 hours of the request.

Response 133: *National Grid will comply.*

Q. Invasive Species

134. The Certificate Holder shall perform the following activities to identify and address potential invasive species hazards:

a) Meet with the appropriate representatives of DPS Staff, DEC's Regional Natural Resource Section and Ag&Markets to determine plant and insect species of special concern i.e. invasive species which present an environmental or human health hazard that warrants the prescription of measures to control the spread or eradication, of such species during construction ("Invasive Species of Special Concern"). Each invasive species is to be considered in its landscape context, such as whether a species is contributing positively to vegetation management of the ROW and whether the same species has been observed, or is otherwise known to be abundant, on adjacent lands. Minutes of such meeting(s) shall be included in the proposed EM&CP.

- b) The previously-conducted invasive species survey shall be updated by a new field survey that inventories only the Invasive Species of Special Concern along or within the existing or proposed ROW.
- c) Include on the proposed EM&CP drawings the locations of Invasive Species of Special Concern.

- d) In order to prevent the potential introduction of invasive species from other areas or regions to the Project area: require that vehicles, equipment, and materials (including mats) be inspected for, and cleaned of, any visible soils, vegetation, insects, and debris before bringing them to the Project area. On a site-by-site basis and as prescribed on the approved EM&CP drawings, equipment and material shall be cleaned prior to leaving the ROW. The cleaning method shall include, but not be limited to, brushing, scraping and/or the use of compressed air to remove visible soils and vegetation. Any matter cleaned from equipment and material shall remain within the infested area.
- e) Where practicable, in upland areas identified for invasive species control, brush and wood shall be chipped into a layer of at least six (6) inches over access pathways on the ROW, thus providing a barrier between plant material and equipment. Areas where this shall be implemented shall be noted on the proposed EM&CP drawings. The condition of this access shall be monitored by the Environmental Monitor during construction. Provided this barrier remains intact, the Environmental Monitor may exempt specific types of potential transporters, e.g., pickup trucks and pedestrians, from cleaning requirements.
- f) Project contractor(s) and subcontractor(s) shall be trained on the various cleaning methods to be used on the Project.
- g) Minimize ground disturbances and vegetation removal as much as possible. The contractor(s) and subcontractor(s) shall be instructed to stay within access paths and work areas that are designated on the approved EM&CP drawings.
- h) Any transported fill materials, topsoil, and mulches shall come from sources visibly free of invasive species.
- i) Stabilization and re-vegetation of disturbed sites shall utilize seed and other plant materials that have been checked and certified as noxious-weed-free and that have a labeled weed content that does not exceed the weed content maximums for such seeds under Agriculture and Markets Law Section 138(A)(4).
- j) Removal of any wood from the ROW shall be pursuant to the DEC's firewood regulations to protect forests from invasive species found in 6 NYCRR Part 192, and any applicable DEC quarantine orders and/or Ag&Markets quarantine regulations.
- k) Clearing crews shall be trained to identify the Asian Long horned Beetle, the Emerald Ash Borer, and any other insects that the DEC identifies as a potential problem. If evidence of the existence of these insects is found, they shall be reported immediately to the appropriate DEC regional forester.
- l) The Certificate Holder shall monitor DEC-regulated Wetland HF-1 for two growing seasons following completion of Facility ROW restoration. The monitoring phase shall be used to identify any wetland impacts associated with Project construction, including noting (i) the presence in such wetland of invasive species not present during the pre-construction surveys on the ROW, and (ii) any increase in such wetland in the density of invasive species present during the pre-construction surveys on the ROW. If the species were not noted prior to construction, or their density has increased, the Certificate Holder shall consult with DEC's Regional Natural Resource Section, DPS Staff, and Ag&Markets to determine whether appropriate control measures are warranted to preserve wetlands functions and values for such wetland.

Response 134: *National Grid will comply. A meeting with National Grid, DPS Staff, NYSDEC(Regional and Central Office) and Ag&Mkts was held on November 5, 2013 to develop a list of Invasive Species of Special Concern for the Project. Correspondence documenting the results of the meeting is provided in Appendix H. The list of Invasive Species of Special Concern that was developed as a result of the meeting is provided in Appendix M along with a management plan for invasive species that was developed to help prevent the introduction of new invasive species and control the transport of existing invasive species along the Project ROW. The locations of invasive species as they occur along the Project ROW are shown on the EM&CP Plan and Profile Drawings and on the figures in Appendix M .*

R. Water Quality Certification

135. Concurrent with Commission approval of the EM&CP for this Project, the Director of the OEEE, pursuant to §401 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §1341, and PSL Article VII, will execute the certification, substantially in the form of Appendix F to the Joint Proposal, that the Facility will comply with the applicable requirements of §§301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act, as amended, and will not violate New York State water quality standards and requirements.

Response 135: *No response required.*

III. SPECIFICATIONS FOR THE DEVELOPMENT OF ENVIRONMENTAL MANAGEMENT AND CONSTRUCTION PLAN

Section A of the Specifications for the Development of Environmental Management and Construction Plan (“Specifications”) addresses the development of the EM&CP drawings including plan and profile drawings, and maps portion of the Environmental Management and Construction Plan (“EM&CP”).

Section B addresses the description and statement of objectives, techniques, procedures, and requirements, i.e. the textual portion of the EM&CP. If any particular requirement of the Specifications is not applicable, so indicate and briefly explain.

A. EM&CP Plan and Profile Drawings and Maps

The EM&CP maps, charts, photo strip maps, and illustrations shall include, but need not be limited to, all of the following information:

1. Plan and Profile Details

A Line¹ Profile (at an appropriate scale) and plan drawings (scale minimum 1 inch = 200 feet)² showing:

- a. The boundaries of any new, existing, and/or expanded right-of-way (ROW)³ or road boundaries, and where cables are to be constructed overhead or underground; plus areas contiguous to the ROW or street within which the Certificate Holder will obtain additional rights.
- b. The location of each Facility structure (showing its height, material, finish and color, and type), structural foundation type (e.g., concrete, direct bury), fence, gate, down-guy anchor, and any counterpoise required for the Facility (typical counterpoise drawings will suffice recognizing that before field testing of installed structures the Certificate Holder may be unable to determine the specific location of all required counterpoise), conductors, insulators, splices, and static wires and other components attached to Facility structures.
- c. Existing utility and non-utility structures on the ROW, and indicate those to be removed or relocated (include circuit arrangements where new structures will accommodate existing circuits, indicate methods of removal of existing facilities, and show the new locations, types and configurations of relocated facilities). Depict each Facility conductor’s clearance from the nearest overhead distribution or communications facility.
- d. Any underground utility or non-utility structure.

¹The lowest conductor of an overhead design shall be shown in relation to ground at the maximum permissible conductor temperature for which the line is designed to operate, i.e., normally the short-time emergency loading temperature specified by the New York ISO. If a lesser conductor temperature is used for the line profile, the maximum sag increase between the conductor temperature and the maximum conductor temperature shall be indicated for each ruling span. For underground Project design, show relation of Project to final surface grade, indicating design depth-of-cover.

²Contour lines (preferably at 5-foot intervals) are desirable on the photo strip map if they can be added without obscuring the required information.

³The term “right-of-way” in these Specifications includes property, whether owned in fee or easement, to be used for substations, disposal sites, underground terminals, storage yards, and other associated facilities. Where such properties cannot reasonably be shown on the same plan or photo-strip, maps, or plan drawings used for the transmission line, additional maps or drawings at convenient scales should be used.

- e. The relationship of the Facility to nearby fence lines; roads; railways; airfields; property lines; hedgerows; fresh surface waters; wetlands; other water bodies; significant habitats; associated facilities; flowing water springs; nearby buildings or structures; major antennas; oil or gas wells, and blowdown valves.
- f. The location of any proposed new or expanded switching station, substation, or other terminal or associated utility or non-utility structure (attach plan⁴- plot, grading, drainage, and electrical - and elevation views with architectural details at appropriate scales). Indicate the type of outdoor lighting, including design features to avoid off-site illumination and minimize glare; the color and finish of all structures; the locations of temporary or permanent access roads, parking areas, construction contract limit lines, property lines, designated floodways and flood-hazard area limits, buildings, sheds, relocated structures, and any plans for water service and sewage and waste disposal.
- g. The location and boundaries of any areas whether located on- or off- ROW proposed to be used for fabrication, designated equipment parking, staging, access, lay-down, and conductor pulling and splicing. Indicate any planned fencing, surface improvements, and screening of storage and staging areas.
- h. The locations for ready-mix concrete chute washout and any other cleaning activities (e.g., control of invasive species).

Response A1a: *National Grid has complied. The boundaries of any new, existing and/or expanded ROW or road boundaries and where cables are to be constructed overhead or underground plus areas contiguous to the ROW or street within which National Grid will obtain additional rights are shown on the EM&CP Plan and Profile Drawings in Appendix A. The rebuild and reconductoring will occur primarily within the existing ROW which, with few exceptions, National Grid owns in fee for the entire length of the Facility. However, National Grid will need to acquire new permanent rights (easements) on land that lies beyond the existing ROW for vegetation management, danger tree clearance, construction work space, environmental mitigation measures and access roads. The typical permanent easement required will be a 15 to 25 foot wide strip adjacent to the Company's fee owned ROW. In addition, Danger Tree rights will be acquired for the entire length of the Facility in those select areas where the Company does not currently have such rights. Permanent easements will also be acquired for wetland mitigation. The proposed wetland mitigation sites are shown on drawings 101010-C-R-03-F and 07-F of the EM&CP Plan and Profile Drawings.*

Response A1b: *National Grid has complied. The location of each facility structure, the proposed structure type, height, finish, and foundation type is depicted on the EM&CP Plan and Profile Drawings in Appendix A. Appendix AA provides detailed drawings for the proposed structure types and indicates specific dimensions for structure arms and phase spacing along with applicable hardware assemblies associated with each structure., Appendix AB provides detailed hardware assembly drawings associated with the Project. Existing and proposed fences and examples of temporary guard structures to be installed for the wire-stringing phase at road and underbuilt overhead utility crossings also are shown. Each type of structure and configuration showing size, type, and down-guy anchor, as well as conductors, insulators and static wires and other components attached to Project structures are listed at each structure location and on tables included on the EM&CP Plan and Profile Drawings in Appendix A.*

Response A1c: *National Grid has complied. The locations of existing utility and non-utility structures on the ROW are shown on the EM&CP Plan and Profile Drawings in Appendix A. Locations where existing*

⁴Preferably 1" = 50' scale with 2-foot contour lines.

utility and non-utility structures will be removed or relocated are annotated accordingly. The Facility's conductor clearances from existing distribution and communication facilities and from any proposed relocated distribution or communication facilities are also shown on the EM& CP Plan and Profile Drawings.

Response A1d: National Grid has complied. All known underground utility and non-utility structures are shown on the EM&CP Plan and Profile Drawings in Appendix A. Underground facilities were identified based on observable above ground features, design Dig Safe information and input from adjacent landowners.

Response A1e: National Grid has complied. The location of the Facility in relationship to nearby fence lines, roads, railways, airfields, property lines, hedgerows, fresh surface waters, wetlands, other water bodies, significant habitats, associated facilities, flowing water springs, nearby buildings or structures and major antennas is shown on the EM&CP Plan and Profile Drawings in Appendix A. There are no oil or gas wells or blowdown valves in the Project area.

Response A1f: No response required. There are no new or expanded switching station, substation, or other such terminal or associated facilities proposed for the Project.

Response A1g: National Grid has complied. The location and boundaries of any areas, whether located on- or off- ROW, proposed to be used for fabrication, designated equipment parking, staging, access, lay-down, and conductor pulling and splicing along with any planned fencing and surface improvements are shown on the EM&CP Plan and Profile Drawings in Appendix A. There is no screening planned for any storage or staging area.

Work pads at structure locations are shown on the EM&CP Plan and Profile Drawings. Work pads will typically be 100' x 125' in areas where proposed structures are offset from the existing by 40 feet. This work pad size is based on the need to install new concrete caisson or steel vibratory caisson foundations, stage poles for the proposed structures, and to allow for the existing structures to be removed. In areas where the proposed structures are to be set 20 feet from the existing, work pad dimensions are proposed to be generally 100' x 125' to ensure that the work pad fits within the existing right-of-way but still provides adequate space for equipment and material along with the removal of existing structures. In areas where the proposed structures are to be offset from the existing structures by five (5) feet, the work pad dimensions are to be approximately 100' x 150'. These dimensions are based on the present anticipated need to utilize live line equipment or a temporary structure to offset energized conductors from the construction work space, the need to stage materials and equipment for the proposed structures, and the need to remove the existing structures. It is noted that in most cases, the entire work pad area will not be significantly disturbed. A smaller area within the perimeter of the designated work pad will require slight grading or matting to provide a level work area for equipment and activities necessary to install the structure (e.g. bucket trucks, cranes, concrete trucks, etc.). This area will vary on a site by site basis based on topography, environmental constraints and safety considerations. The area not used for equipment and construction activities will be dedicated to material storage, concrete washout activities, stockpiling of soils (when permissible), and other such activities. Select work pads have been designated engineered grading plans due to local topography. These grading plans seek to maximize the existing constructible area in the smallest footprint practical to safely construct the proposed structure and remove the existing structure. Grading plans associated with these work pads can be found in Appendix Z.

Pull site locations are 100' x 125' and are shown on the EM&CP Plan and Profile Drawings. Wire pulling and tensioning equipment will be set up in these areas. The area used to stage wire pulling and

tensioning equipment will not encompass the entire footprint of the work pad. The additional area is required to provide sufficient space in which the pulling and tensioning equipment can be aligned to best suit the wire pulling activities. Similar to the work pads discussed above, in most cases, the entire pull site location will not be significantly disturbed. Typically only a smaller area within the perimeter of the designated pull site will require light grading or the use of timber matting to create a level surface for construction equipment. It should be noted that as the Company intends to mow for wire pulling activities, no visual connection is shown between the wire pulling pad and the work pad. Should this detail change, the Company will amend the EM&CP Plan and Profile Drawings to reflect the required mowing between the structure work pad and the wire pulling work area.

Additional off-ROW locations for laydown areas (equipment and material storage and parking) for storage and other contractor-related activities have been identified on the EM&CP Plan and Profile Drawing Index Maps. A summary of off-ROW access requirements is provided in Table N-1 of Appendix N.

Response A1h: National Grid has complied. The location of the concrete washout stations are not depicted on the EM&CP Plan and Profile Drawings. Rather the final locations of the concrete washout stations will be located within the bounds of the work pads and final placement shall be made based upon coordination with the Construction Inspector or appropriate designee and the Environmental Monitor. The discharge/runoff will be captured and then removed from the site and disposed of at an approved off-site location.

The general locations of invasive species cleaning stations are shown on the EM&CP Plan and Profile Drawings. The proposed locations are based on the results of the invasive species inventory which can be found in Appendix M. Vehicles, equipment and materials (including matting) will be cleaned of any visible soils, vegetation, insects and debris at the stations and the accumulated matter will remain in the invasive infested area of the ROW. The specific locations of the invasive species cleaning stations shall be coordinated between the Construction Inspector or appropriate designee and the Environmental Monitor.

2. Stormwater Pollution Prevention

- a. Include on the EM&CP drawings the approved Stormwater Pollution Prevention Plan (SWPPP) details. Include the locations of soil erosion and sediment control measures developed in accordance with the latest version of the New York Standards and Specifications for Erosion and Sediment Control (e.g., stabilized construction entrances, silt fences, check dams, and sediment traps).
- b. Include on the EM&CP drawings the approved SWPPP locations of all permanent stormwater management controls that are required based on site-specific conditions or conditions of the Certificate.

Response A2: National Grid has complied. All erosion and sediment control measures prescribed in the SWPPP along with the locations of all permanent stormwater management controls are shown on the EM&CP Plan and Profile Drawings. A copy of the approved SWPPP document is provided in Appendix G.

3. Vegetation Clearing and Disposal Methods

Identify on the EM&CP drawings:

- a. the locations of sites requiring trimming or clearing of vegetation and the geographic limits of such trimming or clearing;
- b. the specific methods for the type and manner of cutting and disposition or disposal method for cut vegetation (e.g., chip; cut and pile; salvage merchantable timber, etc.);
- c. the methods for management of vegetation to be cut or removed at each site;
- d. any geographical area bounded by distinctly different cover types requiring different cut-vegetation management methods;
- e. any geographical area bounded at each end by areas requiring distinctly different cut-vegetation methods due to site conditions such as land use differences, population density, habitat or site protection, soil or terrain conditions, fire hazards, or other factors;
- f. different property-owners requesting specific vegetation treatment or disposal methods;
- g. desirable vegetation species;
- h. areas requiring (off-ROW) danger tree removal; and,
- i. the location of any areas where specific vegetation protection measures will be employed and the details of those measures to avoid damage to specimen tree stands of desirable species, important screening trees, or hedgerows.

Response A3: *National Grid has complied. All areas that require the trimming, clearing or mowing of vegetation as well as the prescribed slash disposal types are shown on the EM&CP Plan and Profile Drawings. A description of each clearing and slash disposal method as well as the rationale for using each method can be found in Section 2 of Best Management Practices For Article VII Electric Transmission Line Projects in Appendix F and on the Notes Pages for the EM&CP Plan and Profile Drawings in Appendix A. Lists of desirable low growing tree and shrub species that may, depending on site specific characteristics and location, be compatible with the Facility can also be found in Section 2 of Appendix F.*

4. Building and Structure Removal

Indicate the locations of any buildings or structures to be acquired, demolished, moved, or removed.

Response A4: *National Grid has complied. There is one pole barn storage building that has been removed. The building was located on the south side of Bald Mountain Road on the east side of the Facility ROW in the vicinity of proposed structure 102 and is shown on drawing 101010-C-R-10-F 10 of the EM&CP Plan and Profile Drawings.*

5. Waterbodies

- a) Indicate the name, water quality classification and location of all rivers and streams, (whether perennial and intermittent) and drainages crossed by, the proposed ROW or any off-ROW access road constructed, improved or maintained for the Facility. On the EM&CP drawings, indicate:
 - i. stream crossing method and delineate any designated streamside “protective or buffer zone” in which construction activities will be restricted to the extent necessary to minimize impacts on rivers and streams;

- ii. the activities to be restricted in such zones; and,
 - iii. identify any designated floodways or flood hazard areas to be traversed by the Facility or access roads, or otherwise used for Facility construction or the site of associated facilities.
- b) Show the location of all potable water sources, including springs and wells on the ROW or within 100 feet of the ROW or access roads indicating on a site-by-site basis, precautionary measures to be taken to protect each water source.

Response A5a: *National Grid has complied. Field-verified aquatic resources and waterbodies are shown on the EM&CP Plan and Profile Drawings in Appendix A and keyed into Table C-2 in Appendix C where the waterbody name, water quality classification, water index number, GPS coordinates and proposed crossing method, if applicable, are provided in tabular form. All streams are considered to have a 100 foot buffer zone on each side which will be marked in the field by the Environmental Monitor prior to construction. Activities restricted in streamside buffer zones are listed in Section 3.0 of Best Management Practices For Article VII Electric Transmission Line Projects in Appendix F and are also put forth in Certificate Conditions 87a -87n. Available floodways data in the form of FEMA 100-year floodplains is also shown on the EM&CP Plan and Profile Drawings.*

Response A5b: *National Grid has complied. National Grid consulted the Saratoga and Washington County Departments of Health for known locations of potable water sources and contacted all adjacent landowners to obtain information regarding potable water sources on or near the Facility ROW. Based on this information, there are no potable water supplies (wells) located on the Facility ROW and only one potable water supply within 100 feet of the Facility ROW. The known potable water supply (residential well) is located on the west side of the Facility ROW in the vicinity of proposed structure 13 and is shown on drawing 101010-C-R-02-F of the EM&CP Plan and Profile Drawings. It is noted that a waterline used for drinking water (2" PVC water service) was identified on the Facility ROW and is shown on drawing 101010-C-R-02-F of the EM&CP Plan and Profile Drawings in the vicinity of proposed structure 20.*

6. Wetlands

- a) All wetlands and wetland 100-foot adjacent areas ("adjacent areas") located within the ROW or crossed by the ROW or any off-ROW access road constructed, improved, or maintained for the Facility shall be depicted on EM&CP drawings.
- b) Indicate the location and type (i.e., identification code for regulated town, state, or federal wetlands) of any wetland (e.g., marsh, meadow, bog, or scrub-shrub or forested swamp) within or adjoining the ROW or any access road, as determined by site investigation and delineation.
- c) Indicate type and location of precautionary measures (e.g., mats) to be taken to protect all wetlands, associated drainage patterns and wetland functions.

Response A6: *National Grid has complied. The location and type of all wetland resources delineated along the ROW and access roads, both on-ROW and off-ROW, are shown on the EM&CP Plan and Profile Drawings. The mapped wetland resources are keyed into Tables C-1 and C-3 in Appendix C which summarize the wetland information and provide the details of all activities that will occur in wetlands. The precautionary measures to protect state and federal wetlands during construction are listed in Section 3.0 of Best Management Practices for Article VII Electric Transmission Line Projects in Appendix F and are also put forth in Certificate Conditions 87a -87n.*

7. Land Uses

a) Agricultural Areas

- i. Indicate the locations of sites under cultivation or in active agricultural use including rotational pasture, pasture, hayland, and cropland.
- ii. Indicate the location of any unique agricultural lands including maple sugarbushes, organic muckland and permanent irrigation systems, as well as areas used to produce specialty crops such as vegetables, berries, apples, and grapes.
- iii. Indicate the location of vulnerable soils in agricultural areas that are more sensitive than other agricultural soils to construction disturbance due to slope, soil wetness, and shallow depth to bedrock.
- iv. Indicate the location of all land and water management features including subsurface drainage, surface drainage, diversion terraces, buried water lines, and water supplies.
- v. Designate the site-specific techniques to be implemented to minimize or avoid construction-related impacts to agricultural resources.

b) Sensitive Land Uses and Resources

Indicate the location and identification of sensitive land uses and resources that may be affected by construction of the Facility or by construction-related traffic (e.g., hospitals, emergency services, sanctuaries, schools, and residential areas).

c) Geologic, Historic, and Scenic or Park Resources

Indicate the locations of geologic, historic, and existing or planned scenic or park resources and specify measures to minimize impacts to these resources (e.g., fencing, signs).

d) Recreational

Indicate the locations where existing or planned recreational use areas, would affect or be affected by the Facility location, construction or other ROW preparation.

Response A7a: *National Grid has complied. All agricultural lands traversed by the ROW as well as areas of potentially vulnerable soils and areas identified as having underground drainage systems are shown on the EM&CP Plan and Profile Drawings and summarized in Table D-1 in Appendix D. Site-specific techniques to be implemented to minimize or avoid construction-related impacts to agricultural resources are identified on the EM&CP Plan and Profile Drawings, however, the Agricultural inspector will have direct contact with affected farm owners/operators prior to, during, and after construction to continue to develop and coordinate appropriate protection and restoration measures based on the actual conditions at the time of construction. General best management practices for working in agricultural lands are also described in Section 4.0 of Best Management Practices for Article VII Electric Transmission Line Projects in Appendix F. There are no unique agricultural lands (sugar bushes, organic muckland areas with permanent irrigation systems) or areas used to produce specialty crops traversed by the Facility ROW.*

Response A7b: *National Grid has complied. Residential areas, homes and dwellings located adjacent to the Facility ROW are identified on the EM&CP Plan and Profile Drawings. Table 3-3 in Appendix E provides a list of all residences within 100 feet of the Project ROW. There are no hospitals, emergency services, sanctuaries or schools that will be affected by the construction of the Facility.*

Response A7c: *National Grid has complied. Two areas of historical and cultural significance are identified on the EM&CP Plan and Profile Drawings. The general locations of these areas are in the vicinity of proposed Structure 33 and proposed Structure 81. Protection measures to be implemented during construction at these two locations are specified in Certificate Conditions 77-81.*

The Project does traverse a gravel mining operation between proposed structures 119 and 120 in the Town of Easton. The mining operation is currently working under NYSDEC Mining Permit 5-5326-00051/0003. The mining operation has been compatible with the existing line and no impacts are expected with the construction or operation of the new Facility.

No existing or planned scenic or park areas were identified

Response A7d: *National Grid has complied. The Facility crosses State Bicycle Route 9 and the proposed Champlain Canalway Trail approximately one mile south of the Fort Edward town center at the Route 4 highway crossing in the vicinity of proposed structure 34. The recreational use and opportunities offered by the bike route and proposed trail will not be impacted by the location, construction or operation of the Facility.*

It is noted that the Facility will traverse an abandoned golf course between Reynolds Road and proposed structure 23. Because of the abandoned status, there will be no impacts as a result of the construction of the Facility.

8. Access Roads, Lay-down Areas and Work pads

Indicate the locations of temporary and permanent on- and off-ROW access roads, lay-down areas and work pads. Provide construction type, material, and dimensions. Indicate provisions for upgrading any existing access roads.

Response A8: *National Grid has complied. The locations and dimensions of all temporary and permanent on and off-ROW access roads, lay-down areas and work pads along with information regarding construction type, material and provisions for upgrading any existing access roads are shown on the EM&CP Plan and Profile Drawings.*

9. Noise Sensitive Sites

Show the locations of noise-sensitive areas along the proposed ROW.

Response A9: *National Grid has complied. Noise-sensitive areas along the proposed ROW are generally limited to the rural residential dwellings along the east side of Fort Edward Road and the scattered rural dwellings that occur adjacent to the ROW at various road crossings. All dwellings that could be affected by construction noise can be seen on the EM&CP photo strip maps in Appendix A and Table 3-3 in Appendix E provides a list of all residences/buildings within 100 feet of the Project ROW. There were no commercial or institutional noise-sensitive areas identified along the proposed ROW. Additional information regarding noise mitigation can be found in Appendix E.*

10. Ecologically and Environmentally Sensitive Areas

Indicate the general locations of any known ecologically and environmentally sensitive sites (e.g., archaeological sites; fish and wildlife habitat; rare, threatened, and endangered species or habitats; forest

and vegetation; open space; areas of important aesthetic or scenic quality; deer winter yards, etc.), within or nearby the proposed or existing ROW or along the general alignment of any access roads to be constructed, improved or maintained for the Facility. Specify the measures that will be taken to protect these resources (e.g., fencing, flagging, signs “Sensitive Environmental Areas, No Access”).

Response A10: *National Grid has complied.*

Two areas of historical and cultural significance are shown on the EM&CP Plan and Profile Drawings. The general locations of these areas are in the vicinity of proposed Structure 33 and proposed Structure 81. Protection measures to be implemented during construction at these two locations are shown on the drawings and specified in Certificate Conditions 77-81.

Three ecologically sensitive areas have been identified along the proposed ROW and are identified on the EM&CP Plan and Profile Drawings along with the measures that will be taken to protect the resource. The areas identified are as follows:

- *The Indiana bat, identified as an “endangered species” by the U.S. Fish and Wildlife Service (“USFWS”), is known to occur in the vicinity of the Project area in Washington County. Although there are no specific known roosting locations in the Project area, the entire length of the Facility in Washington County is considered to be sensitive and the Company will conduct clearing only between October 1 and March 31 when the Indiana bats are in their hibernacula. (Refer to Table S-1 in Appendix S entitled “Seasonal Construction Limitations for Federal and State listed Rare, Threatened and Endangered Species (revised March 9, 2013)” for more information)*
- *The Northern Harrier, Upland Sandpiper and Henslow’s sparrow, all listed as “threatened” by New York State, are known to nest in the vicinity of the Project between proposed structure 42 and proposed structure 62. In order to minimize potential impacts to birds nesting in this area, National Grid proposes to conduct surveys immediately prior to any construction activities scheduled from April 23 to August 15 to determine if active nests are present. If nesting is observed during the surveys or during the period April 23 to August 15, National Grid proposes to implement avoidance measures as appropriate, including temporary limitations on clearing and construction activities. (Refer to Appendix S for a survey plan and Table S-1 in Appendix S entitled “Seasonal Construction Limitations for Federal and State listed Rare, Threatened and Endangered Species (revised March 9, 2013)” for more information).*
- *The Short-eared Owl, listed as “endangered” by New York State and the Northern Harrier, listed as “threatened” by New York State, have been observed to use a raptor wintering concentration area identified by DEC in the Town of Fort Edward, Washington County, located between proposed structure 42 and proposed structure 62. The typical wintering season for this area has been determined to extend from December 1 to April 15. To minimize potential disturbance to wintering birds, National Grid will limit tree clearing in this area to the period from October 1 to November 30. In addition, National Grid proposes to conduct surveys immediately prior to any construction activities scheduled from December 1 to April 15 to determine if the species are present. If wintering birds are observed during the survey or during the period December 1 to April 15, National Grid proposes to implement avoidance measures as appropriate, including temporary limitations on construction activities. (Refer to Appendix S for a survey plan and Table S-1 in Appendix S entitled “Seasonal Construction Limitations for Federal and State listed Rare, Threatened and Endangered Species (revised March 9, 2013)” for more information).*

11. Invasive Species of Special Concern

Identify the location(s) of Invasive Species of Special Concern and the prescribed method to control the spread and/or eradicate the identified species.

Response A11: *National Grid has complied. Invasive species were identified based on field observations made during the preparation of the Article VII application and again during the preparation of the EM&CP. Based on those field observations, the EM&CP Plan and Profile Drawings show the locations of invasive species within the ROW and the proposed locations of vehicle cleaning stations which are designed to help control the spread and transport of invasive species during construction. The figures in Appendix M also show the locations of invasive species along the Project ROW. A list of Invasive Species of Special Concern that was developed in consultation with NYSDEC, DPS and Ag&Mkts as well as a management plan that puts forth the measures that will be used to prevent or control the transport of invasive species can be found in Appendix M. Additional information regarding the control of invasive species can be found in Section 7 of Best Management Practices For Article VII Electric Transmission Line Projects in Appendix F and in Certificate Condition 134.*

12. Herbicides

On the EM&CP drawing notes, indicate areas where herbicides will not be used.

Response A12: *National Grid has complied. Herbicides will not be used on properties with negotiated chemical restrictions or in “buffer zones” as described in Section III B, Response B12b. Notes will be added to the EM&CP Plan and Profile Drawings to reflect these conditions. Certificate Conditions 57-61 put forth additional restrictions regarding the use of herbicides. Procedures for herbicide use and a list of herbicides that may be utilized during clearing and maintenance activities can be found in Appendix L.*

B. Description and Statement of Objectives, Techniques, Procedures and Requirements

The textual portion of the EM&CP for the Facility shall include, but need not be limited to, all of the following information:

1. Facility Location and Description

Describe the location and limits of the site or ROW and explain the need for any additional rights. For each structure type, indicate the GSA—595A Federal standard color designation or manufacturer's color specification to be used for painted structures. State any objections raised by Federal, State or local transportation (highways, waterways, or aviation) officials to the final location or manner of installation of, or access to, the certified Facility. Provide a rationale for the inclusion of any splice locations proposed.

Response B1: *National Grid has complied. Appendix A to this document contains the EM&CP Plan and Profile Drawings which provide the visual representation of the information contained below.*

The Facility ROW is located in Washington and Saratoga Counties (Northeast Region of Eastern New York National Grid Service Territory). The facility right-of-way begins at the Mohican Substation in Moreau, NY and traverses approximately 14.2 miles through Fort Edward, Moreau, Greenwich, and Easton, NY before terminating at the Battenkill Substation in Easton, NY. Generally speaking, the additional rights being obtained to construct the Facility are required to maintain compliance with National Grid's Transmission Right-of-Way Management Plan. Those rights are prescribed by right-of-way segment in the following paragraphs and visually depicted in Appendix A. The other drivers for the acquisition of additional rights on the Project include access to the Facility right-of-way, marshalling yards to support the construction of the Facility, and temporary work areas located outside of the bounds of both the original right-of-way and permanent easement required to enable the safe and efficient construction of the Facility. The last type of additional right being acquired is to facilitate the construction of environmental mitigation areas. The extent of these rights are also depicted in the EM&CP Plan and Profile Drawings in Appendix A.

The width of the existing ROW varies from approximately 100 feet to 175 feet. The existing ROW is generally 150 feet wide from the Mohican Substation to the 115 kV Tap #1 in the Town of Moreau (at approximately Mile 1.0, between existing structures 93 and 94 and between proposed structures 11 and 12). The existing ROW is generally 175 feet wide along a segment of the route in the Town of Fort Edward, where the 34.5 kV Battenkill - Cement Mountain Line #5 (Fort Miller Tap) parallels the Existing Lines to the west for approximately 1.2 miles, at which point (approximately Mile 11.0, existing structure 188 and proposed structure 106) the Fort Miller Tap crosses to the eastern side of the Existing Lines and continues on toward the Battenkill Substation for approximately 3.2 miles. Approximately 900 feet north of the Battenkill Substation (approximately Mile 14.0, existing structure 207 and proposed structure 125), the Fort Miller Tap turns east and out of the ROW. The existing ROW is generally 125 feet wide in the Town of Easton, for its final 2,000 foot distance to the Battenkill Substation. The existing ROW is generally 100 feet wide along all other segments of the route.

With the exception of certain locations (as noted below), the centerline of the Facility from Mile 0.1 (at approximately existing structure 84B and proposed structure 2) to Mile 11.0 (at approximately existing structure 188 and proposed structure 106) will be placed, for constructability reasons, to the east of the Existing Lines but still inside the existing ROW. This will permit installation of the new structures and conductors along this section of the ROW prior to removal of the existing ones, thus helping to minimize long-duration outages, maximize construction efficiency, and shorten the overall duration of the Project.

Between Mile 11.0 (at approximately existing structure 188 and proposed structure 106) and the Battenkill Substation, a distance of 3.2 miles, the Facility will be offset to the east of the Existing Lines by approximately five feet. The presence of a parallel sub-transmission circuit limits the offset distance between the Facility and the Existing Lines. The five foot offset from the centerline of the Existing Lines is the most viable place within the bounds of the existing ROW to accommodate the Facility.

At the northernmost section of the existing ROW, between Mile 0.0 and Mile 0.2 (existing structures 84C to 86 and proposed structures 1 to 4), the ROW is generally 150 feet wide. Along this segment, existing Line 15 is located on the centerline of the existing ROW, supported first (from north to south) by a vertically-configured single wood pole dead-end structure (existing structure 84C), followed by a single wood pole delta line post structure (existing structure 84B), and then by a three-pole, wooden

cross-arm structure (Line 15's existing structure 85). These structures will be replaced by a self-supporting vertically-configured steel pole dead-end structure (proposed structure 1) and self-weathering steel, direct embed, monopole, delta-configured structures (proposed structures 2 and 3). Existing Line 3, located approximately 29.5 feet from the western edge of the existing ROW, currently is supported by a wooden three pole dead-end pull-off structure (the Line 3 Segment's existing structure 84A) and a steel lattice flex tower (the Line 3 Segment's existing structure 85). The Line 3 Segment's existing structure 85 will be replaced in its current location by a self-weathering steel, monopole, vertically-configured dead-end structure (proposed structure 85). Structure 84A on the Line 3 Segment is to be replaced with a self-supporting steel single circuit three pole dead-end structure.

Between Mile 0.2 and Mile 1.0 (existing structures 86 to 93 and proposed structures 4 to 11), the existing ROW is generally 150 feet wide, with the Existing Lines located approximately 29.5 feet from the western edge of the existing ROW. The Project will position the Facility on the centerline of the existing ROW, approximately 45.5 feet east of the existing structure locations. The Facility will be supported by self-weathering steel, monopole, phase-over-phase, double-circuit structures. The location of the existing sub-transmission 34.5kV Line 17 will not change.

Between Mile 1.0 and Mile 1.9 (existing structures 93 to 102 and proposed structures 11 to 20), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located approximately 39.5 feet from the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double-circuit structures. The Facility cannot be located at the center of the existing ROW in this segment because of constructability issues given the proximity to the Existing Lines, and it cannot be moved closer to the eastern edge of the existing ROW because of conductor blow-out concerns. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 1.9 and Mile 2.1 (existing structures 102 to 104 and proposed structures 20 to 22), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located on the centerline of the existing ROW, approximately 20.5 feet east of the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. The structures adjacent to those located at Mile 1.9 and Mile 2.1 will be used to angle the Facility's general location of approximately 39.5 feet from the Existing Lines to the centerline alignment. It is noted that as a result of discussions among the Signatory Parties the alignment of this segment of line is different from the alignment that was originally proposed in the Application. The alignment as now proposed will minimize abutter impacts along Fort Edward Road by avoiding the requirement for additional permanent easement rights for vegetation clearing.

Between Mile 2.1 and Mile 2.9 (existing structures 104 to 113 and proposed structures 22 to 31), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located approximately 39.5 feet from the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double-circuit structures. The Facility cannot be located at the center of the existing ROW in this segment because of constructability issues given the proximity to the Existing Lines, and it cannot be moved closer to the eastern edge of the existing ROW because of conductor blow-out concerns. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 2.9 and Mile 3.5 (existing structures 113 to 118 and proposed structures 31 to 36), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located at the centerline of the existing ROW, approximately 20.5 feet east of the Existing Lines. The structures adjacent to those located at Mile 2.9 and Mile 3.5 will be used to angle the Facility's general location of approximately 39.5 feet from the Existing Lines to the centerline alignment. The Facility will be supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. It is noted that as a result of discussions among the Signatory Parties the alignment of this segment of line is different from the alignment that was originally proposed in the Application. The alignment as now proposed will minimize abutter impacts by avoiding the requirement for additional vegetation clearing and will also mitigate potential impacts to the views associated with the Hudson River crossing. Also differing from the Application, it will be necessary due to site constraints to locate one structure (proposed structure 31) in DEC-regulated wetland HF-1 in the Town of Moreau.

Between Mile 3.5 and Mile 8.0 (existing structures 118 to 159 and proposed structures 36 to 77), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located generally 39.5 feet from the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. The Facility cannot be located at the center of the existing ROW in this segment because of constructability issues given the proximity of the Existing Lines, and it cannot be moved closer to the eastern edge of the existing ROW because of conductor blow-out concerns. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 8.0 and Mile 8.1 (existing structures 159 to 160 and proposed structures 77 to 78), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located at the centerline of the existing ROW, approximately 20.5 feet east of the Existing Lines. The structures adjacent to those located at Mile 8.0 and Mile 8.1 will be used to angle the Facility's general location of approximately 39.5 feet from the Existing Lines to the centerline alignment. The Facility will be supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. It is noted that as a result of discussions among the Signatory Parties the alignment of this segment of line is different from the alignment that was originally proposed in the Application. The alignment as now proposed will minimize abutter impacts by avoiding the requirement for additional vegetation clearing.

Between Mile 8.1 and Mile 9.9 (existing structures 160 to 177 and proposed structures 78 to 95), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 29.5 feet east of the western edge of the existing ROW. The Facility will be located approximately 39.5 feet from the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase, double circuit structures. The Facility cannot be located at the center of the existing ROW in this segment because of constructability issues given the proximity of the Existing Lines, and it cannot be moved closer to the eastern edge of the existing ROW because of conductor blow-out concerns. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner. As discussed in the Joint Proposal, the Signatory Parties agreed to relocate proposed structure 81 to the position shown in the EM&CP (approximately 50 feet north of the location that was originally proposed) in order to avoid a pre-contact archeological site,

Between Mile 9.9 and Mile 11.0 (existing structures 177 to 188 and proposed structures 95 to 106), the existing ROW is generally 175 feet wide. The Existing Lines are located approximately 17 feet to the east of the centerline of the existing ROW. The Facility will be located approximately 39.5 feet east of the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase double-circuit structures. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 11.0 and Mile 13.7 (existing structures 188 to 205 and proposed structures 106 to 123), the existing ROW is generally 100 feet wide, and the Existing Lines are located approximately 26.5 feet from the western edge of the existing ROW. Each structure in this segment of the Facility will be positioned approximately five feet east of the location of its counterpart on the Existing Lines and supported by self-weathering steel, monopole, phase-over-phase double-circuit structures. On this segment of the existing ROW, positioning the Facility any greater distance from the location of the Existing Lines is restricted by the presence of the sub-transmission 34.5kV Line 5. A twenty-five foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 13.7 and Mile 14.0 (existing structures 205 to 207 and proposed structure 123 to 125), the existing ROW is generally 140 feet wide. The Existing Lines are located approximately 26.5 feet from the western edge of the existing ROW. They share the ROW with the sub-transmission 34.5kV Line 5. To facilitate construction on this segment of the existing ROW, National Grid proposes to locate the centerline of the Facility, supported by self-weathering steel, monopole, phase-over-phase double-circuit structures, five feet to the east of the Existing Lines, which are supported by double-circuit lattice-tower structures. A ten foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

Between Mile 14.0 and Mile 14.2 (existing structures 207 to 208 and proposed structures 125 to 126), the Existing Lines, which are supported by double circuit lattice tower structures, are the sole occupants of the existing ROW. The Facility, which will be supported by self-weathering steel, monopole, phase-over-phase double circuit structures, will be located generally five feet to the east of the Existing Lines. A ten foot width of permanent easement is required on this segment to construct the Facility and to operate and maintain it in a safe and reliable manner.

For the purposes of minimizing the duration of outage to a specific transmission-level customer during construction of the Facility, the Company proposes to construct a temporary by-pass line at approximately Mile 1.0 (between existing structures 93.5 and 94 and proposed structures 11 and 12). This temporary by-pass line will consist of two wood pole structures, one structure located in line with the existing Line 15 conductors slightly south of existing structure 93.5 and the other structure located between the existing Line 15 tap to the transmission-level customer and the adjacent 34.5kV Hudson Falls – McCrea Street Line 17. The total length of this proposed by-pass line is approximately 250 feet and would require temporary property rights permitting the conductor to be located above a small parcel of land.

In order to safely construct the Facility, a minor reconfiguration of existing sub-transmission assets in the area approximately between Mile 12.6 (existing structure 199 and proposed structure 117) and Mile 13.3 (existing structure 202 and proposed structure 120) is required. The existing phase spacing

on the sub-transmission assets will be condensed by changing structure types from horizontally-configured structures to predominantly vertically-configured structures where they are in close proximity to the proposed transmission line structures, and the new structures will be slightly relocated on the same circuit centerline relative to the existing structures.

The structure types proposed for the Facility, temporary by-pass line, and sub-transmission relocation are provided in the table below. All steel pole structures are to have a weathering steel finish.

Structure Type	Quantity
Temporary Wood Pole Vertical Dead-End Pull-Off	1
Temporary Wood Three Pole Terminal Dead-End Structure	1
Phase-over-Phase Steel Monopole Double Circuit Davit Arm Suspension Structure	102
Phase-over-Phase Steel Monopole Double Circuit Davit Arm Dead-End Structure	11
Steel Double Circuit Vertical Dead-End Pull-Off Structure	8
Steel Single Circuit Delta Davit Arm Suspension Structure	2
Steel Single Circuit Vertical Dead-End Pull-Off Structure	2
Steel Single Circuit Three Pole Dead-End Pull-Off Structure	1
Steel Single Circuit Vertical Switch (Dead-End) Structure	1
Steel 34.5kV Vertical Dead-End Pull-Off Structure	2
Steel 34.5kV H-Frame Dead-End Structure	1
Wood 34.5kV H-Frame Dead-End Structure	1
Wood 34.5kV Vertical Dead-End Structure	1

The conductor type associated with the majority of the Facility is 795 kcmil (26/7) ACSR "Drake" conductor. The span over the Battenkill River is proposed to be 1113 kcmil (54/19) ACSR "Finch" conductor. All conductor specified in association with this Project is to have a non-specular finish. At this juncture, there are no planned splicing locations for the conductor associated with the Facility. Conductor reel sizes, dead-end structures and pulling pad locations as prescribed in Appendix A have been laid out so as to eliminate the need.

The shield wire associated with the majority of the Facility is to be 3/8" EHS (extra high strength) steel cable (7 strand). The span over the Battenkill River is proposed to be 1/2" EHS steel cable (7 strand). All shield wire associated with this Project shall have a non-specular finish. At this juncture, there are no planned splicing locations for the shield wire associated with the facility. Much like the conductor, the reel sizes for the shield wire and pulling pad locations as prescribed in Appendix A have been laid out so as to eliminate the need.

To date there have been no objections raised to the placement of structures from any local, state, or federal entities be they transportation or otherwise. Following submission of this document, revised structure heights and locations shall be provided to the Federal Aviation Administration for a second review of the Project. The initial review yielded no issues.

2. Stormwater Pollution Prevention

- a) The information included in the approved SWPPP.
- b) In areas of coastal erosion hazard, include plans to demonstrate compliance with the standards for coastal erosion hazard protection as required by 6 NYCRR Part 505 -Coastal Erosion Management.

Response B2a: *National Grid has complied. The approved SWPPP is included as Appendix G.*

Response B2b: *The Project does not traverse areas of coastal erosion hazard.*

3. Vegetation Clearing and Disposal Methods

- a) Describe the specific methods and rationale for the type and manner of cutting and disposition or disposal methods for cut vegetation.
- b) Detail specific measures employed to avoid damage to specimen tree stands of desirable vegetation, rare, threatened and endangered species, important screening trees, and hedgerows.
- c) Identify the factors such as the attributes of the site, outcome of landowner negotiations, and attributes of the logs, upon which Certificate Holder's removal of the merchantable logs resulting from clearing the ROW for the Facility will be based.
- d) Describe methods of compliance with 6 NYCRR Part 192 – Forest Insect and Disease Control, applicable DEC quarantine orders, and New York State Department of Agriculture and Markets (“Ag&Mkts”) regulations.

Response B3a: *National Grid has complied. All areas that require the trimming, clearing or mowing of vegetation as well as the prescribed slash disposal types are shown on the EM&CP Plan and Profile Drawings. The definitions of each clearing and slash disposal method as well as the rationale for using each of the respective methods can be found in Section 2.0 of Best Management Practices For Article VII Electric Transmission Line Projects in Appendix F and on the Notes Pages for the EM&CP Plan and Profile Drawings in Appendix A.*

Response B3b: *National Grid has complied. Desirable species consists of typical shrub and low-growing tree species which may be considered to be compatible with the operation of the line. These species will be retained, to the extent practicable, as they occur along the ROW. In situations where high densities of desirable species have begun to interfere with safe and efficient access, maintenance, or construction, the Forester may direct that some stands or locations of such desirable species be cleared. The appropriate clearing and slash disposal techniques will be selected and designated for each site on the EM&CP Plan and Profile Drawings to maximize the retention of these compatible species. The personnel employed for the clearing operation will be fully informed of these vegetation-retention requirements, and directly supervised by a person or persons capable of identifying all compatible species native to the area of the ROW.*

There are no areas of rare, threatened or endangered vegetative species, important screening trees or protected hedgerows identified along the ROW.

Response B3c: *National Grid has complied. National Grid may include in the compensation it pays to any landowner for real estate rights required for the Project the value of any trees that are cleared on the landowner's property as part of the Project. To bring about the most efficient disposition of trees cleared*

from the ROW as part of the Project, National Grid may negotiate into its contract with the clearing contractor provisions establishing that the contractor will own all trees that are cleared. The contract price, as a result, would reflect the clearing contractor's right to receive the value of such commercially viable forest products.

To discourage trespassing on the ROW, all wood will be utilized as corduroy road, chipped, or removed from the ROW (except in wetlands or areas that cannot be accessed safely or without damage to sensitive resources).

Response B3d: National Grid has complied. Removal of any wood from the ROW will be pursuant to the NYSDEC's firewood regulations to protect forests from invasive species found in 6 NYCRR Part 192, and any applicable NYSDEC quarantine orders and/or Ag&Mkts quarantine regulations. The clearing contractor and crews will be made aware of all applicable rules and regulations at the pre-construction meeting. In addition, clearing crews will be trained to identify the Asian Long Horned Beetle, the Emerald Ash Borer, and any other insects that the NYSDEC identifies as a potential problem. If evidence of the existence of these insects is found, they will be reported immediately to the appropriate NYSDEC regional forester.

4. Building and Structure Removal

Indicate the locations of any buildings or structures to be acquired, demolished, moved, or removed. Provide the rationale for the acquisition and removal of buildings or structures.

Response B4: National Grid has complied. As a result of discussions among the Signatory Parties, it was determined that a privately owned pole barn storage building that encroaches onto National Grid's fee owned ROW should be removed. The building is located on the south side of Bald Mountain Road on the east side of the Facility ROW in the vicinity of proposed structure 102 and is shown on drawing 101010-C-R-10-F of the EM&CP drawings. Other, less substantial structures have been identified on the Facility ROW. In accordance with the Encroachment Plan, should these structures or other located items be determined to be incompatible with the Project, steps required for the rectification of impermissible encroachments will be implemented.

5. Waterbodies

- a) Describe the measures to be taken to protect stream bank stability, stream habitat, and water quality including, but not limited to: crossing technique; crossing structure type; timing restrictions for in-stream work; stream bed and bank restoration measures; vegetation restoration measures; and other site-specific measures to minimize impacts, protect resources, and manage Facility construction.
- b) Indicate the procedures that were followed to inventory such resources and provide copies of any resulting data sheets and summary reports.
- c) Develop a table of waterbodies crossed by the Facility and include: Town (location), Existing Structure Span (mileposts), Stream Name, Field/Map Identification Name, Perennial or Intermittent, New York Stream Classification, Water Index Number, Crossing Method and Length, Fishery Type, and GPS coordinates.

Response B5a: *National Grid has complied. The EM&CP was developed in accordance with Section 3.0 of the Best Management Practices for Article VII Electric Transmission Line Projects (Appendix F) which addresses stream and wetland protection procedures. Specific stream and watercourse protection measures, including stream bank restoration measures can be found in Section 3.2.1. Measures to protect and minimize disturbance to streams and waterbodies will be implemented throughout all phases of construction.*

As part of the EM&CP preparation, all streams and waterbodies, both on and off ROW, were delineated in the field and identified on the EM&CP Plan and Profile Drawings. All wetlands, streams and waterbodies will be re-flagged prior to the start of construction to help ensure their protection.

Table C-2 in Appendix C lists and identifies 56 streams and waterbodies that occur in the Project area which include 2 ponds and 3 drainage ditches. The table provides the location and all pertinent information for each stream as well as the proposed crossing method, if applicable. As shown in the table, 4 of the streams identified are NYSDEC-protected waterbodies (class A, B or C(TS) state designated waters) while the others are non-regulated (class C or lower or not listed). National Grid proposes to replace and upgrade an existing culvert in the regulated C(TS) stream that is crossed by an existing farm lane between proposed structures 115-116 (see drawing 101010-C-R-12-F of EM&CP Plan and Profile Drawings). The in-stream installation work will not be conducted during the cold water trout fisheries prohibition period which runs from October 1 to May 31. Also, an existing culvert will be used to cross the regulated AA stream that runs under an existing gravel driveway that is proposed for use for off-ROW access to proposed structures 22 and 23 (see drawing 101010-C-R-02A-F of the EM&CP Plan and Profile Drawings). The other two regulated C(T) streams will not be crossed by equipment.

Two major rivers, The Hudson River and the Battenkill River, are traversed by the Project ROW; however, neither River will be affected by the construction of the Facility. The Hudson River crossing is subject to Section 10 of the Rivers and Harbors Act. An application package for a modification of the existing Section 10 permit was submitted to the USACOE November 17, 2014. A copy of this permit and authorization will be provided to Staff and included in Appendix H upon receipt.

Best Management Practices (BMPs) such as the installation of erosion and sediment control devices to prevent the introduction of sediment into aquatic resources will be carried out from the beginning to the end of construction in accordance with the approved SWPPP provided in Appendix G. All erosion and sediment control devices prescribed by the SWPPP are shown on the EM&CP Plan and Profile Drawings. Upon the completion of construction, all disturbed areas will be restored and seeded and mulched with a conservation seed mix to restore bank stability, habitat and vegetative cover. SWPPP inspections will take place on a weekly basis until construction is completed and all disturbed areas have been stabilized and will then continue on a monthly basis until all disturbed areas have achieved 80% vegetative cover.

Response B5b: *National Grid has complied. Surface waterbodies crossed by and in the vicinity of the proposed Project were identified during the initial review of background information such as USGS topographic maps, NWI maps, NYSDEC stream maps, and aerial photography. Surface waterbodies were then field-verified during the wetland delineation effort and the preparation of the EM&CP and were delineated and flagged in the field. Field-verified waterbodies are shown on the EM&CP Plan and Profile Drawings and keyed into Table C-2 in Appendix C where the waterbody name, water quality classification, water index number, GPS coordinates and proposed crossing method, if applicable, are provided in tabular form. All streams and waterbodies will be re-flagged prior to the start of construction to help ensure their protection.*

Response B5c: *National Grid has complied. See Table C-2 in Appendix C.*

6. Wetlands

- a) For each State-regulated wetland, indicate the following: town (location); existing Structure Span (milepost); wetland field designation; NYSDEC classification code; wetland type; proposed structure located within wetland; total area of temporary disturbance/impact; total area of permanent disturbance (sq. ft.); area crossed by Facility (sq. ft.); and conversion of State-regulated forested wetlands (sq. ft.).
- b) Describe all activities that will occur within State-regulated wetlands or adjacent areas (e.g., construction, filling, grading, vegetation clearing, and excavation) and assure that the activity is consistent with the weighing standards set forth in 6 NYCRR 663.5(e) and (f). Describe how impacts to wetlands, adjacent areas, associated drainage patterns and wetland functions will be avoided, and how impacts will be minimized.
- c) Describe the precautions or measures to be taken to protect all other wetlands (e.g., town, federal wetlands) associated drainage patterns, and wetland functions.

Response B6a: *National Grid has complied. The proposed Facility traverses one State-regulated wetland; wetland HF-1 in the Town of Moreau between proposed structures 31 and 33. The wetland has a NYSDEC class code of 2 and includes the following three wetland types: forested wetland, scrub-shrub wetland and emergent wetland.*

Due to site constraints, it is necessary to locate proposed structure 31 in the State-regulated wetland. However, since the new structure will replace existing structure 113, which is also located in the wetland and will be removed, the overall net impact will be minimal. The disturbance / impact to State-regulated wetland HF-1 is as follows:

Approximate area crossed by the Facility = 16,268 sq. ft.

Approximate total area of temporary disturbance = 16,204 sq. ft.

Approximate total area of permanent disturbance = 64 sq. ft.

Conversion of forested wetland = 0.0 sq. ft.

Response B6b: *National Grid has complied. One steel pole structure with a concrete foundation (proposed structure 31) will be installed in State-regulated wetland HF-1 and one existing steel square base structure with grillage foundations (existing structure 113) will be removed from the State-regulated wetland HF-1. The methodology for removal of the grillage foundation will be such that it minimizes impacts to the wetland resource. Access to the new and existing structure locations will be accomplished with the installation of a temporary timber mat road. Work areas for each of the structure locations will also be temporary and will be constructed using timber mats. No permanent fill will be placed in the wetland other than the concrete foundation for the new steel pole structure (approximately 64 sq. ft.).*

The proposed construction activities will cause minimum impact to the wetland and are consistent with the weighing standards set forth in 6 NYCRR 663.5(e) and (f). The Project is compatible with the public health and welfare since it involves the reconstruction of an existing overhead utility line in need of replacement. There are no practicable alternatives to locating the proposed structure in wetland HF-1 since the area in proximity to the existing structure is also located in HF-1. Impacts to wetland HF-1 will be minimized since there is no permanent access road or work area proposed at this location. The only permanent wetland impact associated with the Project at this location will result from installation of the

new structure. All other impacts are temporary. Finally, the functions provided by wetland HF-1 will be enhanced as described in the conceptual Wetland Mitigation Plan (Appendix R). In summary, the benefits provided by the Project and associated wetland mitigation proposed for wetland HF-1 outweigh the minimal impacts that will result from permanent fill for the placement of proposed structure 31 in wetland HF-1.

Response B6c: *National Grid has complied. The EM&CP was developed in accordance with Section 3.0 of Best Management Practices for Article VII Electric Transmission Line Projects (Appendix F) which addresses stream and wetland protection measures. The wetland protection measures in Section 3.0 will be used in all regulated wetlands regardless of the regulatory jurisdiction. Measures to protect and minimize disturbance to wetlands will be implemented throughout all phases of construction and restoration and construction activities in wetlands will be closely followed by the Environmental Monitor to ensure protection of the resource.*

As part of the EM&CP preparation, all wetland resources, both on and off ROW, were delineated in the field and identified on the EM&CP Plan and Profile Drawings. All wetlands will be re-flagged prior to the start of construction to help ensure that they are identified and protected during construction.

Table C-1 in Appendix C lists and identifies the location of all wetlands occurring in the Project area. As shown in Table C-1, there are 76 wetlands that were identified within the Project area including 3 ponds. One of the wetlands is also a New York State Department of Environmental Conservation (NYSDEC) regulated wetland (HF-1). Table C-1 also puts forth a summary of all of the temporary and permanent wetland impacts associated with the construction of this Project. Permanent wetland impacts associated with the construction of the Project are considered to occur where there will be conversion of “forested wetlands” to “shrub wetlands” and where there will be the filling of wetlands for either new structure placement or construction of gravel access roads. Temporary impacts are considered to occur in all areas where timber matting is placed for the purposes of access or work pads.

National Grid submitted an application package for authorization to proceed under an individual permit to the USACOE on November 17, 2014. A conceptual wetland mitigation plan was previously submitted to compensate for impacts to both the State and Federally protected wetlands. A copy of the conceptual wetland mitigation plan is provided in Appendix R.

Construction in federal wetlands will be conducted in accordance with the conditions of the USACOE permit. In addition, Best Management Practices (BMPs) such as the installation of erosion and sediment control devices to prevent the introduction of sediment into aquatic resources will be carried out from the beginning to the end of construction in accordance with the approved SWPPP provided in Appendix G. SWPPP inspections will take place on a weekly basis until construction is completed and all disturbed areas have been stabilized and will then continue on a monthly basis until all disturbed areas have achieved 80% revegetation. All erosion and sediment control devices prescribed by the SWPPP are shown on the EM&CP Plan and Profile Drawings.

7. Land Uses

a) Agricultural Areas

- i. Describe programs, policies, and procedures to mitigate agricultural impacts such as soil compaction. Explain how construction plans either avoid or minimize crop production losses and impacts to vulnerable soils.

- ii. Indicate specific techniques and references to appropriate agricultural protection measures recommended by Ag&Mkts.

b) Sensitive Land Uses

Describe the sensitive land uses (e.g., hospitals, emergency services, sanctuaries, schools, residential areas) that may be affected by construction of the Facility or by construction-related traffic and specify measures to minimize the impacts on these land uses.

c) Geologic, Historic and Scenic or Park Resources

Describe the geologic, historic, and scenic or park resources that may be affected by construction of the Facility or by construction-related traffic and specify measures to minimize impacts on these resources. Indicate the procedures that were followed to identify such resources and specify the measures that will be taken to protect or preserve these resources. Reports prepared to identify and analyze such sites shall be made available to Staff upon request.

d) Recreation Areas

Explain how proposed or existing recreation areas will be avoided or accommodated during construction, operation, and maintenance of the Facility.

Response B7a: *National Grid has complied. Agricultural lands traversed by the ROW are summarized in Table D-1 in Appendix D and shown on the EM&CP Plan and Profile Drawings. Site-specific techniques to be implemented to minimize or avoid construction-related impacts to agricultural resources are identified on the EM&CP Plan and Profile Drawings; however, the Agricultural Inspector will have direct contact with affected farm owners/operators prior to, during, and after construction to continue to develop and coordinate appropriate protection and restoration measures based on the actual conditions at the time of construction. The Agricultural Inspector will keep affected farm owners/operators aware of the construction schedule in order to minimize disturbance and disruption to ongoing farm activities and minimize crop damage. Best Management Practices (BMPs) for working in agricultural lands are described in Section 4.0 of Best Management Practices For Article VII Electric Transmission Line Projects in Appendix F. Certificate Conditions 92-118 also put forth the general protection measures that will be implemented throughout all phases of construction and restoration. General guidelines to be applied by the Contractor for access and construction within all agricultural lands include:*

- a) *The locations of pasture land, croplands, and other agricultural lands along the ROW will be shown on the EM&CP Plan and Profile Drawings.*
- b) *Limit access-road width to a maximum of sixteen (16) feet and, where possible, follow hedge rows, ROWs, and field edges to minimize impacts to agricultural land.*
- c) *Locate roads that traverse agricultural fields on high-ground topography. This offers the following advantages: 1) allows farming along the contours; 2) requires no cut-and-fill or ditching that would take additional land out of production; and 3) avoids potential drainage and erosion problems.*
- d) *To the maximum extent possible, locate parking areas, construction-staging areas, and other temporary and permanent support facilities outside of active agricultural fields.*
- e) *Orient guy wires for angle structures so as to minimize interference with agricultural operations (e.g., along fence lines or in pasture land rather than in crop land).*

- f) *Avoid disturbance of surface and subsurface drainage features (ditches, diversions, tile lines, etc.) to the maximum extent practicable.*
- g) *Identify black cherry trees located on the ROW near active-livestock-use areas during EM&CP development.*
- h) *After locating all commercial sugar bushes maintained for maple syrup production within the ROW, attempt to adjust the centerline location to avoid such operations.*
- i) *Indicate the locations of prime, unique, and significant agricultural lands, vulnerable soils, underground drainage systems, and the locations of sites under cultivation or in active agricultural use where structures, access roads, counterpoise wires, lay-down areas, or wire-stringing operations will be located. Designate the site-specific techniques to be implemented to avoid or minimize construction-related impacts to agricultural resources.*
- j) *Design the Project to the extent possible to avoid or limit the placement of structures on crop fields or on other active agricultural land where the structures may interfere significantly with normal agricultural operations or activities.*

In addition, all access roads and work areas in active agricultural lands will be temporary and constructed of timber mats to minimize soil compaction and soil mixing.

Response B7b: *National Grid has complied. The Project ROW is not located near any hospitals, emergency services, sanctuaries, or schools that could be affected by the construction of the Facility. Residential areas, homes and dwellings located adjacent to the Facility ROW are identified on the EM&CP Plan and Profile Drawings and should experience minimal impact associated with the construction of the Facility and construction related traffic. Table 3-3 in Appendix E provides a list of all residences within 100 feet of the Project ROW. All work in roads and highways will be carried out in accordance with Certificate Conditions 68-76 in order to ensure public safety and minimal disruption to the public's daily activities.*

Response B7c: *National Grid has complied. Two areas of historical and cultural significance are shown on the EM&CP Plan and Profile Drawings. The areas were identified based on archeological studies and investigations conducted by Hartgen Archeological Associates between April 2010 and May 2013. The general locations of the areas of historical and cultural significance are in the vicinity of proposed Structure 33 and proposed Structure 81. Construction crews will be made aware of the location and sensitivity of these areas and both areas will be well defined in the field prior to construction to ensure their protection. General protection measures for cultural resources are specified in Certificate Conditions 77-81 and in Section.*

The Project does traverse a gravel mining operation between proposed structures 119 and 120 in the Town of Easton. The mining operation is currently working under NYSDEC Mining Permit 5-5326-00051/0003. The mining operation has been compatible with the existing line and no impacts are expected with the construction or operation of the new Facility.

No existing or planned scenic or park areas were identified.

Response B7d: *National Grid has complied. The Facility crosses State Bicycle Route 9 and the proposed Champlain Canalway Trail approximately 1 mile south of the Fort Edward town center at the Route 4 highway crossing in the vicinity of proposed structure 34. The recreational use and opportunities offered by the bike route and proposed trail will not be impacted by the location, construction or operation of the Facility.*

It is noted that the Facility will traverse an abandoned golf course between Reynolds Road and proposed structure 23. Because of the abandoned status, there will be no impacts as a result of the construction of the Facility.

8. Access Roads, Lay-down Areas and Workpads

- a) Discuss the necessity for access to the ROW, including the areas where temporary or permanent access is required; and the nature of access improvements based on natural features, equipment constraints, and vehicles to be used for construction and maintenance, and the duration of access needs through restoration and the maintenance of the Facility.
- b) Discuss the types of access which will be used and the rationale for employing that type of access including consideration of:
 - i. temporary installations (e.g., corduroy, mat, fill, earthen road, geotextile underlayment, gravel surface, etc.);
 - ii. permanent installations (e.g., cut and fill earthen road, geotextile under-layment, gravel surface, paved surface, etc.);
 - iii. use of roads, driveways, farm lanes, rail beds, etc.; and
 - iv. other access, e.g. helicopter or barge placement.

For each temporary and permanent access type, provide a figure or diagram showing a typical installation (include top view, cross section and side view with appropriate distances and dimension). Where existing access ways will be used, indicate provisions for upgrading for Facility construction.

- c) Indicate the associated drainage and erosion control features to be used for access road construction and maintenance. Provide diagrams and specifications (include plan and side views with appropriate typical dimensions) for each erosion control feature to be used, such as:
 - i. staked straw bale or check dam (for ditches or stabilization of topsoil);
 - ii. broad-based dip or berm (for water diversion across the access road);
 - iii. roadside ditch with turnout and sediment trap;
 - iv. French drain;
 - v. diversion ditch (water bar);
 - vi. culvert (including headwalls, aprons, etc.);
 - vii. sediment retention basin (for diverting out-fall of culvert or side ditch); and,
 - viii. silt fencing.

- d) Indicate the type(s) of stream crossing method to be used in conjunction with temporary and permanent access road construction. Provide diagrams and specifications (include plan and side view with appropriate dimensions) for each crossing device and rationale for their use. Stream crossing devices may include but not be limited to:
- i. timber mat;
 - ii. culverts including headwalls;
 - iii. bridges (either temporary or permanent); and,
 - iv. fords.
- e) All diagrams and specifications should include material type and size to be placed in streams and on stream approaches.
- f) If access and work pad areas cannot be limited to upland areas, provide justification for any access and work pad areas which are proposed to be located in a wetland or stream or waterbody.

Response B8a: *National Grid has complied. National Grid owns the Project ROW in fee and needs to gain access with heavy equipment to all of the proposed structures as well as the existing structures for the construction of this Project. Providing reliable and readily available permanent access for future maintenance of the Facility is also a consideration in determining the location and type of access roads to be constructed. The type of heavy equipment (cranes, concrete trucks) necessary to install steel pole structures with concrete foundations makes it necessary to have a stable improved road surface to every structure location. With few exceptions, National Grid proposes to construct permanent gravel access roads in all upland, non-wetland, non-agricultural areas and temporary timber mat roads in areas of active agriculture and wetlands. In several areas where a long stretch of proposed permanent road crosses a small protrusion or finger of a federal wetland, National Grid has proposed to construct a permanent road across the federal wetland. This will avoid having a gap in the permanent road system when construction is completed and will facilitate access to the Facility for future maintenance and inspection and during storm events and emergency response. The areas where permanent access roads in wetlands are proposed are shown in Table C-3.*

The impact to the above areas will be minimized to the extent practicable. All permanent impacts to the wetlands have been quantified and addressed in the Wetland Mitigation Plan in Appendix R.

Permanent access proposed for the Project consists of constructing reinforced gravel roads. Work pads will also be constructed using gravel in upland, non-wetland, non-agricultural areas.

Temporary access roads and work pads will be constructed using timber mats in sensitive resource areas such as active agricultural lands and wetlands (except as noted above). Upon the completion of construction, all matting will be removed and all disturbed areas will be restored.

Some environmentally sensitive areas within the Project ROW will be avoided entirely by providing off-ROW access across private property to the ROW. Where necessary, upgrading existing off-ROW access may include minor grading and placement of gravel and/or timber mats during construction. These improvements are all shown on the EM&CP Plan and Profile Drawings and summarized in Table N-1 in Appendix N.

Response B8b: *National Grid has complied. Access to and along the Project ROW will be in the form of a) permanent gravel road construction, b) temporary timber mats in sensitive areas, or c) improving existing off-ROW gravel roads or farm lanes. The locations and types of all proposed access roads are*

shown on the EM&CP Plan and Profile Drawings and the details and specifications for each type of access road, including cross sections, dimensions and materials, is provided as part of the drawing set. In the EM&CP Plan and Profile Drawings. National Grid is proposing to construct as much permanent gravel road as possible in non-sensitive upland areas in order to have future access to the Facility for inspection, general maintenance and emergency response. Impacts to sensitive areas such as active agricultural lands and wetlands will be minimized by using temporary timber mat roads; however several small federal wetland areas have been designated for permanent road construction where matting was impractical or where gaps in the permanent road would create problems for future access. Impacts associated with constructing permanent roads in wetlands are addressed in the Wetland Mitigation Plan in Appendix R.

Response B8c: National Grid has complied. Stormwater treatment using best management practices (BMPs) and erosion and sedimentation (E&S) controls will be utilized to control stormwater runoff and to stabilize soil disturbed during the construction of the access roads, laydown areas and work pads. Stormwater runoff will be managed primarily by the use of infiltrating stormwater conveyance swales, water bars or diversion ditches, level spreaders and infiltrating vegetated buffer strips. Since the ROW is currently under an existing detailed vegetation management plan that encourages the growth of herbaceous plant communities, vegetated buffer strips are ideally-suited for infiltrating stormwater back into the groundwater table.

In addition to stormwater BMPs, E&S controls will be constructed to prevent soil erosion and sediments from leaving the controlled work area. E&S controls such as staked silt fencing, erosion control socks (coir logs, straw wattles), rolled erosion control products (RECP), turf reinforcement mats (TRM), hydro-seeding, and hydro-mulching will be extensively used throughout the site. Gravel road locations including horizontal and vertical alignments have been engineered to minimize soil disturbance to the extent practicable thus further reducing the risk of erosion and sediment pollution.

All stormwater management measures and E&S controls are shown on the EM&CP Plan and Profile Drawings and details and specifications are provided in the approved SWPPP document in Appendix G.

Response B8d: National Grid has complied. The locations and types of all proposed stream crossings are shown on the EM&CP Plan and Profile Drawings and summarized in Table C-1 in Appendix C. Details and specifications for each type of crossing are provided in the EM&CP Plan and Profile Drawings.

Stream crossing methods typically used for transmission projects consist of a) stream fording in cases where the streams are unregulated and very small with minimum flow and hard bottoms as observed in the field, or b) temporary timber mat bridges where streams have more defined bank characteristics and are bounded by wetlands on both sides, or c) temporary pipe culverts where the streams have very distinct bank characteristics and have been observed to have continuous flow, and changes in elevations are significant; or d) permanent culverts in unregulated streams, where no other crossing method is feasible. Equipment crossings of regulated streams (Class C/Standard T or higher Class/Standard streams) will be limited to existing bridges and culverts or the installation of temporary crossings.

All temporary installations will be used only during construction and will be removed as part of final restoration. All disturbed areas will be restored to their original condition and stream bank restoration will be done in accordance with Section 3.2.1.1 of Best Management Practices For Article VII Electric Transmission Line Projects in Appendix F.

Response B8e: National Grid has complied. Plans and specifications describing material type and sizes of structures placed in streams and on stream approaches can be found in the EM&CP Plan and Profile Drawings.

Response B8f: *National Grid has complied. To the extent possible, access roads and work pads have been laid out to avoid wetlands and streams. In some instances avoidance was not possible. Table C-3 in Appendix C provides a summary of all locations where access roads and work pads will be constructed in or across wetlands and streams.*

9. Noise Sensitive Sites

Specify procedures to be followed to minimize noise impacts related to ROW clearing, and construction and operation of the Facility. Indicate the types of major equipment to be used in construction or Facility operation; sound levels at which that equipment operates; days of the week and hours of the day during which that equipment will normally be operated; any exceptions to these schedules; and any measures to be taken to reduce audible noise levels caused by either construction equipment or Facility operation.

Response B9: *National Grid has complied. Generally, the work activity for the Project will not significantly increase ambient noise levels for appreciable durations. Mitigating factors include that there are limited areas where the work activities will be located near residential or sensitive properties, the construction will occur over relatively short periods of time, and the construction is scheduled to occur only during daytime hours. Work in the proximity of any single general location near an occupied building or residence will likely last no more than one week since construction activities progress relatively quickly along the corridor.*

Construction activities on the Project shall be confined to the hours of 7:00 a.m. and 6:00 p.m. Monday through Saturday. If, due to safety or continuous operation requirements, construction activities are required to occur on Sundays or after 6:00 p.m., National Grid shall notify DPS Staff and the affected municipality. Such notice shall be given at least 24 hours in advance unless the Sunday or after 6:00 p.m. construction activities are required for safety reasons that arise less than 24 hours in advance.

Refer to Appendix E for additional information regarding noise mitigation.

10. Ecological and Environmentally Sensitive Sites

Indicate the procedures that were followed to identify ecological and environmental resources (e.g., archaeological sites; fish and wildlife habitat; rare, threatened, and endangered species or habitats; forest and vegetation; open space; areas of important aesthetic or scenic quality; deer winter yards) and specify the measures that will be taken to protect or preserve these resources. Reports prepared to identify and analyze such sites shall be identified, and made available upon request.

Response B10: *National Grid has complied. Two areas of historical and cultural significance are shown on the EM&CP Plan and Profile Drawings in Appendix A. The areas were identified based on archeological studies and investigations conducted by Hartgen Archeological Associates between April 2010 and May 2013. The general locations of the areas of historical and cultural significance are in the vicinity of proposed Structure 33 and proposed Structure 81. Protection measures to be implemented during construction at these two locations are identified on the EM&CP Plan and Profile Drawings. Construction crews will be made aware of the location and sensitivity of these areas and both areas will be well defined in the field prior to construction to ensure their protection. General protection measures for cultural resources are specified in Certificate Conditions 77-81.*

Three ecologically sensitive areas have been identified along the proposed ROW and are identified on the EM&CP Plan and Profile Drawings along with measures that will be taken to protect the resource. The areas identified are as follows:

- *The Indiana bat, identified as an “endangered species” by the U.S. Fish and Wildlife Service (“USFWS”), is known to occur in the vicinity of the Project area in Washington County. Although there are no specific known roosting locations in the Project area, the entire length of the Facility in Washington County is considered to be sensitive and the Company will conduct clearing only between October 1 and March 31 when the Indiana bats are in their hibernacula. (Refer to Table S-1 in Appendix S entitled “Seasonal Construction Limitations for Federal and State listed Rare, Threatened and Endangered Species (revised March 9, 2013)” for more information)*
- *The northern harrier, upland sandpiper and Henslow’s sparrow, all listed as “threatened” by New York State, are known to nest in the vicinity of the Project between proposed structure 42 and proposed structure 62. In order to minimize potential impacts to birds nesting in this area, National Grid proposes to conduct surveys immediately prior to any construction activities scheduled from April 23 to August 15 to determine if active nests are present. If nesting is observed during the surveys or during the period April 23 to August 15, National Grid proposes to implement avoidance measures as appropriate, including temporary limitations on clearing and construction activities. (Refer to Appendix S for a survey plan and Table S-1 in Appendix S entitled “Seasonal Construction Limitations for Federal and State listed Rare, Threatened and Endangered Species (revised March 9, 2013)” for more information). It is noted that in DEC’s response (letter dated August 9 2012) to a request to update any known threatened or endangered species it was noted that the Henslow’s Sparrow (*Ammodramus henslowi*) was in the vicinity of the Project in Washington County. No specific requirements were noted by DEC for this species which are known to utilize agricultural areas. The short-eared owl, listed as “endangered” by New York State and the northern harrier, listed as “threatened” by New York State, have been observed to use a raptor wintering concentration area identified by DEC in the Town of Fort Edward, Washington County, located between proposed structure 42 and proposed structure 62. The typical wintering season for this area has been determined to extend from December 1 to April 15. To minimize potential disturbance to wintering birds, National Grid will limit tree clearing in this area to the period from October 1 to November 30. In addition, National Grid proposes to conduct surveys immediately prior to any construction activities scheduled from December 1 to April 15 to determine if the species are present. If wintering birds are observed during the survey or during the period December 1 to April 15, National Grid proposes to implement avoidance measures as appropriate, including temporary limitations on construction activities. (Refer to Appendix S for a survey plan and Table S-1 in Appendix S entitled “Seasonal Construction Limitations for Federal and State listed Rare, Threatened and Endangered Species (revised March 9, 2013)” for more information).*

11. Invasive Species of Special Concern

- a) Provide an invasive species prevention and management plan for Invasive Species of Special Concern, prepared in consultation with DPS, DEC and Ag&Mkts, based on the pre-construction invasive species survey of invasive species within the ROW.
- b) The plan shall include measures that will be implemented to minimize the introduction of Invasive Species of Special Concern and the spread of existing invasive species of special concern, during

construction (e.g., soil disturbance, vegetation clearing, transportation of materials and equipment, and landscaping/revegetation).

Response B11: *National Grid has complied. Invasive species were identified based on field observations made during the preparation of the Article VII application and again during the preparation of the EM&CP. Based on those field observations, the EM&CP Plan and Profile Drawings show the locations of invasive species within the ROW and the proposed locations of vehicle cleaning stations which are designed to help control the spread and transport of invasive species. A list of Invasive Species of Special Concern specific to this Project was developed in consultation with NYSDEC, DPS and Ag&Mkts. The List of Invasive Species of Special Concern as well as a management plan that puts forth the measures that will be used to prevent or control the transport of invasive species is provided in Appendix M. Additional information regarding the control of invasive species can be found in Section 7 of Best Management Practices For Article VII Electric Transmission Line Projects in Appendix F and in Certificate Condition 134.*

12. Herbicides

Include a herbicide use plan for all vegetation clearing that:

- a) Specifies the locations where herbicides are to be applied. Provide a general discussion of the site conditions (e.g., land use, target and non-target vegetation species composition, height and density) and the choice of herbicide, formulation, application method and timing.
- b) Describes the procedures that will be followed during application to protect non-target vegetation, streams, wetlands, potable waters and other water bodies, and residential areas and recreational users on or near the ROW.

Response B12a: *National Grid has complied. Herbicide applications will be determined by the National Grid Transmission Forester on a site-by-site basis during the construction phase of the Project. National Grid will notify DPS staff and NYSDEC 14 days prior to any herbicide application on the Project. Overall, short-term and long-term herbicide application required to maintain the ROW will be in accordance with the NYS DPS approved "National Grid Transmission Right-of-Way Management Program" and the Certificate Conditions.*

In cleared areas, remaining stumps will immediately be treated with herbicide to prevent resprout. Only those species that resprout from the stump or root will be treated. The sites that would normally be treated with herbicide during on-cycle maintenance will be treated with herbicide during construction. Since stump treatment does not produce 100 percent efficacy, it is anticipated that a treatment will be needed to suppress resprouting prior to the next regular maintenance cycle which is scheduled for 2016 and 2017. At the completion of the Project, the final walk down will include the inspection of herbicide efficacy. If required, a follow-up foliar application will be performed on the impacted portion of the right-of-way. If a follow-up application is found to be unnecessary, the ROW will be treated again on the regular maintenance cycle. It is noted that a colored dye may be added to the herbicide mixture to provide a visual indication of which stumps have received herbicide treatment. The dye will be added to the herbicide mixture on site, at a rate of approximately 1 drop per quart. National Grid may add dye to the herbicide to facilitate quality control at the discretion of the Environmental Monitor or Transmission Forester.

Procedures for herbicide application are discussed in Section 2.9 of Appendix F. Certificate Conditions 57-61 put forth additional restrictions regarding the use of herbicides.

Response B12b: *National Grid has complied. Procedures for the application of herbicide provided herein are derived from the approved "National Grid Transmission Right-of-Way Management Program" and the Certificate Conditions. The selection of both the type of herbicide and the location where it will be used includes the consideration of establishing buffer zones that are designated to minimize the potential for off-target damage. When it becomes necessary to treat in proximity to aquatic resources such as streams, lakes, rivers, ponds or non-jurisdictional wetlands with standing water, minimum buffer zones for use of non-aquatic herbicides shall be as follows:*

- *5 feet for cut stump treatment*
- *15 feet for low-volume backpack foliar*
- *25 feet for low-volume hydraulic foliar*
- *50 feet for high-volume hydraulic foliar*

Certain herbicide product label restrictions may be greater than the above specified buffer zones. In such cases, the more restrictive requirements are always followed.

Where applicable, herbicides shall not be used within 100 feet of a potable water supply or NYSDEC regulated wetland, unless otherwise allowed by permit, rule or regulation. Herbicides shall not be applied within 5 feet of streams or standing water.

Where applicable, herbicide application within DEC regulated wetlands or the adjacent 100-foot buffer area is applied in accordance with the Company's statewide freshwater wetland permit. This allows the Company to use the low-volume hydraulic foliar, low-volume backpack foliar, or the cut-stump treatment methods within regulated wetlands and adjacent buffer zones to control target vegetation. Herbicides with aquatic labeling are approved for use with these three methods. Herbicides shall not be applied within 5 feet of streams or standing water.

Buffer zones or no treatment zones are also incorporated for sensitive land uses such as active residential, active cropland and orchards, organic farms, active public parks, schools, and public recreation areas including golf courses and athletic fields. For all foliar techniques, a buffer zone of reasonable size, generally 25-100 feet, is maintained around active residential areas depending on site specific conditions. When herbicide treatment is required within the buffer zones for active residences, the cut and stump treatment methods are used.

For active cropland, including active orchards, low-volume hydraulic foliar techniques use buffer zones ranging from 0-25 feet. For high-volume hydraulic foliar applications, the buffer zone range is generally increased to 100 feet based on site specific conditions. The range depends on the density of the brush to be maintained and the potential for the applicator to position the vehicle in such a way to allow the application to be directed away from the crop.

Low-volume backpack foliar and cut and stump treatment methods may be used right up to the edge of active cropland and orchards, where site conditions allow. With the backpack method, the applicator will stand and direct the application away from the crop or orchard area.

For active parks, schools and athletic fields, the buffer zones for foliar applications range from 10-25 feet for low-volume backpack operations to 10-50 feet for low-volume hydraulic, and 25-100 feet for high-volume hydraulic foliar applications. Note that no work may be conducted on the property of public or

private schools or registered day care facilities without advance pre-notification under the NYSDEC pesticide notification regulations.

In all cases, National Grid may utilize greater distances when the Forester conducting the field inventory finds aesthetic, public or environmental reasons to increase the size of a buffer zone. This procedure allows the Forester to consider site specific conditions like slope, rock outcrops, soil conditions, densities of vegetative ground cover, proximity to water, height and density of undesirables, wire security zone, type and location of crops, natural buffers, and any off-ROW sensitive areas.

13. Fugitive Dust Control

Specify appropriate measures that will be used to minimize fugitive dust and airborne debris from construction activity.

Response B13: *National Grid has complied. National Grid will take appropriate measures to minimize fugitive dust and airborne debris from construction activity. Exposed soils and roadways shall be wetted as needed during extended dry periods to minimize dust generation. To the extent practicable, water for dust control shall come from municipal water supplies/sources. If surface waters are used, equipment shall be disinfected afterwards. Dust control will conform to the NYSSESC Standards and Specifications for Dust Control.*

14. Petroleum and Chemical Handling Procedures

- a) Include a plan for the storage, handling, transportation, and disposal of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances which may be used during, or in connection with, the construction, operation, or maintenance of the Facility. Address how to avoid spills and improper storage or application in the vicinity of any wetland, river, creek, stream, lake, reservoir, spring, well, or other ecologically sensitive site, or existing recreational area along the ROW and access roads.
- b) Include a plan for reporting, responding to and remediating the effects of any spill of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances in accordance with applicable State and Federal laws, regulations, and guidance, and include proposed methods of handling spills of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances which may be stored or utilized during the construction and site restoration, operation, and maintenance of the Facility.

Response B14a: *National Grid has complied. National Grid and its Contractors will implement precautions during the storage, handling and transporting of fuels, oils, chemicals and other potentially harmful substances to avoid spills and releases to the environment. National Grid and its Contractors will take precautions to prevent spillage and will not store, mix, or load these materials beneath trees or within 100 feet of any wetlands, river, stream, or other body of water. Hazardous substances will be transported, stored and handled as recommended by suppliers and/or manufacturers, in compliance with all applicable federal or state regulations.*

A list of typical chemicals and waste anticipated for the Project is provided in Table V-1 in Appendix V along with copies of National Grid's spill reporting and cleanup procedures. A list of emergency contact personnel and local hospitals along with a map showing the location of the nearest hospitals are provided in Appendix K.

Preventive and protective practices for fuel chemical handling will be accomplished through implementation of the following principal restrictions on both contractors and company personnel:

- *Pumps used for trench dewatering or dam and pump crossings operating within 100 feet of a water body, wetland or rare plant or unique natural community will be placed in properly sized and temporary secondary containment structures during their use.*
- *Extreme caution will be exercised when handling fuel and while refueling to avoid spillage.*
- *Any equipment that must be refueled in the field will be refueled from tanks carried to the work site by truck.*
- *No equipment refueling will be performed within 100 feet of streams or wetlands except that the refueling of hand equipment (e.g. chainsaws), cranes and drill rigs may be allowed within 100 feet of wetlands or streams under the following conditions:*
- *Refueling of hand equipment will be allowed within one hundred (100) feet of wetlands or streams when secondary containment is used. Secondary containment will be constructed of an impervious material capable of holding the hand equipment to be refueled and at least 110% of the fuel storage container capacity. Fuel tanks of hand held equipment will be initially filled in an upland location greater than one hundred (100) feet from wetlands or streams in order to minimize the amount of refueling within these sensitive areas. Crews shall have sufficient spill containment equipment on hand at the secondary containment location to provide prompt control and cleanup in the event of a release.*
- *Refueling of cranes and drill rigs will be allowed within one hundred (100) feet of wetlands or streams when necessary to maintain continuous operations and where removing equipment from a sensitive area for refueling would increase adverse impacts to the sensitive area. Fuel tanks of such equipment will be initially filled in an upland location greater than one hundred (100) feet from wetlands or streams in order to minimize the amount of refueling within these sensitive areas. All refueling of cranes or drill rigs within one hundred (100) feet of wetlands or streams will be conducted under the direct supervision of the Environmental Monitor. Absorbent pads or portable basins will be deployed under the refueling operation. In addition, the fuel nozzle will be wrapped in an absorbent pad and the nozzle will be placed in a secondary containment vessel (e.g., bucket) when moving the nozzle from the fuel truck to the equipment to be refueled. All equipment operating within one hundred (100) feet of a wetland or stream shall have sufficient spill containment equipment on board to provide prompt control and cleanup in the event of a release.*
- *When there is a need to use portable power equipment such as pumps or generators near wetlands or waterbodies, they will be used and refueled employing basic spill prevention and containment procedures. These procedures will include the placement of portable power equipment within a lined bermed area. Fuel- containing vessels used to fuel immobile equipment will not be stored within 100 feet of a wetland or waterbody following refueling activities.*

- *All equipment operating within 100 feet of a water body, wetland, or rare plant or unique natural community will have sufficient spill-containment equipment on board to provide for prompt control and cleanup in the event of a release.*
- *Refueling of construction vehicles should occur only at existing paved roads that intersect with the construction ROW. During refueling, spill kits and fuel-absorbent materials will be on-site in the event a spill occurs.*
- *All on-site construction vehicles including contractor employee vehicles will be monitored for leaks and will receive regular preventive maintenance to reduce the risk of leakage. Any equipment leaking oil, fuel, or hydraulic fluid will be repaired immediately or removed from the site. In the event of a release, the spill will be promptly cleaned up in accordance with the spill response and clean-up procedures identified in Appendix V.*
- *The Construction Contractor will not wash equipment or machinery in any watercourse, wetland, or rare plant or unique natural community, and will not permit runoff resulting from washing operations to directly enter any watercourses or wetlands.*
- *In the event of a spill or hazardous material release to the environment, reporting, containment, and cleanup procedures outlined in Appendix V must be followed.*

Response B14b: *National Grid has complied. All spills or releases of oil or any other chemical to the environment in any quantity must be reported to National Grid's Eastern Regional Control Center (ERCC) at (518) 356-6471. National Grid's Environmental Guidance Documents EG-501NY for Release Notification and EG-502NY for Spill and Release Cleanup are provided in Appendix V. These guidelines address immediate incident activities, reporting instructions, notifications and general cleanup procedures.*

All on-site spills will be immediately reported to the Environmental Monitor, who is responsible for obtaining all relevant spill information needed to report the spill to the ERCC and to National Grid's Eastern Division Environmental Engineer, and for completing the Release Report Form. If the Environmental Monitor cannot be reached within 15-minutes from the time the spill occurred the Construction Contractor will call National Grid's ERCC and Eastern Division Environmental Engineer and notify the Environmental Monitor as soon thereafter as possible. The Environmental Monitor will also be responsible for keeping a "Spill Tracker" spreadsheet for the purpose of tracking all spills that occur during the course of the Project. An example of the Spill Tracker Spreadsheet that will be used for this Project can be found in Appendix V.

DPS staff also will be notified of all reportable spills as soon as possible and will receive a copy of the Spill Tracker spreadsheet on a monthly basis.

15. Environmental Supervision

- a) Describe protocols for supervising demolition, vegetation clearing, use of herbicides, construction, and site restoration activities to ensure minimization of environmental impact and compliance with the environmental protection provisions specified by the Certificate.
- b) Specify the titles and qualifications of personnel proposed to be responsible for ensuring minimization of environmental impact throughout the demolition, clearing, construction and restoration phases, and

for enforcing compliance with environmental protection provisions of the Certificate and the EM&CP. Indicate the amount of time each supervisor is expected to devote to the project.

- c) Specify responsibilities for personnel monitoring all construction activities, such as clearing, sensitive resource protection, site compliance, EM&CP change notices, etc.
- d) Explain how all environmental protection provisions will be incorporated into contractual specifications, and communicated to those employees or contractors engaged in demolition, clearing, construction, and restoration.
- e) Describe the procedures to “stop work” in the event of a Certificate violation. Identify the Company’s designated contact including 24/7 emergency phone number, for assuring overall compliance with Certificate conditions.

Response B15a: *National Grid has complied. As required by Certificate Condition 62, National Grid will have a full-time Environmental Monitor on site for the entire duration of the Project. The responsibilities of the Environmental Monitor are as follows:*

- a) *Monitoring all reconstruction activities, including clearing, access and drainage improvements/installations, structure removals, replacement structure installations, wire-stringing, installation and maintenance of temporary erosion controls, work involving wetlands, streams, agricultural lands, etc.;*
- b) *Monitoring and supporting compliance with the environmental management and protection requirements specified by the EM&CP, 401 Water Quality Certificate, and applicable U.S. Army Corps of Engineers (“USACOE”) Permits;*
- c) *Performing or coordinating the role and responsibilities of the agricultural inspector in order to address all EM&CP requirements for work involving affected agricultural lands;*
- d) *Providing Staff and National Grid’s project team personnel with weekly status reports summarizing construction and indicating construction activities and locations scheduled for the next two weeks;*
- e) *Organizing and conducting site compliance audit inspections for DPS Staff, with the construction inspector, agricultural inspector (as applicable to affected agricultural lands), and other project team personnel;*
- f) *Processing EM&CP Notices of Change with DPS Staff;*
- g) *Coordinating NYSDEC, Ag&Mkts, and USACOE inspections of the Project;*
- h) *Monitoring and managing all environmental protection requirements of the EM&CP and closely coordinating same with the construction inspector and Contractor; and*
- i) *Monitoring Contractor compliance with the provisions of the Certificate and permits, applicable sections of the Public Service Law, and the EM&CP*

The qualifications of the Environmental Monitor are as follows:

- a) *Sufficient knowledge and experience to manage the environmental compliance procedures described in the EM&CP; and*
- b) *A four-year degree in forestry or related environmental discipline or a demonstrated equivalent knowledge, in either case including courses in ecological sciences and experience in environmental construction inspection; and*
- c) *Necessary qualifications consistent with a “Qualified Inspector” pursuant to the SPDES General Permit.*

The name and qualifications of the Environmental Monitor will be submitted to the Secretary at least two weeks prior to the start of construction in accordance with Certificate Condition 64.

The EM&CP document, including the EM&CP Plan and Profile Drawings, will be made part of the bid specification package for all contract work and will be reviewed in detail at a pre-construction meeting with all contractors working on the Project.

The Environmental Monitor, as well as the Construction Inspector, Agricultural Inspector and Safety Inspector will have “stop work” authority over all aspects of the Project.

The Company’s designated contact including 24/7 emergency phone number for assuring overall compliance with Certificate conditions will be provided to DPS staff at least two weeks prior to starting construction.

16. Clean-up and Restoration

Describe the Certificate Holder’s program for ROW clean-up and restoration, including:

- a) the removal of any temporary roads; restoration of lay-down or staging areas; the finish grading of any scarified or rutted areas; the removal of waste (e.g. excess concrete), scrap metals, surplus or extraneous materials or equipment used;
- b) plans, standards and a schedule for the restoration of vegetative cover; include, but not limited to, specifications to address:
 - i. design standards for ground cover:
 - a. species mixes and application rates by site;
 - b. site preparation requirements (soil amendments, stone removal, subsoil treatment, or drainage measures);
 - c. acceptable final cover % by cover type;
 - ii. planting installation specifications and follow-up responsibilities;
 - iii. a schedule or projected dates of any seeding and/or planting; and,
 - iv. plans to prevent unauthorized access to and along the ROW.

Response B16a: *National Grid has complied. All temporary roadways, whether gravel or timber mat, will be removed as part of final restoration after all construction for which they served has been completed. All*

disturbed areas, including temporary roadways, lay-down areas and scarified or rutted areas will be restored, seeded and mulched within 14 days from the time construction in that area has ended.

During construction, the ROW will be kept free of construction related debris and discarded material to the extent possible. As construction continues, each section of the ROW will be thoroughly cleaned within one week after construction is completed on that particular section. All debris resulting from construction such as piping, fencing, wiring, concrete and any other materials generated will be disposed of at an approved disposal site in compliance with all appropriate environmental regulations. Trucks leaving the construction area will be loaded, trimmed and covered in accordance with applicable regulations. Under no circumstances will any fabricated debris be burned or buried either on or off the ROW.

Response B16b: *National Grid has complied. The plans, standards and schedule for restoration of the ROW are provided in the approved SWPPP in Appendix G. SWPPP inspections will take place on a weekly basis until construction is completed and all disturbed areas have been stabilized and will then continue on a monthly basis until all disturbed areas have achieved 80% revegetation.*

17. Visual Impact Mitigation

Provide details of screening or landscape plans prescribed at road crossings and for adjacent property owners. Discuss existing or proposed landscape planting, earthwork, or installed features to screen or landscape substations and other Facility components.

Response B17: *There are no screening or landscape plans proposed for the Project.*

18. ROW Encroachment Plan

Provide detailed plans for identifying and resolving potential encroachments to the existing and proposed ROW.

Response B18: *National Grid has complied. A ROW encroachment plan is provided in Appendix O.*

19. Wetland Mitigation Plan

Provide detailed plans for mitigating all permanent impacts to State-regulated wetlands and Federally-regulated wetlands, if prescribed by the Army Corps of Engineers, including, but not limited to, the permanent conversion of forested wetland to scrub/shrub wetland. For State-regulated wetlands, mitigation plans shall separately address impacts to each of the wetlands benefits described in ECL § 24-0105(7). Plans shall provide for wetland mitigation in the same watershed to the maximum extent possible.

Response B19: *National Grid has complied. A copy of the Conceptual Wetland Mitigation Plan is provided in Appendix R. A copy of the Plan approved by the USACOE will be provided when received. The plan addresses the total wetland impacts associated with the Project and puts forth the proposed compensatory wetland mitigation plan including the location and size of the proposed mitigation sites.*