Overland Segments 1 and 2
Case Number (10-T-0139)

Environmental Management and Construction Plan

Putnam to Whitehall
Washington County, New York

CHA Project Number: 066076

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LIST OF ACRONYMS & ABBREVIATIONS

40 CFR Part 112	Title 40 of the Code of Federal Regulations Part 112
AASHTO	American Association of State Highway Transportation Officials
AC	Alternating Currents
Ag & Mkts	New York State Department of Agriculture and Markets
ANSI	American National Standards Institute
APA	Adirondack Park Agency
APE	Area of Potential Effects
AREMA	American Railway Engineering and Maintenance-of-Way Association
AST	Aboveground Storage Tank
ATRAS	Annual Transmission Reliability Assessment Study
BMPs	Best Management Practices
CAMP	Community Air Monitoring Plan
CC	Certificate Condition
CECPN	Certificate of Environmental Compatibility and Public Need
CHA	CHA Consulting, Inc.
CHPE	Champlain Hudson Power Express (CHPE), LLCLLC
CI	Co-located Infrastructure
CM	Construction Manager
CNY	City of New York
COD	Commences Commercial Operation
CP	Canadian Pacific Railway
CPESC	Certified Professional in Erosion and Sediment Control
CPSWQ	Certified Professional in Storm Water Quality
CRIS	Capacity Resource Interconnection Service
CRMP	Cultural Resources Management Plan
CSX	CSX Rail
dbh	Diameter at Breast Height
DC	Direct Current
DOE	U. S. Department of Energy
DPS	NYS Department of Public Service
ECL	Environmental Conservation Law
EDPL	Eminent Domain Procedure Law
EEANY	Environmental Energy Alliance of New York
EH&S	Environmental Health and Safety
EI	Environmental Inspector
EIS	Environmental Impact Statement
EM&CP	Environmental Management and Construction Plan
EPA	U. S. Environmental Protection Agency
EPC	Engineering, Procurement, and Construction
ESC	Erosion and Sediment Control
ESCP	Erosion and Sediment Control Plan
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
FPA	Federal Power Act
GIS	Gas Insulated Switchgear

HA	Hydro-Ax Mechanical Clearing Machine
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HC	Hand Cutting
HDD	Horizontal Directional Drilling
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IA	Interconnection Agreement
IEEE	Institute of Electrical and Electronics Engineers
IPaC	Information for Planning and Consultation
L1UB	Lacustrine Limnetic Unconsolidated Bottom
L2AB	Lacustrine Littoral Aquatic Bed
LCMM	Lake Champlain Maritime Museum
LOD	Limit of Disturbance
LOW	Limit of Work
MCL	Maximum Contaminant Level
MP	Mile Post
MPT	Maintenance and Protection of Traffic
MUTCD	Manual of Uniform Traffic Control Devices
NAERO	Northeast Power Coordinating Council
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NERC	North American Reliability Corporation
NESC	National Electrical Safety Code
NGO	Non-governmental Organization
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
NRCS	Natural Resource Conservation Service
NRHP	National Registry of Historic Places
NYCRR	New York Codes, Rules and Regulations
NYISO	New York Independent System Operator
NYPA	New York Power Authority
NPCC	Northeast Power Coordinating Council
NWI	National Wetland Inventory
NYCRR	New York Codes, Rules and Regulations
NYNHP	New York Natural Heritage Program
NYSBPS	New York State Bulk Power System
NYSDAM	New York State Department of Agriculture and Markets
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOS	New York State Department of State
NYSDOT	New York State Department of Transportation
NYSHPO	New York State Historic Preservation Office

NYSRC	New York State Reliability Council
OATT	Open Access Transmission Tariff
OC	Operating Committee
OEM	Original Equipment Manufacturer
OGS	Office of General Services
OIS	Optional Interconnection Study
OPRHP	Office of Parks Recreation & Historic Preservation
OPS	Office of Public Safety
OSHA	Occupational Safety and Health Administration
OTM	OSHA Technical Manual
PAR	Phase Angle Regulating Transformer
PBS	Petroleum Bulk Storage
PCBs	Polychlorinated Biphenyls
PEM	Palustrine Emergent
PFO	Palustrine Forested
PPE	Personal Protection Equipment
PSC	Public Service Commission (New York State)
PSL	Public Service Law (New York State)
PSS	Palustrine Scrub-shrub
PUB	Palustrine Unconsolidated Bottom
PVC	Polyvinyl chloride
PWS	Public Water Supply
ROWs	Right of Ways
ROVs	Remotely Operated Vehicle
RTE	Rare, Threatened and Endangered
RTE Plants	Rare, Threatened or Endangered Plant Species under 6 N.Y.C.R.R. Part 193
SCFWH	Significant Coastal Fish and Wildlife Habitats
SDS	Safety Data Sheets
SIS	Systems Impact Study
SOP	Standard Operating Procedures
SPCC	Spill Prevention, Control and Countermeasure
SPCC	Spill Prevention Control and Countermeasures Plan
SPDES	State Pollutant Discharge Elimination System
SPS	Special Protection System
SRIS	System Reliability Impact Study
SSESC	Standards and Specifications for Erosion and Sediment Control
SWPPP	Stormwater Pollution Prevention Plan
TE Species	Threatened or Endangered Wildlife Species under 6 N.Y.C.R.R. Part 182
TOs	Transmission Owners
TPAS	Transmission Planning and Advisory Subcommittee
TPZ	Tree Protection Zones
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
VOCs	Volatile Organic Compounds
WQC	Water Quality Certification
kV	kilovolts

MW	megawatts
PSI	pounds per square inch

GLOSSARY

Agricultural Land: Active agricultural land includes lands zoned for agricultural use which have been involved in the production of crops, livestock and livestock products for three (3) of the last five (5) years.

Allowed Deviation Zone (CC#3) - The Allowed Deviation Zone, as depicted in Appendix B to the Joint Proposal, defines the Facility/Project geographically around the nominal centerline (the "Centerline"). The Allowed Deviation Zone is depicted in Appendix B to the Joint Proposal and described in Certificate Condition 3, as amended by the Commission.

Centerline (CC#3) - The nominal centerline, as depicted in Appendix B to the Joint Proposal, and as revised by the project design (See Appendix C Plans and Profiles).

Co-located Infrastructure (CC# 27) - Co-located Infrastructure (CI) shall consist of electric, gas, telecommunication, water, wastewater, sewer, and steam infrastructure and appurtenant facilities and associated equipment, whether above ground, below ground, or submerged, that are located within the Construction Zone. CI are either owned by a State agency or municipality or a subdivision thereof or owned or operated for public utility purposes by a regulated electric, gas, telecommunication, water, wastewater, sewer, or steam service provider but do not include railroads, railways, highways, roads, streets, or avenues.

Construction Zone (CC#4) - The portions of the Allowed Deviation Zone that may be affected by construction of the Facility. The Construction Zone may also include areas outside the Allowed Deviation Zone that are needed temporarily for site investigation, access, and construction.

Facility ROW (CC#5) - The portions of the Allowed Deviation Zone to be occupied by the Facility/Project once construction is complete.

Good Utility Practice (CC#20) - "Good Utility Practice" shall include any of the practices, methods or acts engaged in or approved by a significant portion of the electric, gas, steam, water, sewer or telecommunications industries, as applicable, during the relevant time period, including without limitation, the electric, gas, steam, water, sewer or telecommunications utility or utilities whose service territories the work in question is being performed and/or whose facilities are physically impacted by the work in question and, for the electric power industry only, NYISO, NYSRC, NPCC, NERC, NAERO, or any successor organizations. Good Utility Practice shall include any of the practices, methods, or acts in which, in the exercise of reasonable judgement in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Utility Practice is intended to delineate acceptable practices, methods, or acts generally accepted in the region, such as, in the case of the electric power industry only, those practices required by FPA Section 215(a)(4).

Limit of Work (LOW) - the boundary in which all construction activities, stockpile materials, equipment storage, access, parking, grading, landscaping, restoration, and any other construction related activities shall occur. Additionally, the LOW is the boundary for all potential disturbance

during construction. Unless otherwise specified, when the limit of clearing and grubbing is shown on the plans, it shall also be the LOW. The LOW includes the area that would be considered the limit of disturbance (LOD).

Project Corridor - the route that the Segments 1 and 2 are located along, see Plan and Profile Drawings in Appendix C for details.

Package 1A and 1B – Segments 1 and 2 are referred to as Package 1A and 1B is some early documentation associated with the CHPE Project.

1.0 SITE AND PROJECT DESCRIPTION

1.1 EM&CP PURPOSE AND INTENT

On March 30, 2010, Champlain Hudson Power Express, Inc. filed an Application for a Certificate of Environmental Compatibility and Public Need (the "Application") with the New York State Public Service Commission (PSC) pursuant to Article VII of the New York Public Service Law (PSL) to construct and operate the transmission project known as the Champlain Hudson Power Express Project (the "Project") (PSC Case 10-T-0139) (CC#1). An Order granting the Granting Certificate of Environmental Compatibility and Public Need (the "Certificate") was granted on April 18, 2013. ("Certificate"). In August 2020, CHPE Hudson Power Express, Inc. converted from a corporation to a limited liability company and received the PSC's approval to transfer its interest in the Certificate to CHPE, LLC and CHPE Properties, Inc. (collectively "CHPE" and "Certificate Holders"). The Certificate was amended seven (7) times (March 20, 2020, August 13, 2020, September 21, 2020, January 26, 2021, May 14, 2021, February 17, 2022, and March 16, 2022) to reflect revisions in the alignment and other Certificate Conditions ("CC"). The Article VII review and certification process included the development of numerous documents which identified natural resources within the project area and best management practices to minimize impacts to those natural resources which might otherwise result from the construction or operation of the Project.

This Environmental Management and Construction Plan (EM&CP) has been developed in accordance with the CCs, as outlined in Section 2.0, in particular CCs 6 and 7 which contemplate the creation of segmented EM&CPs developed in accordance with CCs 145 through 164 (as applicable) and the Environmental Management and Construction Plan Guidelines document ("EM&CP Guidelines") included as Appendix E to the Certificate. Section 1.1.1 summarizes additional resources used to develop this EM&CP.

In accordance with CC 6, Table 1.1 below contains the Certificate Holders' anticipated Project schedule and sequencing for dividing the overland and marine portions of the Project into EM&CP Segments to facilitate construction and sequencing (CC#6).

Table 1.1 - Overland and Marine Segments: Project Construction Sequencing and Scheduling

EM&CP		Location Description	Segment Length (miles)	Anticipated EM&CP Filing with DPS	Anticipated Start of Construction
Construction Segment	Design Packages				
OVERLAND SEGMENTS					
1, 2	1A/1B	Putnam to Dresden/ Dresden to Whitehall	17.6	April 15, 2022	November 2022
3	1C/2	Whitehall to Fort Ann Fort Ann to Kingsbury	20.8	December 2022	May 2023
8	5A	Rotterdam to Selkirk	16.99	November 2022	March 2023
9	5B	Selkirk Bypass	5.31	November 2022	March 2023
4, 5	3	Kingsbury to Milton	26.5	January 2023	June 2023
10	6	Ravena to Catskill	20.9	November 2022	May 2023
13, 14, 15	8	Queens	2.13	December 2022	June 2023
6	4A	Milton to Ballston	10.2	February 2023	July 2023
7	4B	Ballston to Schenectady/Rotterdam	9.6	February 2023	July 2023
11, 12	7A/ 7B	Catskill to Germantown Stony Point to Haverstraw	23.84	November 2022 November 2022	May 2023 May 2023
MARINE SEGMENTS					
16	9	Transitional HDD (Stony Point)	N/A	September 2022	June 2023
17	10	Lake Champlain	~96	February 2023	July 2023
18	11	3 Transitional HDDs (Putnam, Catskill, Clarkstown)	N/A	November 2022	April 2023
19	12	Upper Hudson River	~67.5	April 2023	September 2023
20	13	Lower Hudson River	~21.6	April 2023	September 2023
21	14	Harlem River	~6.3	April 2023	September 2023
22	TBD	Converter Station, Astoria Complex, (Queens)	N/A	January 2023	July 2023
23	TBD	Astoria Rainey Cable HVAC System, (Queens)	~3.5	TBD	TBD

This EM&CP covers Segments 1 and 2 of the Project spanning approximately 17.6 miles from Putnam to Whitehall. This overland segment includes the approved alternative route known as the Putnam Extension which spans approximately 7.5 miles, which was approved as part of Amendment 2 to the Certificate, on August 13, 2020. These Segments include portions of the line located in the Towns of Putnam, Dresden and Whitehall, and the Village of Whitehall, and connects the portions of the line exiting Lake Champlain to later portions of the line running along the Canadian-Pacific railroad right-of-way (ROW).

Separate EM&CPs will be developed for each Overland Segment as well as the marine segments outlined above in Table 1.1.

Appendix A includes documentation that Certificate Holders completed required pre-submission Agency consultations and correspondence related to this EM&CP. Notices of Filing of the EM&CP are located in Appendix B. All reporting and document management requirements, including those related to consultation with Agencies are described in Section 3.3. All design drawings including Plans and Profiles, Erosion and Sediment Control Plans, and MPT Plans are included in Appendix C.

1.1.1 EM&CP Certificate Conditions and BMP Document Summary

Except where the express terms of the CCs require otherwise, this EM&CP incorporates environmental protection measures to be used in construction, operation and maintenance, from the following sources:

- The approved EM&CP Guidelines (Appendix E of the Certificate);
- The approved Best Management Practices ("BMPs") included as Attachment F to the Certificate;
- The Joint Proposal reached among parties to Case 10-T-0139 and incorporated into the Certificate Order;
- The Certificate Holders' Article VII Application, and amendments thereto;
- The Water Quality Certification issued by the DPS (Jan. 18, 2013, DMM Item 700);
- The US Army Corps of Engineers (USACE) 404 Permit;
- Applicant-Proposed Impact Avoidance and Minimization Measures dated September 2013 and submitted to the U.S. Department of Energy.

Appendix D to this EM&CP includes a summary table describing how the CCs, BMPs and EM&CP Guidelines have been addressed and incorporated into this EM&CP to assist in review by agencies. The CCs which do not apply to Segments 1 and 2 because they reference another segment of the Project have not been addressed but will be included in their applicable segment's EM&CP (CC#145).

Table 1.2 – Summary of Certificate Conditions Applicable to EM&CP Segment 1

Section	Certificate Conditions	Section Title	Location of Conditions within EM&CP
A	1-15	General Conditions of the Order	Included in Sections 1 and 3; Appendices A, B, and C; and separate filings, as cited in Section 2.0 below or discussed elsewhere in this document.
B	16-20	Laws and Regulations	General requirements and best practices for entire construction project the construction of the Facility
C	21-26	HVDC-AC Converter Station Design, Interconnection and Construction	Does not apply to Segment 1 and 2
D	27-29d	Special Conditions Regarding Co-Located Infrastructure and Related Matters	Addressed in Section 12 Co-Located Infrastructure
E	30-40	Public Health and Safety	Addressed in Sections 3, 4, 11, 12
F	41-52	Notices and Public Complaints	Addressed in Section 3, Appendix A, B, I
G	53-57	Environmental Supervision	Addressed in Section 3
H	58-74	Overland Installation	Addressed in Sections 1, 3, 4, 6, 7, 11, 12, 13
I	75-80	Agricultural Lands	Addressed in Section 1, 3, 4, 13
J	81-84	Herbicide Use	N/A – Herbicides will not be used in construction
K	85-87	Building Code and Inspections – Converter Station and Related Buildings	Does not apply to Segment 1 and 2
L	88-89	Overland Restoration	Addressed in Section 13
M	90-91	Overland Habitat Areas	Addressed in Section 8
N	92-101	Underwater Cable Installation	Does not apply to Overland Segments
O	102-106	Water Supply Intakes	Does not apply to Overland Segments
P	107-112	Cultural resources	Addressed in Section 10
Q	113-118	Waterbodies and Regulated Wetlands	Addressed in Section 8
R	119-137	Transmission System Reliability	Conditions require filings/reports/studies not related to EM&CP; relevant filings and correspondence discussed in Section 3 and Table 3.2
S	144	Mapping, Land Acquisition, and As-Built Drawings for the Facility	Addressed in Sections 1,3,4 Appendix C, H
T	145-164	EM&CP	All Sections addressed throughout this document
U	165(d)(xi)	Environmental Trust	Does not apply to Overland Segments

1.2 CHPE SEGMENT 1 AND 2 PROJECT LOCATION AND DESCRIPTION

The CHPE project involves the construction of ±339 miles of high voltage direct current underground and underwater transmission line from Montreal, Quebec, to Queens, New York (See Figure 1.1 – Overview Map). It will bring 1,250 megawatts of renewable energy into New York by the end of year 2025, the anticipated Project Commercial Operation Date construction, to reduce the dependency on fossil fuels and carbon emissions. The proposed Project will provide enough power for more than 1 million homes, along with numerous environmental and economic benefits to millions of residents in New York State communities.

Specifically, this EM&CP includes Segment 1 (7.4 miles) which begins on the western shore of Lake Champlain in Putnam Station, NY via a splice box and subsequently follows County Route 3 and Lake Road to its intersection with the road ROW at New York State Route 22. The cables continue within the Route 22 road ROW to the end of Segment 1 approximately 895 feet south of the center of the intersection between Route 22 and Dresden Road. Segment 2 (10.2 miles) starts at the end of Segment 1 and follows Route 22 until Bellamy Street. The alignment follows Bellamy Street approximately 320 ft until the start of Segment 3.

Ownership of the lands underlying these State, County and Town roads are vested in the municipalities; the Certificate Holders have obtained or will obtain municipal consents necessary to place its infrastructure within these municipally owned ROWs. The Certificate Holders have also obtained options or other agreements to utilize a small number of privately owned lands on a temporary or permanent basis to facilitate installation of Segment 1 and 2. The Certificate Holders will provide required documentation to the Secretary prior to commencement of work on those lands as required by CC 10 and 142, as discussed further below in Table 3.2 and Section 4.6.

The Segment 1 and 2 EM&CP outlines CHPE's management and construction plan for the Project including the terrain and facilities that will be encountered during construction and installation of the conduit for the power line from the Town of Putnam to the Town of Whitehall, Washington County, NY (See Figure 1.2 – Segment 1 and 2 Project Location Map). Proposed work consists of installing two (2) eight (8) inch SCH 40 PVC conduit (or approved equal). Cables will be installed within the conduit. All trenching activities and HDD work will be located within the permitted deviation zone except as noted in Section 1.3. Except as may be detailed, justified, and approved by the Department of Public Service (DPS) pursuant to the EM&CP process, the permanent Facility ROW will be no closer than (CC#140):

1. Six (6) feet to the outer surface of the nearest installed cable (when located entirely within lands owned or controlled by a railroad company or public highway).
2. Eight (8) feet to the outer surface of the nearest installed cable (in all other areas).

The design Plans and Profile Drawings are located in Appendix C.

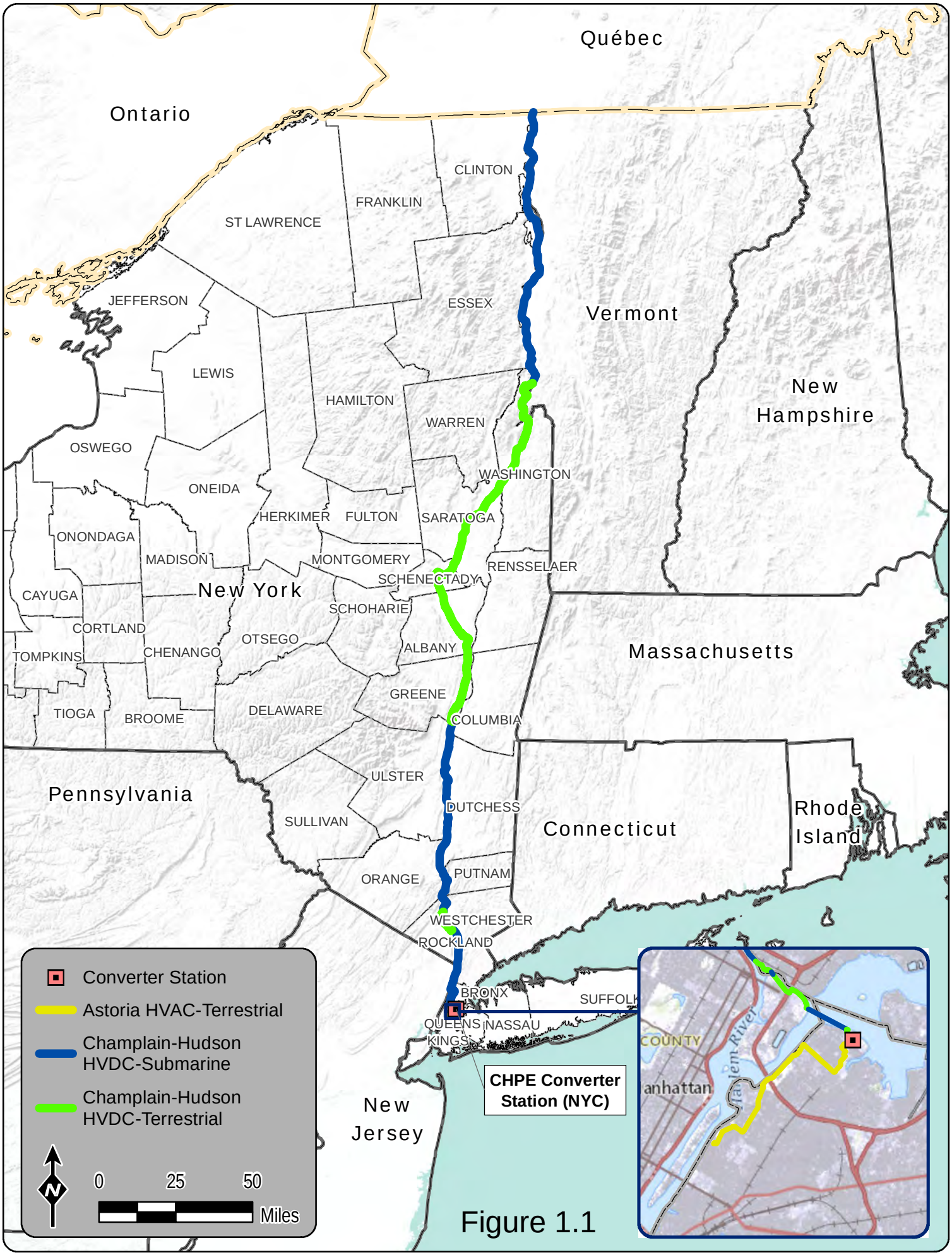

Figure 1.1

Data Sources: ESRI, NYGIS, TDI, TRC

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Author: Cole Scrivner   Date Saved: 4/13/2022

N

Legend

Segment 1 & 2 Corridor

0 3.25 6.5 Miles

Figure 1 - Champlain Hudson Power Express
Segment 1 & 2
USGS Project Location Map

1.3 DEVIATION ZONE REVISIONS IN SEGMENT 1

The Allowed Deviation Zone (ADZ) is defined as the boundary of Facility ROW, as approved by the Certificate. Any installation of cable outside the ADZ requires DPS approval prior to construction. Segment 2 has no deviation zone revisions. All activities in the "Facility ROW" are located within the Allowed Deviation Zone (CC#140, 156a, 157). Table 1.3 below summarizes the deviation zone revisions for Segment 1 as well as their justification and any changes to environmental impact.

Table 1.3 - Deviation Zone Revisions in the Segment 1

Segment/Parcel ID	Location (Approximate – see Drawings for Details)	Justification for Revision	Change in Environmental Impact
1/ Parcels: 15.-1-7.1 & 15.-1-8.2	Lake Road Crossing 10146+75 to 10149+50 (C-110)	Increased area required for HDD to avoid stream.	Weaker soils required that the HDD pathway be increased in depth to prevent impacts to the wetlands and stream by inadvertent returns of drilling fluids. The exit pit will impact a wetland (C-Q) temporarily during construction. Additional information is included in Appendix E- Justification for Deviation Zone Excursions.

Note: There are no Deviation Zone Revisions in Segment 2.

Additional information is included in Appendix E, Justification for Deviation Zone Excursions.

1.4 SENSITIVE LAND USES

1.4.1 Agricultural Lands

Agricultural lands have been identified within Segment 1, as well as at the South Ryder Road Staging and Laydown Area, which is located within Segment 3, but will be utilized during the construction of Segment 1 and 2. Table 1.4 identified Agricultural Lands that could be affected by the construction of in Segment 1 and 2.

Table 1.4 – Segment 1 and 2 Agricultural Lands

Segment	Agricultural Land Location	Anticipated Impacts to Agricultural Activities/Land
1	North side of Lake Road from 10057+00 (C-104) to 10106+48 (C-108) Parcels 16.-1-6.3 16.-1-5.1 16.-1-5.3 16.-1-4.3	Construction activity will occur within the Lake Road Right of Way and is not anticipated to impact these agricultural lands.
1	North and small portion of south side of Lake Road from 10141+50 to 10148+00 (C-110) Parcels 16.-1-16.1 15.-1-8.1 15.-1-8.2 15.-1-7	On the north side of Lake Road within agricultural lands, approximately 300 linear feet of the alignment will be installed via trenching and approximately 300 linear feet of the alignment will be installed via HDD as described in Table 4.1. Additionally, a temporary access road, as described in Table 4.3, HDD1 exit pit, and a potential soil stockpiling area will be installed on the north side of Lake Road. On the south side of Lake Road, a temporary contractor staging area may be installed. All other construction activities will occur within the Lake Road Right of Way. All impacts associated with the construction within agricultural lands will be fully restored in accordance with Section 13.4.
1	North side of Lake Road from 10151+50 to 10158+50 (C-111) Parcel 15.-1.7.1	On the north side of Lake Road within agricultural lands, approximately 250 linear feet of the alignment will be installed via HDD as described in Table 4.1 and approximately 350 linear feet of the alignment will be installed via trenching. Other temporary impacts include the installation of a temporary access road as described in Table 4.3 and the limited area of the HDD1 entry pit. All other construction activities will occur within the Lake Road Right of Way. All impacts associated with the construction within agricultural lands will be fully restored in accordance with Section 13.4.
1	North and south side of State Route 22 from 10162+00 (C-112) to 10198+00 (C-114) Parcels 15.-1-7 15.-1.5 15.-1-13 15.-1-14	Construction activity including the installation of a temporary access road as described in Table 4.3 will occur within the State Route 22 Right of Way and is not anticipated to impact these agricultural lands.
1	North side of State Route 22 from 10204+00 (C-114) to 10208+50 (C-115) Parcels 15.-1-3	All of the construction activity including the installation of a temporary access road as described in Table 4.3 and temporary crane pad will occur within the State Route 22 ROW and is not anticipated to impact these agricultural lands.
2	North side of State Route 22 from 12914+25 (C-128) to 12921+25 (C-129) Parcel 42.-1-23.2	Construction activity including the installation of the alignment, a temporary access road as described in Table 4.3 and the temporary HDD 2 entry pit as described in Table 4.1 and temporary crane pad will occur within the State Route 22 Right of Way and is not anticipated to impact these agricultural lands.
2	North side of State Route 22 from 12947+00 (C-130) to 12954+50 (C-131); Parcel 50.-1-2	Construction activity including the installation of the alignment via HDD and the temporary HDD 2 exit pit as described in Table 4.1 and temporary crane pad will occur within the State Route 22 Right of Way and is not anticipated to impact these agricultural lands.

Segment	Agricultural Land Location	Anticipated Impacts to Agricultural Activities/Land
3	West of the alignment south of Ryder Road from 15281+00 to 15285+50 (C-201)	The South Ryder Road Staging and Laydown Area is located within Segment 3 but will be utilized during construction of Segments 1 and 2. Anticipated impacts to agricultural lands include construction activity from the storage of materials and equipment. All impacts will be temporary, and the area will be fully restored in accordance with Section 13.4.

CHPE identified the agricultural lands listed in Table 1.4 based on the following definition: active agricultural land includes lands zoned for agricultural use which have been involved in the production of crops, livestock, and livestock products for 3 of the last 5 years. Using the Washington County Parcel Viewer, the Certificate Holders identified areas where the alignment and associated limit of work left the Highway/Road ROW and then used property records and aerial imagery to identify the land use. The parcels identified in Table 1.4 along Lake Road are registered with the Washington County Agricultural District. To fulfill the requirements of CC 76, the Certificate Holders initiated consultations with the New York State Department of Agriculture and Markets (NYSDAM) (see Appendix A) and provided the landowners with an initial notification letter regarding agricultural consultations (see Appendix B). Additional or future notifications for agricultural lands, where applicable, are outlined in Table 3.2.

Table 13.1 summarizes all the locations of agricultural lands within Segment 1 and 2 that are being utilized or impacted during the construction and will require restoration. Section 7.1.6 summarizes the requirements and procedures for any vegetation or tree clearing that may occur within agricultural lands. Section 13.4 describes all cleanup and restoration procedures and methods that will be followed to restore agricultural lands. All agricultural lands are marked on the Plan and Profile Drawings (G-011) in Appendix C.

1.4.2 Recreational Areas

Table 1.5 below identifies summarizes the recreational areas located within the vicinity of Segment 1 and 2. Portions of Segments 1 and 2 are located partially within the Adirondack Park boundary, Locks to Lakes Passage Scenic Byway, and the Empire State Trail but all proposed construction activities will be along existing roadway ROWs, and therefore no impact to park users will occur aside from the temporary reduction of the number of traffic lanes on local roadways accessing the recreational areas and limited vegetation clearing. Additionally, the Maintenance and Protection of Traffic (MPT) Plan (Appendix C) describes the protection measures for bicyclist and hikers who may be on the trail portions within the roadway ROWs. There are several snowmobile trails

crossed by Segment 1. Given that construction is planned in the summer and fall, there will be no impact to recreational users of these trails aside from temporary noise increases and temporary reduction of traffic lanes in local roadways accessing these trails. All noise control measures are described in Section 9.2 during construction.

The New York State Department of Environmental Conservation (NYSDEC) South Bay Pier and Boat Launch is located adjacent to the construction and Project ROW. The only anticipated impact to these recreational area users will be temporary noise increases and temporary reduction of traffic lanes in local roadways accessing the area. The majority of Segment 1 and the entirety of Segment 2 are located within the Lakes to Locks Passage Scenic Byway. There will be no permanent impacts to the scenic byway as the majority of Segment 1 and 2 construction is occurring within the road/highway ROW as described in Section 11.1 (CC#159w). The road/highway ROW and Facility ROW will be fully restored according to the various methods summarized in Section 13.0. There will be limited tree and vegetation clearing in Segment 1 and Segment 2 as described in Section 7.1 in order to protect vegetation and visual mitigate construction noise impact on these types of resources along the scenic byway (CC#159w). There will be no impact to recreational users of this scenic byway other than the temporary reduction of traffic lanes along this scenic byway (CC#159w).

Access to public recreational areas will be maintained at all times during construction activities using traffic flaggers or other traffic management methods in coordination with park operators. The traffic management procedures are outlined in the MPT Plan included in Appendix C.

Section 7.1.4 describes the procedures to be followed for vegetation, tree clearing, and disposal within the boundary of a recreational area, and/or in the Adirondack Park. Section 8.1 summarizes the procedure and locations of any wetlands and waterbodies that are located within recreational areas and the associated mitigation measures that will be followed. Section 13.2.6 summarizes the cleanup and restoration procedures that will be followed after construction in a recreational area is completed.

Use of HDD would avoid adverse impacts on recreational users by allowing installation of the transmission line without disturbing the surface features or uses of park lands. While equipment could be visible during construction, no permanent impacts on recreational resources are anticipated. Table 5.2 in Section 5.4 describes the location of all staging areas. All staging areas would be fully restored in accordance with the procedures outlined in Section 13.2.4.

Table 1.5 – Segment 1 and 2 Recreational Areas

Segment	Recreational Area	Location (Approximate – see Drawings for Details)
1 and 2	Adirondack Park	Seg. 1 (Putnam to Dresden) and Seg. 2 (Dresden to 12938+00) (C-130)
1	Snowmobile trails	10036+00 (C-103), 10220+00 (C-116), 10309+00 (C-121), 10313+00 (C-122), 10339+00 (C-123), 10349+50 (C-124), 10367+50 (C-125), 10375+00 (C-126)
1 and 2	Lakes to Locks Passage Scenic Byway (State Highway 22	Seg. 1 (10162+00 (C-111) to 10389+00 (C-127)) and Seg. 2 (12500+00 (C-101) to 13040+00 (C-136))
1 and 2	Empire State Trail	Seg. 1 (10162+00 (C-111) to 10389+00 (C-127)) and Seg. 2 (12500+00 (C-101) to 13040+00 (C-136))
2	NYSDEC South Bay Pier and Boat Launch	Dresden to 12938+00 (C-130)

2.0 CERTIFICATE CONDITIONS WITH CHPE RESPONSE

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	A. General Conditions of the Order	**CHPE Compliance**	**EM&CP Section/Appendix**
1	Subject to the Conditions set forth in this Opinion and Order, CHPE, LLC and CHPE Properties, Inc. ("Certificate Holders"), are granted a Certificate of Environmental Compatibility and Public Need ("Certificate"), pursuant to Article VII of the New York Public Service Law ("PSL"), authorizing the construction and operation of an electric transmission facility comprised of the following components: **(i) two high-voltage direct current ("HVDC") cables** capable of transmitting 1,250 megawatts ("MW") extending from the United States/Canada border east to the Town of Champlain, New York under the waters of Lake Champlain to the Town of Putnam, New York, extending to the hamlet of Cementon in the Town of Catskill, New York where the cables will exit the water to proceed along existing highways and railroad ROW, as well as under state park land through Horizontal Directional Drill ("HDD") borings, to bypass Haverstraw Bay, reentering the Hudson River at Hook Mountain State Park in Clarkstown, New York and continuing in the waters of the Hudson and Harlem Rivers to a point south of the Willis Avenue Bridge and north of the Bronx Hill, following the railroad ROW in the Bronx and then across the East River to terminate at Astoria, Queens ("the HVDC Line"); **(ii) a voltage source converter station** to convert HVDC to high voltage alternating current ("HVAC") be constructed at Astoria, Queens, that will be connected to the New York Power Authority ("the Authority" or "NYPA") 345 kV HVAC ("GIS") Substation (**the "Converter Station"** and, collectively with the HVDC Line, the "HVDC Transmission System"); and (iii) a HVAC cable circuit extending from NYPA's 345 kV GIS Substation at Astoria, Queens to Con Edison's 345 kV Rainey Substation located on the corner of 36th Avenue and Vernon Boulevard in Queens, New York (**the "Astoria-Rainey Cable"** and, collectively with the HVDC Transmission Line **System**, the "Facility"). [As Amended by Certificate Amendment 2 (Aug. 13, 2020, authorizing use of Preferred Alternatives), Amendment 3 (Jan. 26, 2021, modifying certain routing in the Harlem River Yard in New York City and augmenting Deviation Zone for Rockland County locations), Amendment 4 (May 14, 2021, increasing capacity from 1,000 to 1,250 MW), and Amendment 5 (Feb. 17, 2022, making certain modifications to Facility components in the Astoria complex)].	CHPE will comply	Section 1.0 – Site and Project Description; Appendix C, Plan and Profiles
2	The Facility route is authorized as depicted on a series of maps included in Appendix B to the Joint Proposal. [As Amended by Certificate Amendment 2 (Aug. 13, 2020, authorizing use of Preferred Alternatives), Amendment 3 (Jan. 26, 2021, modifying certain routing in the Harlem River Yard in	CHPE will comply	Appendix C of the EM&CP includes the design

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	New York City and augmenting Deviation Zone for Rockland County locations), and Amendment 5 (Feb. 17, 2022, making certain modifications to Facility components in the Astoria complex)].		drawings in plan and profile view.
3	The Facility is defined geographically by a deviation zone ("Allowed Deviation Zone") around a nominal centerline (the "Centerline"), as depicted in Appendix B to the Joint Proposal. For the portion of the Facility located on land, the Allowed Deviation Zone is depicted in Appendix B to the Joint Proposal. For the portions of the HVDC Transmission System located in Lake Champlain and the Hudson, Harlem, and East Rivers, the Allowed Deviation Zone is as specified in Certificate Condition 155.	CHPE will comply	Appendix C of the EM&CP includes the design drawings in plan and profile view. Section 1.3 & Glossary. See also, Appendix E.
4	Those portions of the Allowed Deviation Zone that may be affected by construction of the Facility are included in the Construction Zone ("Construction Zone"), which may also include areas outside the Allowed Deviation Zone that are needed temporarily for site investigation, access, and construction.	CHPE will comply	Section 1.3 & Glossary, Appendix C of the EM&CP includes the design drawings in plan and profile view.
5	The portions of the Allowed Deviation Zone to be occupied by the Facility once construction is complete are referred to herein as the Facility ROW. The Certificate Holders shall also acquire and maintain the continuing right to enter onto and use certain additional lands immediately adjacent to the Facility ROW needed for repair and maintenance purposes, including preclusion of vegetative encroachment, on terms prohibiting the owners of such land from taking any action on that land that would interfere with such repair and maintenance activities.	CHPE will comply	Section 1.3 & Glossary, Appendix C of the EM&CP includes the design drawings in plan and profile view.
6	The Facility may be developed in segments (each, a "Segment") to facilitate construction sequencing and scheduling, including the commencement of construction of overland components thereof, provided that, with the Environmental Management and Construction Plan ("EM&CP") filing regarding the first Segment, the Certificate Holders shall identify the anticipated Segments and include a schedule for their construction, and, provided further that the EM&CP filings regarding subsequent Segments shall include updates to the Segment identification and construction schedule.	CHPE will comply	Section 1.1 EM&CP Purpose and Intent
7	In the event of any conflict between the express provisions of this Certificate and any of the provisions of the Joint Proposal, including the Best Management Practices document ("BMPs") and the Environmental Management and Construction Plan Guidelines document ("EM&CP Guidelines"), both of which are attached as appendices to the Joint Proposal, the express provisions of this Certificate shall govern.	CHPE will comply	Section 1.1.1, Section 2.0 Certificate Conditions

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
8	The Certificate Holders shall, within thirty (30) days after Commission approval of this Certificate, file with the Secretary to the Public Service Commission ("Commission") either a petition for rehearing or a verified statement that they accept and will comply with this Certificate. Failure to comply with this condition shall invalidate this Certificate.	CHPE has complied	Acceptance Letter of Champlain Hudson Power Express (April 23, 2013 (DMM Item 727)
9	The Certificate Holders shall not commence site preparation or construction of a particular Segment unless and until all the necessary permits and consents referred to in Certificate Condition 16 that pertain to that Segment are received and unless and until the EM&CP for that Segment (each such EM&CP filing for a particular Segment being referred to as a "Segment EM&CP") is approved by the Commission. Copies of all permits/consents required for or obtained in connection with site preparation and construction shall be provided to the Secretary to the Commission ("Secretary") before commencement of any such activity. For the purposes of this Certificate, "construction" shall include site preparation, installation, delivery of equipment and supplies, maintenance of construction equipment during construction, clearing, and grading, but shall not include component manufacture, including cable manufacture.	CHPE will comply	Section 3.3
10	The Certificate Holders shall not commence work on any Segment until they shall have obtained all required interests in real estate, including interests in real estate to be used for access roads (whether obtained through a conveyance, consent, permit, or other approval) as are necessary and applicable for such Segment. Evidence of the obtaining of such interests shall be provided to the Secretary prior to commencement of the work.	CHPE will comply	See Section 1.2-1.3; Table 3-2.
11(a)	The Certificate Holders shall not place transmission cable in any waterway, trench, conduits, or other location intended for permanent installation prior to the issuance of (i) by appropriate Canadian federal and/or provincial authorities of those approvals and permits necessary in order to allow for the construction of transmission facilities interconnecting with the bulk power system operated by TransÉnergie (or a successor to such organization) and extending to the New York border; (ii) by the United States Department of Energy of an approval pursuant to Executive Orders 10485 and 12038 (the "Presidential Permit"); and (iii) by the United States Army Corps of Engineers of permits pursuant to section 404 of the Federal Clean Water Act and section 10 of the Federal Rivers and Harbors Act (the "Corps Permit"). The Certificate Holders shall provide copies of said permits to the Secretary within fifteen (15) days of receipt. In no event shall a delay or failure to obtain any of the above-referenced approvals serve as occasion or justification for a deferral or alteration of any and all required state clean-up and restoration activities as set forth in the applicable Environmental Management and Construction Plan and relevant sections of this Certificate and the Best Management	CHPE has complied and will comply for those approvals not yet obtained.	Section 3.3; Presidential Permit: Submitted October 15, 2014 (DMM Item 755) ACOE Permit: Submitted April 24, 2015 (DMM Item 756)

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	Practices (BMPs), including, without limitation, section 11 of the BMPs. [as Amended by Order Approving Amendment Issued Sept. 21, 2020]		
11(b)	Work shall advance generally in accordance with the schedule of gating events as described in Appendix 1 [This Appendix was attached the Order Approving Amendment Issued Sept. 21, 2020];	CHPE will comply	See Table 1.1 and Section 1.
11(c)	The Certificate Holders shall provide reports to the Commission regarding the status of efforts to achieve certifications and approvals of upstream facilities in Canada every six months from the date of this Order until the certifications and approvals are obtained. In the event that Hydro Quebec-TransÉnergie is unable to achieve certification in Canada, the Certificate Holders shall (i) notify the Secretary; and (ii) stop work in New York State and initiate stabilization of disturbed sites, and (iii) undertake restoration of any sites not previously restored, as set forth in the applicable EM&CP and relevant sections of this Certificate and the BMPs, including, without limitation, section 11 of the BMPs. [as amended by Order Approving Amendment Issued Sept. 21, 2020]	CHPE will comply	Section 3.3; reports have been filed periodically to DMM as required since this provision was Ordered on Sept. 21, 2020, most recently on Feb. 16, 2022 (DMM Item 847).
12	The Certificate Holders shall promptly notify the Secretary in writing should they decide not to complete construction of all or any portion of the Facility and shall serve a copy of such notice upon all parties to this proceeding.	CHPE will comply	Section 3.3
13	This Certificate may be vacated on notice to the Certificate Holders if (a) the Certificate Holders have not submitted the EM&CP or the initial Segment EM&CP to the Commission for its review within twelve (12) months of the date upon which Certificate Holders have received all permits and approvals required for the commencement of construction of the Facility from any and all governmental agencies and authorities having jurisdiction with respect thereto, and any finding made or action taken by any such agency or authority that is subjected to administrative and/or judicial review has been conclusively upheld as a result of such review, or the time period for the initiation of any such review has definitively expired, or (b), unless reasonable cause as defined in this Condition is shown, the Certificate Holders have not commenced construction of the Facility on or before the date that is six (6) months following the approval by the Commission of the EM&CP for the initial Segment EM&CP submitted to the Commission, or the date that is eighteen (18) months following the date of the grant of this Certificate, whichever is later. Reasonable cause may include delays in the issuance of permits and approvals required for the Facility by federal agencies and other circumstances beyond the reasonable control of the Certificate Holders.	CHPE will comply	Section 1.2; see permitting status report filed Feb. 16, 2022 (DMM Item 847).
14	The Certificate Holders shall integrate and coordinate maintenance of the Facility with that of adjacent facilities, structures, and property in accordance with the EM&CP.	CHPE will comply	Appendix F

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
15(a)	The Certificate is granted and the required determinations of the need for the Facility and that the Facility will serve the public interest, convenience and necessity are explicitly made contingent on Certificate Holders delivering a minimum of 1,550 MW of energy (including 550 MW of energy not flowing through the HVDC Transmission System) out of NYPA's Astoria substation. The Certificate Holders shall file a report documenting how they will achieve this level of deliverability prior to, or at the time they file their EM&CP for the first segment of the Facility. If the Certificate Holders cannot demonstrate compliance with this deliverability requirement, the Certificate Holders shall file with the Secretary a Request for Reconsideration of the need and public interest, convenience and necessity determinations made with respect to the Facility. The request shall be served on all parties to this proceeding and shall clearly state that all parties may submit comments on the filing within thirty (30) days of service. Such request shall explain why Certificate Holders believe that a lesser amount of energy deliverability is consistent with the Commission's findings that the Facility is needed and will serve the public interest, convenience and necessity. Such request shall include a discussion of each option the Certificate Holders considered as a means of achieving the minimum threshold level of deliverability. The Certificate Holders may not commence construction of the Facility unless and until the Commission has accepted the report or approved the request filed pursuant to this subpart.	CHPE has complied	Compliance Filing on December 22, 2021 (DMM Item 843)
15(b)	The Certificate is granted and the required determination that the Facility will serve public interest, convenience and necessity is explicitly made contingent on the HVDC Transmission System being developed, financed, constructed, and operated on a merchant basis with no reliance on cost-of-service rates set by either a federal or state regulatory entity, and will not be included in utility rate base, either directly or through a contractual arrangement between Certificate Holders and any agency, authority or other entity of the State of New York, any municipal subdivision of the State of New York, any utility subject to cost-based regulation, or any instrumentality of any of the foregoing, and on the further condition that all costs associated with the use of Astoria-Rainey Cable to deliver electric energy and capacity transmitted over the HVDC Transmission System will also be recovered exclusively on a merchant basis with no reliance on cost-of-service rates set by either a federal or state regulatory entity, and will not be included in utility rate base, either directly or through a contractual agreement between Certificate Holders and any agency, authority or other entity of the State of New York, any municipal subdivision of the State of New York, any utility subject to cost-based regulation, or any instrumentality of any of the foregoing. Prior to, or at the same time they file their EM&CP for the first segment of the Facility, the Certificate Holders shall file a report documenting that they have received building contractual commitments from one or more financially responsible entities for a combined total of no less than 750 MW of Firm Transmission Service over the Facility for a period of no less than twenty-five (25) years. The Certificate Holders may not commence construction of the Facility unless and until the Commission has accepted this report. In the event that Certificate Holders	CHPE has complied	CHPE LLC executed a Firm Electric Transmission Rights Purchase Agreement ("TRA") with H.Q. Energy Services (U.S.) Inc. ("HQUS") on Nov. 29, 2021. Pursuant to the TRA, HQUS is contracted for 100% of the transmission line capacity (1,250MW). Further, a proposed 25-year contract

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	seek to recover any of the costs of the HVDC Transmission System, or any of the costs associated with the use of the Astoria-Rainey Cable to deliver electric energy and capacity transmitted over the HVDC Transmission System, in cost-based rates set by a Federal or State regulatory authority, the Certificate shall be deemed invalid. In the event that the Certificate Holders recover all of any part of the costs of the HVDC Transmission System, or any of the costs associated with the use of the Astoria-Rainey Cable to deliver electric energy and capacity transmitted over the HVDC Transmission System, under a contract between Certificate Holders and any agency, authority or other entity of the State of New York, any municipal subdivision of the State of New York, any utility subject to cost-based regulation, or any instrumentality of any of the foregoing, the Certificate shall also be deemed invalid. For purposes of this provision, the term "rates" shall include any charges established by NYPA or a utility operating under cost-based regulation, including without limitation base rates, surcharges, adjustments, or any other recovery mechanism.		between HQUS and NYSERDA for 1,250 MW to be delivered from Quebec to the City of New York over the CHPE line is under review by the Commission in Case 15-E-0302.
15(c)	The Certificate is granted and the required determination that the Facility will serve public interest, convenience and necessity is explicitly made based on the cost estimate for the Astoria-Rainey Cable set out in paragraph 23 of the Joint Proposal in this proceeding. Certificate Holders shall include as part of their EM&CP for the Astoria-Rainey Cable a report providing an updated construction cost estimate for the Astoria-Rainey cable, including supporting documentation. If the updated cost estimate exceeds the cost estimate in the evidentiary record of this proceeding by ten (10) percent or more, the Certificate Holders shall file with the Secretary a Request for Reconsideration of the determination of public interest, convenience and necessity made with respect to the Facility. The request shall be served on all parties to this proceeding and shall clearly state that all parties may submit comments on the filing within thirty (30) days of service. Such request shall explain how such increased cost would be consistent with the Commission's public interest, convenience and necessity determination made in this proceeding.	CHPE will comply	Does not apply to Segment 1, 2; will be addressed in EM&CP for Astoria-Rainey segment.
15(d)	Upon commencement of construction, the Certificate Holders shall file with the Secretary monthly reports showing the costs for the Astoria-Rainey Cable as they occur, broken out as follows: excavation costs, traffic control costs, cable installation costs, splicing costs, thermal back fill, manhole and vault costs, costs relating to damage to other facilities (gas, electric, telephone, fiber optic cables, sewer, water, etc.), engineering costs, inspector costs, fines, cable costs, and all other costs by category. The reports shall include the names of the individuals responsible for providing the information, along with their contact information, and shall contain all supporting documentation.	CHPE will comply	Does not apply to Segment 1, 2; will be addressed in EM&CP for Astoria-Rainey segment.
15(e)	Subject to the limitations of 15(b), nothing contained in this Certificate shall be construed as affecting in any way the rights of Certificate Holders to unilaterally make application to the Federal Energy Regulatory Commission ("FERC") for a change in rates, terms and conditions, charges, classification	General Condition	General condition not related to EM&CP

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	of service, Service Agreement, rule or regulation under section 205 of the Federal Power Act ("FPA") and pursuant to FERC's rules and regulations promulgated thereunder.		
B. Laws and Regulations		**CHPE Response**	**EM&CP Section/Appendix**
16	Each substantive federal, state, and local law, regulation, code, and ordinance applicable to the Facility authorized by this Certificate shall apply except as set forth in Condition 17 below and except and to the extent that the Commission has refused to apply any substantive local ordinances, laws, resolutions, or other actions issued thereunder or local standards or requirements, as being unreasonably restrictive as listed in the Revised and Updated Exhibit 7 to the Application (see Exhibit 115 to the Joint Proposal) [As Amended by Amendment 2 (Aug. 13, 2020) authorizing additional waivers for Preferred Alternative routing]	CHPE will comply	All Sections of EM&CP (designed to ensure adherence to Certificate)
17	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 this 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, (iii) those regarding permits issued pursuant to federally approved authority, (iv) those regarding the right to use or occupy state or municipal property (including ROW), and (v) those discussed in Condition 18 below.	CHPE will comply	All Sections of EM&CP (designed to ensure adherence to Certificate)
18	Subject to the Commission's ongoing jurisdiction, the Certificate Holders shall apply for certain local regulatory permits and approvals, to wit:	CHPE will comply	Section 11.1; Does not apply to Segment 1, 2.
18(a)	The following City of New York ("CNY") regulatory permits and approvals that would be applicable to construction and operation of those portions of the Facility located within the boundaries of CNY in the absence of PSL § 130: building permits, street excavation permits, street closure permits, permits for structural welding, permits under the CNY Fire Code, permits under the CNY Construction Codes and Electrical Code, permits for the discharge of wastewater and stormwater to CNY's sewer system, permits for the use and supply of water, and forestry permits.	CHPE will comply	Does not apply to Segment 1, 2; will be addressed for EM&CP Segments in CNY
18(b)	If the Certificate Holders believe that any action taken, or determination made, in connection with the permits and approvals referenced in subpart (a) of this Certificate Condition is unreasonable or unreasonably delayed, they may petition to Commission, upon reasonable notice to the permitting authority, to seek a resolution of any such unreasonable requirement or unreasonable delay. The permitting authority may respond to the petition, within ten (10) business days, to address the reasonableness of any requirement or delay.	CHPE will comply	Does not apply to Segment 1, 2; will be addressed for EM&CP Segments in CNY

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
19	The Certificate Holders shall construct the Facility in a manner that conforms to Good Utility Practice, as herein defined, and all applicable 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 C2-2002, and any stricter standards adopted by the Certificate Holders. Upon completion thereof, the Certificate Holders shall certify to the Commission that the Facility was constructed in full conformance with the standards specified herein.	CHPE will comply	Section 4.0 & Appendix C Design Drawings conform to these standards
20	For the purposes of this Certificate, "Good Utility Practice" shall include any of the practices, methods or acts engaged in or approved by a significant portion of the electric, gas, steam, water, sewer or telecommunications industries, as applicable, during the relevant time period, including without limitation, the electric, gas, steam, water, sewer or telecommunications utility or utilities whose service territories the work in question is being performed and/or whose facilities are physically impacted by the work in question and, for the electric power industry only, the New York Independent System Operator ("NYISO"), the New York State Reliability Council ("NYSRC"), the Northeast Power Coordinating Council ("NPCC"), the North American Reliability Corporation ("NERC") and the North American Electric Reliability Organization ("NAERO") or any successor organizations. Good Utility Practice shall include any of the practices, methods, or acts in which, in the exercise of reasonable judgement in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to delineate acceptable practices, methods, or acts generally accepted in the region, such as, in the case of the electric power industry only, those practices required by FPA Section 215(a)(4).	CHPE will comply	Section 4.0 & Glossary
C. HVDC-AC Converter Station Design, Interconnection and Construction		**CHPE Response**	**EM&CP Section/Appendix**
21	The Converter Station shall be located entirely on and within Subdivision Parcel A as shown on Hearing Exhibit 130 along Luyster Creek in the Astoria neighborhood of the borough of Queens ("Subdivision Parcel A"), a copy of which is annexed to these Certificate Conditions. The Certificate Holders shall be responsible for the cost of protecting or relocating any utility infrastructure during or as a result of construction activity by them in Subdivision Parcel A. The Certificate Holders may not use, occupy or take (by condemnation or otherwise) any other real property owned or occupied by Con Edison at Astoria for the Converter Station, a ring bus and related facilities that are required to complete the Facility without Con Edison's prior written consent.	CHPE will comply	Does not apply to Segment 1, 2
22(a)	The tallest building serving as part of the Converter Station shall not exceed seventy (70) feet in height above finished grade, as defined below, and the tallest support tower shall not exceed seventy (70)	CHPE will comply	Does not apply to Segment 1, 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	feet above finished grade. The finished grade shall be the grade at the elevation of the 100-year floodplain, and such additional minimal fills as necessary to provide drainage of the site. The height and arrangement of all station facilities shall be indicated in the EM&CP site plan discussed in Section 1(A) of the EM&CP Guidelines.		
22(b)	The Converter Station shall be designed to minimize visibility and visual impacts.	CHPE will comply	Does not apply to Segment 1, 2
22(c)	The Converter Station shall use materials that minimize glare and that are neutral in color. The design shall also include appropriate landscaping at the site.	CHPE will comply	Does not apply to Segment 1, 2
22(d)	Maintenance and enhancement of the shoreline area vegetative cover between the Converter Station site and the Luyster Creek waterway shall be addressed in the final site plan and station maintenance plans.	CHPE will comply	Does not apply to Segment 1, 2
22(e)	Exterior night lighting of the Converter Station shall be designed to provide illumination necessary for worker safety and site security purposes, giving full consideration to energy conservation, glare, and the minimization of light trespass. All such lighting shall be selected and installed to shield the lamp filaments from direct view to the greatest extent possible, which may include the use of full-cutoff fixtures without drop-down optics, use of task lighting for maintenance purposes where feasible, and minimizing upward lighting. Lighting shall comply with worker safety requirements.	CHPE will comply	Does not apply to Segment 1, 2
22(f)	If Con Edison moves forward with its recently announced plan to interconnect a PAR to NYPA's 345 kV Astoria GIS Substation, the Converter Station may also include a four breaker 345 kV GIS ring bus, which ring bus, if owned and operated by Applicants, shall be located entirely on Subdivision Parcel A and shall be interconnected at 345 kV to the Astoria-Rainey Cable, NYPA's Astoria GIS Substation and the Converter Station as described in hearing Exhibit 125 to the Joint Proposal.	CHPE will comply	Does not apply to Segment 1, 2
23	The EM&CP Site Plan for the Converter Station site shall include the following:	CHPE will comply	Does not apply to Segment 1, 2
23(a)	a site plan of sufficient detail to demonstrate conformance with the requirements of this Certificate, the Noise Mitigation Procedures of the CNY, and the EM&CP guidelines.	CHPE will comply	Does not apply to Segment 1, 2
23(b)	construction drawings including architectural, structural, HVAC, mechanical, electrical, plumbing and fire protection plans for all structures, which drawings shall have been prepared by an architect or engineer licensed by the State of New York and in conformance with the code requirements of the CNY.	CHPE will comply	Does not apply to Segment 1, 2
23(c)	a review of the sound emissions characteristics of the high-voltage transformers selected for final project design, including typical and maximum noise levels generated at associated operating levels; and a tonal analysis based on one-third octave bands to determine the potential for tonal sound generation, including pure tones.	CHPE will comply	Does not apply to Segment 1, 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
23(d)	an exterior lighting plan based on illumination requirements for worker safety, which limits off-site glare.	CHPE will comply	Does not apply to Segment 1, 2
24	In developing the site plan for the Converter Station, Certificate Holders shall consult with New York State Department of Public Service ("DPS") Staff and the CNY, and share preliminary drawings of foundations, elevations, renderings, stormwater control, and noise control measures, as they become available. Not later than thirty (30) days prior to the date by which Certificate Holders expect to file the EM&CP segment for the Converter Station, they shall file with the same parties a preliminary site plan of sufficient detail to address relevant requirements of this Certificate and the EM&CP guidelines, for their review and comment.	CHPE will comply	Does not apply to Segment 1, 2
25	Prior to commercial operation of the Converter Station, the Certificate Holders shall obtain from CNY a certificate of occupancy covering the Converter Station. A copy shall be provided to the Secretary.	CHPE will comply	Does not apply to Segment 1, 2
26	The Converter Station shall have a 345 kV connection to the Astoria Annex GIS Substation [as amended by Amendment 5 dated Feb. 17, 2022].	CHPE will comply	Does not apply to Segment 1, 2
D. Special Conditions Regarding Co-located Infrastructure and Related Matters		**CHPE Response**	**EM&CP Section/Appendix**
27	The Certificate Holders shall engineer, construct, and install the Facility so as to make it fully compatible with the continued operation and maintenance of Co-located Infrastructure ("CI"), as herein defined, and affected railroads, railways, highways, roads, streets, or avenues. CI shall consist of electric, gas, telecommunication, water, wastewater, sewer, and steam infrastructure and appurtenant facilities and associated equipment, whether above ground, below ground, or submerged that:	CHPE will comply	Section 12.0 & Appendix C, P, Q, R
27(a)	are located within the Construction Zone approved in the EM&CP for the Facility or a proposed Construction Zone as provided for in Certificate Condition 28(d); and	CHPE will comply	Section 12
27(b)	are either owned by a State agency or municipality or a subdivision thereof or owned or operated for public utility purposes by a regulated electric, gas, telecommunication, water, wastewater, sewer, or steam service provider;	CHPE will comply	Section 12
27(c)	but do not include railroads, railways, highways, roads, streets, or avenues.	CHPE will comply	Section 12
28	In order to protect CI, Certificate Holders shall:	CHPE will comply	Section 12.0
28(a)	within sixty (60) days of Commission issuance of a Certificate, consult with the owners and/or operators of all known electric, gas, telecommunication, water, wastewater, sewer, and steam	CHPE will comply	Sections 3.3 and 12.0; Appendix R

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	infrastructure and appurtenant facilities and associated equipment, whether above ground, below ground or submerged, other than railroads, railways, highways, roads, streets and avenues, located either: (i) within the Allowed Deviation Zone, (ii) within three hundred (300) feet of any location outside the Allowed Deviation Zone where Certificate Holders intend to undertake any pre-construction activities; or (iii) sufficiently close to areas of anticipated pre-construction activities such that Good Utility Practice, as defined in Condition 20 of this Certificate, requires discussion of the impacts of such pre-construction activities between Certificate Holders and the owners and/or operators of such facilities ("Potential CI"). Such consultations shall include discussion of the likely routing of the Facility and the measures that will be employed by Certificate Holders to protect CI, including the studies required by the exercise of Good Utility Practice regarding the manner in which the Facility will be designed and installed wherever they are expected to cross CI or are expected to come in such proximity to CI that Good Utility Practice would require a specific design to be developed. All agreements and requirements resulting from this consultation shall be reflected in the proposal prescribed in subsection (d) of this Condition and the notice prescribed in subsection (e) of this Condition; and		
28(b)	within sixty (60) days of Commission issuance of a Certificate, begin the process of consulting with the owners and/or operators of Potential CI to develop a construction schedule for the Facility that, among other things, coordinates system outage requirements, if any, and avoids conflicts with the internal construction programs of each affected owner and/or operator. This consultation shall continue throughout each phase and portion of the construction of the Facility that affects any CI or Potential CI, as applicable. As a part of this consultation, the Certificate Holders will identify to a reasonable degree of certainty the appropriate representative of the party, whether owner or operator, having primary care, custody, and control of a particular segment of Potential CI or CI (each such a representative being a "Designated Representative"). All agreements and requirements resulting from this consultation shall be reflected in the proposal prescribed in subsection (d) of this Condition and the notice prescribed in subsection (e) of this Condition and in the Certificate Holders' EM&CP; and	CHPE will comply	Sections 3.3 and 12.0; Appendix R
28(c)	comply with all procedures identified by the Designated Representative(s) of the owners and/or operators of such CI or Potential CI, including, without limitation, application procedures and compliance with requirements for obtaining relevant rights, permission, permits, or authorization, whenever the Certificate Holders seek to undertake any studies, surveys, testing, sampling, preliminary engineering, pre-construction, construction, operation, maintenance, or repair activities that involve CI or Potential CI, except in cases where such actions must be taken on an expedited basis to protect the public or to ensure reliable operation of the Facility, whereupon Certificate Holders shall provide such Designated Representatives with such notice and obtain such approvals as is reasonable under the circumstances, and except where such procedures are subject to the Commission's	CHPE will comply	Section 12.0

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	jurisdiction and the Commission or its designee finds such procedures to be unreasonable or unduly restrictive. Notwithstanding the foregoing, the Certificate Holders shall not be required to comply with the requirements of subsection (c) of this Condition for the transport or travel over or under CI or Potential CI by the Certificate Holders and their agents, employees, and Contractors where such CI or Potential CI is located in, over, or under public waterways, roads, streets, highways, or railroad ROW, unless such transportation would be subject to special approval by state and/or local authorities due to the size or weight of load(s) transported; and		
28(d)	provide to the owner(s) and operator(s) of Potential CI or CI, at least one hundred-and-eighty (180) days prior to the filing of the relevant Segment EM&CP, a proposal for the location and design of the Facility (including a proposed Construction Zone) and the methods of construction to be employed with respect to all locations involving CI ("Proposal"). The Certificate Holders' Proposal must include all studies, calculations, tests, results, explanations, protocols, drawings, proposed construction schedules, and documents developed through the consultations described in subsections (a) and (b) of this Condition, other documentation identified in Condition 162, and any other information that supports the proposal. To the extent that any such Proposal addresses CI that was not previously identified as Potential CI, the Certificate Holders shall conduct the consultations described in subsections (a) and (b) of this Condition 28 with the Designated Representative(s) of the owner(s) or operator(s) of such CI and shall perform all other activities required by such paragraphs with respect to such CI in as reasonably expeditious a manner as possible and shall provide any resulting studies, calculations, tests, results, explanations, protocols, drawings, proposed construction schedules, and documents to the appropriate Designated Representative in a timely fashion; and	CHPE will comply	Sections 3.3 and 12.0; Appendix P, Q, R
28(e)	advise owner(s) and operator(s) of CI at least thirty (30) days prior to commencing any planned repair, construction, operation, or maintenance activity relating to the Facility affecting or occurring in the vicinity of such owner's or operator's CI, unless such actions must be taken in less than thirty (30) days to protect the public or to ensure reliable operation of the Facility, whereupon Certificate Holders shall provide such notice as is reasonable under the circumstances; provided that, in any event, "vicinity" with respect to CI used to transmit or distribute natural gas shall mean all areas within two hundred (200) feet thereof and with respect to all other CI shall mean all areas within one hundred (100) feet thereof; and	CHPE will comply	Section 3.3 (for all construction activities) Maintenance and Emergency Action Plan in Appendix F (Compliance Assurance Plan); see also Section 12
28(f)	immediately upon knowledge or discovery of any damage to or adverse effect on any CI or Potential CI resulting from any studies, surveys, testing, sampling, preliminary engineering, pre-construction activities, construction, operation, maintenance, or repair of the Facility, report to the owners and operators of the affected CI or Potential CI the nature and existence of such damage or effect and other known facts relating to the cause thereof; and	CHPE will comply	Section 3.3

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
28(g)	notify the owners or operators of CI or Potential CI as soon as possible in the event of any situation involving imminent risk to health, safety, property, or the environment requiring the Certificate Holders to cross such CI or Potential CI or to use any associated property to address the emergency. Such notice shall not be required for the transport or travel over or under CI or Potential CI by the Certificate Holders or their agents, employees, or Contractors where such CI or Potential CI is located in, over, or under public waterways, roads, streets, highways, or railroad ROW unless such transportation would be subject to special approval by state and/or local authorities due to the size or weight of load(s) transported; and	CHPE will comply	Section 3.3 and 12; Appendix F (Compliance Assurance Plan)
28(h)	include within any Project Segment EM&CP filing relating to the Astoria-Rainey Cable a study demonstrating that the proposed installation of the Astoria-Rainey cable will have not have a negative impact on the continued operation of any Parallel CI. A draft of that study will be included in the materials that Certificate Holders are required to provide to the owner or operator of such CI pursuant to Certificate Condition 28(d) and will be subject to review and comment as provided therein. For purposes of this subsection, Parallel CI means electric transmission facilities that are located in the same public ROW and are generally parallel to the Astoria-Rainey Cable.	CHPE will comply	Does not apply to Segment 1, 2
29	Reimbursement of Owners or Operators of CI and/or Potential CI for Certain Expenses:	CHPE will comply	Section 12.0
29(a)	Subject to the provisions of subsections (b) and (c) of this Condition, the Certificate Holders shall reimburse owners and/or operators of Potential CI or CI for the reasonable costs they incur in the following activities: 1. consulting with Certificate Holders as described in Certificate Conditions 28 (a) and (b). 2. reviewing pre-construction activities, designs, construction methods, maintenance, and repair protocols, and means of gaining access to Potential CI or CI proposed by Certificate Holders. 3. reviewing studies and design proposals described by Condition 28(d) and the EM&CP filings described in Certificate Condition 162. 4. conducting or preparing such additional studies and designs as may be agreed to by Certificate Holders or approved by the Commission pursuant to Condition 29(a)(3). 5. coordinating with, and monitoring the activities of, the Certificate Holders during pre-construction activities, construction, maintenance, and repair of the Facility. 6. conducting maintenance and repair work on CI property or facilities, but only to the extent of increases in such costs that result from the presence of the Facility. 7. repairing damage to Potential CI or CI or associated property caused by Certificate Holders or their representatives in connection with any studies, surveys, testing, sampling, preliminary engineering, pre-construction activities, construction, operation, maintenance, or repair of the Facility. 8. scheduling and implementing electric system outages required by any studies, surveys, testing, sampling, preliminary engineering, preconstruction activities, construction, operation, maintenance, or repair of the Facility.	CHPE will comply	Section 12.0
29(b)	For the purposes of this Certificate Condition 29, cost shall be deemed to be reasonable if in the case of each separate review of a study or design proposal described in subsection (a)(3) of this Certificate	CHPE will comply	Section 12.0

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	Condition, the total cost to be borne by the Certificate Holders is five thousand dollars ($5,000) or less.		
29(c)	Certificate Holders' cost responsibility is limited as follows: a Potential CI or CI owner or operator who intends to incur costs as described in subsection (a) of this Certificate Condition 29 for which reimbursement will be sought for activities other than reviewing a study or design proposal described in subsection (a)(3) of this Certificate Condition 29, or for reviewing such a study or design proposal but in an amount greater than five thousand dollars ($5,000), must provide Certificate Holders with a written description of the scope of the planned studies or activities and a good faith estimate of the expected costs, except where such studies or activities are undertaken in a situation involving unscheduled electric outages or an imminent risk to health, safety, property, or the environment, in which case Certificate Holders' reimbursement obligations shall be limited to reasonably incurred costs. Within sixty (60) days of the expenditure by the owners and/or operators of affected Potential CI or CI of any funds which are eligible for reimbursement by the Certificate Holders under this Certificate, the Potential CI or CI owner or operator shall present Certificate Holders with a final invoice for the actual costs incurred, but not to exceed twenty-five percent (25%) over the good faith estimate unless approved by Certificate Holders in advance in writing or, in the case of a dispute between the Certificate Holders and the Potential CI or CI owners or operators, by the Commission. Certificate Holders shall pay the authorized invoice amount within thirty (30) days of receipt.	CHPE will comply	Section 12.0
29(d)	Disputes concerning the Certificate Holders' cost reimbursement responsibility shall be brought to the Commission for resolution. The time required to resolve any dispute arising under this Certificate Condition 29 shall not be counted for the purpose of any limitation on the time available for commencement or completion of construction of the Facility.	CHPE will comply	Section 12.0
E. Public Health and Safety		**CHPE Response**	**EM&CP Section/Appendix**
30	The Certificate Holders shall design, engineer, and construct the Facility such that, to the extent applicable, their operation shall comply with the interim electrostatic field standard established by the Commission in Opinion No. 78-13 (issued on June 19, 1978 in Cases 26529 and 26559) and the limit for magnetic fields set in the Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities (issued on September 11, 1990 in Cases 26529 and 26559) or with any standard that has superseded these standards at the time of consideration by the Commission of the EM&CP or a particular Segment EM&CP.	CHPE will comply	Section 4.2 (as to design, engineering and construction consistent with standards); with regard to the EMF calculations for the Facility, see Exhibits B, C and D and Appendix A and B to the

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
			Certificate Holders' January 29, 2021 *Petition for an Amendment to Certificate of Environmental Compatibility and Public Need* (DMM Item 819)
31	Construction work occurring inside the boundaries of the CNY and outside the walls of buildings whose exterior walls and roof are substantially complete shall take place between 7:00 a.m. and 6:00 p.m. as required by Section 24-222 of the CNY City Administrative Code. For certain construction phases and activities, additional work hours may be necessary. Nothing herein shall preclude the Certificate Holders from making necessary arrangements for the extension of additional work hours with appropriate authorities of the CNY. Noise mitigation procedures shall follow those set forth in the approved EM&CP and shall not be less stringent than the citywide Construction Noise Mitigation Procedures provided by the CNY. DPS Staff shall be notified at least twenty-four (24) hours in advance if planned weekend, evening, or holiday construction becomes necessary. This condition is not intended to prohibit nighttime construction reasonably necessary to comply with restrictions on daytime construction on or along roadways or public access areas or to require the cessation of construction activities that require a continuous work effort once started. Furthermore, construction vehicles used in CNY will be outfitted with smart back up alarms.	CHPE will comply	Does not apply to Segment 1, 2
32	Deliveries occurring inside the boundaries of the CNY and related to construction activities shall take place between 7:00 a.m. and 6:00 p.m., except that, to the extent required to accommodate oversized delivery pursuant to a New York City Department of Transportation ("NYCDOT") permit, the Certificate Holders shall be exempt from restrictions limiting delivery to 7:00 a.m. to 6:00 p.m. This condition is not intended to prohibit nighttime deliveries reasonably necessary to facilitate compliance with restrictions on daytime construction in or along roadways or public access areas or to require the cessation of construction activities that require a continuous work effort once started.	CHPE will comply	Does not apply to Segment 1, 2
33	The Certificate Holders shall provide timely information to adjacent property owners and/or their tenants regarding planned construction activities and schedules. The Certificate Holders shall notify these persons of construction work within one hundred (100) feet of their property at least two (2) weeks prior to the commencement of construction in these areas and provide copies of all correspondence to the DPS Staff.	CHPE will comply	Section 3.3

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
34	The Certificate Holders shall keep local fire department and emergency management teams apprised of on-site chemicals and waste and shall also advise owners and operators of CI as to on-site chemicals and waste stored within one hundred (100) feet of their CI. In the case of CI located within the CNY, the Certificate Holders shall advise CI owners and operators of on-site chemicals and waste stored within three hundred (300) feet of such facilities. All chemicals shall be secured in a locked and controlled area(s).	CHPE will comply	Section 3.3
35	The Certificate Holders shall notify DPS Staff and the New York State Department of Environmental Conservation ("NYSDEC") immediately of any petroleum product spills. The Certificate Holders shall also notify owners and operators of CI of any petroleum product spills within one hundred (100) feet of their CI, provided however that in the case of CI located within CNY, the Certificate Holders shall advise CI owners and operators of petroleum product spills within three hundred (300) feet of such facilities	CHPE will comply	Section 3.3
36	The Certificate Holders shall comply with the requirements for the protection of underground facilities set forth in 16 N.Y.C.R.R. Part 753, entitled "Protection of Underground Facilities."	CHPE will comply	Section 12.3
37	Parking for construction workers shall be in designated areas that do not interfere with normal traffic, cause a safety hazard, or interfere with existing land uses, including CI.	CHPE will comply	Section 4.8-4.9
38	Direct disturbance to properties shall be avoided by accessing the overland Construction Zone from existing roadways or approved access roads where feasible. The Certificate Holders, in undertaking the Facility, shall not violate the property rights of individual landowners and shall not commit trespass upon their lands. Before the Certificate Holders attempt to enter private property that they do not have the legal right to enter, they shall first obtain the permission of the landowner and shall abide by all conditions on such permission that the landowner may impose. If the Certificate Holders rely on a document as evidence of their easement or other right to access land owned in fee by an individual landowner, they shall provide a copy of such document to the landowner upon his or her request.	CHPE will comply	Section 4.6; see also Appendix C.
39	For each location where the Facility involves construction across or within the ROW limits of a road, street, highway or public thoroughfare, the Certificate Holders 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 ROW. The Certificate Holders shall also prepare MPT plans for each location where construction vehicles will access the Construction Zone from a local roadway. The MPT plans shall address temporary signage, lane closures, placement of temporary barriers, and traffic diversion.	CHPE will comply	Section 11.1 and Appendix C
39(a)	All signage utilized shall comply with the New York State Department of Transportation ("NYSDOT") Manual of Uniform Traffic Control Devices (Manual No. 7155) and, within State highway ROW, a Highway Work Permit issued by NYSDOT. Placement of signs shall be determined in consultation with the jurisdictional agency. At a minimum, signs shall be placed at the following	CHPE will comply	Section 11.1 Appendix C Appendix S

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	distances: (1) Signs announcing construction at five hundred (500) feet and one thousand (1,000) feet; (2) Signs depicting workers at three hundred (300) feet; and (3) Where blasting is to take place within fifty (50) feet of a road, a blast warning sign at one thousand (1,000) feet.		
39(b)	Flagmen shall be present at all times when equipment is crossing or entering any road, when equipment is being loaded or unloaded, and when two-lane traffic has been reduced to one lane. All flagging operations shall comply with 17 N.Y.C.R.R. Part 131.	CHPE will comply	Section 11.1 Appendix C
40	To the extent required in connection with the delivery of oversized components, the Certificate Holders or their suppliers shall obtain any necessary permits from applicable state agencies and provide copies of such permits to the Secretary.	CHPE will comply	Section 5.4 and Section 3.3
F. Notices and Public Complaints		**CHPE Response**	**EM&CP Section/Appendix**
41	The Certificate Holders shall make available to the public a toll-free or local phone number of an agent or employee who will receive complaints, if any, during the construction of the Facility. In addition, the phone number of the Secretary and the phone number of the Commission's Environmental Compliance Section shall be provided. A log shall be maintained that lists at least the date of any complaint, identity and contact information for the complaining party, the date of the Certificate Holders' response, and a description of the outcome. Phone logs shall be made available to DPS Staff upon request. The Certificate Holders shall report to DPS Staff every complaint that cannot be resolved after reasonable attempts to do so. Any such report shall be made within three (3) business days after receipt of the complaint.	CHPE will comply	Section 3.3 and Appendix I
42	No less than two (2) weeks before commencing site preparation, the Certificate Holders shall: (1) provide notice to local officials and emergency personnel in the area where they will be working on the Facility; and (2) provide notice to the owners of property identified in Condition 33 herein; and (3) provide such notice for dissemination to local media and display in public places (such as general stores, post offices, community centers, and conspicuous community bulletin boards); and (4) in the event that the site preparation is delayed after notice is given, additional notice as set forth above shall be provided before site preparation is resumed. The notice shall be written in language reasonably understandable to the average person and shall contain: (1) a map and a description of the Construction Zone in the local area; and (2) the anticipated date for start of construction in the local area; and (3) the name, address, and local or toll-free telephone number of an employee or agent of the Certificate Holders who will receive complaints, if any, during the construction of the Facility; and (4) a statement that the Facility, as applicable, is under the jurisdiction of the Commission, which is responsible for enforcing compliance with environmental and construction conditions and which may be contacted at an address and telephone number to be provided in the notice. Upon distribution, a copy of such notice shall be filed with the Secretary.	CHPE will comply	Section 3.3

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
43	The Certificate Holders shall provide the Engineering, Procurement, and Construction Contractor retained to undertake construction of the Facility and their other Construction Contractors ("Contractors" or "EPC Contractors") with complete copies of this Certificate and any and all permits, certificates, and approvals required to initiate and/or complete construction of the Facility, including, without limitation, approved Segment EM&CPs and governmental approvals issued pursuant to § 401 and § 404 of the Federal Clean Water Act, and § 10 of the Federal Rivers and Harbors Act. 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.	CHPE will comply	Section 3.1
44	The Certificate Holders shall notify all Contractors that the Commission may seek to recover penalties for violation this Certificate and other Orders issued in this proceeding, not only from the Certificate Holders, but also from their Contractors, and that Contractors also may be liable for other fines, penalties, and environmental damage.	CHPE will comply	Section 3.1
45	No later than three (3) days after completion of the transaction(s) pursuant to which the costs of construction of the Facility are funded ("Closing"), the Certificate Holders shall notify the Secretary of the date of such Closing.	CHPE will comply	Section 3.3
46	The Certificate Holders shall inform the Secretary and NYSDEC at least five (5) days before commencing site preparation for the Facility.	CHPE will comply	Section 3.3
47	The Certificate Holders shall provide DPS Staff, NYSDOT, and NYSDEC with bi-weekly status reports summarizing construction and indicating construction activities and locations scheduled for the next month.	CHPE will comply	Section 3.3
48	Within ten (10) days of the completion of final restoration activities, the Certificate Holders shall notify the Secretary that all restoration has been completed in compliance with this Certificate and the Order(s) approving the EM&CP.	CHPE will comply	Section 3.3
49	Within sixty (60) days of completing construction of the HVDC Transmission System, the Certificate Holders shall consult with the New York State Office of General Services ("OGS") Bureau of Land Management regarding specifications for providing as-built information and mapping of the submerged portions of the HVDC Transmission System in conformance with the requirements of the OGS Bureau and 9 N.Y.C.R.R. Part 271. Within sixty (60) days of that consultation, the Certificate Holders shall provide to the OGS as-built information and mapping complying with its specifications (including shapefile information compatible with ArcView® GIS software) and shall file with the Secretary copies of the as-built information and mapping and proof of filing with the OGS.	CHPE will comply	Section 3.3
50	No later than three (3) days after the date on which the Facility commences commercial operation ("COD") of the Facility, the Certificate Holders shall notify NYSDOT, NYSDEC, and the Secretary of the date of such commencement.	CHPE will comply	Section 3.3

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
51	The Certificate Holders shall promptly notify DPS Staff and NYSDEC if a New York State listed species of special concern is observed to be present in the Facility area.	CHPE will comply	Section 3.3 and 8.2; Appendix F
52	The Certificate Holders shall promptly notify DPS Staff, NYSDEC and the United States Fish and Wildlife Service ("USFWS") or National Marine Fisheries Service ("NMFS") (if applicable) if any threatened or endangered wildlife species under 6 N.Y.C.R.R. Part 182 ("TE species") or any rare, threatened or endangered plant species under 6 N.Y.C.R.R. Part 193 ("RTE plants") are observed to be present in the Facility area so as to determine the appropriate measures to be taken to avoid or minimize impacts to such species. If necessary to avoid or minimize impacts to such species or as directed by DPS Staff, the Certificate Holders shall stabilize the area and cease construction or ground disturbing activities in the Facility area until DPS Staff have determined that appropriate protective measures have been implemented.	CHPE will comply	Section 3.3 and 8.2; Appendix F
G. Environmental Supervision		**CHPE Response**	**EM&CP Section/Appendix**
53(a)	The Certificate Holders shall employ at least six (6) inspectors on the HVDC Transmission System (or at least five (5) inspectors if the Certificate Holders elect to use the same individual as both environmental inspector ("Environmental Inspector") and agricultural inspector ("Agricultural Inspector")) as follows: (i) an Environmental Inspector employed full-time on the HVDC Transmission System; (ii) a construction inspector employed full-time on the HVDC Transmission System during construction of overland portions of the HVDC Transmission System, including construction of the Converter Station ("Construction Inspector"); (iii) an aquatic inspector employed full-time on the HVDC Transmission System ("Aquatic Inspector"); (iv) an Agricultural Inspector; (v) a safety inspector employed full-time on the HVDC Transmission System ("Safety Inspector"); and (vi) a part-time quality assurance inspector who will inspect the work site from time to time ("Quality Control and Quality Assurance Inspector").	CHPE will comply	Section 3.1; Appendix F
53(b)	The Certificate Holders shall employ the following inspectors in connection with the Astoria-Rainey Cable: (i) an Environmental Inspector; (ii) a Construction Inspector; (iii) a Safety Inspector; and (iv) a Quality Control and Quality Assurance Inspector.	CHPE will comply	Does not apply to Segment 1, 2
53(c)	During periods of relative inactivity on the Facility, the number of inspectors and the extent of their presence at the Facility construction site may be temporarily decreased commensurate with the decline in activity levels; likewise, during periods of relatively high activity on the Facility, the number of	CHPE will comply	Section 3.1

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	inspectors and the extent of their presence at the Project site may be temporarily increased commensurate with the increase in activity levels.		
53(d)	The Certificate Holders shall provide DPS Staff a weekly schedule of the Environmental Inspector and the Construction Inspector, and their cell phone numbers.	CHPE will comply	Section 3.1
53(e)	The Environmental Inspector and Construction Inspector shall be equipped with sufficient documentation, transportation, and communication equipment to effectively monitor each Contractors' compliance with the provision of every Order issued in this proceeding and applicable sections of the PSL, New York State Environmental Conservation Law ("ECL"), the Water Quality Certification ("WQC") issued in connection with the Facility pursuant to section 401 of the Federal Clean Water Act and the approved EM&CP.	CHPE will comply	Section 3.1
53(f)	The Agricultural Inspector shall be available to provide site-specific agricultural information as necessary for development of the proposed EM&CP through field review, as well as to have direct contact with affected farm operators, County Soil and Water Conservation Districts, and the New York State Department of Agriculture and Markets ("Ag & Mkts"). The Agricultural Inspector shall maintain regular contact with the Environmental Inspector and the Construction Inspector throughout the construction phase. The Agricultural Inspector shall also 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.	CHPE will comply	Section 3.1
53(g)	The names and qualifications of the Environmental Inspector and the Construction Inspector shall be submitted to DPS Staff and NYSDEC at least two (2) weeks prior to the start of construction.	CHPE will comply	Section 3.3
53(h)	The Environmental Inspector's qualifications shall satisfy those of "Qualified Inspector" pursuant to the NYSDEC State Pollutant Discharge Elimination System ("SPDES") General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-10-001) ("SPDES General Permit").	CHPE will comply	Section 3.1
53(i)	The Certificate Holders' employees, Contractors, and subcontractors shall be properly trained in the construction, operation, and maintenance of the Facility.	CHPE will comply	Section 3.1
54	The authority granted to the Certificate Holders in this Certificate and any subsequent Order(s) in this proceeding is subject to the following conditions necessary to ensure compliance with such Order(s):	CHPE will comply	Section 3.4
54(a)	The Certificate Holders 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 the specific construction or maintenance activities that violate or may violate the terms of this Condition, the WQC, or any other Order in this proceeding, either the Certificate Holders' Environmental Inspector or DPS Staff may issue a stop work order for that location or activity.	CHPE will comply	Section 3.4

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
54(b)	A stop work order issued by DPS Staff shall expire twenty-four (24) hours after issuance unless confirmed by a single Commissioner. If a stop work order is confirmed, the Certificate Holders 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.	CHPE will comply	Section 3.4
54(c)	Stop Work Authority will be exercised sparingly and with due regard to potential environmental impact, economic costs involved, possible impact on construction activities, and whether an applicable statute or regulation is or is claimed to be violated. Before exercising such authority, DPS Staff will consult (wherever practicable) with the Environmental Inspector. 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 Holders' construction manager and the Director of the DPS Office of Energy Efficiency and the Environment. In the event that DPS Staff issues a stop work order, neither the Certificate Holders nor the Contractor will be prevented from undertaking any safety-related activities that they deem necessary and appropriate under the circumstances. The issuance of a stop works order, or the implementation of measures as described below may be directed at the sole discretion of the DPS Staff during these discussions.	CHPE will comply	Section 3.4
54(d)	Exercise of Stop Work Authority: If DPS Staff or the Environmental Inspector discovers a specific activity that represents a significant environmental threat that is or immediately may become a violation of this Condition, the WQC, or any other Order in this proceeding, and on-site construction personnel refuse to take appropriate action after being advised of the threat, DPS Staff and/or the Environmental Inspector may direct the field crews to stop the specific potentially harmful activity immediately. If the direction to stop work is issued by DPS Staff and Certificate Holders' responsible personnel are not on site, the DPS Staff will immediately thereafter inform the Construction Inspector and/or the Environmental Inspector of the action taken. The stop work order will be lifted by the DPS Staff when the situation prompting its issuance has been resolved.	CHPE will comply	Section 3.4
54(e)	DPS Staff's Implementation of Specific Measures to Protect the Public and the Environment: If DPS Staff 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 measures, the DPS Staff may, in the absence of the Environmental Inspector and the Construction Inspector, or in the presence of such personnel who, after consultation with the DPS Staff, refuse to take appropriate action, direct the Certificate Holders or their Contractors to implement the corrective measures identified in the approved EM&CP. The field crews shall comply with the DPS Staff's directive immediately. DPS	CHPE will comply	Section 3.4

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	Staff will immediately thereafter inform the Certificate Holders' Construction Inspector and/or Environmental Inspector of the action taken.		
54(f)	DPS Staff or the Environmental Inspector will promptly notify the appropriate NYSDEC representative of any activity that is a significant environmental threat to a State-regulated wetland or its adjacent area, a protected stream or other waterbody, a TE species, or a State- or Federally-identified hazardous waste site or that may become a violation of this Condition, WQC, or any other Order issued in this proceeding pursuant to subsection (d) of this Certificate Condition 54.	CHPE will comply	Section 3.4
55	The Certificate Holders 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 Facility and at least annually for two (2) years after the COD.	CHPE will comply	Section 3.2
55(a)	The monthly inspections shall include a review of the status of compliance with all conditions contained in this Certificate, the WQC, and any other Order issued in this proceeding, and with other legal requirements and commitments, as well as a field review of the construction site, if necessary. The inspections may also include: (1) review of all complaints received, and their proposed or actual resolutions; and (2) review of any significant comments, concerns, or suggestions made by the public, local governments, or other agencies; and (3) review of the status of the Facility in relation to the overall schedule established prior to the commencement of construction; and (4) other items the Certificate Holders or DPS Staff consider appropriate.	CHPE will comply	Section 3.2.3
55(b)	The Certificate Holders shall provide a written record of the results of the inspection, including resolution of issues and additional measures to be taken, to agencies involved in the inspection audit.	CHPE will comply	Section 3.2.3
56	Nothing herein shall be deemed to limit the right of any jurisdictional agency to enter and inspect the Facility to assess compliance with any permit issued by such agency or any applicable substantive statute or regulation under such agency's jurisdiction; provided, however, that such inspection shall, to the extent possible, be coordinated with the DPS Staff (authorized pursuant to PSL § 8).	CHPE will comply	Section 3.1
57	Nothing in this Certificate shall restrict NYSDOT's authority over Certificate Holders' use of state highways, including without limitation NYSDOT's authority to place inspectors on site to monitor and observe the Certificate Holders' activities on state highways and/or to request the presence of state or local police to assure the safety of freeway travelers at such times and for such periods as NYSDOT deems appropriate.	CHPE will comply	Section 3.1
H. Overland Installation		**CHPE Response**	**EM&CP Section/Appendix**
58	At least two (2) weeks prior to the start of overland construction, the Certificate Holders shall hold a preconstruction meeting to which they shall invite DPS Staff, NYSDOT, and NYSDEC. The agenda, location, and attendee list for this meeting shall be agreed upon between DPS Staff and the Certificate Holders. The Certificate Holders shall supply draft minutes from this meeting to all attendees. The	CHPE will comply	Section 3.2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	attendees may offer corrections or comments, and thereafter the Certificate Holders shall issue the finalized meeting minutes to all attendees. If, for any reason, the Contractors retained by the Certificate Holders to construct the Facility cannot finish the construction of such facilities, and one or more new Construction Contractors are needed, there shall be another preconstruction meeting with the same format as outlined above.		
59	The Certificate Holders shall confine construction to the Construction Zone and approved additional work areas as detailed in the approved EM&CP. A detailed construction schedule and location timeline shall be provided to DPS Staff prior to construction.	CHPE will comply	Section 1.0
60	The Certificate Holders shall identify encroachments within the Construction Zone and contact individual property owners or occupants to address and seek to rectify such potential encroachments on a case-by-case basis. The Certificate Holders shall report to DPS Staff the result of efforts to address and rectify encroachments in the Construction Zone periodically, but in no event less than quarterly.	CHPE will comply	Section 4.6.1
61	The Facility may not be located beneath existing buildings, footings, or foundations, except as authorized in the EM&CP, and all excavations shall be in accordance with all applicable standards and specifications, including: a. the Building Code of New York State, including Section 1803 and other relevant sections; and b. the Occupational Safety and Health Administration ("OSHA") Technical Manual ("OTM"), including Section V: Chapter 2 and other relevant sections; and c. OSHA Regulations, including Part Number 1926, Standard Number 1926.651, and other applicable provisions.	CHPE will comply	Section 4.3.1; no such crossings proposed for Segment 1 and 2.
62	Except as authorized in any Segment EM&CP, the Certificate Holders shall not construct or allow their Contractors to construct any new, or improve any existing access roads for the construction, operation, or maintenance of the Facility.	CHPE will comply	Section 4.9
63	Before construction begins on any Segment, the boundaries of the Construction Zone shall be delineated in the field. Also, the Certificate Holders shall stake and flag all access roads and extra workroom areas to be used in constructing that Segment.	CHPE will comply	Section 4.0 and 4.9
64	The Certificate Holders shall adopt appropriate measures to minimize fugitive dust and airborne debris from construction activity and details of measures to be implemented shall be described in the proposed Segment EM&CP. If contamination in the ground is detected during overland construction and such contamination is of the kind that will lead to volatilization or off-gassing of such contamination or chemical constituents thereof, the Certificate Holders shall contact the New York State Department of Health ("NYSDOH"), NYSDEC, and DPS Staff prior to further disturbance. Additionally, the Certificate Holders shall conform to practices and procedures described in the DER10/Technical Guidance for Site Investigation and Remediation and the NYSDOH Generic Community Air Monitoring Plan ("CAMP"), to the extent applicable. Nothing in this Certificate shall	CHPE will comply	Section 6.3.2, Appendix L Soil Management Plan, and Appendix F - SPCC

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	have the effect of diminishing, enlarging, or altering in any way the obligations of any party that may be triggered in the event a spill of petroleum or a release of hazardous substances to the environment ("Reportable Event") is detected within the Construction Zone by the Certificate Holders and/or their Contractors and other representatives during overland construction of the Facility, including, without limitation, any obligation the Certificate Holders may have to report such Reportable Event to the NYSDEC Oil and Hazardous Materials Spills Hotline (800/518-457-7362).		
65	Disposal of trees and woody material:	CHPE will comply	Section 7.3
65(a)	The Certificate Holders shall negotiate in good faith with each landowner the purchase of rights to all logs over six (6) inches in diameter at the small end and eight (8) feet or longer ("merchantable logs") to be cleared from the Construction Zone. Certificate Holders shall not leave any permanent slash piles or log piles along passenger railroad routes or public highways. The Certificate Holders' removal of the merchantable logs resulting from clearing the Construction Zone shall be based on factors such as the attributes of the site, outcome of landowner negotiations, and attributes of the logs, and the Certificate Holders shall explain these factors in detail in the proposed EM&CP.	CHPE will comply	Section 7.3 and 8.3.3
65(b)	The Certificate Holders shall comply with the provisions of 6 N.Y.C.R.R. Part 192, Forest Insect and Disease Control.	CHPE will comply	Section 7.3, 8.3.3 and Appendix N
65(c)	The Certificate Holders shall prepare a plan for removal, reuse, recycling, and disposal of all woody material. Logs and woody material that cannot be reused or sold shall be either chipped on site, stacked along the edge of the Final Layout Area (as defined below at Condition 139), hauled to a NYSDEC approved landfill or other suitable off-site location, or buried on the Final Layout Area with landowner agreement. The Certificate Holders shall not leave any logs or other woody material in any designated floodway or other flood hazard area.	CHPE will comply	Section 7.1
66	All trees over two (2) inches in Diameter at Breast Height or shrubs over four (4) feet in height damaged or destroyed by activities during construction, operation, or maintenance, regardless of where located, shall be replaced within the following year by the Certificate Holders with the equivalent type of trees or shrubs except if: a. other arrangements are specified in the approved EM&CP; or b. equivalent type replacement trees or shrubs would interfere with the proper clearing, construction, operation, or maintenance of the Facility or would be inconsistent with State-invasive species policy; or c. replacement would be contrary to sound ROW management practices, or to any approved long-range ROW management plan applicable to the Facility or adjoining ROW; or d. the owner of land where the damaged or destroyed trees or shrubs were located (or other recorded easement or license holders with the right to control replacement) declines replacement.	CHPE will comply	Section 13.2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
67	The Certificate Holders shall provide detailed soil erosion and sediment control plans in a Stormwater Pollution Prevention Plan ("SWPPP"), which shall be included with the first Segment EM&CP associated with the overland route of the Facility. Soil and sediment control measures shall be implemented early in the construction process and be installed prior to, and maintained in acceptable condition for the duration from any clearing or earthmoving operations through to the permanent stabilization of the soil. Erosion and sediment control devices shall be installed in accordance with the New York State Standards and Specifications for Erosion and Sediment Control ("SSESC"), the approved EM&CP Plan and Profile drawings, permit conditions, regulatory approvals, and as otherwise necessary or directed by the Environmental Inspector to prevent adverse impacts to environmentally sensitive areas. The SWPPP shall include a schedule for necessary inspections at all control measure locations. The SWPPP shall be available at the construction site and available to the public upon five (5) days written notice.	CHPE will comply	Section 3.3, 6.3 and SWPPP (Appendix G)
68	The Certificate Holders shall coordinate with DPS Staff and NYSDOT regarding all plans and work to be performed in State-owned ROW under NYSDOT's supervision and management. Prior to filing any Segment EM&CP involving any such state-owned ROW, the Certificate Holders shall provide DPS Staff and NYSDOT Staff with a preliminary design marked to avoid conflict with potential transportation projects that NYSDOT Staff may seek to undertake in the future and shall offer to consult with NYSDOT Staff concerning any comments it may offer and shall use reasonable efforts to accommodate any NYSDOT concerns.	CHPE will comply	Section 3.3 and 11.1; also see Appendix A.
69(a)	In preparing the proposed EM&CP, the Certificate Holders shall consult with each transportation department or agency having jurisdiction over any roads, related structures, and components that will be crossed by the Facility or used for direct access to the Construction Zone. If the access road takes direct access from, or lies within the limits of, such roads, the Certificate Holders shall notify each relevant transportation department or agency of the approximate date when work will begin.	CHPE will comply	Section 11.1; Appendix A
69(b)	Infrastructure subject to the requirements of Condition 69(a) include: movable bridges over the Harlem River and their associated apparatus, including any cables, chains or other apparatus allowing for their operation; and a planned pedestrian and bicycle pathway and associated infrastructure, including landscaping, lighting, rail crossings, fences, railroad gates, and stormwater retention facilities, and associated subsurface components, to be constructed under and in the vicinity of the Hells Gate Bridge in the Bronx, whether constructed or designed at the time of the EM&CP development. The procedures and protections outlined in Conditions 27 through 29 shall apply to the movable bridges and other apparatus, and, if they are in place at the time of construction of the Facility, the aforementioned infrastructure associated with the pedestrian and bicycle pathway.	CHPE will comply	Does not apply to Segment 1, 2
70	Construction access to the Construction Zone at controlled-access highways shall be provided from off-highway locations.	CHPE will comply	Section 11.1

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
71	The Certificate Holders shall minimize the impact of construction of the Facility on traffic circulation. Traffic control personnel and safety signage shall be employed to facilitate safe and adequate traffic flow when secondary roadways are affected by construction.	CHPE will comply	Section 11.1 and Appendix C
72	The Certificate Holders shall consult periodically with state and municipal highway transportation agencies about traffic conditions near the site of the Facility and shall notify each such transportation agency of the approximate date work will begin in its jurisdiction and Construction Zone access points that connect with the highways in that jurisdiction.	CHPE will comply	Sections 3.3 and 11.1
73	The Certificate Holders shall be responsible for checking all culverts and assuring that they are not crushed or blocked during construction and restoration of the Facility and, if a culvert is blocked or crushed, taking immediate steps to replace or repair the culvert in accordance with applicable state or local standards.	CHPE will comply	Section 13.2
74	Disturbed areas, ruts, and rills shall be restored to original grades and conditions with permanent revegetation and erosion controls appropriate for those locations. Disturbed pavement, curbs, and sidewalks shall be restored to their original preconstruction condition or improved.	CHPE will comply	Section 13.2
I. Agricultural Lands		**CHPE Response**	**EM&CP Section/Appendix**
75	The Certificate Holders shall design the Facility to the extent possible to avoid crop fields or other active agricultural land.	CHPE will comply	Section 7.1
76	During the acquisition of rights to use lands comprising the Construction Zone, the Certificate Holders shall ask the owners of such lands that appear to be either undeveloped or used as active agricultural land whether such lands are presently being used for agricultural purposes and, if so, whether such lands are being operated, in whole or in part, by third parties. During the preparation of the EM&CP, the Certificate Holders shall use this information, along with any additional information received during consultation with Ag & Mkts, to identify land within the Construction Zone reasonably believed to be active agricultural land. The Certificate Holders shall provide the owners and identified operators of such land with a telephone number to facilitate direct contact with the Certificate Holders and the Agricultural Inspector(s).	CHPE will comply	Section 1.4.1, Appendices A and B
77	Where construction entrances are required from public roadways to the Construction Zone across agricultural fields, temporary access shall use matting or road installation. The use of topsoil stripping for construction access, as opposed to matting, shall only be allowed with approval from DPS Staff in consultation with Ag & Mkts. For matting, the mats shall be layered where necessary to provide a level access surface. For road installation and topsoil stripping, an underlayment of durable, geotextile fabric shall be placed over the exposed subsoil surface prior to the use of temporary gravel access fill material. Complete removal of the construction entrance upon completion of the Facility and	CHPE will comply	Section 4.9

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	restoration of the affected site is required prior to topsoil replacement. Segments of farm roads utilized for access shall be improved as necessary following consultation with the farm operator and Ag & Mkts prior to use, subject to the Commission's ongoing jurisdiction.		
78	The Certificate Holders shall provide a monitoring and remediation period of two (2) years following completion of Construction Zone restoration in active agricultural areas. The Certificate Holders shall retain the services of the Agricultural Inspector through this period. The monitoring and remediation phase shall be used to identify any remaining agricultural impacts associated with construction of the Facility that are in need of mitigation and to implement the follow-up restoration. 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 within and outside the Construction Zone. When subsequent crop productivity within the Construction Zone is less than that of the adjacent unaffected agricultural land, the Agricultural Inspector, in conjunction with the Certificate Holders and in consultation with other appropriate organizations including Ag & Mkts, shall help to determine the appropriate rehabilitation measures for the Certificate Holders to implement (soil decompaction, topsoil replacement, etc.). During the various stages of construction of the Facility, all affected farm operators shall be periodically apprised of the duration of remediation by the Agricultural Inspector. Because conditions that 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 Holders' responsibility to fully redress all impacts caused by construction of the Facility. After completion of the specific remediation period, the Certificate Holders shall continue to respond to the requests of the farmland owner/operators to correct adverse impacts to agricultural resources caused by construction of the Facility.	CHPE will comply	Section 13.4
79	The Agricultural Inspector shall work with farm operators during the planning phase to develop a plan to delay pasturing of livestock in the Construction Zone, work areas, access roads, or staging areas following construction until pasture areas are adequately revegetated. The Certificate Holders shall be responsible for maintaining temporary fencing on the Construction Zone, work areas, access roads, or staging areas until the Agricultural Inspector determines that the vegetation in the Construction Zone is established and able to accommodate grazing. At such time, the Certificate Holders shall be responsible for removal of the fences.	CHPE will comply	Section 13.4
80	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 re-graded until plasticity, as determined by the Atterberg field test, is significantly reduced. No Facility restoration activities shall occur in agricultural fields in the months of October through May unless DPS Staff has determined after consultation with Ag &	CHPE will comply	Section 13.4

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	Mkts that favorable soil moisture conditions exist. The Certificate Holders shall monitor and advise Ag & Mkts and DPS Staff regarding tentative restoration planning.		
J. Herbicide Use		**CHPE Response**	**EM&CP Section/Appendix**
81	The application of herbicides shall be made under the direct supervision of a NYSDEC Certified Applicator ("Applicator") who shall own or be employed by a NYSDEC registered business. The supervising certified Applicator shall be familiar with and understand the Conditions of this Certificate, the approved EM&CP, and any other pertinent Orders issued in this proceeding and shall be present in the field to ensure compliance with provisions in such documents for targeting species and for proper application of authorized herbicides.	CHPE will comply	There is no planned herbicide use during construction.
82	All herbicides used shall have valid registrations under applicable state and federal laws and regulations.	CHPE will comply	There is no planned herbicide use during construction.
83	Application of herbicides shall conform to all label instructions and all applicable federal and state laws and regulations. Herbicides shall not be applied within one hundred (100) feet of any public water supply (reservoirs and wellheads), or any private well-head of which Certificate Holders have actual knowledge. Applicators shall reference maps that indicate treatment areas, and wetland and adjacent area boundaries, prior to treating. Applications required in seasonally flooded freshwater wetlands shall be undertaken during a dry season.	CHPE will comply	There is no planned herbicide use during construction.
84	The Certificate Holders shall notify DPS Staff and the appropriate NYSDEC Regional Natural Resource Supervisor(s) and Pesticide Control Specialist fourteen (14) days prior to the commencement of any herbicide application on the Facility.	CHPE will comply	There is no planned herbicide use during construction.
K. Building Code and Inspections - Converter Station and Related Buildings		**CHPE Response**	**EM&CP Section/Appendix**
85	Prior to the commencement of construction of the Converter Station and related buildings, the Certificate Holders shall first obtain review and written certification by the CNY Department of Buildings that the construction plans for the Converter Station are in compliance with the New York City Electrical Code ("NYCEC"), the New York City Fire Code ("NYCFC"), and Title 28 of the New York City Administrative Code, including the Ne87w York City Construction Codes ("NYCCC"). Within ten (10) days of receiving any written certification, the Certificate Holders shall file a copy of such certification with the Secretary and shall serve a copy on the Director of the Office of Energy Efficiency and the Environment.	CHPE will comply	Does not apply to Segment 1, 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
86	During construction of the Converter Station and related buildings, the Certificate Holders shall obtain periodic inspections of the construction work by the CNY Department of Buildings for compliance with the NYCFC, NYCEC and NYCCC.	CHPE will comply	Does not apply to Segment 1, 2
87	Prior to the use or occupancy of the Converter Station and related buildings, the Certificate Holders shall first obtain written certification by the CNY Department of Building that the construction was completed in compliance with the NYCFC, NYCEC, and the NYCCC. Within ten (10) days of receiving any written certification, the Certificate Holders shall file a copy of such certification with the Secretary and shall serve a copy on the Director of the Office of Energy Efficiency and the Environment	CHPE will comply	Does not apply to Segment 1, 2
L. Overland Restoration		**CHPE Response**	**EM&CP Section/Appendix**
88	At the conclusion of all Facility construction, Construction Zone areas, work areas, access roads, and/or staging areas shall be thoroughly cleared of all debris such as wood, nuts, bolts, spikes, wire, pieces of steel, and other assorted items.	CHPE will comply	Section 13.1
89	The Certificate Holders shall, on completion of construction of the Facility:	CHPE will comply	Section 13.1
89(a)	provide an assessment of the need for landscape improvements, including vegetation planting, earthwork, or installed features to screen or landscape with respect to road crossings, residential areas, parks, highways, converter stations, and substations; and	CHPE will comply	Section 13.1
89(b)	prepare plans for any visual mitigation found necessary, considering removal, rearrangement, and supplementation of existing landscape improvements or plantings; and	CHPE will comply	Section 13.1
89(c)	consult with DPS Staff on the content and execution of their landscape improvement assessment, resultant landscaping plan specifications, and materials list; details shall include measures for controlling maintenance and third party or wildlife damage to any landscape or vegetation plantings; and	CHPE will comply	Section 13.1
89(d)	assure the reduction or elimination of net storm water runoff within or immediately adjacent to the Construction Zone and any contribution to sources of non-point pollution resulting from the finished condition; and	CHPE will comply	Appendix G
89(e)	present assessments and plans for DPS Staff review within one (1) year of the date the Facility is placed in service.	CHPE will comply	Sections 3.3 and 13.1
M. Overland Habitat Areas		**CHPE Response**	**EM&CP Section/Appendix**
90	The Certificate Holders shall incorporate the measures described in the Karner blue butterfly (*Lycaeides melissa samuelis*) *Impact Avoidance and Minimization Report* (Exhibit 109 to the Joint Proposal) into the EM&CP. Prior to the commencement of construction, the Certificate Holders shall	CHPE will comply	Does not apply to, Segment 1 & 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	arrange a "walk through" of the Construction Zone where lupine habitat has been identified for representatives of the DPS Staff, NYSDEC, the EPC Contractor, and others as deemed appropriate to discuss and review these measures including the location of the flagging of lupine and nectar patches of potential and occupied butterfly habitat. The flagging shall be maintained until construction has been completed and all disturbed areas have been restored to their final grade.		
91	Within six (6) months after the commencement of commercial operations of the Facility, the Certificate Holders shall provide a ROW maintenance plan for the Facility ROW from Route Mile 145, south of Scout Road in the Town of Wilton, New York to Route Mile 180, north of County Line Road in the Town of Rotterdam, New York. This plan shall include but not be limited to methods of maintenance, access routes to the ROW, seasonal construction windows, and the education of all company employees and Contractors regarding all measures to avoid occupied habitat associated with Karner blue butterfly and frosted elfin butterfly. The plan shall also provide requirements for notification of the DPS Staff and NYSDEC of any planned maintenance or repair work within, or in the vicinity of occupied habitat that requires excavation or ground disturbance.	CHPE will comply	Does not apply to, Segment 1 & 2 (there is no habitat in these segments)
N. Underwater Cable Installation		**CHPE Response**	**EM&CP Section/Appendix**
92	All of the terms and conditions of the WQC are incorporated by reference into this Certificate as though fully set out herein. Any changes to the WQC shall be governed by the provisions of Condition 158 of this Certificate.	CHPE will comply	Does not apply to Segment 1, 2
93	Construction within navigable waters and pre-installation route clearing activities (prelay grapnel run and associated obstruction and debris removal) shall occur within the construction time frames set forth in Table 1 below. After consultation with DPS Staff, the New York State Department of State ("NYSDOS"), and NYSDEC, the Certificate Holders may seek an appropriate modification of the time frames, either in the proposed EM&CP or subject to the provisions of Condition 158 of this Certificate.	CHPE will comply	Does not apply to Segment 1, 2
94	Commencement of in-river work within one (1) mile south of the designated Significant Coastal Fish and Wildlife Habitats ("SCFWHs") at Haverstraw Bay shall occur during the high, or flood, tide condition in order to avoid and/or minimize impacts from resuspended sediments to the SCFWH habitat of Haverstraw Bay.	CHPE will comply	Does not apply to Segment 1, 2
95	The Certificate Holders shall use installation techniques for underwater cable installation activities that are appropriate for the prevailing substrate conditions.	CHPE will comply	Does not apply to Segment 1, 2
95(a)	Cable installation in the Hudson, Harlem, and East Rivers shall be designed and installed to meet the following criteria: (i) Where the cables shall be located within the limits of the maintained Federal	CHPE will comply	Does not apply to Segment 1, 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	Navigation Channels (a) in the Harlem, Hudson, and East Rivers, the Certificate Holders shall install the cables to a depth of at least fifteen (15) feet below the federally-authorized depth of the Federal Navigation Channel and (b) in the Harlem River, the Certificate Holders shall install the cables to those elevations below the federally-authorized depth of such Channel that have been specified by the USACE in Permit NAN-2009-0189 and by the New York State Department of State in its determination of March 3, 2014 made pursuant to the federal Coastal Zone Management Act; (ii) and where the cables shall be located outside the limits of the maintained Federal Navigation Channels in such rivers, the Certificate Holders shall install the cables to the maximum depth achievable that would allow each pole of the bi-pole to be buried in a single trench using a jet-plow, which is expected to be at least six (6) feet below the sediment water interface or, if sand waves are present, the trough of said waves, or as authorized by DPS Staff, NYSDEC, and NYSDOS as discussed in condition 95(a) (iii), below the existing riverbed outside maintained Federal Navigation Channels, except where utility lines or other infrastructure are crossed or where geologic or topographic features prevent burial at such depth. (iii) No changes in the installation technology or burial depth shall be allowed without a written statement from NYSDOS stating that the deviation would not result in coastal effects that differ significantly from the coastal effects reviewed by NYSDOS in Certificate Holders' original federal coastal consistency certification ("Coastal Consistency Certification"). In the event that NYSDOS determines that such deviation would result in coastal effects that differ significantly from those reviewed in the Coastal Consistency Certification, the Certificate Holders shall seek a written concurrence from NYSDOS for any such project changes that would require an amendment to the Certificate Holders' Coastal Consistency Certification. Nothing in this Certificate shall be construed to limit or expand any rights Certificate Holders may have to seek administrative or judicial review of any action or inaction by NYSDOS relating to any such deviation. [as Amended by Amendment 1 (March 20, 2020)].		
95(b)	Cable installation in Lake Champlain shall be designed and installed to meet the following criteria: (i) in locations where the water depth is less than one hundred fifty (150) feet, the target burial depth is three (3) to four (4) feet below the sediment surface, except where the cables cross other utility lines or other infrastructure or where geologic or bathymetric features prevent burial at such depth, and adequate measures for cable and infrastructure protection are provided; (ii) in locations where water depth is one hundred fifty (150) feet or greater, the target burial depth is three (3) to four (4) feet below the sediment surface, however the cables may be buried at shallower depths or laid on the lake bed where Certificate Holders provide a report prepared by a recognized authoritative technical consultant demonstrating and concluding that public health and safety can be appropriately protected without such burial, and the proposed installation method is approved by the Commission in the Segment	CHPE will comply	Does not apply to Segment 1, 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	EM&CP. (iii) Where the cables shall be located in the portion of Lake Champlain south of Crown Point (Route Mile 73), the Certificate Holders will rely on the shear plow installation method or, when reliance on such method is infeasible, an alternative method that avoids environmental impacts to a substantially equivalent degree. Where cables shall be located in the portion of Lake Champlain north of Crown Point, the Certificate Holders shall rely on a jet-plow or shear plow, or, in deeper water, either a self-propelled remotely operated vehicle ("ROV") that shall bury the cables using water jetting after the initial surface lay of the cables from the vessel.		
95(c)	Utility and other infrastructure crossings shall be executed consistent with site-specific design measures for each such crossing as specified in the approved EM&CP.	CHPE will comply	Does not apply to Segment 1, 2
96	In the event that the target depth of cover (consistent with the requirements of Condition 95) has not been substantially achieved in an area due to geologic or topographic features and not due to limitations associated with a utility crossing, following the post-installation inspection provided for in Condition 161, the Certificate Holders shall report the actual depth of cover, and propose a plan, with a reasonable schedule, consistent with Good Utility Practice whose definition is provided in Condition 20, for achieving an adequate burial depth or protection level given the location to NYSDEC, NYSDOS and DPS Staff for review and comment.	CHPE will comply	Does not apply to Segment 1, 2
97	As long as the Certificate Holders comply with the requirements of Condition 96, failure to achieve the depth of cover consistent with the requirements of Condition 95 shall not be a basis for an order to cease installation of the remaining cable sections, an order not to energize, or an order to cease operation. An order not to energize or to cease operation will be issued only after affording the Certificate Holders an opportunity to show cause why such order should not be issued.	CHPE will comply	Does not apply to Segment 1, 2
98	The Certificate Holders shall employ HDD and dredging to install the proposed underwater cables from the proposed cable landfall locations to avoid disturbance to near shore sediments. The exit pit of each HDD borehole shall be installed within temporary dredged cofferdams or into a steel casing rise pipe. The walls of each temporary cofferdam shall extend above mean high water during dredging to contain suspended sediments associated with dredging activities and hence limit the dispersion of the suspended sediments to the interior footprint of the temporary cofferdam.	CHPE will comply	Does not apply to Segment 1, 2
99	As part of the planning process for dredging, consultations with NYSDEC and USACE shall occur, at which time the specific practices to be employed shall be discussed. All cofferdams and any other dredged area shall be backfilled with clean material. The dredging practices and procedures to be utilized by the Certificate Holders shall be specified in the EM&CP and shall include:	CHPE will comply	Does not apply to Segment 1, 2
99(a)	A closed (i.e., sealed) environmental (clamshell) bucket with sealing gaskets or an overlapping sealed design at the jaws and seals or flaps positioned at locations of vent openings, approved by the Commission, shall be used to minimize sediment suspension at the dredging site for fine grained unconsolidated (silty) sediments and for dredging across or within Federal Navigation Channels. Seals	CHPE will comply	Does not apply to Segment 1, 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	or flaps designed or installed at the jaws and locations of vent openings must tightly cover these openings while the bucket is lifted through the water column and into the barge, and the closed environmental (clamshell) bucket dredge shall be equipped with sensors to ensure complete closure of the bucket before lifting through the water.		
99(b)	Dredging Practices: The following practices shall be applied to all activities to ensure that large amounts of sediment are not released into the water column: (1) Hoist speed shall be limited so that the bucket is raised through the water column at a rate of two (2) feet per second or less. The bucket shall be lifted in a continuous motion through the water column and into the barge; (2) The dredge shall be operated to control the rate of the descent and to maximize the depth of penetration without overfilling the bucket; (3) Washing of the gunwales of the dredge scow shall be avoided except to the extent necessary to ensure the safety of workers; and (4) The bucket shall be lowered to the level of the barge gunwales prior to release of the load and the dredged material shall be placed deliberately and in a controlled manner; (5) Operations shall be suspended until all necessary repairs or replacements are made when a significant loss of water and visible sediments from the bucket are observed; and (6) Dredged material shall not be side cast or returned to the water.	CHPE will comply	Does not apply to Segment 1, 2
99(c)	Barge overflow is prohibited.	CHPE will comply	Does not apply to Segment 1, 2
99(d)	Barge/Scow Type: Barges or scows shall be of solid hull construction or be sealed.	CHPE will comply	Does not apply to Segment 1, 2
99(e)	Dredging Monitoring: An on-board Aquatic Inspector(s) shall be present at all times during dredging operations.	CHPE will comply	Does not apply to Segment 1, 2
99(f)	Dredging Windows: Dredging shall occur within the underwater construction windows identified in Table 1 of Condition 93.	CHPE will comply	Does not apply to Segment 1, 2
99(g)	Decanting Operations: Decanting of barges shall be approved by DPS Staff in consultation with NYSDEC prior to implementation. Barges may not be decanted before twenty-four (24) hours of settlement within the scow.	CHPE will comply	Does not apply to Segment 1, 2
99(h)	Only barges in good operating condition shall be used. Deck barges shall not be used, unless modified to allow no barge overflow and as approved by the Aquatic Inspector and DPS Staff in Consultation with NYSDEC.	CHPE will comply	Does not apply to Segment 1, 2
99(i)	The Aquatic Inspector shall inspect all dredging equipment prior to use and shall perform periodic inspections of all such equipment no less than once per week. The Contractor shall demonstrate to the Aquatic Inspector that the bucket dredge operator has sufficient control over the bucket depth in the water and bucket closure.	CHPE will comply	Does not apply to Segment 1, 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
99(j)	All sediments excavated during cofferdam construction and transition activities at the landfall location must be disposed of at a State-approved upland disposal site. All contaminated sediments excavated during placement in the navigation channel shall be disposed of in a State-approved upland disposal site.	CHPE will comply	Does not apply to Segment 1, 2
99(k)	During dredging operations, the Certificate Holders shall provide weekly reports on progress to date, document compliance with Certificate requirements, and such other information as determined necessary based on consultation with DPS Staff, NYSDEC, and NYSDOS.	CHPE will comply	Does not apply to Segment 1, 2
99(l)	All cofferdams and any other dredged area shall be backfilled using imported clean material, as needed, to restore the stream, lake, or riverbed to preconstruction contours. This work shall be completed in accordance with the relevant approved Segment EM&CP.	CHPE will comply	Does not apply to Segment 1, 2
99(m)	In no instance shall excavated contaminated sediment be placed back into a waterbody.	CHPE will comply	Does not apply to Segment 1, 2
100	Underwater activities shall be undertaken in a manner that minimizes the potential for interference with navigation.	CHPE will comply	Does not apply to Segment 1, 2
101	The Certificate Holders shall coordinate with NYSDOT on cable construction and maintenance activities within Lake Champlain that may affect construction, operation, maintenance, and inspection of the Crown Point Bridge in Lake Champlain.	CHPE will comply	Does not apply to Segment 1, 2
O. Water Supply Intakes		**CHPE Response**	**EM&CP Section/Appendix**
102	The Certificate Holders shall review the pre-installation marine sediment survey to determine if the location of any public water supply ("PWS") structure along the HVDC Transmission System route can be identified.	CHPE will comply	Does not apply to Segment 1, 2
103	The Certificate Holders shall provide notice that the EM&CP is available for review to operators of PWS facilities located within one (1) mile of the in-water facility. The notice shall include, in plain language: (i) details about the planned work; (ii) hours and duration of activities; (iii) provisions for protection of facilities, if applicable; (iv) identification of locations where additional information and copies of the EM&CP are available; (v) contact information for Certificate Holders' personnel, including a toll-free number; and (vi) instructions on how comments regarding construction plans and mitigation measures may be filed with the Secretary, indicating appropriate deadlines for commenting and contact information. Proof of notice shall be provided to the Secretary.	CHPE will comply	Does not apply to Segment 1, 2
104	The Certificate Holders shall notify operators of PWS facilities of construction work within one (1) mile of their intake structure(s) at least thirty (30) days prior to the commencement of any underwater work (including but not limited to grapnel, preconstruction, and construction activities) in these areas or within the time period requested by the systems operators during the consultation process detailed	CHPE will comply	Does not apply to Segment 1, 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	in Condition 150. Such notice shall be in the form of a written letter as well as any other method identified during the consultation process detailed in Condition 150. The Certificate Holders shall provide copies of all written correspondence to DPS Staff.		
105	Operational Control: The schedule of grapnel/debris removal and all phases of construction shall be coordinated in consultation with each PWS facility. Construction and pre-construction operations within one (1) mile of an intake shall be performed at night or another scheduled time when systems are not operating to the extent reasonably possible.	CHPE will comply	Does not apply to Segment 1, 2
106	PWS Sampling during Grapnel/Debris Removal and Construction Operations: The Certificate Holders shall establish a fund that provides for each of the PWS facilities identified by the NYSDOH as being within one (1) mile of the underwater cable facility to enable completion of the following testing, with payment for this work being based on the mechanism established during the consultation provided for by Certificate Condition 150:	CHPE will comply	Does not apply to Segment 1, 2
106(a)	One (1) pre-construction raw water sample collected no more than twelve (12) hours prior to in-water operations occurring in proximity to the intake structure. Samples collected shall be analyzed for total metal concentrations with United States Environmental Protection Agency ("EPA") Method 200.8. Raw water samples collected from PWS facilities located along the Hudson River shall also be analyzed for polychlorinated biphenyls ("PCBs") with EPA Method 508A. All pre-construction raw water samples collected from the PWS facilities should be reported using a twenty-four (24) hour turnaround.	CHPE will comply	Does not apply to Segment 1, 2
106(b)	Two (2) sets of post-construction raw water and finished water (post-treatment) samples from the PWS facility. The first set shall be collected immediately following operations occurring in proximity to the intake structure and the second set shall be collected approximately twelve (12) hours after conclusion of operations.	CHPE will comply	Does not apply to Segment 1, 2
106(c)	Post-construction raw water samples from all PWS facilities shall be analyzed for total metal concentrations with EPA Method 200.8. Raw water samples collected from PWS facilities located along the Hudson River shall also be analyzed for PCBs with EPA Method 508A. All post-construction raw water samples collected from the PWS facilities shall be reported using a twenty-four (24) hour turnaround. Finished water samples shall be held at the laboratory.	CHPE will comply	Does not apply to Segment 1, 2
106(d)	If raw water sample results suggest any significant water quality impacts associated with any pre-construction or construction operations, the finished water samples shall be analyzed: (a) for total metal concentrations with EPA Method 200.8 and, (b) if collected from PWS facilities located along the Hudson River, for PCBs with EPA Method 508A. All finished water samples submitted for analysis shall be reported using a twenty-four (24) hour turnaround. The decision to analyze the finished water samples shall be made by DPS Staff in consultation with the NYSDOH.	CHPE will comply	Does not apply to Segment 1, 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
106(e)	If analysis of finished water sample results indicates that there has been a maximum contaminant level ("MCL") violation caused by the installation activities, the Certificate Holders shall employ the mitigation measures prescribed in accordance with Condition 14(c) of the WQC in all locations where cable installation operations are within one (1) mile of a water intake structure. If the Certificate Holders propose to employ mitigation measures not otherwise provided for in accordance with Condition 14(c) of the WQC, they must first consult with the DPS Staff, NYSDEC, and the Aquatic Inspector. In the event that DPS Staff determines that the mitigation techniques are unable to mitigate the MCL violation(s), underwater cable installation shall be suspended, and the Certificate Holders shall consult with DPS Staff, NYSDOH, and NYSDEC regarding alternative cable installation techniques and propose such changes to the approved EM&CP in accordance with Condition 158 as may be necessary.	CHPE will comply	Does not apply to Segment 1, 2
106(f)	The Certificate Holders shall provide copies of all laboratory data reports for samples collected from each PWS facility located along the Hudson River to NYSDOH and DPS Staff.	CHPE will comply	Does not apply to Segment 1, 2
P. Cultural Resources		**CHPE Response**	**EM&CP Section/Appendix**
107	The Certificate Holders shall: a. avoid creating adverse impacts on heritage resource sites, archeological sites, historic structures, and underwater cultural resources in the vicinity of the Facility by implementing location, design, vegetation management, resource protection, and construction scheduling measures as shall be specified in the approved EM&CP; and b. provide cultural and heritage resource impact mitigation measures as specified in the approved EM&CP or facility management and restoration plan(s).	CHPE will comply	Section 10.0
108	The Certificate Holders shall refrain from undertaking construction in 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. These archeological surveys may be segmented in conjunction with the preparation of the EM&CP to permit the review, approval, and commencement of any circuit or converter station improvements prior to review and approval for the remaining portions of the Facility.	CHPE will comply	Section 10.0
109	The Certificate Holders shall develop a Cultural Resources Management Plan ("CRMP") as described below. The CRMP shall be developed in consultation with the OPRHP Field Services Bureau, Indian tribes, the Advisory Council on Historic Preservation ("Council"), the U.S. National Park Service, DPS Agency Preservation Officer, and other stakeholders (as appropriate). The CRMP shall provide for the identification, evaluation, and management of historic properties within the Area of Potential Effects ("APE") of the Facility. The CRMP shall also outline the processes for resolving adverse	CHPE will comply	Section 10.0 & Appendix O

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	effects on historic properties within the APE and determining the appropriate treatment, avoidance, or mitigation of any effects of the Facility on these resources.		
110	Should archeological materials be encountered during construction, the Certificate Holders shall stabilize the area and cease all construction activities in the immediate vicinity of the find and protect the site from further damage. Within twenty-four (24) hours of such discovery, the Certificate Holders shall notify and seek to consult with DPS Staff and OPRHP Field Services Bureau to determine the best course of action. No ground-disturbing 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 have been determined.	CHPE will comply	Section 3.3, Section 10.0 & Appendix O
111	Should human remains or evidence of human burials 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 site shall be protected from further disturbance. Within twenty-four (24) hours of any such discovery, the Certificate Holders shall notify the DPS Staff and OPRHP Field Services Bureau. Treatment and disposition of any human remains that may be discovered shall be managed in a manner consistent with the Native American Graves Protection and Repatriation Act ("NAGPRA"); the Council's Policy Statement Regarding Treatment of Burial Sites, Human Remains, any Funerary Objects (February 2007); and OPRHP's Human Remains Discovery Protocol. All archaeological or remains-related encounters and their handling shall be further reported in the status reports summarizing construction activities and reviewed in the site-compliance audit inspections.	CHPE will comply	Section 3.3, Section 10.0 & Appendix O
112	The Certificate Holders shall have a continuing obligation during the life of the Facility to respond promptly to complaints of negative archeological impacts and to consult with OPRHP, the Council, Indian tribes, and other appropriate parties identified in the CRMP to resolve adverse effects on historic properties and determine the appropriate avoidance, treatment, or mitigation measures.	CHPE will comply	Table 3.2
Q. Waterbodies and Regulated Wetlands		**CHPE Response**	**EM&CP Section/Appendix**
113	The Certificate Holders shall minimize disruption to regulated wetlands during the construction, operation, and maintenance activities of the Facility.	CHPE will comply	Section 8.1 & Appendix M
113(a)	Regulated wetland locations shall be delineated in the field and indicated on the proposed EM&CP drawings for the Construction Zone and any access roads. Such delineations shall be delivered for review to DPS Staff, NYSDOS, and NYSDEC and, for wetlands within the Adirondack Park, to the Adirondack Park Agency ("APA"), at least thirty (30) days prior to the filing of the proposed EM&CP.	CHPE will comply	Section 3.3, 8.1 & Appendices A and M

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
113(b)	Any activities that may affect regulated wetlands shall be designed and controlled to minimize adverse impacts, giving due consideration to the environmental features and functions of the regulated wetlands and the one hundred (100) foot adjacent area associated with any State-regulated wetlands ("adjacent area").	CHPE will comply	Section 8.1
113(c)	The Certificate Holders shall, to the maximum extent practicable, avoid direct impacts to regulated wetlands and construct access roads outside regulated wetlands and adjacent areas. Any direct impacts that are not avoided shall be minimized and appropriately mitigated.	CHPE will comply	Section 8.1
113(d)	Construction through regulated wetlands or adjacent areas 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 on the approved EM&CP drawings, provided that the Certificate Holders' use of geotextile and gravel for access roads shall not contravene the requirements set forth in Condition 77 of this Certificate.	CHPE will comply	Section 8.1
113(e)	Clearing of existing vegetation in wetlands or in or near waterbodies shall be limited to that material necessary to allow completion of construction activities and to allow for reasonable access for long-term maintenance so as to reduce the amount of activity and disturbance to the wetland and adjacent area.	CHPE will comply	Section 7.1
113(f)	Equipment or machinery shall not be washed in any regulated wetland or adjacent area, and runoff resulting from washing operations shall not be permitted to directly enter any regulated wetland or protected stream or waterbody.	CHPE will comply	Section 5.5, Section 8.1
113(g)	Excavated material shall be stockpiled outside regulated wetland areas and all excess material shall be disposed of in approved overland locations.	CHPE will comply	Section 4.2, Section 8.1, Soil Management Plan Appendix L
114	The Certificate Holders shall minimize disruption to streams and waterbodies during construction, operation, and maintenance of the Facility. Measures to protect such streams and waterbodies from runoff and sedimentation during construction (other than installation of underwater cables in navigable waters) shall include:	CHPE will comply	Section 8.1
114(a)	The development of an inventory that includes for each Segment: (i) a listing of waterbodies within the Construction Zone, including associated stream width, NYSDEC classification, proposed crossing method, and any potential construction schedule window developed during the preparation of the proposed EM&CP; (ii) a spreadsheet that contains the GPS coordinates (latitude and longitude) of each waterbody; (iii) a digital photograph of each waterbody, cross-referenced to its GPS coordinates; and (iv) a wetland delineation shape-file. This inventory shall be delivered for review to DPS Staff, NYSDOS, and NYSDEC and, for waterbodies within the Adirondack Park, to APA, at least thirty (30) days prior to the filing of the proposed EM&CP;	CHPE will comply	Section 3.3, 8.1

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
114(b)	Limitation of construction vehicle access across streams and waterbodies to existing bridges and culverts and to temporary crossings installed in accordance with the provisions set forth in the approved EM&CP;	CHPE will comply	Section 8.1
114(c)	Construction of equipment crossings to allow for unrestricted flow and to prevent soil from entering streams and waterbodies. Temporary crossings shall be designed and constructed to withstand the two (2) year flood event at a minimum;	CHPE will comply	Section 8.1
114(d)	Except where an access path is necessary, a fifteen (15) foot wide buffer zone shall be maintained at all waterbody crossings along any railroad ROW;	CHPE will comply	Section 8.1
114(e)	Prohibition of vehicular access where alternative access can be provided;	CHPE will comply	Section 4.8, 8.1
114(f)	Restriction of equipment and materials (including fill, construction materials, or debris) from being deposited, placed, or stored in any waterbody;	CHPE will comply	Section 5.4, 5.5, 8.1 and Appendix F
114(g)[1]	In general, and to the maximum extent practicable, refueling of equipment, storage mixing, or handling of open containers of pesticides, chemicals labeled "toxic," or petroleum products, shall not be conducted within one hundred (100) feet of a stream or waterbody or wetland. Requirements for refueling within 100 feet of wetlands or streams will be allowed under certain circumstances identified below, subject to the practices set forth in the approved EM&CP. (1) Refueling of hand equipment will be allowed within 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 100 feet from wetlands or streams in order to minimize the amount of refueling within these sensitive areas. Crews will have sufficient spill containment equipment on hand at the secondary containment location to provide prompt control and cleanup in the event of a release. (2) Refueling of equipment will be allowed within 100 feet of wetlands or streams when	CHPE will comply	Section 5.4, 5.5, 8.3, and Appendix K

[1] Language for 114(g) reflects requested Amendment filed on September 7, 2022: https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={242756C0-0989-4591-B3D8-65B864074E7B}

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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 100 feet from wetlands or streams in order to minimize the amount of refueling within these sensitive areas. 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 100 feet of a wetland or stream will have sufficient spill containment equipment on board to provide prompt control and cleanup in the event of a release. (3) Field personnel and Contractors shall be trained in spill response procedures, including the deployment and maintenance of spill response materials;		
114(h)	Employment of precautions, when not feasible to move the affected vehicle or equipment from an environmentally sensitive area to a suitable access area (i.e., pumping equipment), to prevent petroleum products or hazardous materials from being released into the environment. These precautions include (but are not limited to) deployment of portable basins or similar secondary containment devices, use of ground covers (such as plastic tarpaulins), and precautionary placement of floating booms on nearby surface waterbodies;	CHPE will comply	Section 5.5 and 8.1
114(i)	Implementation of EM&CP procedures for erosion and sediment control (in accordance with the SWPPP to be included with the proposed EM&CP) early in the construction process and prior to the start of grading and excavation activities; such procedures shall be maintained throughout the construction period and in accordance with SSESC;	CHPE will comply	Section 6.2, Appendix G & C
114(j)	Pumping of water from dewatering operations into a temporary straw bale or silt fence barrier or filter bag to settle suspended silt material prior to discharge. Direct discharge of sediment laden water to state- and/or federally- regulated wetlands and to streams and stormwater systems shall be avoided;	CHPE will comply	Section 8.1
114(k)	Runoff resulting from equipment or machinery washing operations shall be prevented from directly entering any State-regulated wetland or protected stream or waterbody;	CHPE will comply	Section 8.1
114(l)	Development and implementation of spill response and cleanup procedures to minimize and respond to any accidental spills of petroleum producing chemicals or hazardous liquids that occur during construction;	CHPE will comply	Appendix K
114(m)	A requirement that, during the performance of any HDD waterbody crossing, Contractors monitor the use of inert biodegradable drilling solution and, in the event of a detected release of fluid, implement the procedures specified in the approved EM&CP. For any release occurring in a waterbody, the	CHPE will comply	Section 3.3

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	Certificate Holders shall immediately notify DPS Staff and NYSDEC of details of the release and the course of action they recommend taking;		
114(n)	Monitoring of the status of each HDD waterbody crossing while construction activities are underway until the crossing has been completed and the stream and stream banks have been restored. In the event of any potential or actual failure of the crossing, the Certificate Holders shall have adequate staff and equipment available to take necessary steps to prevent or avoid adverse environmental impacts;	CHPE will comply	Section 8.1
114(o)	Completion of backfilling operations and of cleanup and restoration of the stream crossing, banks, and bank approaches (at least fifty (50) feet adjacent to each bank) within twenty-four (24) hours. If needed, stream banks shall be reestablished to original grade immediately after stream bank work is completed. The banks shall then be permanently stabilized by seeding with native grasses, mulching, and, if needed, planting native shrub seedlings	CHPE will comply	Section 8.1
115	The Certificate Holders shall notify DPS Staff and NYSDEC at least five (5) days prior to construction involving protected stream crossings.	CHPE will comply	Section 3.3 and 6.3
116	NYSDEC field representatives will notify the DPS Staff representative and the Certificate Holders' appropriate representative and, for wetlands within the Adirondack Park, APA of any activities that violate or may violate either the terms of this Certificate or the ECL. DPS Staff, NYSDEC field representatives, and, for wetlands within the Adirondack Park, the APA will consult in assessing site conditions and determining whether a recommendation should be made to DPS Staff to exercise its stop work authority or, alternatively, whether the Certificate Holders should be directed to take action to minimize further impacts to streams and regulated wetlands as appropriate.	CHPE will comply	Section 3.4
117	The Certificate Holders shall establish and implement a program to monitor the success of wetland and stream restoration upon completion of construction and restoration activities. The success of wetland revegetation shall be monitored and recorded annually for the first two (2) years (or as required by any applicable permit) after construction, or longer, until wetland re-vegetation is successful. Wetland re-vegetation will be considered successful when the vegetative cover is at least eighty (80) percent of the type, density, and distribution of the vegetation in adjacent wetland areas that were not disturbed by construction. If re-vegetation is not successful at the end of two (2) years, the Certificate Holders shall develop and implement (in consultation with a professional wetland ecologist) a plan to actively revegetate the wetland with native wetland herbaceous plant species.	CHPE will comply	Section 8.1

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
118	If DPS Staff, in consultation with NYSDEC, determines that restoration of damage to wetlands caused by use of temporary road mats has not been adequate, the Certificate Holders shall prepare a mitigation plan for impacts arising from the use of temporary road mats. Such plan shall provide for compensatory mitigation in the form of a proposed project to address the loss of wetland functions, such as vegetation plantings or a project to address invasive species in wetlands.	CHPE will comply	Section 8.1
R. Transmission System Reliability		**CHPE Response**	**EM&CP Section/Appendix**
119	This section of this Certificate deals with the interconnection of the Facility to the New York State Bulk Power System ("NYSBPS") and with certain aspects of the operation of the Facility while interconnected with the NYSBPS. Some of these matters may also be subject to regulation by the FERC under the FPA. Nothing contained in this section shall be construed as limiting or waiving Certificate Holders rights under the FPA in any way. In the event that Certificate Holders petition a tribunal of competent jurisdiction to determine whether any of the conditions and/or requirements established within this Transmission System Reliability section are regulated within the scope of FERC's exclusive jurisdiction under the FPA, Certificate Holders will provide a copy of such petition to DPS Staff within three days of filing. If determined by such tribunal to be within FERC's exclusive jurisdiction, Certificate Holders' compliance with FERC's requirements applicable to such matters (including without limitation any requirements established in any tariff or service agreement accepted for filing by FERC) shall be regarded as full and complete compliance with any such conditions and/or requirements established in this section.	CHPE will comply	General Requirement.
120	The Certificate Holders are authorized to construct and agree to design, engineer, and construct the HVDC Transmission Facility's Attachment Facilities (as defined in the Open Access Transmission Tariff ("OATT") of the NYISO, as provided in the Optional Interconnection Study ("OIS") and System Reliability Impact Study ("SRIS") approved by NYISO, NYISO's Transmission Planning and Advisory Subcommittee ("TPAS"), and NYISO's Operating Committee ("OC"), the applicable NYISO Class Year Annual Transmission Reliability Assessment Study ("ATRAS"), and the Facility's Interconnection Agreement with the applicable parties, which may include the NYPA, the Consolidated Edison Company of New York, Inc. ("Con Edison") and NYISO (the "IA"). The Certificate Holders shall utilize Good Utility Practice as described in Condition 20, in the design, engineering, and construction of the HVDC Transmission System's Attachment Facilities.	CHPE will comply	General Requirement; Does not apply to Segment 1, 2; will be addressed in other filings/processes, as appropriate.

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
121	The Certificate Holders shall connect the HVDC Transmission System to the 345 kV Astoria bus owned by NYPA at 345 kV, as shown in Appendix B. Certificate Holders shall connect the Astoria-Rainey Cable to the 345 kV Astoria bus owned by NYPA and to the 345 kV Rainey bus owned by Con Edison as shown in Appendix B.	CHPE will comply	General Requirement; Does not apply to Segment 1, 2; will be addressed in other filings/processes, as appropriate
122	The Certificate Holders shall work with NYPA and Con Edison, and any successor Transmission Owner(s) ("TOs") (as defined in the NYISO Agreement) to ensure that the Facility has a power system relay protection and appropriate communication capabilities to ensure that operation of the electric transmission system is adequate under NPCC Bulk Power Protection Criteria, and meets the protection requirements at all times of the NERC, NPCC, NYSRC, NYISO, Con Edison, and NYPA and any successor organizations. The Certificate Holders shall ensure that their power system relay protection and communication capabilities comply with applicable NPCC criteria and shall be responsible for the costs to verify that their relay protection system is in compliance with applicable NERC, NPCC, NYISO, NYSRC, Con Edison and NYPA criteria.	CHPE will comply	General Requirement; Does not apply to Segment 1, 2; will be addressed in other filings/processes, as appropriate
123	The following requirements apply: a. The Certificate Holders shall be responsible for the Facility's share of the cost of System Upgrade Facilities (as that term is defined in the OATT) as determined by NYISO in accordance with its FERC approved tariffs, rules, and procedures. b. The Certificate Holders shall be responsible for the cost of interconnection facilities as they are defined in Attachment S of the OATT, and to the extent set forth in the IA. c. Payments from the Certificate Holders to NYPA and/or Con Edison of the amounts contemplated in this Certificate Condition shall be made in accordance with the terms of the IA. d. The Certificate Holders shall maintain the Facility in accordance with the approved tariffs and applicable rules and protocols of NYPA, Con Edison, NYISO, NYSRC, NPCC, NERC, and NAERO, and successor organizations. e. The Certificate Holders shall obey operational orders and dispatch instructions issued by NYISO or its agent or successor pursuant to applicable tariffs, manuals, rules, protocols, and other relevant documents applicable to the Facility. In the event that the NYISO System Operator encounters communication difficulties, the Certificate Holders shall obey dispatch instructions issued by the Con Edison Energy Control Center, or its successor(s), pursuant to applicable tariffs, manuals, rules, protocols, and other relevant documents applicable to the Facility in order to maintain reliability of the transmission system.	CHPE will comply	General Requirement; Does not apply to Segment 1, 2; will be addressed in other filings/processes, as appropriate
124	The Certificate Holders shall fully comply with the applicable reliability criteria of NYPA, the Commission, Con Edison, NYISO, NPCC, NYSRC, NERC, NAERO and their successors. If the	CHPE will comply	General Requirement; Does

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	Facility fails to meet such reliability criteria at any time, the Certificate Holders shall notify NYISO immediately, in accordance with NYISO requirements, and shall simultaneously provide the Commission, NYPA and Con Edison with a copy of the NYISO notice.		not apply to Segment 1, 2; will be addressed in other filings/processes, as appropriate
125	The Certificate Holders shall file a copy of the following documents with the Secretary and provide any updates to the documents throughout the life of the Facility:	CHPE will comply	Section 3.3
125(a)	all facilities agreements with Con Edison, NYPA, and successor Transmission Owners (as defined in the NYISO agreement);	CHPE will comply	Section 3.3
125(b)	any documents submitted to the NYSRC, including but not limited to, any updates issued by the NYSRC;	CHPE will comply	Section 3.3
125(c)	the SRIS or any OIS or the Systems Impact Study ("SIS") approved by the NYISO Operating Committee, and the Final Class Year Facilities Study. Should the Certificate Holders apply in the future to NYISO for additional Capacity Resource Interconnection Service ("CRIS") rights for the Facility, they shall file with the Commission copies of all documents submitted to NYISO, provided however that in the case of documents containing confidential information of the NYISO, Certificate Holders shall not be obligated to file any materials that NYISO refuses to authorize Certificate Holders to file. Certificate Holders shall file such documents with the Commission, even if they choose not to fund construction of the System Deliverability Upgrades (as that term is defined in the OATT) required to obtain such additional CRIS rights;	CHPE will comply	Section 3.3
125(d)	the Relay Coordination Study (which shall be filed not later than six (6) months prior to the projected date for circuit energization or testing and commissioning activities of the Facility, and shall be performed in concert with Con Edison and NYPA, and the results of which shall be provided to Con Edison and NYPA);	CHPE will comply	Section 3.3
125(e)	a copy of the IA(s) and all updates thereto throughout the life of the Facility	CHPE will comply	Section 3.3
125(f)	a copy of the facilities design studies, including all associated drawings and support documentation and a copy of the manufacturer's "terminal facilities design characteristics" of the equipment installed (including test and design data); updates thereto throughout the life of the Facility; and	CHPE will comply	Section 3.3
125(g)	if any equipment or control system with different characteristics is to be installed, the Certificate Holders shall provide that information to the Commission, NYPA and Con Edison before any such change is made at least three (3) months in advance so that it can be reviewed prior to installation (throughout the life of the Facility).	CHPE will comply	Section 3.3

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
126	Within five (5) business days of any failure of equipment causing a reduction of more than ten (10) percent in the capability of the Facility to transmit electric power, the Certificate Holders shall promptly provide to DPS Staff, NYPA, and Con Edison copies of all notices, filings, and other substantive written communications with NYISO as to such reduction, any plans for making repairs to remedy the reduction, and a proposed schedule for any such repairs. The Certificate Holders shall provide monthly reports to DPS Staff, Con Edison, and NYPA on the progress of any repairs until completed. The report shall contain, when available, copies of applicable drawings, descriptions of the equipment involved, a description of the incident, and a discussion of how future occurrences will be avoided. The Certificate Holders shall work cooperatively with NYPA, Con Edison, and NYISO to avoid any future occurrences. If such equipment failure is not completely repaired within nine (9) months of its occurrence, the Certificate Holders shall provide a detailed report to the Secretary within nine (9) months and two (2) weeks after the equipment failure, setting forth the progress on the repairs and indicating whether the repairs will be completed within three (3) months. If the repairs will not be completed within three (3) months, the Certificate Holders shall explain the circumstances contributing to the delay and demonstrate why the repairs should continue to proceed.	CHPE will comply	Section 3.3
127	The Certificate Holders shall include in the Facilities Study for the HVDC Transmission System prepared by NYISO, and request that NYISO identify, the additional facilities required for the Certificate Holders to provide Black Start service, as well as the cost of those facilities. If the Certificate Holders subsequently decide to participate in the NYISO's Black Start program, they shall demonstrate annually that the Facility can be black started. The Certificate Holders shall schedule with the NYISO, Con Edison, and NYPA the black start test and demonstrate black start procedures. If the Black Start Test fails, the Certificate Holders shall produce a report describing the test, detailing the cause (including copies of diagrams, photos, details of the test, and illustrations of the fail test) and what actions or changes are being made to the black start procedures. A copy of the report shall be submitted to Con Edison, NYPA, the Commission, and the NYISO. The Certificate Holders will provide the opportunity for DPS Staff to observe the black start testing and to attend all meetings related to Black Start. The Certificate Holders shall effectuate a successful black start annually to qualify for the Black Start program.	CHPE will comply	General Requirement; Does not apply to Segment 1, 2; will be addressed in other filings/processes, as appropriate
128	The Certificate Holders shall coordinate with NYPA and Con Edison system planning and system protection engineers to evaluate the characteristics of the transmission system before purchasing any system protection and control equipment related to the electrical interconnection of the Facility to NYPA's and Con Edison's transmission facilities. This discussion is designed to ensure that the equipment purchased will be able to withstand most system abnormalities.	CHPE will comply	General Requirement; Does not apply to Segment 1, 2; will be addressed in other

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
			filings/processes, as appropriate
129	The technical considerations of interconnecting the Facility to NYPA's and Con Edison's transmission facilities shall be documented by the Certificate Holders and provided to Staff of the Bulk Power Systems Section of DPS, Con Edison, and NYPA prior to the installation of transmission equipment. Updates to the technical information shall be furnished as available throughout the life of the Facility.	CHPE will comply	General Requirement; Does not apply to Segment 1, 2; will be addressed in other filings/processes, as appropriate
130	The Certificate Holders shall work with NYPA and Con Edison engineers and safety personnel on testing and energizing equipment and develop a start-up testing protocol providing a detailed description of the steps that they will take to limit system impacts prior to and during testing of the Facility. Such protocol shall be provided to NYISO, Con Edison, and NYPA for review and comment and, following the review and comment phase, a copy of such protocol shall be provided to Staff of the Bulk Electric System Section of the DPS. The Certificate Holders shall comply with this protocol once established, unless NYISO provides written authorization to Certificate Holders to deviate from that protocol. The Certificate Holders shall make a good faith effort to notify DPS Staff of meetings related to the electrical interconnection of the Facility to NYPA's or Con Edison's transmission system, as applicable, and provide the opportunity for Staff to attend those meetings. The Certificate Holders shall provide a copy of the testing protocol to Staff of the Bulk Electric Systems Section of DPS.	CHPE will comply	General Requirement; Does not apply to Segment 1, 2; will be addressed in other filings/processes, as appropriate
131	The Certificate Holders shall make modifications to the Facility if it is found by the NYISO or the Commission to cause reliability problems to the New York State Transmission System. If NYPA, Con Edison, or the NYISO bring concerns to the Commission, the Certificate Holders shall be obligated to respond to those concerns. The Certificate Holders shall prepare a report within forty-five (45) days of notification by DPS Staff that DPS Staff has determined that a reliability problem exists.	CHPE will comply	Section 3.3
132	No less than sixty (60) days prior to the Facility's anticipated COD, the Certificate Holders shall file with the Secretary, Operation and Maintenance Plan(s) for the Facility's Interconnection Facilities. The plan(s) shall be updated yearly, and a copy of the updated plan(s) shall be filed with the Secretary; the plan(s) and updates shall be provided to Con Edison and NYPA.	CHPE will comply	Section 3.3
133	The Certificate Holders shall file with the Secretary, no less than sixty (60) days prior to delivery of test energy from the Facility to the Astoria Annex Substation and the Rainey Substation, a report regarding the measures taken to achieve the 1,550 MW deliverability commitment established in Condition 15(a) hereof, as well as copies of all studies, drawings, and backup documentation that	CHPE will comply	General Requirement; Does not apply to Segment 1, 2; will

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	support all such measures. The Certificate Holders shall provide a draft of such report to Con Edison for its review and comment at least thirty days prior to the filing of such report. The measures for achieving the 1,550 MW deliverability commitment specified by the Certificate Holders in that report shall not include a Special Protection System ("SPS") or other operational measures subject to individual approval by NYISO, the New York State Reliability Council or other applicable reliability authorities, unless Con Edison informs the Certificate Holders, no more than twenty five days after receiving Certificate Holders' draft report, that as a result of changed circumstances since the execution of the Stipulation in Commission Case 10-T-0139 on June 26, 2012, it disputes Certificate Holders' conclusion that they can achieve 1,550 MW of energy deliverability out of the Astoria Annex Substation and into Con Edison's transmission system. In the event that Con Edison takes the position that Certificate Holders cannot meet the 1,550 MW energy deliverability commitment using such facilities, nothing in this Certificate shall limit Certificate Holders' right to propose to meet this deliverability commitment by using an SPS, other operational measures or any other measures, or the right of any party, including Con Edison, to object to the use of such measures. In such circumstances, the Certificate Holders shall include with their report all documentation for the design of any such SPS, other operational measures or other measures, with a complete description of all components and logic diagrams. Prior to delivery of test energy to the Astoria Annex Substation, the Certificate Holders shall provide documentation to DPS Staff that any such measures to be used by the Facility have received all required approvals from all applicable authorities, including without limitation NYISO and NPCC.		be addressed in other filings/processes, as appropriate
134	In the event the HVDC Transmission System trips offline (other than as a result of any Operational Measures), the Certificate Holders shall notify DPS Staff, within one (1) hour of the incident. Following the incident, the Certificate Holders shall notify DPS Staff, NYPA, and Con Edison of the cause of the trip, and what actions, if any, the Certificate Holders are taking to rectify the cause. The Certificate Holders shall call and report to the Staff of the Bulk Electric Systems Section of the DPS within six (6) hours of any transmission related incident that affects the operation of the Facility. The Certificate Holders shall submit a report on any such incident within seven (7) days to the Bulk Electric System Staff, Con Edison, and NYPA. The report shall contain, when available, copies of applicable drawings, descriptions of the equipment involved, a description of the incident and a discussion of how future occurrences will be prevented. The Certificate Holders shall work cooperatively with Con Edison, NYPA, NYISO, NPCC, NYSRC, NERC, and DPS Staff to prevent any future occurrences.	CHPE will comply	Section 3.3
135	If there is a failure of one of the Facility's cables, the Certificate Holders shall report, within one (1) day of determining the location of the fault, to Bulk Electric System Section of DPS Staff, Con Edison,	CHPE will comply	Section 3.3

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	and NYPA as well as the likely location of and schedule for repairs. Any changes in the schedule shall be reported to DPS Staff, Con Edison, and NYPA.		
136	The Certificate Holders shall provide the Bulk Electric System Section of DPS with a copy of their emergency procedures and contacts, and an updated copy shall be provided with documentation of any modifications	CHPE will comply	Section 3.3
137	The Certificate Holders shall report any theft of materials related to the Facility with a value in excess of ten thousand dollars ($10,000) to the DPS Representative within one (1) business day of the time when the theft comes to the attention of the Certificate Holders. The Certificate Holders shall provide the DPS Representative with a list of the stolen items to the extent known and a copy of any police report.	CHPE will comply	Section 3.3
S. Mapping, Land Acquisition, and As-built Drawings for the Facility		**CHPE Response**	**EM&CP Section/Appendix**
138	Each Segment EM&CP shall include a detailed map or maps showing (a) the boundaries of the Construction Zone associated with the work to be performed in connection with such Segment, including access routes, laydown and storage areas, sampling locations, and other relevant places, and (b) the anticipated ultimate location and the anticipated boundary of the Facility ROW and, (c) in the case of overland ROW, areas associated therewith, as follows: (i) areas within which periodic vegetative management may be necessary in order to prevent significant intrusion of tree roots into the Facility ROW, (ii) areas within which future ground alteration, structural construction, or other permanent installations by others generally should be precluded in order to protect the Facility and ensure appropriate access thereto for the purposes of repair and maintenance, and, (iii) areas offering (a) continuous longitudinal access along and (b) intermittent linking access from public roads and highways or established railroad access routes to the Facility ROW.	CHPE will comply	Appendix C
139	Following final completion of construction of a particular Segment, the Certificate Holders shall prepare and provide to the DPS the as-built design drawings, which shall include a detailed map or maps showing: (a) the boundary of the permanent Facility ROW and areas that will be subject to periodic vegetation management ("Final Layout Area"), (b) the location of the Facility as installed ("As-built Design Drawings"). All As-built Design Drawings provided to DPS pursuant to this condition shall include shapefile information compatible with ArcView® GIS Software, and (c) With respect to As-built Design Drawings that relate to installation of the Project on lands owned or controlled by the Canadian Pacific Railway, such As-built Design Drawings shall be provided to DPS staff within ninety (90) days of the completion of construction and shall conform with Section 5.5.5 of the American Railway Engineering and Maintenance-of-Way Association ("AREMA") Manual for Railway Engineering, taking into account the fact that such standard is specifically addressed to fiber optic infrastructure. With respect to As-built Design Drawings that relate to installation of the HVDC	CHPE will comply	Section 3.3

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	Transmission System on lands owned or controlled by the CSX Transportation, such As-built Design Drawings shall be provided to DPS staff within ninety (90) days of the completion of construction and shall conform to an appropriate standard that is substantially equivalent in terms of detail to the AREMA standard referenced, and (d) With respect to As-built Design Drawings that relate to submerged portions of the HVDC Transmission System, such As-build Design Drawings shall indicate areas in which the cables are laid in deep waters without cover and areas in which the cables are laid on the bottom but covered, in which case(s) the type of cover (i.e., natural bed material, rip-rap or concrete mattress cover) shall also be described.		
140	Except as may be detailed, justified, and approved by the Department of Public Service pursuant to the EM&CP process, each edge of the permanent overland Facility ROW shall be no closer than (a) when located entirely within lands owned or controlled by a railroad company or a public highway, six (6) feet to the outer surface of the nearest installed cable and (b), in all other areas, eight (8) feet to the outer surface of the nearest installed cable. [as amended in Amendment 1 (March 20, 2020)].	CHPE will comply	Section 1.2 and Appendix C
141	The Certificate Holders shall acquire control of all lands within the overland Final Layout Area by fee, easement, or other appropriate interest and shall perfect, in accordance with New York State law relating to the official recordation of instruments related to land and other possessory interests, their rights to use and occupy such lands for the life of the Facility, as appropriate.	CHPE will comply	Section 4.6
142	For each Segment EM&CP that involves municipal lands with respect to which the Certificate Holders cannot acquire control by fee or easement, the Certificate Holders shall provide to the Commission an instrument or instruments confirming that the affected municipality has consented to the use of such lands and shall in any and all events comply with PSL § 68 with respect to exercise of rights conferred pursuant to such consents.	CHPE will comply	Section 4.6
143	For all rights concerning property comprising the Facility ROW, the Construction Zone, off-rights-of-way access, storage or staging areas, or the like, to be acquired, the Certificate Holders 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, lienholders, leaseholders, or others with an interest in such property rights to be acquired. The Certificate Holders shall serve written notice(s) of the EM&CP filing on each such person identified, and on any person owning the land underlying an affected easement or leasehold interest of record. Such notice would include, at a minimum, the procedures and deadlines for submitting comments.	CHPE will comply	Section 3.3 and 4.6
144	The Certificate Holders shall not commence any proceedings under the New York State Eminent Domain Procedure Law ("EDPL") to acquire any part of the Facility ROW areas temporarily-needed areas within the Construction Zone, or off-ROW access until the Commission has approved the relevant Segment EM&CP. To calculate the three-year period for acquisition of property pursuant to the EDPL, the date of Commission approval of a Segment EM&CP covering the affected parcel shall	CHPE will comply	General Requirement; Eminent Domain not required in Segment 1 and 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	be regarded as the date on which this Article VII proceeding was completed. The Certificate Holders retain all rights afforded them by the New York Transportation Corporations Law and the EDPL.		
T. Environmental Management and Construction Plan		**CHPE Response**	**EM&CP Section/Appendix**
145	Except where the provisions of this Certificate require otherwise, the environmental protection measures contained in the Joint Proposal and the Certificate Holders' Article VII Application, the WQC, the approved EM&CP Guidelines, and the approved BMPs shall be incorporated into the proposed EM&CP and applied during construction, operation, and maintenance of the Facility. Applicable Conditions of this Certificate, approved EM&CP, and orders approving the EM&CP and any Segment EM&CP shall be included in any design, construction, ownership, or maintenance contracts associated with the Facility.	CHPE will comply	Section 1.1
146	The Certificate Holders shall provide, as a part of the proposed EM&CP, a final design plan that conforms with the design of the Facility set forth in this Certificate, applicable federal, state, and local requirements (including, but not limited to, applicable regulations administered by or in connection with the OSHA, NYSDEC, OPRHP, Ag & Mkts, the APA, the Commission, NYSDOT, the Bureau of Alcohol, Tobacco and Firearms, the New York State Department of Labor, and hazardous materials, chemical and waste-storage use and handling regulations).	CHPE will comply	Appendix C
147	The proposed EM&CP shall identify details of nearby electric, gas, telecommunication, water, wastewater, steam, sewer, and related facilities (whether underground, aboveground or underwater) and Measures to protect the integrity, operation, and maintenance of those facilities shall be presented in the EM&CP for each Segment, which shall explain the safety procedures that will be implemented during construction of the Facility	CHPE will comply	Section 12.0 and Appendix C.
148	With respect to each Segment EM&CP filed with the Commission and prior to the filing of the same, the Certificate Holders shall: a. conduct a pre-installation survey that will document the location and condition of CI within the Construction Zone that is the subject of the Segment EM&CP and identify the parties owning and operating such CI and the agencies exercising regulatory jurisdiction over the same; b. include the results of such survey as a part of such filing; c. provide a detailed plan setting forth the measures that will be taken by the Certificate Holders to avoid damage to CI documented in connection with the filing and explaining how any reasonably foreseeable contingency will be met.	CHPE will comply	Section 12.0 and Appendix C and R
149	The Certificate Holders shall identify black cherry trees located in the Construction Zone near active livestock use areas during the development of each proposed Segment EM&CP. During the clearing phase, such vegetation shall be disposed of in a manner that prevents access by livestock.	CHPE will comply	Section 7.1

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
150	In preparing the proposed EM&CP, the Certificate Holders shall consult with the NYSDOH to identify all PWS systems within one mile of the HVDC Transmission System facilities. The Certificate Holders shall consult with the operators or other representatives of each system to obtain information on the location of intake structures(s), plant operations, raw water quality parameters of concern including turbidity, and appropriate notification procedures. The results of that consultation shall be reported in the proposed EM&CP. The Certificate Holders shall include in their proposed EM&CP justification for any cable installation proposed to occur within five hundred (500) feet of a PWS intake and a description of alternative cable installation methods or modified methods (i.e., reduced speed and pressure) of trenching for cable installation in such areas as determined necessary based on information obtained from the PWS.	CHPE will comply	Does not apply to Segment 1, 2 segment.
151	The Certificate Holders shall file copies of the proposed EM&CP as directed by the Secretary, and serve five (5) hard copies and two (2) copies on CD-ROMS on DPS Staff, two (2) copies on the Staff of the NYSDEC in the Central Office in Albany, one (1) copy on each Regional Office of NYSDEC where the Facility is located, one (1) copy on the Commissioner of OPRHP, one (1) copy on staff of the Palisades Interstate Park Commission (if the Segment EM&CP relates to construction that may take place in Rockland County), one (1) copy on the Staff of Ag & Mkts., one (1) copy on NYSDOT in the Central Office in Albany and one (1) copy on each municipality and Regional Office of NYSDOT where the relevant portion of the Facility is located (if requested by such municipality or NYSDOT), one (1) copy on NYSDOS, one (1) copy on any other New York State agency (and its relevant regional offices) that requests the document, and one (1) copy on active parties on the service list who request the document (in the case of a municipality, such service shall be directed to the Chief Executive Officer thereof). Service upon state agencies shall be in the same manner and at the same time as filing with the Secretary. The Certificate Holders also shall place electronic or hard copies for inspection by the public on an internet website and in at least one (1) public library or other convenient location in each municipality in which the construction authorized in that portion of the EM&CP will take place. Contemporaneously with the filing and service of the proposed EM&CP, the Certificate Holders shall provide notice, in the manner specified below, that the proposed EM&CP has been filed.	CHPE will comply	See cover materials, affidavits of service, and Appendix B.
152	The Certificate Holders shall serve written notice(s) of the filing of the proposed EM&CP or Segment EM&CP on all parties to this proceeding, as well as the relevant railroads and CI owners whose facilities, properties, and/or structures within the geographic scope of that portion of the EM&CP that may be impacted, including but not limited to tracks and devices, and shall attach a copy of the notice so served to each copy of the proposed EM&CP or Segment EM&CP. Further, the Certificate Holders shall publish the notice(s) in a newspaper or newspapers of general circulation in the vicinity of the Segment(s) to which the EM&CP relates.	CHPE will comply	Section 3.3, See Appx B

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
153	The Certificate Holders shall provide notice that the EM&CP is available for review to the chief executive officer of each affected municipality and to residents, businesses, and building, structure, and facility owners and, to the extent known, operators of the same when such land uses are located within one hundred (100) feet of the HDD staging areas, off-ROW construction access roads, and the overland components of the Facility. The notice shall include, in plain language: (i) details about the planned work locations; (ii) hours and duration of activities; (iii) provisions for protection of properties, if applicable; (iv) provisions for maintenance and protection of pedestrian and vehicle access to buildings and properties; (v) identification of locations where additional information and copies of the EM&CP are available; (vi) contact information for Certificate Holders personnel, including a toll-free number; and (vii) instructions on how comments regarding construction plans and mitigation measures may be filed with the Secretary, indicating appropriate deadlines for commenting and contact information. The Certificate Holders shall also provide a hard copy synopsis of any approved Segment EM&CP for residents owning property located within one hundred (100) feet of the Construction Zone as delineated therein. Such synopsis shall include a hard copy page(s) from the approved Segment EM&CP that may have relevance to the resident's property. Proof of notice to residents, businesses, and building and structure owners shall be provided to the Secretary.	CHPE will comply	See Appx B and Section 3.3
154(a)	The Certificate Holders shall provide notice to residents, businesses, and building, structure, and facility (including underground, aboveground and underwater facilities) owners and operators within one hundred (100) feet of any HDD staging area or trenching activity with an offer to inspect foundations before, during, and after construction. The notice provided shall include the following provisions: (i) an offer to inspect building, facility, and structure foundations before, during, and after construction; (ii) an explanation of the benefits of such inspections and what documentation will be provided to building or facility or structure owners and operators; and (iii) proof of notice to residents, businesses, and building, facility, and structure owners and operators shall be provided to the Secretary. Proof of notice shall accompany filing of the proposed EM&CP.	CHPE will comply	Section 3.3 and 4.1; Appx B
154(b)	Inspections of building foundations conducted for residents, businesses, and building, facility, or structure owners or operators, or for which Certificate Holders reimburse such costs expended by any such individuals for this purpose, shall (i) provide each building, facility, or structure owner or, to the extent known, operator with documented conditions at each significant stage of construction; (ii) include photographs of any existing and post-construction damage and document measurements of foundation crack lengths during each inspection phase; (iii) provide each building, facility, and structure owner/operator a report detailing foundation condition findings; and (iv) provide a copy of each prepared report to DPS Staff within thirty (30) days of completion.	CHPE will comply	Section 3.3, 4.1

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
154(c)	HDD site preparation or trench excavation work shall not commence until all building, facility, and structure owners and operators provided with notice under sub-part (b) above have accepted or declined inspection offers, or a response has not been received within two (2) weeks from service.	CHPE will comply	Section 4.1
155(a)	The written notice(s) and the newspaper notice(s) of filing the proposed EM&CP or Segment EM&CP shall contain, at a minimum, the following: (1) a statement that the proposed EM&CP has been filed; (2) a general description of the Facility and the proposed EM&CP; (3) with respect to the written notice(s) for identified persons with a record interest in property to be acquired or significantly disturbed by construction, a specific description of the ROW of the Facility, as applicable, temporarily needed areas within the Construction Zone, or off ROW access to be acquired; (4) a listing of the locations where the proposed EM&CP is available for public inspection; (5) a statement that any person desiring additional information about a specific geographical location or specific subject may request it from the Certificate Holders; (6) the name, address, and telephone numbers of an appropriate Certificate Holders representative; (7) the address of the Secretary; and (8) 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 Holders within thirty (30) days of the date the proposed EM&CP was filed with the Commission (or within thirty (30) days of the date of the newspaper notice, whichever is later).	CHPE will comply	Section 3.3, Appendix B
155(b)	A certificate of service indicating upon whom all EM&CP notices and documents were served and a copy of the written notice shall be filed with the Secretary at the time the proposed EM&CP is filed, and shall be a condition precedent to approval of the EM&CP.	CHPE will comply	Section 3.3 See cover materials, affidavits of service
156(a)	For the overland portions of the Facility, construction outside the Allowed Deviation Zone, to the minimum extent necessary, as detailed and justified in an EM&CP submittal, shall be allowed for appropriate environmental or engineering reasons, except where a conflict with a specific provision of this Certificate would be created.	CHPE will comply	Section 1.3 and Appendix E
156(b)(1)	For the HVDC Transmission System installed in Lake Champlain and the Hudson River, the Allowed Deviation Zone shall be anywhere within those bodies of water where the water depth exceeds twenty (20) feet at mean low water, and where installed in the Harlem and East Rivers the Allowed Deviation Zone for the HVDC Transmission System shall be anywhere where the water depth exceeds ten (10) feet at mean low water, provided however that: (1) Where the HVDC Transmission System Centerline enters any of the Exclusion Zones identified on the maps contained in Appendix B to the Joint Proposal, the Allowed Deviation Zone shall be limited to one hundred and fifty (150) feet on either side of the Facility Centerline. The Certificate Holders' rights to enter into such Exclusion Zones are as follows: Prior to installation in	CHPE will comply	Does not apply to Segment 1, 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	these areas, the Certificate Holders shall provide in the EM&CP an analysis as to whether there are any reasonable and feasible underwater alternatives outside of the Exclusion Zones that would allow for burial at the target depth of six (6) feet. No deviation in the Centerline may cause the HVDC Transmission System to enter into any of the Exclusion Zones identified in that Appendix B without (a) the Certificate Holders providing in the EM&CP an analysis that there are no other reasonable and feasible alternatives that would allow for achieving the target burial depth of six (6) feet and (b) the written consent of NYSDEC. In the event the Certificate Holders are unable to agree on a change to the Centerline governed by this subpart, the Certificate Holders shall be free to file an application for an amendment to this Certificate setting out their proposed new Centerline and the environmental and engineering considerations underlying that proposal;		
156(b) (2,3,&4)	(2) No deviation of over one hundred fifty (150) feet in the Centerline may cause the HVDC Transmission System to come within one hundred sixty (160) feet of any instance of "Lake Champlain Maritime Museum ("LCMM")/CHPE Marine Route Survey Cultural Resources" identified in Appendix B to the Joint Proposal without (a) the Certificate Holders providing in the EM&CP an analysis that there are no other reasonable and feasible alternatives; and (b) the written consent of the New York State Historic Preservation Office ("NYSHPO"). In the event that the Certificate Holders and NYSHPO are unable to agree on a change to the Centerline governed by this subpart, the Certificate Holders shall be free to file an application for an amendment to this Certificate setting out their proposed new Centerline and the environmental and engineering considerations underlying that proposal; and (3) No deviation of more than one hundred and fifty (150) feet in the Centerline may cause the Facility to be located or re-located within any Significant Coastal Fish & Wildlife Habitat identified in the NYS Coastal Management Program without: a. the Certificate Holders providing in the EM&CP an analysis that there are no other reasonable and feasible alternatives that would allow for achieving the target depth of cover of six (6) feet; b. the written consent of NYSDEC. In the event that the Certificate Holders and NYSDEC are unable to agree to a change in the Centerline governed by this subpart, the Certificate Holders shall be free to file an application for an amendment to this Certificate setting out their proposed new Centerline and the environmental and engineering considerations underlying that proposal; c. a written statement from NYSDOS stating that the deviation would not result in coastal effects that differ significantly from the coastal effects reviewed by NYSDOS in Certificate Holders' original federal Coastal Consistency Certification. In the event that NYSDOS determines that such deviation would result in coastal effects that differ significantly from those reviewed in the Coastal Consistency Certification, the Certificate Holders shall seek a written concurrence from NYSDOS for any such project changes that would require an amendment to the Certificate Holders' Coastal Consistency Certification. Nothing in this Certificate shall be construed to limit or expand any rights Certificate Holders may have to seek administrative or judicial	CHPE will comply	Does not apply to Segment 1, 2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	review of any action or inaction by NYSDOS relating to any such deviation; and (4) No significant increase in adverse effects to CI or other infrastructure results from proposed facility re-location.		
157	All deviations from the design depth, height, and location of facilities or structures shall be presented in the proposed EM&CP for approval. An explanation for the proposed deviations shall be provided, with supporting documentation. Deviations shall be allowed for appropriate environmental or engineering reasons without modification to this Certificate, except where a conflict with a specific provision of this Certificate would be created. If a deviation is proposed after approval of the EM&CP, the procedures contained in Condition 158 of this Certificate shall apply.	CHPE will comply	Section 1.3 and Appendix E.
158	The EM&CP approved by the Commission may incorporate modifications from the EM&CP proposed by the Certificate Holders. No change to the approved EM&CP may thereafter be made except in accordance with the following procedures:	CHPE will comply	Section 1.5 and Appendix E.
158(a)	For a proposed change that: (i) would involve a site listed or eligible for listing on the New York State or National Register of Historic Places, the Certificate Holders shall give at least two (2) weeks prior notice to the Field Service Bureau of OPRHP. (ii) would involve any State-regulated wetland or protected stream or water body, the Certificate Holders shall give at least two weeks prior notice to NYSDEC, and, if within the Adirondack Park, to APA. (iii) would affect the occupied habitat of a TE species, the Certificate Holders shall give at least two weeks prior notice to NYSDEC and to the USFWS or NMFS (where applicable) prior to providing notice to DPS staff of the proposed change. (iv) would affect the individual or habitat supporting RTE plants, the Certificate Holders shall give at least two (2) weeks prior notice to NYSDEC and DPS. (v) would involve agricultural land, the Certificate Holders shall give at least two (2) weeks prior notice to Ag & Mkts. (vi) would involve the herbicides planned for use (including mixed proportions, additives or method of application), the Certificate Holders shall give at least thirty (30) days prior notice to NYSDEC. (vii) would affect land or water owned or controlled by CNY, the Certificate Holders shall give at least two (2) weeks prior notice to CNY.	CHPE will comply	Section 1.5
158(b)	The Certificate Holders shall report any proposed changes to the EM&CP to DPS Staff. DPS Staff will refer to the Commission for approval any proposed changes that cause a substantial increase in environmental impact, after consultation with NYSDEC, any proposed changes that relate to contested issues decided during the proceeding, and any proposed changes affecting State highways (but need not do so if the report indicates NYSDOT's agreement to such proposed changes). DPS Staff is authorized to approve all other proposed changes, in accordance with the procedure outlined herein, and will submit reports of such changes to the Secretary or the Secretary's designee, which reports will be posted on the Commission's website under this case number.	CHPE will comply	Section 1.5

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
158(c)	Upon being advised that DPS Staff will refer a proposed change to the Commission, the Certificate Holders shall notify all active parties that have requested to be so notified, as well as property owners or lessees whose property is affected by the proposed change. The notice shall: (i) describe the original conditions and the requested change; (ii) provide documents supporting the request; and (iii) state that persons may comment by writing to the Commission within twenty-one (21) days of the notification date.	CHPE will comply	Section 1.5
158(d)	The Certificate Holders shall not execute any proposed change until they receive written approval from the Commission (if Commission approval is required pursuant to subparagraph (a) of this paragraph) or oral or written approval from DPS Staff (in the case of a change that Staff has authority to approve) except in emergency situations threatening personal injury, property damage, or severe adverse environmental impact, or as specified in the EM&CP. When the Certificate Holders have obtained oral approval from DPS Staff for a change, DPS Staff will confirm such approval in writing within ten (10) business days.	CHPE will comply	Section 1.5
159	The EM&CP and, as and when appropriate, a Segment EM&CP and any proposal to modify the EM&CP or a Segment EM&CP shall address, but not be limited to, the following information:	CHPE will comply	All sections and appendices of the EM&CP
159(a)	details of work site dimensions; construction ROW and off-ROW access needs and locations; locations and descriptions of work scheduled or planned by others in the vicinity of the construction identified after consulting relevant federal, state, and city agencies; and measures to protect adjacent facilities, structures and vegetation;	CHPE will comply	Section 11, 12, Appendix C
159(b)	documentation of methods to meet the requirements of this Certificate and incorporation of appropriate engineering standards, regarding existing road, bridge, and culvert conditions;	CHPE will comply	Section 11 Appendix C
159(c)	location of the utility, water, steam, sewer, and wastewater crossings and other nearby utility facilities, including CI facilities, and methods for protecting the cable and other facilities, including CI facilities, at those crossings and nearby locations; the plan shall include detailed construction techniques, methods, and equipment descriptions for the protection of existing utilities including, but not limited to, how damage to existing utilities will be avoided and how any contingency will be met in case damage does occur, and for coordination with utilities and public service providers;	CHPE will comply	Section 11, Section 12.2 and 12.3, and Appendix C
159(d)	detailed construction schedule and coordination plans, including those in connection with other utility owners and operators with respect to any work on the Facility for which coordination is required by this Certificate or other related agreement(s), including construction calendar;	CHPE will comply	Section 1.1 and Section 12.0
159(e)	each construction activity as discussed in Condition 58;	CHPE will comply	Section 3.2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
159(f)	a comprehensive plan to identify encroachments within the Construction Zone as discussed in Condition 60;	CHPE will comply	Section 4.6.1
159(g)	an HDD work packet providing planning, installation controls, and site measures that will be taken in accordance with good engineering practices; including relevant information and deliverables described in Section 8.1 of the BMPs;	CHPE will comply	Section 4.1 & HDD Appendix J
159(h)	jet plow and shear plow techniques and adjustments, including details related to crossing existing underwater facilities and infrastructure;	CHPE will comply	Does not apply to Segment 1, 2
159(i)	a work plan for dredging activities including specific practices to be used during dredging, dredged materials management plans, and proof of the ability to provide proper disposal;	CHPE will comply	Does not apply to Segment 1, 2
159(j)	drawings and specifications of any closed environmental bucket or other dredging equipment, including specifications demonstrating that appropriate design considerations are incorporated in equipment selected for deployment;	CHPE will comply	Does not apply to Segment 1, 2
159(k)	a pre-installation and post-energizing sediment sampling and monitoring plan, which plan will be subject to review and comment by NYSDEC and NYSDOS and will adhere to the following specifications: the plan will correspond to Attachment 2 of this Certificate, Benthic and Sediment Monitoring Scope of Study. The plan submitted to DPS Staff for approval shall include the results of the consultation with NYSDEC and NYSDOS;	CHPE will comply	Does not apply to Segment 1, 2
159(l)	details of cable pulling and splicing plans that include locations of any spare conduits that will be installed;	CHPE will comply	Appendix C
159(m)	night-time construction provisions, including lighting and noise control, and mitigation measures, including conditions when night-time construction will be undertaken;	CHPE will comply	Section 9.0
159(n)	public road traffic control and public safety and the MPT plans as discussed in Condition 39;	CHPE will comply	Appendix C
159(o)	details regarding street work, including provisions for minimizing the duration and extent of open excavation, traffic disruptions, and work within and adjoining public streets and public street ROW;	CHPE will comply	Appendix C
159(p)	public safety control provisions including practices for work near residential and publicly accessible sites; fencing around open work areas, and provisions for through traffic, and alternative access;	CHPE will comply	Appendix C
159(q)	designated parking areas and equipment storage and staging locations;	CHPE will comply	Appendix C, Section 4.9, Section 5.4 and 5.5
159(r)	details for drainage line repair procedure and drawings in the event of a crushed or severed drain lines;	CHPE will comply	Appendix C; Section 13.4.2

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
159(s)	provision for submission of a certification by a professional engineer licensed by the State of New York stating that, if constructed in accordance with the final design plans, the Facility shall, to the extent applicable, comply with the interim electrostatic field standard established by the Commission in Opinion No. 78-13 (issued on June 19, 1978 in Cases 26529 and 26559) and the limit for magnetic fields set in the Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities (issued on September 11, 1990 in Cases 26529 and 26559) or with any standard test that has superseded these standards at the time of consideration by the Commission of the EM&CP or a particular Segment EM&CP;	CHPE will comply	Appendix C (for professional engineer's certification); with regard to the EMF calculations for the Facility, see Exhibits B, C and D and Appendix A and B to the Certificate Holders' January 29, 2021 *Petition for an Amendment to Certificate of Environmental Compatibility and Public Need* (DMM Item 819)
159(t)	a work plan for reducing magnetic fields, which will include documentation of the calculation of anticipated average magnetic field levels, overland and underwater with the Facility in operation;	CHPE has complied. Submitted Jan. 29, 2021	See Exhibits B, C and D and Appendix A and B to the Certificate Holders' January 29, 2021 *Petition for an Amendment to Certificate of Environmental Compatibility and Public Need* (DMM Item 819)

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
159(u)	impact avoidance and/or minimization measures for regulated wetlands, streams, and other environmental resources including any maps and plan drawings of streams, regulated wetlands, and sensitive habitat crossing locations, site-specific stream-crossing techniques for the construction of the Facility and for the construction of any access roads to be used for such construction, and selective vegetation-clearing techniques in areas near streams or regulated wetlands;	CHPE will comply	Discussed generally in Section 7.1, 7.2, 8.1, but does not apply to Segment 1 and 2 as there are no impacts to State regulated wetlands in this EM&CP
159(v)	measures consistent with this Certificate, the Joint Proposal, the BMPs, and the EM&CP Guidelines to avoid and/or minimize impacts to TE species and RTE plants and their occupied habitat;	CHPE will comply	Section 8.2
159(w)	work plan for measures to be taken for protection of vegetation and visual resources of the Lakes to Locks Passage Scenic Byway (State Highway 22);	CHPE will comply	Section 1.4,
159(x)	a notice of intent to exercise authority under the SPDES General Permit for construction activities;	CHPE will comply	Appendix G
159(y)	details of erosion control plans, including grading and filling at the overland Construction Zone, Converter Station, and substation, so as to provide for the control of discharges incidental to the construction of the Facility, including to stormwater, groundwater, and surface waters, and meet applicable water quality standards;	CHPE will comply	Appendix G and C
159(z)	methods to avoid the effects of sediment on nearby facilities and infrastructure, including avoidance techniques with respect to the clogging of outfalls and diffusers;	CHPE will comply	Appendix G and C
159(aa)	spoil control plans for excavations, including for any materials proposed for use as backfill in the underwater or overland route, identification of its source and the evaluation of its suitability;	CHPE will comply	Appendix C
159(bb)	a blasting plan that includes the information described in the BMPs;	CHPE will comply	Section 4.3, Appendix S
159(cc)	work plan for storage of all petroleum products and hazardous chemicals which may be used during, or in connection with, the construction, operation, or maintenance of the Facility, fuel and fluids spill prevention and control plans;	CHPE will comply	Section 5.6 and Appendix K (SPCC)
159(dd)	work plans for responding to and remediating the effects of any spill of petroleum products or hazardous substances that occurs during construction of the Facility on land or in the water in accordance with applicable federal and state laws, regulations, and guidance, which shall include proposed methods of handling spills of petroleum products and any chemicals that may be stored or utilized during the construction, operation, or maintenance of the Facility;	CHPE will comply	Section 5.6 and Appendix K (SPCC)

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
159(ee)	plans for pre- and post-installation bathymetry, sediment, benthic invertebrate, fish, temperature, and magnetic field surveys as described in Condition 163, and mitigation;	CHPE will comply	Does not apply to Segment 1, 2
159(ff)	a plan for suspended sediment and water quality monitoring consistent with Attachment 1 of this Certificate, Suspended Sediment and Water Quality Plan Scope of Study, for jet and shear plow activities, as well as removal of large debris with an area greater than nine hundred (900) square feet or longer than thirty (30) feet in any direction;	CHPE will comply	Does not apply to Segment 1, 2
159(gg)	invasive species control measures during construction;	CHPE will comply	Section 8.3 and Appendix N
159(hh)	appropriate measures as proposed in Karner blue butterfly (Lycaeides melissa samuelis) Impact Avoidance and Minimization Report attached to the Joint Proposal as Exhibit 109;	CHPE will comply	Does not apply to Segment 1, 2
159(ii)	United States Coast Guard Notice(s) to Mariners during the occupation of any surface waters of the State of New York which may present a hazard or obstacle to safe navigation;	CHPE will comply	Does not apply to Segment 1, 2
159(jj)	other mitigation measures as appropriate to demonstrate compliance with other permits and approvals;	CHPE will comply	Section 8.1, 8.2, 8.3, Appendix M and N
159(kk)	plans and specifications for site and pavement restoration, including pre-existing drainage systems;	CHPE will comply	Section 13.4 and Appendix C
159(ll)	noise mitigation plan for noise sensitive sites showing the locations of residential areas and other noise-sensitive areas along the proposed ROW of the Facility and the specific procedures to be followed to minimize noise impacts related to ROW clearing, facility construction, and operation for the Facility;	CHPE will comply	Section 9.1 and Appendix C
159(mm)	mitigation measures that will be employed should significant concentrations of waterfowl be encountered during fall migration when construction is proposed near the following SCFWH: Germantown-Clermont Flats, The Flats, Roundout Creek, Esopus Meadows, Vanderburgh Cove and Shallows, Constitution March, and Iona Island Marsh;	CHPE will comply	Does not apply to Segment 1, 2
159(nn)	plans for use of roadways for the delivery of oversized loads in the event that transportation of oversize loads by road is required. The Certificate Holders shall obtain any necessary governmental permits associated with transport of such oversized loads and provide copies of such permits to the Secretary;	CHPE will comply	Appendix C addresses the Plans. Any applicable permits will be submitted as issued.

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
159(oo)	a plan for responding to and remediating the effects of any spill of petroleum or any hazardous substances that occurs during the construction of the Facility, in accordance with applicable state and federal law and regulations. Such plan shall be developed in accordance with such applicable laws and regulations and relevant official guidance and shall include proposed methods of handling spills of petroleum products and any hazardous substances which may be stored or utilized during construction, operation, or maintenance of the Facility;	CHPE will comply	Appendix K
159(pp)	For excavations in close proximity to buildings, walls, or other structures: i. a description of the support system method for each such location where support is determined to be necessary; ii. the rationale for each such location where it is determined that support systems are unnecessary; and iii. support system designs for each location where it is determined that support is necessary; designs shall demonstrate approval by a registered professional engineer licensed in New York State.	CHPE will comply	Section 4.6.1; Does not apply to Segment 1, 2
159(qq)	For excavations that will be below the level of the base or footing of any foundation or retaining wall: i. a list of all locations where excavation below the base or footing of any structure is considered necessary; ii. a description of the support system method for each such location where support is determined to be necessary; iii. the rationale for each such location where it is determined that support systems are unnecessary per OSHA Requirements 1926.651(i)(2)(ii), 1926.651(i)(2)(iii), and 1926.651(i)(2)(iv); and iv. support system designs for each location where it is determined that support is necessary; designs shall demonstrate approval by a registered professional engineer licensed in New York State.	CHPE will comply	Section 4.6.1; Does not apply to Segment 1, 2
160	The Certificate Holders shall also include in the proposed EM&CP a compliance assurance plan that includes but is not limited to: a. The name(s) of the inspector(s) selected under Condition 53 and a statement of qualifications for each inspector demonstrating sufficient knowledge and experience in environmental and construction matters to complete the inspections and audits; b. Provision for deployment of more than one of a particular type of inspector (or types of inspectors, when appropriate) in the event that two or more major construction operations are undertaken simultaneously in areas separated by ordinary highway driving of more than three (3) hours, such that at least one inspector of a particular type shall be assigned to each such separated construction area; c. A proposed checklist of matters to inspect for compliance, including the specific items or locations to be inspected, the inspection to be employed such as visual, auditory, testing by instrument, and acceptability criteria to be applied by the inspector(s); d. A procedure setting forth how the Certificate Holders shall respond to and correct problems found by the inspector(s); e. A procedure setting forth how the Certificate Holders shall respond to and correct problems identified by any utility owners or operators whose property has been damaged in any material way as a result of the construction, operation, or maintenance of the Facility; f. A schedule for monthly environmental audits during	CHPE will comply	Appendix F

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	construction and submission of audit checklists, together with a written explanation of problem(s), signed by the independent inspectors and an authorized representative of the Certificate Holders, to DPS Staff and NYSDEC; and g. A schedule for submission of annual environmental audits during the first two (2) years of operation of the Facility to DPS Staff, NYSDEC, and specified state and municipal agencies.		
161	The Certificate Holders shall also include in the EM&CP: a. An immediate post-installation inspection plan that shall include at a minimum: (i) the method for determining the actual cable location and actual burial depth of the cable upon completion of installation; (ii) standards to be used to determine what remedial actions are warranted consistent with Good Utility Practices (e.g., additional burial and/or protection efforts) in all locations where the cable burial depth is less than the applicable target burial depth; (iii) standards to be used to determine if any damage has been or will be caused to any pre-existing facility and/or infrastructure as a result of cable installation, operation, or maintenance, and remedial measures therefore; and (iv) the method and timing for undertaking such efforts; and b. A maintenance and emergency action plan that shall include, at a minimum, (i) a schedule for periodic verifications, not to exceed three (3) years for overland locations and five (5) years for underwater locations, of the depth of burial of the cable and the standard to be used to determine, based upon inspection results, whether, and if so, what relocation, reburial, and/or added protection measures for the cable or pre-existing facilities or infrastructure are required; (ii) ROW vegetation maintenance plan; (iii) provisions for stabilizing erosion and resolving drainage problems; and (iv) control of access to the ROW and facility components.	CHPE will comply	Section 3.2, Appendix F
162	In order to protect CI described in Condition 27, the Certificate Holders shall include in the EM&CP:	CHPE will comply	Section 12.0, 12.3, and Appendix O
162(a)	an interference study, conforming to industry standards and performed by an individual or individuals with suitable qualifications to conduct such study, with respect to each location at which the Facility crosses CI or comes into such proximity to CI that an interference study is warranted by Good Utility Practices, and specifying any proposed mitigation measures;	CHPE will comply	Section 12.1
162(b)	a study to determine whether the Facility may have corrosive effects on any CI, conforming to industry standards and performed by individual(s) with suitable qualifications to conduct such study, and specifying any proposed mitigation measures;	CHPE will comply	Appendix P

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
162(c)	detailed cable ampacity and thermal calculations and documentation demonstrating that CI will not be adversely affected by the construction, operation, or maintenance of the Facility; such documentation shall include study results, calculations, and underlying assumptions used in the analysis and also to include, but not be limited to, cable specification, installation cross sections, thermal resistivity (tested or assumed) and, in the case of alternating current ("AC") lines only, magnetic field studies;	CHPE will comply	Appendix Q
162(d)	detailed calculations and documentation demonstrating that CI will not be adversely affected by the weight and installation methodology of the Facility's cables; such calculations and documentation shall respond to and address study results and shall set forth the underlying assumptions used in the analysis and shall also include, but not be limited to, cable specification, installation cross sections, geotechnical data (tested or assumed), and proposed mechanical protection;	CHPE will comply	Section 12.1
162(e)	in the event that a Segment EM&CP proposes that the HVDC Transmission System is to cross CI located on or below the beds of the Hudson, Harlem, or East Rivers or Lake Champlain ("Submerged CI"), any such Segment EM&CP shall include: i. a technical and economic analysis and documentation (including supporting information) comparing the installation of the Facility both over and beneath such Submerged CI; ii. a detailed explanation of Certificate Holders' plans for maintaining the existing mechanical protection of any Submerged CI during and after installation of the HVDC Transmission System's cables, including a discussion of the type and replacement of thermal sands; iii. a demonstration based on the final design of the HVDC Transmission System of the manner in which the owners or operators of such Submerged CI would have access to repair and/or maintain its Submerged CI; iv. where requested by the Designated Representative of the owner(s) or operator(s) of such Submerged CI, Certificate Holders shall make reasonable efforts to ensure that the route of the HVDC Transmission System is designed to cross such Submerged CI at an angle which is as close to a right angle on the horizontal as is practicable having due regard to other route requirements; and	CHPE will comply	Does not apply to Segment 1, 2
162(f)	documentation showing that there will be no material interference with the ability of the owners and/or operators of any CI crossed by, or in proximity to, the Facility, to repair, operate, or maintain such CI as a result of the construction, operation, or maintenance of the Facility;	CHPE will comply	Section 12.1, Appendix R
162(g)	a full description of all measures that will be employed by Certificate Holders to protect all CI that may be affected by the construction, operation, or maintenance of the Facility, including, but not limited to, detailed construction techniques and methods, equipment descriptions, an explanation of how any contingency will be met in case damage does occur, and procedures for coordination with utilities and public service providers;	CHPE will comply	Section 11.1, 12.2, 12.3 and Appendix C

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
162(h)	protocols for performing repair and maintenance work on the Facility in proximity to CI;	CHPE will comply	Section 12, Appendix F and R
162(i)	documentation showing agreement by the owners and/or operators of affected CI with both Certificate Holders' construction schedule for operations in the vicinity of such CI and the measures described in the EM&CP documents relating to such CI or a description of those aspects of the proposal that are disputed, and a discussion of the positions taken by the Certificate Holders and the owners and/or operators of the CI;	CHPE will comply	Section 12, Appendix R
162(j)	documentation showing agreement by CNY that CI owned or operated by CNY, whether located within the boundaries of CNY or elsewhere, has been adequately identified and protected or a description of those aspects of Certificate Holders' proposal that are disputed and a discussion of the positions taken by the Certificate Holders and CNY; and	CHPE will comply	Does not apply to Segment 1, 2
162(k)	A decommissioning plan setting forth steps to be taken in the event that the Facility is permanently de-energized.	CHPE will comply	Section 3.5
163	Within six (6) months after issuance of this Certificate, the Certificate Holders shall submit to the DPS Staff for review, comment, and approval in consultation with NYSDEC and the NYSDOS, detailed Standard Operating Procedures ("SOP") for compliance monitoring studies to be conducted in the Hudson River. The SOPs shall be consistent with the Scopes of Study attached to this Certificate: § Benthic and Sediment Monitoring Scope of Study (Attachment 2 to this Certificate) § Bathymetry, Sediment Temperature and Magnetic Field Scope of Study (Attachment 3 this Certificate) § Atlantic Sturgeon Pre-Installation and Post-Energizing Hydrophone Scope of Study (Attachment 4 to this Certificate)	CHPE will comply	Does not apply to Segment 1, 2
164	The approved SOPs required by Condition 163 shall be incorporated into the EM&CP or first Segment EM&CP that proposes to perform cable installation in the Hudson River and completion of the studies as defined by the approved SOPs shall be a requirement of this Certificate.	CHPE will comply	Does not apply to Segment 1, 2; will be addressed in first segment EM&CP which proposes cable installation in the Hudson River
U. Environmental Trust		**CHPE Response**	**EM&CP Section/Appendix**
165	The Certificate Holders shall establish the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust ("the Trust") solely for the purposes of protecting, restoring, and improving aquatic habitats and fisheries resources in the Hudson River Estuary, the Harlem and East Rivers, Lake Champlain, and their tributaries, in order to minimize,	CHPE will comply	Does not apply to Segment 1, 2; will be addressed in marine EM&CPs

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	mitigate, study, and/or compensate for the short-term adverse aquatic impacts and potential long-term aquatic impacts and risks to these water bodies from Facility construction and operation and for the administration of the Trust to the extent expressly authorized in these Certificate Condition.		
165(a)	Certificate Holders shall file an agreement providing for the establishment of the Trust (the "Trust Agreement") within one hundred twenty (120) days after issuance of this Certificate. The trustee selected by Certificate Holders to oversee the Trust (the "Trustee") shall be, or shall be associated with, a bank accredited by and doing business in the State of New York. Both the Trust Agreement and the selection of the Trustee shall be subject to review and approval by the Commission (in consultation with NYSDEC) and, if required, the New York State Comptroller, and Attorney General.	CHPE has complied	Not within the scope of the EM&CP.
165(b)	Within thirty (30) days of the Closing, the Certificate Holders shall endow the Trust with an interest-bearing account established at the Trustee bank, with a first payment of $2.5 million. [Trust payment schedule revised by Amendment 6 (March 16, 2022), creating a new Table 2 for payments during Construction and Operations]	CHPE will comply	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC
165(c)	Within thirty (30) days of the Closing, Certificate Holders shall prepare and file with the Commission for its approval a written agreement to govern the administration and operation of the Trust (the "Governance Agreement"). The Governance Agreement shall: (i) provide that the funding commitments of the Certificate Holders will be fixed in accordance with Table 2 attached hereto and the terms stated in this condition, and that they will not be increased for any reason or decreased except as provided for in subsections (d)(vii) and (d)(ix) of this Certificate Condition; (ii) establish a Governance Committee consisting of: Certificate Holders; DPS Staff; NYSDEC; NYSDOS; CNY; APA; the New York State Council of Trout Unlimited; Riverkeeper, Inc.; and Scenic Hudson, Inc.; (iii) authorize the Governance Committee to meet prior to COD to perform the preliminary work required to implement the Trust, including consideration of whether to use a third-party administrator (the "Administrator") to assist in the conduct of its business and for the administration of the Trust for tasks including but not limited to developing: (A) cash flow schedules for the Trust expenditures; (B) measures to track administrative costs; and (C) associated auditing and reporting tasks; (iv) permit the Governance Committee to retain an Administrator, if desired by the Governance Committee, and to compensate the Administrator (if any) from monies available in the Trust; (v) provide that members	CHPE will comply	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	of the Governance Committee other than Certificate Holders will not be obligated to pay into the Trust and that no member of the Governance Committee, including Certificate Holders, shall be obligated to directly fund or perform any of the responsibilities of the Trustee, including compensation of the Trustee or the Administrator; (vi) obligate the Trust to indemnify and hold harmless all members of the Governance Committee, including Certificate Holders, from liability for any and all actions and/or inactions of the Trustee, the Administrator (if any), or any representative(s) of any of them; (vii) provide that the studies, projects and activities listed in Attachment 5 hereto totaling approximately $ 32.4 Million (the "Priority Projects") satisfy the requirements of this Certificate Condition and shall be implemented by the Administrator (or by the Trustee if no Administrator has been selected) pursuant to a schedule to be developed by the Governance Committee in order to meet the primary objectives of the Trust during its initial implementation phase. The Governance Committee, by a three quarters vote, may determine, on the basis of changed circumstances, that a Priority Project should not be implemented; and (viii) provide that the Governance Committee shall be empowered to approve all expenditures of the monies of the Trust, provided however that no more than 75% of the monies to be provided by Certificate Holders to the Trust in any year may be designated for such Priority Projects during the first fifteen (15) years of the Trust's existence or until the Priority Projects have been completed; and (ix) require the Administrator (or the Trustee if no Administrator has been selected) to maintain a clear written record identifying any criteria and justification for the decisions of the Governance Committee and for all expenditures by the Trust itself.		
165(d)(i)	The Governance Agreement shall further require that: the Governance Committee shall manage the Trust so that, over the life of the Facility, the monies of the Trust will be able to support additional studies, projects, or activities that may result from (A) the Priority Projects, (B) studies to be agreed to at a later time by the Governance Committee, or (C) information produced by the Governance Committee, consistent with the criteria set forth in this Condition 165 below;	CHPE has complied	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC
165(d)(ii)	the Governance Committee shall manage the Trust so that money remains available for future projects that were not identified in this Certificate and, from time to time, project ideas shall be solicited from the Governance Committee's members, other Federal and State Agencies or municipalities, individuals, and organizations located along the route of the Facility, provided these ideas are consistent with the purposes of the Trust and approved by the Governance Committee;	CHPE has complied	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
165(d)(iii)	projects and activities approved by the Governance Committee for funding shall not replace natural resource management programs funded by the General Fund of the State of New York or NYSDEC Environmental Programs, meet an obligation of the State of New York or any other party to this proceeding, or replace funding for the operation and maintenance of any project not previously funded by the Trust. The Governance Committee may, however, authorize the Administrator (or the Trustee if no Administrator has been selected) to use the monies of the Trust to carry out additional or new activities that are part of or are consistent with applicable State and Federal resource management and land use plans;	CHPE will comply	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC
165(d)(iv)	studies, projects or activities to be financed by the Trust shall have a nexus to the Facility and shall include, but not be limited to: (A) habitat restoration, enhancement, or protection; (B) habitat research; (C) fish and wildlife species restoration, enhancement, or protection; (D) stewardship activities including additional or new activities, formally adopted by the Governance Committee, that are part of or are consistent with applicable State and Federal resource management and land use plans; (E) water quality improvement (excluding projects eligible for funding under the Clean Water State Revolving Fund); and (F) scientific or administrative support to ensure coordination of Trust projects with each other and externally funded research, restoration, and stewardship projects; delivery of final products; review of reports, data sets, and metadata; and placement of project results and data to insure public access in appropriate digital and hard copy media;	CHPE will comply	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC
165(d)(v)	prior to funding any studies, projects or activities, the Governance Committee must find that such studies, projects or activities have been proven: (A) to make a contribution to the long-term protection and enhancement of fish and wildlife species and habitats in the Hudson River Estuary, the Harlem and East Rivers, and/or Lake Champlain and their tributaries; (B) to have a strong scientific foundation; (C) to achieve identified environmental goals; (D) to be consistent with applicable State and Federal natural resource management plans; (E) to address impacts associated with the construction, operation, maintenance or security of the Facility; and, (F) to be feasible from an engineering perspective;	CHPE will comply	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC
165(d)(vi)	the Governance Committee shall give preference to projects that: (A) achieve multiple environmental goals; (B) involve multi-stakeholder collaboration; (C) feature matching funds; and/or, (D) are cost effective;	CHPE will comply	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC

	Table 2.1 Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
165(d)(vii)	the Administrator (or the Trustee if no Administrator has been selected) shall pay any administrative costs associated with the establishment and maintenance of the Trust from any accrued interest on monies of the Trust or, if adequate interest is not accrued, such administrative costs shall be borne by the Trust, provided however that the monies of the Trust shall not be used to compensate any party, including Certificate Holders, for participation in the Governance Committee or to reimburse any such party for any expenses incurred in such participation;	CHPE will comply	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC
165(d)(viii)	Certificate Holders' obligation to make the payments into the Trust set out above and in Table 2 attached hereto shall terminate upon receipt by the Administrator (or the Trustee if no Administrator has been selected) of documentation from the NYISO or DPS stating that the Facility has ceased commercial operation. Should the Facility resume operations, the Certificate Holders shall resume the payments to the Trust on January 1st of the following year;	CHPE will comply	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC
165(d)(ix)	if the Facility ceases permanent operation for any reason, payments owed to the Trust as of the date of the final termination and the balance of unused monies in the Trust, plus any accrued interest and minus any administrative cost, shall be retained in the Trust and administered by the Governance Committee until completely expended;	CHPE will comply	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC
165(d)(x)	the Trustee, Administrator (if any) and the Governance Committee shall all be prohibited from directly or indirectly bonding or pledging any funds to be provided by the Certificate Holders at any future date; and	CHPE will comply	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC
165(d)(xi)	in the event that any department, agency, authority, office or other instrumentality or subdivision of the State of New York shall claim ownership or control of the Trust or any of the funds paid into the Trust by Certificate Holders or any interest thereon, the Trustee shall immediately return all monies held in the name of the Trust to Certificate Holders.	CHPE will comply	Does not apply to Segment 1, 2; is addressed by separate filings to the PSC

3.0 ENVIRONMENTAL PERSONNEL AND PROJECT PROCEDURES

3.1 PROJECT PERSONNEL

During the Project construction, multiple inspectors and monitors will be employed to ensure appropriate adherence to all applicable CCs, and the procedures, plans, and specifications described in this EM&CP as well as other applicable federal, state, and local laws, permits and approvals. The qualifications and duties of each type of inspector are provided in the following sections. Figure 3-1 present a high-level organizational chart. Figure 3-2 summarizes the organization of the project personnel. While inspector positions are assigned either as full-or part-time, the responsibilities and time commitments may fluctuate with the Project activity levels. The Certificate Holders and associated staff will ensure that the necessary inspectors' presence corresponds with the Project activity level (CC#53c). All Project personnel including the Certificate Holders' employees, Contractors, and subcontractors will be properly trained in the construction, operation, and maintenance of the Project (CC#53i). The necessary contact information for the inspectors will be included in Appendix F Compliance Assurance Plan once determined. If the contact information for the inspectors is unknown at the time of the filing of this EM&CP the Certificate Holders will ensure that the names, qualifications, relevant experience, and weekly schedules of the necessary inspectors are provided to DPS and NYSDEC Staff at least two (2) weeks prior to the start of the Project (CC#53g).

In addition to the inspector's specific qualifications listed as described in the following sections, the following attributes are highly recommended for all inspectors:

a) Possess good communication skills, both oral and written.
b) Be honest, fair, straightforward, sincere, and possess a strong sense of integrity.
c) Be able to communicate effectively with all parties: Certificate Holders' staff and fellow Project inspectors; construction/restoration contractors, foremen, equipment operators and laborers; agency inspectors, etc.
d) Be experienced with underground utilities. (2012 BMPs, Section 2.0)

Figure 3.1 – High Level Construction Organization Chart

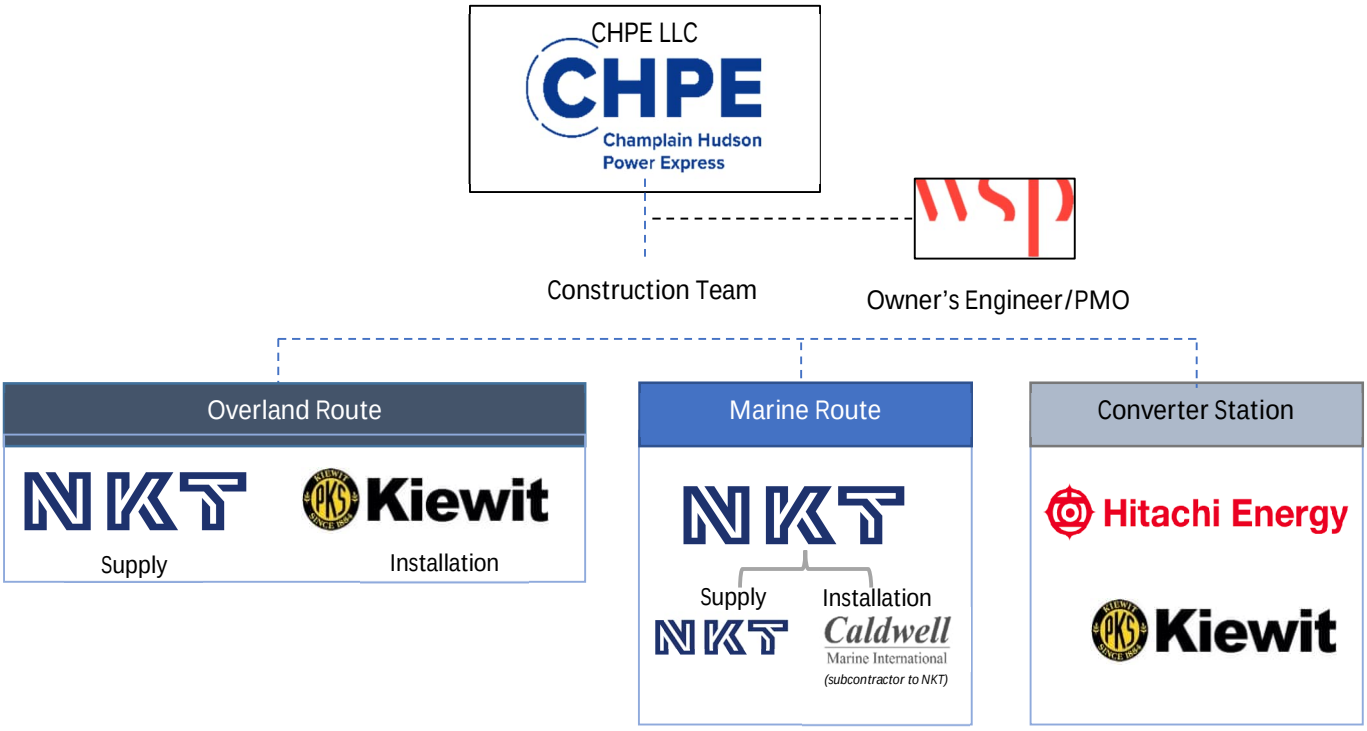
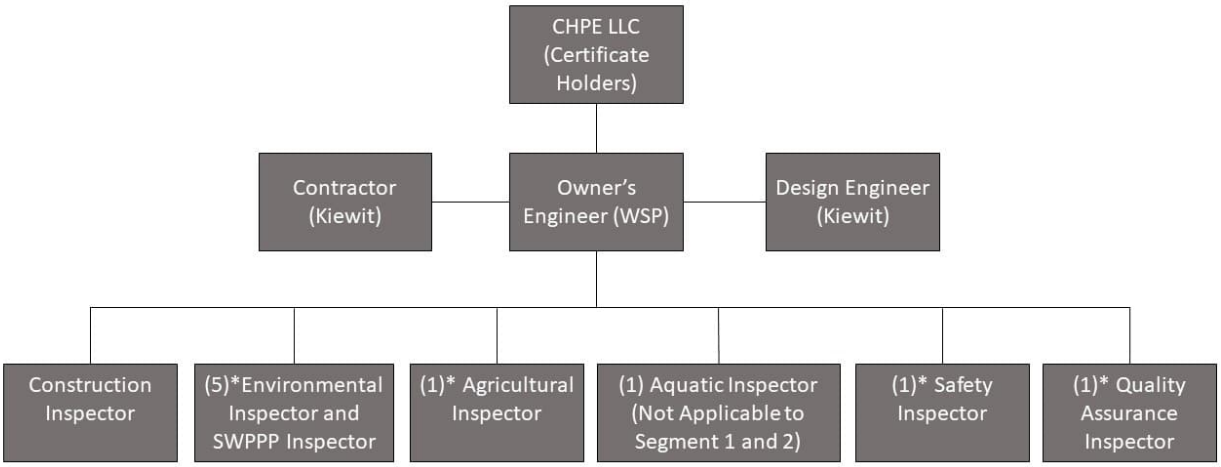


Figure 3.2 – Construction Inspectors Organizational Chart



3.1.1 Contractors

The main construction/installation Contractor for the overland route is Kiewit. All Contractors hired by the Certificate Holders must comply with all the Article VII CCs. The Certificate Holders will provide the Engineering, Procurement, and Construction (EPC) Contractor(s) retained to undertake the construction of the Project with complete copies of the CCs and all permits, certificates, and approvals required to initiate and/or complete construction of the Project. These documents include but are not limited to the approved Segment EM&CPs and governmental approvals issued pursuant to § 401 and § 404 of the Federal Clean Water Act, and § 10 of the Federal Rivers and Harbors Act. To the extent that the listed documents are available before contracts for construction services are executed, such copies will be provided to the Contractors prior to the execution of such contracts (CC#43).

Additionally, the Certificate Holders will inform all Contractors that the PSC may seek to recover penalties for violation of the CCs and other Orders issued in this proceeding, not only from the Certificate Holders, but also from their Contractors, and that Contractors also may be liable for other fines, penalties, and environmental damage (CC#44).

3.1.2 Environmental Inspector

At least 1 Environmental Inspector will be employed full-time during construction and restoration (CC#53a on Segment 1 and 2). Additional Environmental Inspectors may be utilized as required to meet environmental inspection requirements set out in the EM&CP and any other relevant permit conditions. The lead Environmental Inspector will be responsible for determining when additional inspectors are needed to meet inspection requirements. The Environmental Inspector(s) will be equipped with sufficient documentation, transportation, and communication equipment to effectively monitor all Contractors' compliance with the CCs and applicable sections of the PSL, New York State Environmental Conservation Law (ECL), the WQC issued in connection with the Project pursuant to § 401 of the Federal Clean Water Act, and the procedures outlined in this EM&CP (CC#53e).

3.1.2.1 Responsibilities

The Environmental Inspector will have the following responsibilities:

1. Monitor all construction activities including clearing, trenching, cable installation, installation and maintenance of temporary erosion controls, work involving wetlands, streams, agricultural lands, avoidance, and minimization of impacts to threatened and

endangered (TE) species and their occupied habitat and rare, threatened, and endangered (RTE) plants, restoration work, etc.

2. Provide DPS, NYSDEC, and for construction within the Adirondack Park, the Adirondack Park Agency (APA) staff, and Project team members with weekly status reports summarizing construction activities from the week prior to the report and identifying construction activities and locations scheduled for the next 2 weeks.
3. Coordinate inspections of the Project by NYSDEC, NYSDAM, USACE, and other involved agencies as needed.
4. Monitor and manage all environmental protection requirements of the EM&CP and closely coordinating these requirements with the Construction Inspector and the Contractor(s).
5. Monitor Contractor compliance with the provisions of the Certificate and permits, applicable sections of the PSLPSL, and the EM&CP.
6. Verify that the ROW and access roads are marked prior to construction.
7. Identify, document, and oversee corrective actions as necessary to bring an activity back into compliance.
8. Install and maintain signs and flagging/marking along the boundaries of sensitive resource areas (e.g., waterbodies and wetlands) or other areas where special requirements will be in effect.
9. Locate slope breakers, drivable berms, and water bars to ensure that they will not direct water into sensitive resources such as wetlands or waterbodies.
10. Direct the Construction Inspector when site conditions make it advisable to restrict construction activities in areas of sensitive environmental resources.
11. Ensure restoration of preconstruction contours and, topsoil, and prior to revegetation.
12. Determine the need for additional erosion and sediment controls other than those already required by the Certificate and the EM&CP and ensure that these controls are properly installed to prevent sediment flow into wetlands, waterbodies, streams, or other sensitive environmental resources.
13. Inspect and ensure the maintenance of all temporary soil erosion and sedimentation controls in fulfillment of the requirements for a qualified inspector as defined in the SPDES Construction General Permit (GP-0-210-001) (CC#53h).
14. Ensure the repair of all ineffective erosion and sediment control devices within 24 hours of identification.
15. Keep records of compliance with the environmental conditions of the Certificate, the EM&CP, and other federal, state, or local agency requirements. The Environmental Inspector will have stop-work authority over all aspects of the Project.
16. Identify areas that will be given special attention to ensure stabilization and restoration after the construction phase.
17. Be the point of contact for all emergency response procedures such as oil spills, encountering hazardous wastes, etc.

18. Monitor all construction activities on, above, below or in the vicinity of State highways to assure that work in the ROW of a State highway is performed in accordance with a Highway Work Permit issued by New York State Department of Transportation (NYSDOT) and, as applicable, any use and occupancy permits, leases or other permits or agreements issued by, with or involving NYSDOT.
19. Monitor all construction activities in the vicinity of railroad tracks, equipment, or facilities to assure that any alteration of railroad-related improvements paid for by NYSDOT is made in accordance with requirements of NYSDOT and the railroad operating the tracks, equipment, or facility (2012 BMPs, Section 2.1.1).

3.1.2.2 Qualifications

The Environmental Inspector will have the following qualifications:

a) Sufficient knowledge and experience to manage the environmental compliance procedures described in the EM&CP.
b) A bachelor's degree in geology, soil science, natural resource science or management, forestry, or a related environmental discipline or a demonstrated equivalent knowledge, including courses in ecological sciences and experience in environmental construction inspection.
c) Necessary qualifications consistent with a "Qualified Inspector" pursuant to the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-210-001) (2012 BMPs, Section 2.1.2).

3.1.3 Construction Inspector

One or more Construction Inspectors will be employed full-time on the Project as needed. The Construction Inspector(s) will be equipped with sufficient documentation, transportation, and communication equipment to effectively monitor each Contractors' compliance with the CCs and applicable sections of the PSL, New York State ECL, the WQC issued in connection with the Project pursuant to § 401 of the Federal Clean Water Act, and the procedures outlined in this EM&CP.

3.1.3.1 Responsibilities

The Construction Inspector will have the following responsibilities:

a) Ensure that high standards of contract compliance are consistently maintained.
b) Work with the appropriate individuals to fully understand contract program needs and ensure that promised commitments are delivered on time and within budget.

c) Participate in construction conference calls and meetings to provide weekly updates and reports.
d) Assure that site personnel are properly directed, trained, licensed, and evaluated.
e) Monitor all construction activities on, above, below or in the vicinity of State highways to assure that any work in the right of way of a State highway is performed in accordance with a Highway Work Permit issued by NYSDOT and, as applicable, any use and occupancy permits, leases or other permits or agreements issued by, with or involving NYSDOT.
f) Monitor all construction activities in the vicinity of railroad tracks, equipment, or facilities to assure that any alteration of railroad-related improvements paid for by NYSDOT is made in accordance with requirements of NYSDOT and the railroad operating the tracks, equipment, or facility (2012 BMPs, Section 2.4.1).

3.1.3.2 Qualifications

The Construction Inspector will have the following qualifications:

a) An associate degree or higher in a construction related discipline.
b) Five years of experience in construction of transmission facilities with an understanding of the applicable construction standards and work methods, construction field issues, prints specification sheets, schematics, one-line diagrams, instructional information to construct, maintain, troubleshoot cable installation and general aspects of converter station and substation construction.
c) Knowledge of federal, state, Occupational Safety and Health Administration ("OSHA"), local, and applicable environmental and safety rules and regulations.
d) A thorough understanding of electrical principles and the hazards associated with electrical transmission work.
e) The ability to travel throughout the Project area and work extended hours and weekends in emergency situations, as needed (2012 BMPs, Section 2.4.2).

3.1.4 Agricultural Inspector

A qualified Agricultural Inspector will be engaged during each phase of the Project: EM&CP development, construction, initial restoration, post-construction monitoring, and follow-up restoration. If qualified, the Environmental Inspector may perform the duties of the Agricultural Inspector (2012 BMPs, Sections 2.2 and 20.1). Table 1.4 in Section 1.4 summarizes the agricultural lands that will be impacted by the construction activities of Segment 1 and 2.

3.1.4.1 Responsibilities

The fundamental duty of the Agricultural Inspector is ensuring all aspects of the Project that affect farmland, either fully meet (comply with) or exceed:

a) The basic standards of NYSDAM including the recommendations in the Pipeline ROW Construction Project guidance document (NYSDAM 1997), and
b) Project-specific CCs, relevant to agricultural resources, which are incorporated by the lead or certifying agency (e.g.: PSC; U.S. Federal Energy Regulatory Commission (FERC); etc.).

In addition, the Agricultural Inspector will assume responsibility for the following duties:

a) Informal and formal training of other company/sponsor staff (e.g.: land men, craft inspectors, assistant agricultural compliance inspectors, Environmental Inspectors, etc.) and construction personnel in the proper use and application of the agricultural ROW standards and case-specific orders of certification.
b) Direct all aspects of the Project that affect agricultural resources through every stage of on-site work: ROW clearing, construction, cleanup, and initial restoration stages.
c) Direct the on-site monitoring and the follow-up restoration of agricultural lands.
d) Communicate with affected farmland owners and operators over the Project's duration: preliminary planning through construction/initial restoration to completion of monitoring and follow-up restoration.
e) Be available to provide site-specific agricultural information as necessary for development of the proposed EM&CP through field review
f) Communicate with the County Soil and Water Conservation Districts and NYSDAM.
g) Maintain regular contact with the Environmental Inspector and Construction Inspector throughout the construction phase (CC#53f) (2012 BMPs, Section 2.2.1).

3.1.4.2 Qualifications

The Agricultural Inspector will have the following qualifications:

a) A Bachelor's or Associate's degree in applied science: agronomy or environmental sciences, with concentration in: agriculture, soils, horticulture, forestry, or closely allied science, and employment in the respective field, regionally, for not less than 5 years; or
b) Steady advancement in a career through on-the-job training and performance, regionally, for a minimum of 10 years as a soil and water conservation field technician with a practical working knowledge of soil conservation, farming, surveying, land excavation and drainage, or similar types of work: from the land

review, field planning and design/layout phase, through construction inspection and site completion; or

c) Combination of a and b above; or
d) Steady advancement in a career through on-the-job training and field performance for a minimum of 5 years in construction/restoration ROW work, with at least 2 full years serving as an assistant to either a qualified agricultural or environmental compliance inspector, and a certification as, either:
    i. Professional in Erosion and Sediment Control (CPESC); or
    ii. Professional in Storm Water Quality (CPSWQ); or
    iii. Certified Crop Advisor (2012 BMPs, Section 2.2.2).

3.1.5 Aquatic Inspector

An Aquatic Inspector is not required for Segment 1 & 2 as there will be no in-water, construction, or aquatic impacts (2012 BMPs, Section 2.3).

3.1.6 Safety Inspector

One Safety Inspector will work full time on Segment 1 and 2 and will be present for any higher risk procedures.

3.1.6.1 Responsibilities

The Safety Inspector will assume responsibility for the following duties:

a) Assist in the establishment and implementation of regulatory compliance and incident prevention activities regarding the safety and health of employees, Contractor and subcontractor personnel, and the public.
b) Assist management by directing safety specialists in analyzing any serious incidents.
c) Advise management on problem solving or decision making to eliminate safety hazards and to develop incident prevention and regulatory compliance programs to reduce incidents that may lead to personal injury or property damage.
d) Monitor all construction activities on, above, below or in the vicinity of State highways to assure that any work in the ROW of a state highway is performed in accordance with a Highway Work Permit issued by the NYSDOT and, as applicable, any use and occupancy permits, leases or other permits or agreements issued by, with or involving NYSDOT.
e) Monitor all construction activities in the vicinity of railroad tracks, equipment, or facilities to assure that any alteration of railroad-related improvements paid for by

NYSDOT is made in accordance with requirements of NYSDOT and the railroad operating the tracks, equipment, or facility (2012 BMPs, Section 2.5.1).

3.1.6.2 Qualifications

The Safety Inspector will have the following qualifications:

a) A Bachelor's degree – preferably in Safety Management, a related science or engineering discipline.
b) Five to 7 years of professional safety experience.
c) Five to 7 years of experience in electric or gas operations or in a related industry, preferably in a supervisory or leadership role.
d) Certified as a Safety Professional or Occupational Health Professional or another equivalent recognized credential.
e) Knowledge of federal, state, and local safety and health laws and regulations.
f) Knowledge of electric operations, experience with underground utilities is a plus.
g) Knowledge of industrial hygiene principles.
h) Proven interpersonal skills coupled with the ability to lead in connection with various broad occupational safety and health principles in a constantly changing work environment.
i) Demonstrated ability to manage multiple high-priority tasks and engage in complex problem-solving.
j) Demonstrated high level of ethical behavior; and
k) Excellent judgment and decision-making skills (2012 BMPs, Section 2.5.2).

3.1.7 Quality Assurance Inspector

At least 1 Quality Control and Assurance Inspector will be employed on a part-time basis as needed for the Segment 1 and 2 overland segments. The Quality Assurance Inspector will conduct the Quality Control Audits described in the Compliance Assurance Plan in Appendix F.

3.1.7.1 Responsibilities

The Quality Assurance Inspector will have the following responsibilities:

a) Perform quality audits on transmission lines, converter stations and substations.
b) Verify that installation of the cable complies with construction specifications.
c) Write and publish reports detailing results of field construction audits.
d) Track non-conformances for work not meeting the required specifications.
e) Require submission of corrective and preventive action from the Certificate Holders' Contractor(s) for any non-conformance with the construction plans.
f) Maintain documentation in a systematic and orderly manner.
g) Identify areas where the quality of work can be improved.

h) Participate in conference calls and meetings.
i) Develop in-process quality statistical reporting forms and charts to support the Compliance Assurance Plan found in Appendix F; and
j) Conduct audits of compliance with the Certificate, Orders, and legal requirements as required by the CCs (2012 BMPs, Section 2.6.1).

3.1.7.2 Qualifications

The Quality Assurance Inspector will have the following qualifications:

a) A Bachelor's degree and a minimum of three (3) years of experience in a quality assurance role; or an equivalent combination of technical education and training and a minimum of eight (8) years of experience in a quality assurance role.
b) Ability to undertake tasks with limited supervision and be highly motivated.
c) Demonstrated analytical skills with the ability to evaluate and produce routine reports.
d) Ability to collect, enter, analyze, track, and produce data.
e) Demonstrated organization and planning skills, with the ability to schedule and perform quality audits across internal and external functions.
f) The ability to solve complex issues; and
g) Familiarity with construction job sites that may be in harsh climates and terrain, and in controlled conditions that require the use of Personal Protection Equipment ("PPE") (2012 BMPs, Section 2.6.2).

3.2 PROCEDURES

3.2.1 Other Inspection and Monitoring Personnel

The NYSDOT will have full authority over the Certificate Holders' use of state highways including the authority to place NYSDOT inspectors on site to monitor and observe the Certificate Holders' activities on state highways and/or request the presence of state or local police to assure the safety of freeway highway travelers at such times and for such periods as the NYSDOT deems appropriate (CC#57).

As specified in the CCs and pursuant to the PSL, the Certificate Holders and their associated Contractors will not limit the right of any jurisdictional agency to enter and inspect the Project (subject to required notifications and safety training) to assess compliance with any permit issued by such agency or any applicable substantive statute or regulation under such agency's jurisdiction. Any such inspection should be coordinated with DPS Staff to the greatest extent possible (CC#56).

3.2.2 Inspection & Coordination Requirements and Schedule

Table 3.1 – Inspection and Coordination Requirements and Schedule

Inspection Required	Person Performing Inspections/Coordination	Frequency of Inspections
Foundation inspections to adjacent buildings and structures within Segment 1 and 2	Certificate Holders' hired Inspectors/Contractors.	Prior to construction
Pre-construction Meeting	Certificate Holders invite DPS Staff, NYSDOT, and NYSDEC.	Two (2) weeks prior to start of overland construction
Site Compliance Audit Inspection	Certificate Holders organize and conduct site-compliance audit inspections for DPS Staff	Monthly during site preparation, construction, and restoration phases of the Project. Annually for first two (2) years of Operation
SWPPP BMPs	Environmental Inspector	Weekly during soil disturbing activities
Post installation Inspection	See Compliance Assurance Plan Appendix F	See Compliance Assurance Plan Appendix F
Notifications and coordination with CI Owners' Designated Representative(s) in accordance with CC 28(c)-(e)	Certificate Holders' hired Inspectors/Contractors.	At least 30 days prior to any construction or repair within vicinity of CI

3.2.3 Inspection/Coordination Additional Details:

3.2.3.1 Pre-Construction Meeting

For the preconstruction meeting, the agenda, location, and attendee list for this meeting will be agreed upon between DPS Staff and the Certificate Holders. The Certificate Holders will supply draft minutes from this meeting to all attendees. The attendees may offer corrections or comments, and thereafter the Certificate Holders will issue the finalized meeting minutes to all attendees. If, for any reason, the Contractors retained by the Certificate Holders to construct the Facility cannot finish the construction of such facilities, and one or more new Construction Contractors are needed, there will be another preconstruction meeting with the same format as outlined above (CC#58, 159e).

3.2.3.2 Site Compliance Audit Inspection

The Certificate Holders will 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 and at least annually for 2 years after the commencement of operation of the Project (CC#55). These inspections will be performed and include a review of the

status of compliance with all CCs, the WQC, and with other legal requirements and commitments, as well as a field review of the construction site, if necessary. The inspections may also include:

(1) Review of all complaints received, and their proposed or actual resolutions;
(2) Review of any significant comments, concerns, or suggestions made by the public, local governments, or other agencies;
(3) Review of the status of the Project in relation to the overall schedule established prior to the commencement of construction; and
(4) Other items the Certificate Holders or DPS Staff consider appropriate. (CC#55a)

The Certificate Holders, with the help of the appropriate Inspectors and project personnel will provide a written record of the results of the inspection, including resolutions of issues, and additional measures to be taken, to agencies involved in the inspection audit. (CC#55b)

3.2.3.3 SWPPP Inspections

As specified in the Stormwater Pollution Prevention Plan (SWPPP) in Appendix G, the Certificate Holders, via the Environmental Inspector shall inspect the erosion and sediment control measures identified in the SWPPP to ensure that they are being maintained in effective operating conditions at all times. When soil disturbing activities are occurring a site inspection will be conducted by the Environmental Inspector at least once every 7 days. A copy of the "Stormwater Construction Site Inspection Reports" is included in Appendix G of the SWPPP in Appendix G of this EM&CP. Where soil disturbing activities temporarily cease (e.g., winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the Environmental Inspector can stop conducting weekly inspections. Monthly inspections will be implemented during this time. The Environmental Inspector will resume weekly inspections when soil disturbing activities begin again. The Environmental Inspector will notify the NYSDEC Regional Office's stormwater contact person prior to any reduction in the frequency of site inspections. A final inspection will be performed by the Environmental Inspector where soil disturbing activities have not occurred or been resumed within 2 years, from the start of soil disturbing activities. The final inspection will certify that all disturbed areas have achieved final stabilization, all temporary and permanent control measures have been removed, and post-construction stormwater management practices have been constructed in conformance with the SWPPP. In locations where restoration is necessary or required, SWPPP inspections will be performed by the Environmental Inspector on a weekly basis until all disturbed areas have achieved the 80% revegetation required for final restoration. Following final restoration, erosion and sediment control measures will be removed from the site and disposed of appropriately. Descriptions related to the restoration and cleanup are summarized in Section 13.0 of this EM&CP. All other inspection requirements and details related to stormwater pollution control measures are included in Section 6.0 Maintenance/Inspection Procedures of the SWPPP in Appendix G.

3.2.3.4 Construction Safety Policies and Procedures

Construction Safety Policies and Procedures are included in Appendix H.

3.2.3.5 Post Installation Inspection

The Certificate Holders will conduct an immediate post-installation inspection for Segment 1 and 2 of the Project. The procedures for the post-installation inspection plan are described in the Compliance Assurance Plan (Appendix F) (CC#161).

3.2.4 Public Involvement

As described in Table 3.2, the Certificate Holders will provide notices to local municipalities and communities that are located along or within the vicinity of Segments 1 and 2. This notice will be distributed in accordance with the Certificate, first by notifying those interested persons that the EM&CP has been submitted and is available for comment and, at the appropriate time, providing additional notices prior to construction. Newspaper and mailed notices of the EM&CP filing will be performed concurrent with the filing of this EM&CP, as shown in Appendix B.

"Interested persons" entitled to receive notice of the EM&CP filing fall into several different groups, each of which has been provided a notice of this filing—affidavits of publication and/or mailing/service will be provided to the Secretary under separate cover:

Newspapers (CCs 152 and 154): the notice will be published starting on April 14, 2022 and continuing through the following week in 3 local newspapers in accordance with CCs 152 and 154. Certificate Holders selected the official newspapers of record for the 4 host municipalities (Towns of Dresden, Putnam and Whitehall and the Village of Whitehall): the *Post Star* (a daily newspaper with broad circulation in the Segment 1 and 2 area), the *Sun* and the *Whitehall Times* (both weekly local publications with an online presence). The text of the notice and the accompanying color map included in Appendix B will be published as display advertisements.

- **Parties to the Proceeding** (CC#152): the notice was posted to the PSC's online DMM docketing system in Case 10-T-0139 for distribution to all Parties to the proceeding.
- **General Stakeholder Notice**: this notice was provided to landowners, residents and businesses within 100 feet of any HDD staging area, Facility access road, or overland Facility components in accordance with CC 153; the CEOs of each host municipality in Segments 1 and 2 (CC#153); and the owners of Critical Infrastructure (CI) and railroads whose facilities,

properties and/or structures fall within the geographic scope of Segments 1 and 2 (CC 152) (see Appendix B).

- **Structure Owners** (CC#154): a Structure Owner notice letter was provided to the owners of residences, buildings and other structures within 100 feet of trenching activity or HDD location providing general notice of the filing, and offering to inspect foundations in accordance with CC 154 (see Appendix B).
- **Interest Holders** (CC#143 & 155): while the majority of Segments 1 and 2 involves placement of Facility components in municipally owned property, including a State highway and Town and County roadways owned in fee by those municipalities, these Segments include a small number of private properties in which other persons hold an interest, such as an easement, lease, lien, or other recorded title interest. An Interest Holder notice letter was prepared and disseminated to this group to indicate that Certificate Holders have obtained a temporary or permanent interest in the Facility site properties, in accordance with CC 143 (see Appendix B).
- **Agricultural Consultation** (CC#76): additional letters were circulated to landowners whose properties were identified as potentially being in agricultural use, to seek additional information on the agricultural use of the property, and to provide contact information for the Certificate Holders, consistent with the requirements in CC 76 (see Appendix B). As shown in Appendix A, Certificate Holders also provided notice to NYS Ag & Mkts of these properties.

At the appropriate time, pre-construction notices will be displayed in public areas such as post offices and community centers as well as provided to local newspapers and news outlets (CC#42, #155a). The display of notices will be performed 2 weeks prior to the commencement of site preparation in the area of applicable jurisdiction. The notification to newspapers and news outlets will be performed prior to construction, as discussed further in Table 3.2 . Section 11.1 describes the notices provided to be performed for municipal transportation agencies and Section 12.1 describes the notices provided to be performed for all infrastructure owners within Segment 1 and 2.

A Public Involvement and Complaint Resolution Plan has been developed and is included in Appendix I. Further discussion of public involvement and notification procedures in advance of the construction phase, as well as the Certificate Holders' plans for addressing questions and complaints from the public during construction, are discussed in that Plan.

3.2.5 Notice of Intent

The owner/Certificate Holders operator maintains copies of the Notice of Intent (NOI), NOI acknowledgment letter, SWPPP, and any inspection reports submitted in conjunction with this permit and records, or all data used to complete the NOI to be covered by this permit for a period of at least 5 years from the date that the site is finally stabilized. Copies of the NOI and NOI SWPPP acknowledgment letter are included in Appendix G of the EM&CP.

3.2.6 Modifying the EM&CP

The Final EM&CP approved by the PSC may incorporate modifications from this Proposed EM&CP proposed by the Certificate Holders. No change to the approved EM&CP may thereafter be made except in accordance with the following procedures (CC#158):
For a proposed change that:

(i) would involve a site listed or eligible for listing on the New York State or National Register of Historic Places, the Certificate Holders will give at least 2 weeks prior notice to the Field Service Bureau of OPRHP.

(ii) would involve any State-regulated wetland or protected stream or water body, the Certificate Holders will give at least 2 weeks prior notice to NYSDEC, and, if within the Adirondack Park, to APA.

(iii) would affect the occupied habitat of TE species, the Certificate Holders will give at least 2 weeks prior notice to NYSDEC and to the United States Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS) (where applicable) prior to providing notice to DPS Staff of the proposed change.

(iv) would affect the individual or habitat supporting RTE plants, the Certificate Holders will give at least 2 weeks prior notice to NYSDEC and DPS.

(v) would involve agricultural land, the Certificate Holders will give at least 2 weeks prior notice to NYSDAM.

(vi) would involve the herbicides planned for use (including mixed proportions, additives, or method of application), the Certificate Holders will give at least 30 days prior notice to NYSDEC.

(vii) would affect land or water owned or controlled by CNY, the Certificate Holders will give at least 2 weeks prior notice to CNY (CC#158a).

The Certificate Holders will report any proposed changes to the EM&CP to DPS Staff. DPS Staff will refer to the PSC for approval any proposed changes that cause a substantial increase in environmental impact, after consultation with NYSDEC, any proposed changes that relate to

contested issues decided during the proceeding, and any proposed changes affecting State highways (but need not do so if the report indicates NYSDOT's agreement to such proposed changes). DPS Staff is authorized to approve all other proposed changes, in accordance with the procedure outlined herein, and will submit reports of such changes to the Secretary or the Secretary's designee, which reports will be posted on the PSC's website under the relevant case number (CC#158b). Upon being advised that DPS Staff will refer a proposed change to the PSC, the Certificate Holders will notify all active parties that have requested to be so notified, as well as property owners or lessees whose property is affected by the proposed change. The notice will:

(i) Describe the original conditions and the requested change;

(ii) Provide documents supporting the request; and

(iii) State that persons may comment by writing to the PSC within 21 days of the notification date (CC#158c).

The Certificate Holders will not execute any proposed change until they receive written approval from the PSC (if PSC approval is required pursuant to subparagraph (a) of this paragraph) or oral or written approval from DPS Staff (in the case of a change that Staff has authority to approve) except in emergency situations threatening personal injury, property damage, or severe adverse environmental impact, or as specified in the EM&CP. When the Certificate Holders have obtained oral approval from DPS Staff for a change, DPS Staff will confirm such approval in writing within 10 business days (CC#158d).

3.3 REPORTING AND DOCUMENT MANAGEMENT

The CCs in Section 2.1 include several CCs that explicitly address notifications and reporting before, during, and after construction of the Project, including notices related to this EM&CP submission. The table below summarizes these CCs based on if the notification is required before, during, after construction, or at any point during those 3 periods. Not all of the notices are required for Segment 1 and 2 and some may be required after the entire Project has been constructed.

Table 3.2 – Reporting and Notification Requirements and Schedule

Description	Submitted to	Approximate Due Date
BEFORE OR CONCURRENT WITH EM&CP FILING		
The Certificate Holders will provide a preliminary design marked to avoid conflict with potential transportation projects that NYSDOT Staff may seek to undertake in the future and will offer to consult with NYSDOT Staff concerning any comments it may offer and will use reasonable efforts to accommodate any NYSDOT concerns (CC#68).	DPS Staff and NYSDOT.	Prior to filing any Segment EM&CP involving any state-owned ROW. Pre-EM&CP coordination is described in Section

Description	Submitted to	Approximate Due Date
		11, Table 11.3 and documented in Appendix A.
The Certificate Holders will file copies of the segment EM&CP as directed by the Secretary to the Commission to relevant jurisdictional agencies as described in CC 151 (CC#151).	Relevant jurisdictional agencies.	Upon filing the applicable Segment EM&CP. See Appendix B and EM&CP Segment cover material.
The Certificate Holders will provide newspaper notices and written notice(s) of the filing of the segment EM&CP on all parties such as relevant railroads, infrastructure owners whose facilities, properties, and/or structures within the geographic scope of the segment EM&CP may be impacted. The notice(s) will contain the information specified in CC 152 (CC#152).	Relevant parties specified in CC152.	Upon filing the applicable Segment EM&CP. See Section 3.2.4, Section 11.1, and Section 12.1 for additional details; see Appendix B for copy of notice.
The Certificate Holders will provide newspaper notices and written notice(s) of the filing of the segment EM&CP on all parties such as residents, businesses, and building, structure, and facility (including underground, aboveground and underwater facilities) owners and operators within one hundred (100) feet of any HDD staging area or trenching activity with an offer to inspect foundations before, during, and after construction. The notice(s) will contain the information specified in CC 154 (CC#154).	Relevant parties specified in CC154.	Upon filing the applicable Segment EM&CP. See Appendix B for copy of notice.
The Certificate Holders will provide written notice(s) to any person with an interest in the property underlying the Certificate Holders' easements/leaseholds, including underlying landowners, other easements holders as specified in CC 143 upon filing the applicable segment EM&CP (CC#143).	Relevant parties specified in CC143.	Upon filing the applicable Segment EM&CP. See Appendix B and Section
Provide to the owner(s) and operator(s) of all co-located infrastructure a proposal for the locations and design of the Project. The submission will contain all the information and conditions outlined in CC 28d (CC#28d).	Owners and operators of all co-located infrastructure	At least 180 days prior to the filing of the Segment 1 and 2 EM&CP. See Appendix R.
The Certificate Holders will provide written notice and newspaper notices of the filing of the applicable Segment EM&CP. (CC#152). The notice will contain the information outlined in CC 155(a) (CC#155a).	Local media within the vicinity of the segments to which the segment EM&CP relates.	Concurrent with the filing of the applicable Segment EM&CP. See Appendix B.
The Certificate Holders will notify that the EM&CP is available for review to the chief executive officer of each affected municipality and to residents, businesses, and building, structure, and facility owners and to the extent known, operators of the same when such land uses are located within one hundred (100) feet of the HDD staging areas, off-ROW construction access roads, and the overland components of the Project. The notice will meet the conditions outlined in CC153. The Certificate Holders will also provide a hard copy synopsis of any approved Segment EM&CP for residents owning property located within 100 feet of the Construction Zone as delineated therein. The synopsis will meet the conditions outlined in CC in 153. Proof of	Chief executive officer of each affected municipality. Residences, Businesses, and Building/structure/facility owners/operators.	Concurrent with the filing of the Segment EM&CP. See Appendix B.

Description	Submitted to	Approximate Due Date
notice to residents, businesses, and building and structure owners will be provided to the Secretary (CC#153).		
The Certificate Holders will begin consultations with CI owners within 60 days of Certificate (CC#28a, 28b) and provide proposed plans and methods of construction to CI Owners within 180 days of the filing of the relevant Segment EM&CP (CC #28d): "proposal for the location and design of the Facility (including a proposed Construction Zone) and the methods of construction to be employed with respect to all locations involving CI ("Proposal"). The Certificate Holders' Proposal must include all studies, calculations, tests, results, explanations, protocols, drawings, proposed construction schedules, and documents developed throughout the consultations described in subsections (a) and (b) of this Condition, other documentation identified in Condition 162, and any other information that supports the proposal" (CC#28a, 28b, 162).	Owners and operators of all co-located infrastructure	Within 180 days of submission of Segment EM&CP. See discussions in Section 12 and Appendix R.
The Certificate Holders will provide CI interference studies as described in CCs 28 and 162, conforming to industry standards and performed by an individual or individuals with suitable qualifications to conduct such study, with respect to each location at which the Facility crosses CI or comes into such proximity to CI that an interference study is warranted by Good Utility Practices, and specifying any proposed mitigation measures (CC#28, 162).	Owners and operators of all co-located infrastructure, as applicable.	Upon filing the applicable Segment EM&CP. See discussions in Section 12 and Appendices P, Q and R.
The Certificate Holders will provide regulated wetland locations delineated in the field and indicated on the proposed EM&CP drawings for the Construction Zone and any access roads. Such delineations will be delivered for review to DPS Staff, NYSDOS, and NYSDEC and, for wetlands within the Adirondack Park, the APA (CC#113a).	DPS Staff, NYSDOS, NYSDEC, APA	At least 30 days prior to filing of the proposed EM&CP. Submitted on March 3, 2022; see Appendices A and N.
The Certificate Holders will develop an inventory that includes for each Segment: (i) a listing of waterbodies within the Construction Zone, including associated stream width, NYSDEC classification, proposed crossing method, and any potential construction schedule window developed during the preparation of the proposed EM&CP; (ii) a spreadsheet that contains the GPS coordinates (latitude and longitude) of each waterbody; (iii) a digital photograph of each waterbody, cross-referenced to its GPS coordinates; and (iv) a wetland delineation shape-file. This inventory will be delivered for review to DPS Staff, NYSDOS, and NYSDEC and, for waterbodies within the Adirondack Park, the APA (CC#114a).	DPS Staff NYSDOS, NYSDEC, APA	At least 30 days prior to filing of the proposed EM&CP. Submitted on March 3, 2022. See Appendices A and N.
The Certificate Holders will provide municipal consents as applicable for each Segment with EM&CP filing.	Included in the EM&CP	Upon filing of the applicable Segment EM&CP. Included in Appendix A.
The Certificate Holders will provide detailed soil erosion and sediment control plans in a Stormwater Pollution Prevention Plan ("SWPPP"), which will be included with the first Segment EM&CP associated with the overland route of the Facility. Soil and sediment control measures will be implemented early in the construction process and be installed prior to and maintained in acceptable condition for the duration from any clearing or earthmoving	Included in the EM&CP	Concurrent with filing of Segment EM&CP. Included as Appendix F.

Description	Submitted to	Approximate Due Date
operations through to the permanent stabilization of the soil. The SWPPP will be available at the construction site and available to the public upon five (5) days written notice (CC#67).		
During the acquisition of rights to use lands comprising the Construction Zone, the Certificate Holders will ask the owners of such lands that appear to be either undeveloped or used as active agricultural land whether such lands are presently being used for agricultural purposes and, if so, whether such lands are being operated, in whole or in part, by third parties. During the preparation of the EM&CP, the Certificate Holders will use this information, along with any additional information received during consultation with Ag & Mkts, to identify land within the Construction Zone reasonably believed to be active agricultural land. The Certificate Holders will provide the owners and identified operators of such land with a telephone number to facilitate direct contact with the Certificate Holders and the Agricultural Inspector(s) (CC#76).	Included in the EM&CP	Prior to filing date of applicable Segment EM&CP. See Appendices A and B.
If Construction Zone access involves non-State Roads, the Certificate Holders will consult with each transportation department or agency having jurisdiction over any roads, related structures, and components that will be crossed by the Facility or used for direct access to the Construction Zone. If the access road takes direct access from, or lies within the limits of, such roads, the Certificate Holders will notify each relevant transportation department or agency of the approximate date when work will begin (CC#69).	Included in the EM&CP	Prior to filing date of applicable Segment EM&CP. Design consultations completed with the Towns of Putnam, Dresden, and Whitehall. Road use agreements to be completed with applicable municipalities prior to construction.
A certificate of service indicating upon whom all EM&CP notices and documents were served and a copy of the written notice will be filed by the Certificate Holders (CC#155b).	Secretary to the Commission.	Following each applicable Segment EM&CP filing.
BEFORE CONSTRUCTION		
All necessary permits and consents referred to in CC16 that pertain to the Segment 1 and 2 (CC#9).	Secretary to the Commission	Before commencing site preparation and any construction activities.
The Certificate Holders shall not commence work on any Segment until they shall have obtained all required interests in real estate, including interests in real estate to be used for access roads (whether obtained through a conveyance, consent, permit, or other approval) as are necessary and applicable for such Segment. Evidence of the obtaining of such interests shall be provided to the Secretary prior to commencement of the work. (CC#10)	Secretary to the Commission	Before commencement of construction.
The Certificate Holders will inform the Secretary and NYSDEC at least 5 days before commencing site preparation for the Project (CC#46).	Secretary to the Commission and NYSDEC.	At least 5 days before commencing site preparation.
The Certificate Holders will consult with each transportation department or agency having jurisdiction over any roads, related structures, and components that will be crossed by the Facility or used for direct access to the Construction Zone. If the access road takes direct access from, or lies within the limits of, such roads, the Certificate Holders will notify each relevant transportation	Transportation Department or Agency crossed by project.	When work begins; Pre-EM&CP coordination is described in Section 11, Table 11.3.

Description	Submitted to	Approximate Due Date
department or agency of the approximate date when work will begin (CC#69a).		
The Certificate Holders will provide notification prior to construction involving protected stream crossings (CC#115).	DPS Staff and NYSDEC.	At least 5 days.
The names and qualifications of the Environmental Inspector and Construction Inspector will be submitted to DPS Staff and NYSDEC (CC#53g).	DPS Staff and NYSDEC.	At least 2 weeks prior to the start of construction.
At least two (2) weeks prior to the start of overland construction, the Certificate Holders shall hold a preconstruction meeting to which they shall invite DPS Staff, NYSDOT, and NYSDEC. The agenda, location, and attendee list for this meeting shall be agreed upon between DPS Staff and the Certificate Holders. The Certificate Holders shall supply draft minutes from this meeting to all attendees. The attendees may offer corrections or comments, and thereafter the Certificate Holders shall issue the finalized meeting minutes to all attendees. If, for any reason, the Contractors retained by the Certificate Holders to construct the Facility cannot finish the construction of such facilities, and one or more new Construction Contractors are needed, there shall be another preconstruction meeting with the same format as outlined above. (CC#58)	DPS Staff, NSDEC, NYSDOT	At least 2 weeks prior to the start of overland construction.
The Certificate Holders shall confine construction to the Construction Zone and approved additional work areas as detailed in the approved EM&CP. A detailed construction schedule and location timeline shall be provided to DPS Staff prior to construction (CC#59).	DPS Staff	Prior to construction.
The Certificate Holders will keep required parties apprised of on-site chemicals and waste stored within one hundred (100) feet of their Co-Located Infrastructure (CI) or service area. In the case of CI located within the CNY, the Certificate Holders will advise CI owners and operators of on-site chemicals and waste stored within three hundred (300) feet of such facilities (CC#34).	Local Fire Departments, Emergency Management Teams, Owners and Operators of Co-Located Infrastructure; Local Fire Departments, Emergency Management Teams in CNY.	Prior to storage of chemicals.
The Certificate Holders will provide the owners and operators of identified agricultural lands with the contact information for the Agricultural Inspector(s) and the Certificate Holders (CC#76).	Agricultural land owners & Operators.	After approval of the EM&CP and prior to construction.
The Certificate Holders will provide notice to local officials and emergency personnel in the area where they will be working on the Project. The notice will meet the conditions outlined in CC 42 (CC#42).	Local officials and Emergency Personnel.	Two weeks prior to the commencement of site preparation in area of applicable jurisdiction.
The Certificate Holders will provide notice to local media for dissemination and display in public places (such as general stores, post offices, community centers, etc.). The notice will meet the conditions outlined in CC 42 (CC#42).	Media for public display.	Two weeks prior to the commencement of site preparation in area of applicable jurisdiction.
The Certificate Holders will notify the adjacent landowners and their tenants of construction work within one hundred (100) feet of their property at least two (2) weeks prior to the commencement of construction in these areas and provide copies	Adjacent landowners & Tenants with copies to DPS Staff	Two weeks prior to commencement of site preparation in area of landowner or tenant.

Description	Submitted to	Approximate Due Date
of all correspondence to the DPS Staff. The notice will meet the conditions outlined in CC 42 (CC#33, 42).		
DURING CONSTRUCTION		
The Certificate Holders will make available to the public a toll-free or local phone number of an agent or employee who will receive complaints, if any, during the construction of the Project. In addition, the phone number of the Secretary and the phone number of the Commission's Environmental Compliance Section will be provided. A log will be maintained that lists at least the date of any complaint, identity and contact information for the complaining party, the date of the Certificate Holders' response, and a description of the outcome. Phone logs will be made available to DPS Staff upon request. The Certificate Holders will report to DPS Staff every complaint that cannot be resolved after reasonable attempts to do so. Any such report will be made within three (3) business days after receipt of the complaint (CC#41).	DPS Staff as needed.	Upon commencement of construction. See Appendix I for current toll-free number, Public Involvement Plan and Compliant Resolution Plan.
The Certificate Holders will provide status reports summarizing construction and indicating construction activities and locations scheduled for the next month (CC#47).	DPS Staff, NYSDOT, and NYSDEC.	Bi-weekly.
The Certificate Holders shall identify encroachments within the Construction Zone and contact individual property owners or occupants to address and seek to rectify such potential encroachments on a case-by-case basis. The Certificate Holders shall report to DPS Staff the result of efforts to address and rectify encroachments in the Construction Zone periodically, but in no event less than quarterly (CC# 60).	DPS Staff	At least Quarterly (or more often, as identified).
The Certificate Holders shall consult periodically with state and municipal highway transportation agencies about traffic conditions near the site of the Facility and shall notify each such transportation agency of the approximate date work will begin in its jurisdiction and Construction Zone access points that connect with the highways in that jurisdiction (CC#72).	State and Municipal highway agencies.	Periodically leading up to and during construction.
Should archeological materials be encountered during construction, the Certificate Holders will notify and seek to consult with to determine the best course of action (CC#110). (see Cultural Resources Section 10 of the EM&CP)	DPS Staff and OPRHP Field Services Bureau.	Within 24-hours of discovery.
Should human remains or evidence of human burials be encountered during the conduct of archeological data recovery fieldwork or during construction, the Certificate Holders will notify and consult on the appropriate course of action. All archaeological or remains-related encounters and their handling will be further reported in the status reports summarizing construction activities and reviewed in the site-compliance audit inspections (CC#111). (see Cultural Resources Section 10 of the EM&CP)	DPS Staff and OPRHP Field Services Bureau.	Within 24-hours of discovery.
The Certificate Holders will promptly notify if a New York State listed species of special concern is observed to be present in the Project area (CC#51).	DPS Staff and NYSDEC.	As soon as possible upon discovery.
The Certificate Holders will promptly notify if any threatened or endangered wildlife species under 6 N.Y.C.R.R. Part 182 ("TE species") or any rare, threatened, or endangered plant species under 6 N.Y.C.R.R. Part 193 ("RTE plants") are observed to be present in the Facility area so as to determine the appropriate	DPS Staff, NYDEC, USFWS, NMFS.	As soon as possible upon discovery.

Description	Submitted to	Approximate Due Date
measures to be taken to avoid or minimize impacts to such species. If necessary to avoid or minimize impacts to such species or as directed by DPS Staff, the Certificate Holders will stabilize the area and cease construction or ground disturbing activities in the Facility area until DPS Staff have determined that appropriate protective measures have been implemented (CC#52).		
For any release of drilling solution occurring in a waterbody, the Certificate Holders will provide notification of details of the release and the course of action they recommend taking (CC#114m).	DPS Staff and NYSDEC.	Immediately.
Immediate notification of any petroleum product spills (CC#35).	DPS, NYSDEC, owners and operators of any CI within 100 feet (or 300 ft in CNY).	Immediately upon discovery of a spill of petroleum products.
Notification prior to the commencement of any herbicide application on the Project (CC#84).	DPS Staff and the appropriate NYSDEC Regional Natural Resource Supervisor(s) and Pesticide Control Specialist.	Fourteen days prior to the commencement of any herbicide application on the Project site.
Schedule of Inspectors and their contact information	DPS	Weekly
POST CONSTRUCTION		
The Certificate Holders shall file with the Secretary, a report regarding the measures taken to achieve the 1,550 MW deliverability commitment established in Condition 15(a) hereof, as well as copies of all studies, drawings, and backup documentation that support all such measures (CC#133). The Certificate Holders shall provide a draft of such report to Con Edison for its review and comment at least 30 days prior to the filing of such report. The report shall include the information provided in CC 133.	Secretary of the Commission.	No less than 60 days prior to delivery of test energy from the Facility to the Astoria Annex Substation and the Rainey Substation.
The Certificate Holders shall file an Operation and Maintenance Plan(s) for the Project's Interconnection Facilities. The Plan(s) shall be updated yearly, and a copy of the update plan(s) shall be filed with the Secretary, as well as submitted to Con Edison, and NYPA (CC#132).	Secretary of the Commission.	Sixty days prior to the anticipated date of commercial commencement of operation (COD)
Notification that all restoration has been completed in compliance with this Certificate and the Order(s) approving the EM&CP (CC#48).	Secretary of the Commission.	Within 10 days of the completion of final restoration activities.
Following final completion of construction of a particular Segment, the Certificate Holders shall prepare and provide to the DPS the as-built design drawings, which shall include a detailed map or maps containing all of the information specified in CC 139 (CC#139).	DPS	Within 90 days following the completion of construction.
The Certificate Holders shall provide a copy of their emergency procedures and contacts. If modifications are made an updated copy will be provided (CC#136).	Bulk Electric System Section of DPS Staff, Con Edison, and NYPA	Upon commencement of operation.
The Certificate Holders shall notify NYSDOT, NYSDEC, and the Secretary to the Commission of the date of commencement of commercial operation (CC#50).	NYSDOT, NYSDEC, and the Secretary to the Commission.	No later than 3 days after commercial operation.
The Certificate Holders will provide a long-range ROW maintenance plan for the Facility ROW for the areas specified in CC 91. This plan will contain all information outlined in CC 91.	Secretary of the Commission.	Within 6 months after commencement of commercial operation.

Description	Submitted to	Approximate Due Date
The Certificate Holders will notify NYSDOT, NYSDEC, and the Secretary to the Commission of the date of commencement of commercial operation (CC#50).	NYSDOT, NYSDEC, and the Secretary to the Commission.	Three days after commercial operation.
The Certificate Holders will promptly provide to DPS Staff, NYPA, and Con Edison copies of all notices, filings, and other substantive written communications with NYISO as to such reduction, any plans for making repairs to remedy the reduction, and a proposed schedule for any such repairs. The Certificate Holders will provide monthly reports to DPS Staff, Con Edison, and NYPA on the progress of any repairs until completed. The monthly reports will contain the information specified in CC 126. The Certificate Holders will work cooperatively with NYPA, Con Edison, and NYISO to avoid any future occurrences. If such equipment failure is not completely repaired within nine (9) months of its occurrence, the Certificate Holders will provide a detailed report to the Secretary. The report will contain the information specified in CC 126 (CC#126).	DPS Staff, NYPA, Con Edison. DPS Staff, NYPA, Con Edison. Secretary to the Commission.	Within 5 business days of any failure of equipment causing a reduction of more than 10 percent in the capacity of the Project. Monthly until repairs are completed. Within 9 months and 2 weeks after equipment failure.
The Certificate Holders will report any failure of the Project's cables. The report will contain the information specified in CC 135 (CC#135).	Bulk Electric System Section of DPS Staff, Con Edison, and NYPA	Within 1 day of determining the location of failure in one of the Project's cables.
The Certificate Holders will provide a copy of their emergency procedures and contacts. If modifications are made an updated copy will be provided (CC#136).	Bulk Electric System Section of DPS Staff, Con Edison, and NYPA	Upon commencement of operation.
The Certificate Holders will notify DPS Staff of any system trips incidents. Following the incident, the Certificate Holders will provide notice of the cause of the trip and what actions, if any, the Certificate Holders are taking to rectify the cause (CC#134).	DPS Staff DPS Staff, NYPA, Con Edison	In the event that the HVDC transmission system trips offline (other than as a result of any Operational Measures).
The Certificate Holders will call and report any transmission related incident that affects the operation of the Project. A subsequent report of the incident will be submitted. The report will contain the information specified in CC 134. The Certificate Holders will work cooperatively with Con Edison, NYPA, NYISO, NPCC, NYSRC, NERC, and DPS Staff to prevent any future occurrences (CC#134).	Call Bulk Electric System Section of DPS Staff. Submit report to Bulk Electric System Section of DPS Staff, Con Edison, and NYPA	Call within 6 hours of any incident. Submission of report within 7 days of the incident.
Following final completion of construction of a particular Segment, the Certificate Holders will prepare and provide to the DPS the as-built design drawings, which will include a detailed map or maps containing all of the information specified in CC 139 (CC#139).	DPS	Within 90 days following the completion of construction.

Description	Submitted to	Approximate Due Date
Present CC 89's post-construction assessments and plans for DPS Staff review within 1 year of the date the Facility is placed in service.	DPS Staff	Within 1 year of COD.
Within sixty (60) days of completing construction of the HVDC Transmission System, the Certificate Holders shall consult with the New York State Office of General Services ("OGS") Bureau of Land Management regarding specifications for providing as-built information and mapping of the submerged portions of the HVDC Transmission System in conformance with the requirements of the OGS Bureau and 9 N.Y.C.R.R. Part 271. Within sixty (60) days of that consultation, the Certificate Holders shall provide to the OGS as-built information and mapping complying with its specifications (including shapefile information compatible with ArcView® GIS software) and shall file with the Secretary copies of the as-built information and mapping and proof of filing with the OGS (CC#49)	OGS	Within 60 days of completing construction.
ANY PERIOD DURING PROJECT (PRIOR TO CONSTRUCTION, DURING CONSTRUCTION, POST CONSTRUCTION)		
The Certificate Holders shall not place transmission cable in any waterway, trench, conduits, or other location intended for permanent installation of the Facility prior to the issuance (i) by The approval by appropriate Canadian federal and/or provincial authorities of all permits and consents those approvals and permits necessary in order to allow for the construction of transmission facilities interconnecting with the bulk power system operated by TransÉnergie (or a successor to such organization) and extending to the New York border (CC#11a).	Secretary to the Commission	Within 15 days of receipt.
(ii) Approval from the United States Department of Energy of the Presidential Permit (pursuant to Executive Orders 10485 and 12038) (CC#11a).	Secretary to the Commission.	Within 15 days of receipt. Submitted October 15, 2014 (DMM Item 755)
Reports regarding the status of efforts to achieve certifications and approvals of upstream facilities in Canada (CC#11c).	Secretary to the Commission.	Every 6 months from the start of the Certificate of Conditions and until the certifications and approvals are obtained. Regular filings made starting August 16, 2013 (DMM Item 746).
In the event that Hydro Quebec-TransÉnergie is unable to achieve certification in Canada, the Certificate Holders will (i) notify the Secretary; and (ii) stop work in New York State and initiate stabilization of disturbed sites, and (iii) undertake restoration of any sites not previously restored, as set forth in the applicable EM&CP and relevant sections of this Certificate and the BMPs, including, without limitation, section 11 of the BMPs. (CC#11c).	Secretary to the Commission.	In the event that Hydro Quebec-TransÉnergie is unable to achieve certification in Canada.
The Certificate Holders will file a copy of all the documents specified in CC 125 (a-g) as they become available and throughout the life of the Facility, to the extent they are updated (CC#125).	Secretary to the Commission.	As available and when updated, throughout the life of Facility.

Description	Submitted to	Approximate Due Date
The Certificate Holders will notify the Secretary of the Commission of the date of closing which will occur after the completion of the transaction(s) pursuant to which the costs of construction of the Project are funded (CC#45).	Secretary of the Commission.	Within 3 days after completion of the closing transaction.
Petition describing the action or determination made in connection with the permits and approvals referenced in the CCs that is unreasonable or unreasonably delayed (CC#18b).	Commission and appropriate permitting authority	As needed.
A summary or statement notifying the Secretary in writing of all, or any portion of the Project's construction was not completed (CC#12).	Secretary to the Commission	As needed.
The Certificate Holders will provide copies of all necessary permits from applicable state agencies for the delivery of oversized construction materials and equipment (CC#40).	Secretary to the Commission	As needed.
The Certificate Holders shall make modifications to the Project if it is found by the NYISO or the Commission to cause reliability problems to the New York State Transmission System. If NYPA, Con Edison, or the NYISO bring concerns to the Commission, the Certificate Holders shall be obligated to respond to those concerns. The Certificate Holders shall prepare a report within forty-five (45) days of notification by DPS Staff that DPS Staff has determined that a reliability problem exists (CC#131).	DPS Staff	As needed within 45 days of notification by DPS Staff.
The Certificate Holders will report any theft of materials related to the Facility with a value in excess of ten thousand dollars ($10,000) to the DPS Representative. The notice will contain the information specified in CC 137 (CC#137).	DPS Staff	As needed within 1 business day of the time when the theft comes to the attention of the Certificate Holders.
All proposed modifications to any of the Segment EM&CPs and subsequent notices and filings will follow the procedures described in Section 1.5.	DPS Staff	As needed.
The Certificate Holders will notify the owners or operators of co-located infrastructure that is impacted by the Project or has the potential to be impacted by the Project of any situation involving imminent risk to health, safety, property, or the environment that requires the Certificate Holders to cross any infrastructure or to use any associated property to address the emergency (CC#28g).	Owners and Operators of co-located infrastructure.	In the event of the emergency
The Certificate Holders will advise the owners or operators of co-located infrastructure of all construction activities that take place within the vicinity of co-located infrastructure. The vicinity will be defined as described in CC 28e.	Owners and Operators of co-located infrastructure.	At least 30 days prior to commencing any construction activities
The Certificate Holders will notify the owners or operators of co-located infrastructure if any damage to or adverse effects to the co-located infrastructure resulting from any studies, surveys, testing, sampling, preliminary engineering, pre-construction activities, and construction (CC#28f).	Owners and Operators of co-located infrastructure.	Immediately upon knowledge or discovery of damage.
The Certificate Holders shall coordinate with NYPA and Con Edison system planning and system protection engineers to evaluate the characteristics of the transmission system before purchasing any system protection and control equipment related to the electrical interconnection of the Project to NYPA's and Con Edison's transmission facilities. This discussion is designed to ensure that the equipment purchased will be able to withstand most system abnormalities (CC#128).	NYPA and Con Edison system planning and system protection engineers.	Before purchasing any system protection and control equipment related to the electrical interconnection of the Project to NYPA's and Con Edison's transmission facilities

Description	Submitted to	Approximate Due Date
The Certificate Holders shall work with NYPA and Con Edison engineers and safety personnel on testing and energizing equipment and develop a start-up testing protocol providing a detailed description of the steps that they will take to limit system impacts prior to and during testing of the Project. Such protocol shall be provided to NYISO, Con Edison, and NYPA for review and comment and, following the review and comment phase, a copy of such protocol shall be provided to Staff of the Bulk Electric System Section of the DPS. The Certificate Holders shall comply with this protocol once established, unless NYISO provides written authorization to Certificate Holders to deviate from that protocol. The Certificate Holders shall make a good faith effort to notify DPS Staff of meetings related to the electrical interconnection of the Project to NYPA's or Con Edison's transmission system, as applicable, and provide the opportunity for Staff to attend those meetings. The Certificate Holders shall provide a copy of the testing protocol to Staff of the Bulk Electric Systems Section of DPS (CC#130).	NYISO, Con Edison, NYPA, DPS Staff, Bulk Electric Systems Section of DPS	During the testing and energizing phase of the Project.

3.4 STOP WORK ORDERS

During the pre-construction meeting, all Contractors will be notified that the Environmental Inspector(s) will have the authority to stop work and direct actions in the event of, or to avoid for the occurrence prevention of, violations of a CC or a condition of another Project permit. The Safety Inspector will also have stop work authority in the event of a leak or spill during construction activities, or other event that threatens human health and safety.

All Project personnel will be encouraged to notify the Environmental Inspector, Safety Inspector, Construction Manager, Contractor, or DPS Staff if they observe conditions that could potentially be in non-compliance so that corrective action(s) can be taken. If any non-compliant or potentially non-compliant actions or issues are observed, all Project personnel should report it to their supervisor as soon as it is safe to do so.

Upon becoming aware of any concern, the Environmental Inspector, Safety Inspector, and other project personnel will meet with the Contractor's or subcontractor's employees to discuss and resolve the issues. Stop Work Authority will be exercised sparingly and with due regard to potential environmental impact, economic costs involved, possible impact on construction activities, and whether an applicable statute or regulation is or is claimed to be violated.

Any observation of spills, leaking fluids or improperly stored fluids may trigger the issuance of a stop work notice by the Safety Inspector or the Environmental Inspector until the situation is resolved (2012 BMPs Section 12.7).

The Certificate Holders will regard DPS Staff representatives as the PSC's designated representatives in the field. In the event of any emergency resulting from the specific construction or maintenance activities that violate or may violate the terms of the CCs, the WQC, or any other terms of any relevant permits or jurisdictional agencies, DPS Staff may also issue stop work order for that location or activity (CC#54a). Before exercising such authority, DPS Staff will consult (wherever practicable) with the Environmental and/or Safety Inspector. 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 Holders' construction manager and the Director of the DPS Office of Energy Efficiency and the Environment. If DPS Staff issues a stop-work order, neither the Certificate Holders nor the Contractor will be prevented from undertaking any safety-related activities that 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 during these discussions.

A stop work order issued by DPS Staff will expire 24 hours after issuance unless confirmed by a single Commissioner. If a stop-work order is confirmed, the Certificate Holders 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 PSC, the stop work order will be lifted. If the emergency has not been satisfactorily resolved, the stop work order will remain in effect. (CC#54b)

If DPS Staff or the Environmental Inspector discovers a specific activity that represents a significant environmental threat that is or immediately may become a violation of the CCs, the WQC, or any other terms of any relevant permits or jurisdictional agencies, and on-site construction personnel refuse to take appropriate action after being advised of the threat, DPS Staff and/or the Environmental Inspector may direct the field crews to stop the specific potentially harmful activity immediately. If the direction to stop work is issued by DPS Staff and Certificate Holders' responsible personnel are not on site, the DPS Staff will immediately thereafter inform the Construction Inspector and/or the Environmental Inspector of the action taken. The stop work order will be lifted by the DPS Staff when the situation prompting its issuance has been resolved.

If DPS Staff 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 measures, the DPS Staff may, in the absence of the Environmental Inspector and the Construction Inspector, (or in the presence of such personnel who, after consultation with the DPS Staff, refuse to take appropriate action), direct the Contractors to implement the corrective measures identified in the approved EM&CP. The field crews will comply with the DPS Staff's directive immediately. DPS Staff will immediately thereafter inform the Certificate Holders' Construction Inspector and/or Environmental Inspector of the action taken.

DPS Staff or the Environmental Inspector will promptly notify the appropriate NYSDEC representative of any activity that is a significant environmental threat to a State-regulated wetland or its adjacent area, a protected stream or other waterbody, a TE species, or a State- or Federally-identified hazardous waste site or that may become a violation of the CCs, WQC, or any other terms of any relevant permits or jurisdictional agencies. If any NYSDEC field representatives observe any activities that violate or may violate either the CCs or the ECL, the representative will notify the DPS Staff and the Certificate Holders' representative (Environmental Inspector). If the possible violation is concerning a wetland within the boundaries of Adirondack Park, the appropriate APA representative will be notified. NYSDEC field representatives and APA representatives (where applicable) will consult with the Environmental Inspector in assessing site conditions and determining whether a recommendation should be made to DPS staff to exercise its stop-work authority or alternatively if the Certificate Holders should be directed to take action to minimize further impacts to protected wetland and streams resources as appropriate.

Any archeological materials or human remains encountered in the field during construction will result in a stop work order until appropriate agencies can be consulted, and appropriate mitigation measures be implemented. See Section 10.0 of the EM&CP for additional information related to the response to cultural resources encountered during construction.

3.5 DECOMISSIONING PLAN

The permanent Project components involved in Segment 1 and 2 are all buried infrastructure which is almost entirely located within the highway/road ROW. As such, the Certificate Holders do not contemplate removing these below-ground components in the event that the Project is de-energized at some future date (CC#162k). A minor portion of the permanent Facility ROW for Segment 1 is located within active agricultural fields as a result of an HDD at Lake Road (see Appendix E). The depth of the cable within agricultural area at this location will be a minimum of

5 feet deep and is often in excess of 10 feet deep given the geotechnical conditions of the proposed HDD. Given the minor size and scale of proposed Facility, and the anticipated excessive depth of burial, the continued presence of buried infrastructure is not anticipated to pose a concern following de-energizing of the Project (CC#162k). Therefore, the decommissioning plan for this segment of the line will be to leave buried Project components in place (CC#162k). Any at surface components (e.g., manhole) would be removed and restored in accordance with the Certificate and restoration requirements for agricultural lands.

4.0 CONSTRUCTION METHODS

The Certificate Holders will construct the Project in a manner that conforms to Good Utility Practice, as herein defined, and all applicable 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 C2-2002, and any stricter standards adopted by the Certificate Holders. Upon completion thereof, the Certificate Holders will certify to the PSC that the Project was constructed in full conformance with the standards specified herein. Before any construction begins within Segment 1 and 2 of the Project, the boundaries of the Construction Zone will be delineated in the field. All cleanup and restoration methods that will be performed after construction are described in Section 13.0. The schedule of construction Section 1.1. All vegetation clearing methods and protection measures to be used prior to and during construction are described in Section 7.0.

As described in the SWPPP (Appendix G) the approximate construction sequence for Segment 1 and 2 will be as follows:

1. Establish work area and Contractor staging areas.
2. Install stabilized construction entrance and temporary erosion and sediment control measures (installed in progressive phases).
3. Perform initial clearing to remove vegetation (where required).
4. Place temporary timber mattings through accessible wetland areas (where required).
5. Perform excavation to facilitate trenching.
6. Perform conduit, splice box, handhole, etc. installation.
7. Backfill trench in accordance with project details and specifications.
8. Within HDD areas set up laydown, staging and excavate pits.
9. Restore HDD disturbed areas in accordance with the plans.
10. Within pavement areas, restore pavement to pre-existing grade, mill and overlay areas as depicted on the plans.
11. Restore signage, guiderail, mailboxes etc. and staging/access roads impacted by construction to pre-existing condition.
12. Remove temporary timber matting from wetland areas and apply appropriate seed mixture where necessary.
13. When all disturbed areas have been stabilized, remove all temporary sediment and erosion control measures.

The following sections describe the procedures and methods to be employed during the construction of the Project.

4.1 NOTIFICATION REQUIREMENTS

The Certificate Holders provided notice to residents, businesses, and building, structure, and facility (including underground, aboveground, and underwater facilities) owners and operators within one hundred (100) feet of any HDD staging area or trenching activity with an offer to inspect foundations before, during, and after construction. HDD-2 has a structure within 100feet as shown in Appendix C. The notice provided included the following provisions (CC#154a):

a) an offer to inspect building, facility, and structure foundations before, during, and after construction.
b) an explanation of the benefits of such inspections and what documentation will be provided to building or facility or structure owners and operators; and
c) proof of notice to residents, businesses, and building, facility, and structure owners and operators will be provided to the Secretary.

The building foundation inspection reports conducted for residents, businesses, and facility owners/operators can be performed by the Certificate Holders' designated subcontractor or by the specified building's owner's designated Contractor. If the inspection report is performed by the building's owner's designated Contractor, the Certificate Holders' will reimburse costs as needed. All inspection reports will:

(i) provide each building, facility, or structure owner or, to the extent known, operator with documented conditions at each significant stage of construction.
(ii) include photographs of any existing and post-construction damage and document measurements of foundation crack lengths during each inspection phase.
(iii) provide each building, facility, and structure owner/operator a report detailing foundation condition findings; and
(iv) provide a copy of each prepared report to DPS Staff within 30 days of completion (CC#154b).

As described in Table 3.2, at least 30 days prior to the commencing of any construction activity, the Certificate Holders will advise the owners or operators of Co-located infrastructure (CI) of all construction activities that take place within the one hundred (100) feet of non-natural gas operating of CI and within two hundred (200) feet of natural gas operating CI. The Certificate

Holders will notify the owners or operators of CI if any CI has been impacted by Segment 1 and 2 or has the potential to be impacted. This includes any emergency situation involving imminent risk to health, safety, property, or the environment that requires Segment 1 and/or 2 to cross CI or to use any associated CI owned property to address the emergency. All procedures for and locations of transportation and utility crossings within Segment 1 and 2 are summarized in Section 12 of this EM&CP.

HDD site preparation or trench excavation work will not commence until all building, facility, and structure owners and operators provided with notice (as described above) have accepted or declined inspection offers, or a response has not been received within 2 weeks from service. A record will be created and maintained by the Certificate Holders to document all offers of inspections and subsequent responses.

4.2 HORIZONTAL DIRECTIONAL DRILLING

Horizontal direction drilling (HDD) will be performed in accordance with the Horizontal Direction Drilling Preliminary Site Investigation and Planning Report included as Appendix J, the specifications described in Section 4.2.1 "Installation and the Performance Controls" below, and the Inadvertent Release and Recovery Plan included as Appendix J, and the BMP document (2012 BMPs, Section 8.1). There are no known hazardous materials within the work area for Segment 1 or 2 that could affect HDD operations. Dewatering procedures at the bore pits are described in Section 4.3.2. Table 4.1 describes the location of HDD in Segment 1 and 2. More specific design details are included in Appendix J and the HDD design drawings in Appendix C.

Table 4.1- Segment 1 and 2 HDD Locations

Segment	Staging Area Description	Location (Approximate - see Drawings for Details)
1	HDD-1 Entry Area	10154+00 (C-111)
1	HDD-1 Exit Area	10145+00 (C-110)
2	HDD-2 Entry Area	12920+50 (C-128 & C-129)
2	HDD-2 Exit Area	12951+00 (C-131)

4.2.1 Installation and Performance Controls

During installation of each HDD, the Certificate Holders will follow the avoidance and minimization measures related to waterbodies, wetlands, species habitat etc. as described in Section 8.0. Additionally, where applicable the Certificate Holders will follow all avoidance and

minimization measures related to vegetation clearing (Section 7.0), sensitive noise receptors (Section 9.0), cultural resources (Section 10.0), and CI (Section 12.0). These avoidance and minimization measures will serve as the Environmental Impacts Mitigation and Restoration Plan as described in the EM&CP. Where impacts require restoration, the Certificate Holders will follow the measures described in Section 13.0 and the Soil Erosion & Sediment Control Plans & Details (Appendix C). While hazardous materials are not expected to be used and therefore hazardous waste will not be generated, the measures described in Section 5.3 will be followed for all solid waste disposal including hazardous waste. While not expected to be encountered, the measures described in Section 5.9 will be followed if any environmental contamination is encountered during installation of each HDD.

Protective enclosures will be implemented to protect workers, non-essential personnel, and bystanders in accordance with the requirements of OSHA Technical Manual (OTM) and shown in the Plan and Profile Drawings in Appendix C.

Section 4.2.2 summarizes the drilling fluids management measures that will be followed during all HDD installation.

Section 9.0 of the EM&CP describes noise mitigation measures to be used during construction.

Vibrations will be monitored at locations of trenching and HDD installations, with a focus on structure(s) closest to the work area (e.g., within 100 feet). Contractors will implement vibratory monitoring in accordance with NYSDOT 634.99010017 (non-blasting) for baseline survey and construction phase work. The Contractor will perform vibration monitoring during construction operations, as applicable and when adjacent construction activities make monitoring prudent. A desktop assessment has identified approximately 48 building structures within 100 feet of trenching and HDD activities. All of the parcel owners of the identified 48 structures have been notified (see Appendix B, Structure Owner Notice) regarding pending construction activities. Monitoring will be performed at these locations, if requested. Contractor will adjust the construction parameter to control the amplitude of the vibration to diminish its force at distances where sensitive structures exist. Standards developed by the NYSDOT and/or U.S. Bureau of Mines (USBM) set limits on vibration magnitudes that will prevent damage to above and below-ground structures. Adherence to these standards will avoid and minimize adverse impacts to existing structures.

4.2.2 Drilling Fluids Management

As described in the BMP document and Inadvertent Release Contingency Plan (Appendix J), drilling fluid (typically bentonite and water based with selected polymers/additives) will be National Sanitation Foundation (NSF) certified and all recycling and reuse regulations will be followed where applicable. The drilling fluid management system and subsequent disposal is the responsibility of the subcontractor performing HDD subcontractor. The drilling fluid management system and subsequent disposal will adhere to the following requirements:

a) Used drilling fluid will be processed through an initial clearing that separates the solid materials from the fluid.
b) Heavy solids will be sifted out by a screening apparatus/system and the solids deposited into a dump truck and periodically transported off-site and disposed of at an approved disposal facility determined by the HDD construction subcontractor.
c) All drilling fluid that is deemed unacceptable to be reused during construction or left over at the end of drilling will be collected and transferred into a tanker truck for disposal at an approved disposal facility determined by the HDD construction subcontractor.
d) All drilling fluid accidentally spilled during construction and operation of drilling rigs will be contained following the mitigation measures described in the SPCC (Appendix K) and disposed of at an approved disposal facility as determined by the HDD construction subcontractor. All disposal locations will be submitted to DPS Staff and NYSDEC prior to construction.
e) A supply of spill containment equipment and measures will be maintained and readily available around drill rigs, drilling fluid mixing system, entry and exit pits and drilling fluid recycling system, if used, to prevent spills into the surrounding environment. Pumps, vacuum trucks, and/or storage of sufficient size will be in place to contain excess drilling fluid.
f) Under no circumstances will drilling fluid that has escaped containment be reused in the drilling system.
g) An overview of the drilling fluid system will be submitted to the Environmental Inspector for approval once determined and prior to any HDD installation activities.

4.2.3 Road Crossing Methods

Table 11.1 and Section 11.1 describes the road construction that will be occurring within Segment 1 and 2. HDD is not utilized for road crossings within Segment 1 and 2.

4.3 TRENCHING

All trenching during the construction of Segment 1 and 2 will follow the specifications on the Plan and Profile Drawings (Appendix C) and Section 19 of the BMP Document (2012 BMPs, Section 19). All excavated material will be placed in a dump truck and managed in accordance with the Soil Management Plan in Appendix L. All dewatering, bedding, and backfilling will follow the measures specified in Section 4.3.2 and 4.3.3.

Trenched in-road construction will be conducted as described in Section 11.1.3.

All excavation will be made to such depth as required and of the width shown on the Plan and Profile Drawings (Appendix C) to provide suitable room for building the structures and laying the pipe(s) required to for sheeting, shoring, pumping, and draining as necessary. Additionally, all excavation will be made to such a depth to provide suitable room for removing peat, silt, or any other materials which the Engineer may deem unsuitable as shown in the Drawings (Appendix C). Hand trench excavation may be required to protect existing utilities and structures.

An Overland Rock Removal Plan has been developed by Maine Drilling and Blasting, Inc. for the Certificate Holders and is included in Appendix S. Table 1 and Table 2 in Appendix S describe the approximate locations where rock removal is anticipated for Segment 1 and 2 respectively.

4.3.1 Cable Installation Requirements

Segments 1 and 2 and associated transmission cable are not located beneath existing buildings, footings, or foundations, and all excavations will be in accordance with all NYSDOT standard and specifications and other applicable standards and specifications, including:

- the Building Code of New York State, including Section 1803 and other relevant sections
- the Occupational Safety and Health Administration (OSHA) Technical Manual (OTM), including Section V: Chapter 2 and other relevant sections;
- OSHA Regulations, including Part Number 1926, Standard Number 1926.651, and other applicable provisions.

The Certificate Holders have designed and engineered, and will construct the Project such that, to the extent applicable, the operation of the Project will comply with the interim electrostatic field standard established by the Public Service Commission in Opinion No 78-13 (issued on June 19, 1978 in Cases 26529 and 26559) and the limit for magnetic fields set in the Statement of Interim

Policy on Magnetic Fields of Major Electric Transmission Facilities (issued on September 11, 1990 in Cases 26529 and 26559) (CC#30 159s). Demonstration of compliance with this CC was submitted to the PSC as Exhibits B, C and D and Appendix A and B to the Certificate Holders' January 29, 2021 *Petition for an Amendment to Certificate of Environmental Compatibility and Public Need* (DMM Item 819), which amendment was approved by the Commission in a May 14, 2021 *Order Granting Amendment of Certificate of Environmental Compatibility and Public Need Subject to Conditions* (DMM Item 831).

All cable installation methods will follow the procedures described in Section 19 of the BMP Document (2012 BMPs, Section 19).

4.3.2 Dewatering Methods

The construction Contractor or applicable subcontractor will be responsible for providing a dewatering system for construction that is of adequate size and capacity to lower and maintain the groundwater at the specified level. The dewatering system will meet the following requirements:

a) Utilize portable sediment tanks with elevated and screened intake hoses to withdraw water from the trench and to minimize pumping of deposited sediment. Where not practicable (i.e. Due to space within the Road/Highway ROW) commercial sediment filter bags may be used (2012 BMPs, Section 4). A dewatering hose will be connected to a filter bag placed on the ground surface within a stabilized area (2012 BMPs, Section 4). As needed additional erosion and sediment controls may be installed as determined by the Environmental Inspector. Sediment filter bags will be inspected regularly and disposed of in upland locations at least one hundred (100) feet from a wetland or waterbody or disposed of at an off-site disposal location in accordance with the Soil Management Plan, Appendix L (2012 BMPs, Section 4). A Sediment Dewatering Bag detail is provided on the Plan and Profile Drawings (Sheet C-602 of Appendix C) to show the general design of one of the methods that may be utilized by the construction Contractor.
b) Trapped sediment collected during dewatering activities shall be managed as excavated soil materials as described in the Soil Management Plan in Appendix L.
c) Include standby pumps and power sources for continuous operation.
d) Consist of wellpoints, deep wells, cut-off walls, riser pipes, swing joints, header lines, valves, pumps, discharge lines, and all other necessary fittings, accessories, and equipment for a complete operating system; and

e) Provide groundwater reading wells or piezometers ("observation wellpoints") to monitor the groundwater level as indicated on the approved Plan and Profile Drawings in (Appendix C) or as directed by the design Engineer.

The dewatering system will be kept in continuous operation from the time excavation is started in the dewatering area (or before if required by site conditions to lower groundwater to the elevations specified on the Plan and Profile Drawings (Appendix C) until the time backfilling is completed at least two (2) feet above the normal groundwater level. All water removed from the excavation will be conveyed in a closed conduit. No trench excavations will be used as temporary drainage ditches. All water removed from the excavation will be disposed of by the construction Contractor in a manner that does not endanger public health, property, or any portion of the Project under construction or completed. If contaminated water is encountered during dewatering, the procedures described in the Soil Management Plan (Appendix L) will be followed. Water disposal will not cause erosion or sedimentation to occur in existing wetland and stream resources areas, or other swales or water bodies.

4.3.3 Bedding and Backfilling Methods

All pipe trench backfill (pipe zone bedding, pipe zone backfill, and trench backfill) will be compacted by tamping or rolling to achieve a minimum dry density of 90 percent of the modified Proctor maximum dry density of the material used (ASTM D1557). Backfill in pipe trenches to be covered with pavement will be compacted to a minimum of 95 percent of modified Proctor maximum dry density. Backfill materials will be placed with water content within plus or minus 4 percent of optimum moisture content per the modified Proctor method (ASTM D1557).

Bedding and backfilling will be accomplished in 3 stages unless otherwise specified on the Plan and Profile Drawings (Appendix C). The first stage will involve placement of pipe zone bedding as a layer(s) of selected material required to support, or to stabilize unsound or unsatisfactory foundation conditions. The second stage will involve placement of pipe zone backfill from the top of the bedding material up to 1 foot above the pipe. The third stage involves the placement of trench backfill in the remainder of the trench up to the surface of the ground or the bottom of any special surface treatment subgrade elevation.

Pipe zone bedding will at minimum consist of a select mixture of graded crushed stone free from organic, frozen, or other deleterious materials and conforms to the requirements of NYSDOT Section 703-02 and meets the gradation requirements of NYSDOT Size 2.

Pipe zone backfill will at minimum consist of sound, durable sand, gravel, stone, or a blend of these materials that is free from organic, frozen, or other deleterious materials and conforms to the requirements of NYSDOT Section 304 and meets the gradation requirements of NYSDOT Subbase Type 4.

Trench backfill will at minimum consist of sound, durable sand, gravel, stone, or a blend of these materials that is free from organic, frozen, or other deleterious materials and conforms to the requirements of NYSDOT 203-2.02C.

4.4 DREDGING

There will be no dredging activities in Segment 1 and 2 therefore the CCs associated with the Dredge Management Plan and the Turbidity Monitoring Plan do not apply.

4.5 CONVERTER STATION AND SUBSTATION REQUIREMENTS

Converter station and substation requirements do not apply to Segment 1 and 2 of the Project.

4.6 RIGHT OF WAYS AND EASEMENTS

The majority of the construction of Segment 1 and 2 will take place within the road ROWs. Table 4.2 summarizes the easements that are in place along Segment 1 and 2.

The Certificate Holders have acquired and will continue to acquire control of all lands within the Facility ROW by fee, easement, or other appropriate interest (CC#141), including through municipal consents. The Certificate Holders' perfect will record, in accordance with the New York State Law relating to the official recordation of property interests, their rights to use and occupy such lands for the life of the Project (CC#141). For each Segment of the Project that involves municipal lands which the Certificate Holders cannot acquire control by fee or easement, the Certificate Holders have provided to the Commission an instrument or instruments confirming that the affected municipality has consented the use of such lands and will in any and all events comply

with PSL § 68 with respect to exercise rights conferred pursuant to such consents (CC#142).[2] To the extent any additional instruments are required by the Commission, those will be provided once obtained.

For all rights concerning property comprising the Facility ROW, the Construction Zone, off-ROW-access, storage or staging areas, or similar areas, the Certificate Holders have obtained initial title information and will continue to develop the required title reports in accordance with CC 143. Any easements not included with Table 4.2 but required for the project will require a revision to the EM&CP using the process described in Section 3.2.6.

Table 4.2 – Facility ROW Ownership for Segment 1 and 2

Description & Parcel Number	Owner	Town	Type	Location (Approximate - see Drawings for Details)
13.-3-21.1	Robert G St. Armour	Putnam	Temporary	10000+00 (C-101) (Segment 1)
9.-1-10	Delaware & Hudson Railway Co.	Putnam	Temporary	10000+00 (C-101) (Segment 1)
9.-1-10	Delaware & Hudson Railway Co.	Putnam	Permanent	10000+00 to 10002+50 (C-101) (Segment 1)
County Road 3, in ROW no specific Parcel Number	Washington County	Putnam	Permanent	10000+00 (C-101) to 10046+00 (C-103 & C-104) (Segment 1)
Temporary Crane Pad for Splice Vault 001, 13.-3-24.7	NYSDEC	Putnam	Temporary	10032+50 to 10033+25 (C-103) (Segment 1)
Lake Road, in ROW no specific Parcel Number	Town of Putnam	Putnam	Permanent	10046+00 (C-103 & C-104) to 10161+50 (C-111 & C-112) (Segment 1)

[2] Certificate Holders submitted municipal consents in connection with their *Petition for an Order Granting Certificate of Public Convenience and Necessity* in Case 21-E-0425 (August 3, 2021). In a Ruling dated March 23, 2022, the Commission directed DPS Staff to process and approve the Certificate Holders' Petition for a Public Service Law Section 68 CPCN without the need for an evidentiary hearing or further process. Certificate Holders anticipate that, should DPS staff have any outstanding questions related to municipal consents, those matters will be addressed through that proceeding.

Description & Parcel Number	Owner	Town	Type	Location (Approximate - see Drawings for Details)
HDD-1, 15.-1-8.2	Ricky S. & Deborah L. Quesnel	Dresden	Temporary	10141+59 to 10149+85 (C-110 & C-111) (Segment 1)
HDD-1, 15.-1-8.2	Ricky S. & Deborah L. Quesnel	Dresden	Permanent	10141+84 to 10148+18 (C-110 & C-111) (Segment 1)
HDD-1, 15.-1-8.2	Ricky S. & Deborah L. Quesnel	Dresden	Temporary	10145+40 (C-110) to 10154+17 (C-111) (Segment 1)
HDD-1, 15.-1-8.1	Northern Washington County Fish & Game Club Inc.	Dresden	Temporary	10142+21 to 10142+92 (C-110) (Segment 1)
HDD-1, 15.-1-7.1	Ricky S. & Deborah L. Quesnel	Dresden	Temporary	10150+09 to 10158+94 (C-110 & C-111) (Segment 1)
HDD-1, 15.-1-7.1	Ricky S. & Deborah L. Quesnel	Dresden	Permanent	10151+14 to 10158+05 (C-110 & C-111) (Segment 1)
HDD-1, 15.-1-7.1	Ricky S. & Deborah L. Quesnel	Dresden	Temporary	10151+87 to 10157+23 (C-110 & C-111) (Segment 1)
Splice Vault 007, 15.-1-3	Pearl H and Karen S.	Dresden	Temporary	10205+52 to 10209+09 (C-115) (Segment 1)
Route 22, in ROW no specific Parcel Number	State (NYSDOT)	Putnam / Dresden/ Whitehall	Permanent	10161+50 (C-110 & C-111) to 10389+27 (C-127) (Segment 1) 12500+00 (C-101) to 13035+75 (C-136) (Segment 2)
HDD-2	State (OGS)	Dresden / Whitehall	Permanent	12920+98 (C-128 & C-129) to 12950+78 (C-130 & C-131) (Segment 2)
Lower Bellamy St.	Village of Whitehall	Village of Whitehall	Permanent	13035+75 (C-136) to 13040+00 (C-136) (Segment 2)

4.6.1 Right of Way Encroachment Plan

There were no encroachments identified along Segment 1 and 2 of the Project. Any vegetation and tree encroachments encountered will be handled according to the procedures outlined in Section 7.0. All wetlands encountered in the Facility ROW or adjacent areas will be handled according to the procedures outlined in Section 8.1.

If any encroachments are identified during the construction phase of the project the following procedures will be followed.

1. Identify the location of the encroachment using necessary deeds, plans, and other property records as needed.

2. Determine property rights (fee, easement, other rights, etc.) and identify reservations or usage rights conveyed to others.
3. Acquire property rights if applicable.
4. Consult with necessary Federal, State, and Local agencies as needed.

Encroachments involving safety or emergency situations will be investigated immediately and all necessary safety precautions will be followed.

While not applicable to Segment 1 and 2, as described in CC 159(pp), for excavations in close proximity to buildings, walls, or other structures the following designs and specifications will be developed and certified by a professional engineer licensed in New York State:

a) A description of the support system method for each such location where support is determined to be necessary.
b) The rationale for each such location where it is determined that support systems are unnecessary.
c) Support system designs for each location where it is determined support is necessary.

While not applicable to Segment 1 and 2, as described in CC 159(qq), for excavations that will be below the level of the base or footing of any foundation or retaining wall, the following designs and specifications will be developed and certified by a professional engineer licensed in New York State:

a) A list of all locations where excavation below the base or footing of any structure is considered necessary.
b) A description of the support system method for each such location where support is determined to be necessary.
c) The rationale for each such location where it is determined that support systems are unnecessary per OSHA Requirements:
    a. 1926.651(i)(2)(ii),
    b. 1926.651(i)(2)(iii), and
    c. 1926.651(i)(2)(iv)
d) Support system designs for each location where it is determined that support is necessary.

4.7 RIGHT OF WAY CLEARING

The procedures for vegetation and tree clearing, as well as the locations within Segment 1 and 2 where clearing will be necessary are described in Section 7.0.

4.8 BUILDING AND STRUCTURE REMOVAL

There will be no building or structural removal required for the construction of Segment 1 and 2.

4.9 ACCESS ROADS

Table 4.3 summarizes the temporary access roads that will be built as part of the Segment 1 and 2 construction and includes their approximate location. Access to the road ROWs will be required for the duration of construction. Direct disturbance to properties will be avoided wherever feasible by accessing both Segments 1 and 2 via the road ROW. Parking for workers will be within designated construction areas, with additional parking designated at the HDD-1 and HDD-2 locations (See Plan and Profile Drawings in Appendix C). Parking will not interfere with normal traffic, cause a safety hazard, or interfere with existing land uses and infrastructure. Where direct access to Segments 1 and 2 via the road ROW is not available, the Project will utilize temporary access roads.

The construction specifications for temporary access roads are included in the Plan and Profile Drawings in Appendix C (sheet C-631). Where needed all erosion and sediment control devices will be installed in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (SSESC) (CC#67).

All temporary access roads will be restored after construction as described in Section 13.2.4. The locations of all access roads within Segments 1 and 2 are shown on the Plan & Profile Drawings (Appendix C). To the extent practicable, access roads were routed to avoid areas of unstable soils, steep banks, wetlands, and streams (2012 BMPs, Section 6.1). All impacts to agricultural lands associated with the proposed access road described in Table 4.3 are temporary, and all agricultural land will be fully restored in accordance with Section 13.4. Before construction of Segment 1 and 2 begins, the Certificate Holders will stake and flag all access roads and extra work areas as shown on the Plan and Profile Drawings that may be used during any construction activities. All information related to the permitting and consultation with transportation departments such as NYSDOT is summarized in Section 11.0.

Except as authorized in Table 4.3, the Certificate Holders will not construct or allow their Contractors to construct any new, or improve any existing access roads for the construction, operation, or maintenance of the Project. Where alternative access can be provided, vehicular

access through areas of potential impact will be minimized or prohibited where applicable. The Certificate Holders will not violate the property rights of individual landowners and will not commit trespass upon their lands. Before the Certificate Holders attempt to enter private property that they do not have the legal right to enter, they will first obtain the permission of the landowner and will abide by all conditions of such permission that the landowner may impose. Easements obtained for the Project are discussed in Section 4.6 of the EM&CP. If the Certificate Holders rely on a document as evidence of their easement or other right to access land owned in fee by an individual landowner, they will provide a copy of such document to the landowner upon their request.

Table 4.3 – Access Roads in Segments 1 and 2

Segment	Access Road Number	Access Road Description	Type of Access Road	Location (Approximate – see Drawings for Details)	Impacts to Environmentally Sensitive Areas	Impacts to Agricultural Land
1	1.1	Gravel Access Road for Lake Road HDD 1 Exit	Temporary	10142+00 to 10148+00 (C-110)	Temporary Construction Activity Impact to Wetland. See Table 8.2 for full description	Temporary Impact to Ag land in Washington County Ag District 2. See Table 1.4.
1	1.2	Gravel Access Road for Lake Road HDD 1 Entry	Temporary	10152+00 to 10158+00 (C-111)	Temporary Construction Activity Impact to Wetland. See Table 8.2 for full description	Temporary Impact to Ag Lands not registered within Washington County Ag District. See Table 1.4.
1	1.3	Access Road for Splice Location 006	Temporary	10178+00 to 10183+00 (C-113)	Temporary Construction Activity Impact to Wetland. See Table 8.2 for full description	None.
1	1.4	Access Road for Splice Location 007	Temporary	10204+00 (C-115) to 10208+75 (C-115)	Temporary Construction Activity Impact to Wetland. See Table 8.2 for full description	None
1	1.5	Access Road for Splice Location 008	Temporary	10234+50 (C-116) to 10238+50 (C-117)	None.	None
1	1.6	Access Road for Splice Location 009	Temporary	10261+00 to 10264+50 (C-118)	Temporary Construction Activity Impact to Wetland. See Table 8.2 for full description	None

Segment	Access Road Number	Access Road Description	Type of Access Road	Location (Approximate – see Drawings for Details)	Impacts to Environmentally Sensitive Areas	Impacts to Agricultural Land
1	1.7	Access Road for Splice Location 010	Temporary	10293+00 (C-120) 10296+00 (C-121)	None.	None.
1	1.8	Access Road for Splice Location 012	Temporary	10355+60 to 10359+00 (C124)	Temporary Construction Activity Impact to Wetland. See Table 8.2 for full description	None
1	1.9	Access Road for Splice Location 013	Temporary	10387+00 to 10390+00 (C-127)	None.	None.
2	2.1	Access Road	Temporary	12538+00 to 12541+00 (C-103)	Temporary Construction Activity Impact to Stream. See Table 8.1 for full description	None
2	2.2	Access Road for Splice Location 014A	Temporary	12556+50 to 12558+25 (C-104)	Temporary Construction Activity Impact to Wetland. See Table 8.2 for full description	None.
2	2.3	Gravel Access Road for HDD 2 Entry	Temporary	12914+75 (C-128) to 12921+50 (C-129)	Temporary Construction Activity Impact to Wetland. See Table 8.2 for full description	None
2	2.4	Access Road for Splice Location 027	Temporary	12955+50 to 12958+50 (C-131)	Temporary Construction Activity Impact to Wetland Buffer. See Table 8.2 for full description	None.

4.9.1 Driveway Access During Construction

When trenching work takes place across private driveways for conduit placement, backfill, and roadway restoration, road plates will be used to span the trench to maintain access to the driveways. The road plates will be put in place when work is not taking place in the area of the driveway to allow unimpeded access to the driveways while the trench is open. When work is taking place at driveway locations that requires the removal of the road plates, they will be kept in the immediate vicinity of the driveway to lessen the time to re-install them in an emergency event. In the event of an emergency where access is required into a private driveway while work is taking place at the driveway location, all work will be stopped in the area and the trench plates will be put back into place. Maintenance of traffic involving single lane closures on the side of the road with private

driveways will be coordinated and planned to maintain driveway access while the lane closure is in place. Owners of private driveways will be notified of the work before it takes place and coordinated with during construction.

4.9.2 Access Through Wetlands

Table 4.3 describes the access roads for Segment 1 and 2 that may temporarily impact wetlands. The following BMPs will apply to all access roads in wetlands:

1. Appropriate protection measures (e.g., matting) or low psi ground-pressure equipment will be used in wetland areas as necessary to minimize compaction and damage to the soil structure;
2. Rock fill, tree stumps or brush pads will not be used to support equipment in wetlands; and
3. Vehicles and equipment will be clean prior to entering areas near NYSDEC protected waters or wetlands (2012 BMPs, Section 19).

If the Construction Inspector or Environmental Inspector determines that conditions are unsuitable for normal construction techniques, wetland access roads will be installed using the following equipment options: 1) swamp mats; 2) geotextile fabric and stone; and 3) bridges and flotation devices. The type of access road to be installed in a particular wetland area will be determined by the Construction Inspector and Environmental Inspector at the time of site preparation based on consideration of the following:

a) Presence and depth of standing water;
b) Moisture content and substrate composition; and
c) Type and size of construction equipment to be used.

All wetland access roads will be temporary and will be designed and installed to provide for complete removal with minimized disturbance to the wetland system. Construction details for each type of wetland crossing applicable to Segment 1 and 2 are provided in the Plan and Profile Drawings in Appendix C (Sheet C-611), with typical standards described within the BMP Document (2012 BMPs, Section 19).

4.9.3 Access Through Agricultural Lands

The gravel access road for Lake Road HDD 1 Exit Pit in Segment 1 is located within Washington County, NY Agricultural District 2. Additionally, the HDD entry pit at Lake Road HDD 1 and the

South Ryder Road Staging and Laydown Area are located within non-registered agricultural lands. The South Ryder Road Staging and Laydown Area is located within Segment 3; however, they will be utilized during the construction of Segment 1 and 2. Table 13.1 summarizes all the locations of agricultural lands within Segment 1 and 2 that are being utilized or impacted during the construction and will require restoration.

In areas where repeated temporary access is necessary on agricultural lands (such as the South Ryder Road Staging and Laydown Area), topsoil will be removed and stockpiled, geotextile fabric will be placed and weighted with rock as needed to provide a level access surface. Once access is no longer required across agricultural areas, both the rock/stone and fabric will be removed, and the Agricultural Inspector will use a soil penetrometer to determine if soil compaction has occurred as a result of construction activities (2012 BMPs, Section 20.3.1). If needed all compacted areas will be remediated as described in Section 13.4.

Where the use of solely geotextile fabric is not practical, mats will be installed where temporary access is necessary across agricultural fields. The mats will be layered where necessary to provide a level access surface. Once access is no longer required across agricultural areas, the mats will be removed, and the Agricultural Inspector will use a soil penetrometer to determine if soil compaction has occurred as a result of construction activities (2012 BMPs, Section 20.3.1). If needed all compacted areas will be remediated as described in Section 13.4. If mats are installed the same detail used for the wetland crossings can be used for temporary access across agricultural lands as shown on Sheet C-611 in the Plan and Profile Drawings in Appendix C. As shown on Sheet C-611 the mats will be inflexible and geotextile fabric will be installed under matting.

Where the installation of mats is not practical, topsoil will be removed. Any grading necessary for access roads constructed in active agriculture areas will first remove topsoil from the A horizon. Geotextile fabric with gravel or stone on top will be placed on the B horizon for access roads. The use of topsoil stripping for construction access, as opposed to matting, will only be allowed with approval from DPS Staff. All vehicle traffic and parking will be confined to access roads and designated work areas to prevent damage to agricultural land. All disturbed areas will be restored following construction (2012 BMPs, Section 20.3.1).

Topsoil will be removed down to the B horizon and stockpiled next to the access road or nearby. Excavated topsoil will be stockpiled separately from other excavated materials. Topsoil removal up to a depth of 16 inches may be required in specially designated soils encountered along the route. The site-specific depth of topsoil to be excavated will be determined and monitored by the

Agricultural Inspector using the County Soil Survey and on-site soil augering, if necessary. During the clearing/construction phase, site-specific depths of topsoil stripping will be monitored by the Agricultural Inspector (2012 BMPs, Section 20.3.2).

The following specifications will be followed when removing and stockpiling topsoil:

1. Topsoil will be stockpiled away from the edge of any excavations areas and stockpiled in a manner that avoids and minimizes intermixing with subsoil and prevents erosion and the transport of sediments;
2. Topsoil will not be stockpiled within tree protection zones as shown on the Plan and Profile Drawings (Appendix C);
3. Topsoil will not be stockpiled within at least one hundred (100) feet from wetlands and waterbodies as defined in Section 8.0 and the Wetland Delineation Report (Appendix M);
4. Topsoil will not be stockpiled in environmentally sensitive areas and/or adjacent areas as defined in Section 8.0;
5. Grade and shape topsoil stockpiles to drain surface water and cover to prevent windblown dust;
6. Top soil will be reused in-site whenever practicable following the procedures outlined in the Soil Management Plan (Appendix L) and applicable NYSDEC regulations;
7. Limit height of temporary topsoil stockpiles from active trenching to 72 inches. Topsoil stockpiles in laydown yards and equipment staging areas (Table 5.2) may require taller heights up to 15 feet;
8. As per NYSDAM Guidelines for Construction Mitigations for Agricultural Lands in Agricultural Areas, excess removed topsoil shall not be utilized for fill within the Project Area. Any extra topsoil removed from impacted areas should be evenly spread in adjacent agricultural areas within the limit of disturbance. Additionally, spreading of excess topsoil will be performed in a way to not significantly alter the hydrology of the area.

Topsoil stockpiles on agricultural areas left in place prior to October 31 will be seeded with Aroostook Winter Rye or equivalent at an application rate of 3 bushels per acre and mulched with straw mulch at a rate of 2 to 3 bales per 1,000 sq. ft. Topsoil stockpiles left in place between October 31 and May 31 will be mulched with straw (not hay) mulch at a rate of 2 to 3 bales per 1,000 sq. ft. (2012 BMPs, Section 20.3.2). All restoration using stockpiled soils and revegetation will be overseen by the Environmental and Agricultural Inspectors.

4.9.4 Drain Lines and Under Drains within Agricultural Areas

No subsurface drainage lines or plans have been identified within Segment 1 and 2, except for a minor 6-inch underdrain location adjacent to NYS Route 22 at an isolated location. However, if subsurface drainage lines and/or plans are discovered during the construction phase of the Project, the Certificate Holders will provide adequate cover over the cable to allow for installation of major header drains and main drains across the trench without obstruction due to the burial depth of the cables. The Environmental and/or Agricultural Inspector will determine the required elevations of the conduit for clearance between the bottom of future drainage systems and the top of the conduits (2012 BMPs, Section 20.4). The Plan and Profile drawings will be updated to reflect these depths as needed. All drainage pipe installation shall follow either the appropriate manufacturer's installation instructions, American National Standards Institute (ANSI) applicable standard, NYSDAM Guidelines, and/or the American Society of Testing and Materials (ASTM) applicable standard. All drainage pipe used during installation will be subject to a visual inspection in order to identify proper alignment, grade, and excessive deflection.

4.10 SOIL MANAGEMENT PLAN

The Soil Management Plan is included in Appendix L attached to this EM&CP.

4.11 TRANSPORTATION AND UTILITY CROSSINGS

The Certificate Holders have engineered and will construct the Project so that it will be fully compatible with the continued operation and maintenance of affected railroads, railways, highways, roads, streets, or avenues (CC#27) as well as CI, which consists of electric, gas, telecommunication, water, wastewater, sewer, and steam infrastructure and appurtenant facilities and associated equipment, whether above ground, below ground, or submerged that:

- Are located within the Project Construction Zone (CC#27a); and
- Are either owned by a State agency or municipality or a subdivision thereof or owned or operated for public utility purposes by a regulated electric, gas, telecommunication, water, wastewater, sewer, or steam service provider but do not include railroads, railways, highways, roads, streets, or avenues (CC#27b).

The Upland Co-Located Utility Summation Matrix Table in Appendix R summarizes the utility crossings for Segments 1 and 2. Section 11.0 describes the procedures for all construction that will occur within road and highway ROWs. Section 12.0 describes the consultations between the

Certificate Holders and co-located infrastructure owners and operators. Section 12.3 describes the procedures to be followed for all Utility Crossings.

4.12 CULVERT REPLACEMENT

Per NYSDOT request, culverts damaged by construction activities throughout the Facility ROW will be replaced in accordance with NYSDOT specifications (see sheet C-631 on Segment 1 Plans and Profile Drawings in Appendix C), as applicable. Culverts damaged by construction activities will be excavated and removed, new pipe zone bedding, and piping will be installed, and the trenched area will be backfilled with suitable material. A new pavement section will be installed. If the culvert involves a state protected stream the separation guidance provided by DEC and described in Section 8.1 will be implemented.

NYSDOT's inventory of large culverts has been obtained. Discussions with NYSDOT Region 1 are ongoing to coordinate construction activities in proximity to their culverts. A description of NYSDOT Coordination is included in Section 11.

5.0 POLLUTION PREVENTION

5.1 POTENTIAL POLLUTANT SOURCES

In addition to the potential for sediment to act as a pollutant as a result of land disturbance along the conduit installation, Table 5.1 summarizes some of the types of polluting materials that may be found in staging/laydown areas and active work sites during construction of the Project.

Table 5.1 – Potential Pollutant Sources for Segment 1 and 2 Construction Activities

Pollutant	Estimated Quantity	Container and Storage Description
Used Oil	50-100 Gallons	Drum with secondary containment
Lube Connex containing diesel, engine oil, hydraulic oil, 30W oil, 50W oil, used oil, DEF, coolant, grease	1,530 Gallons	Lube Trucks
Lube Connexes containing various oil types: 15-40, 10W, 30W, 50W, ATF, used coolant, new coolant, used oil	2,050 Gallons	20-foot connexes with bulk storage tanks inside secondary containment
Dyed Tanks	20,000 Gallons	Double wall UL-2085 Tank
Onroad Tanks	10,000 Gallons	Double wall UL-2085 Tank
Wire Pulling Lubricants	250 gallons	
Hydraulic Fluid	Greater than 25 gallons	Approved containers
Gasoline	Less than 50 gallons	5-gallon steel containers located inside secondary containment for chainsaws, pumps, etc.
Mobile fueling truck w/ spill kit on board,	no full-time storage. Diesel Fuel 30 to 500 gallons	Steel AST
Solid Waste (litter and construction debris)	Varies	Covered dumpsters.
Sanitary Waste	Varies	Portable facilities.
Used filter and absorbent bins	990 Gallons	330-Gallon Steel Containers
Chemicals associated with laydown yard equipment maintenance	Varies	Flammable cabinets inside shops and on service trucks, shelves in storage connex, 20-inch Hazmat connex with rollup doors and built-in secondary containment
Horizontal Directional Drilling Fluid	Approximately 7,400 gallons for Segment 1 and 12,700 gallons for Segment 2. Final volume will be determined by HDD contractor.	Approved containers

5.2 GOOD HOUSEKEEPING PRACTICES

Good housekeeping practices were developed as part of the development of the SWPPP and are included in the "Spill Prevention" section of the SWPPP which is included in Appendix G. These good housekeeping practices will be followed within the Project areas during construction to

reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff.

- An effort will be made to store only enough products required to do the job.
- All materials stored within project areas will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
- Products will be kept in their original containers with the original manufacturer's label.
- Substances will not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product will be used up before disposing of the container.
- Manufacturers' recommendations for proper use and disposal will be followed.
- The Contractor will inspect daily to ensure proper use and disposal of materials.

5.3 WASTE DISPOSAL

5.3.1 Solid Waste

Waste materials will be collected and stored in a secured area until removal and disposal by a licensed solid waste management company. All trash and construction debris from the project area will be disposed of in a portable container unit (dumpster). No waste materials will be buried within the project area. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the project trailer and the individual who manages day-to-day project operations will be responsible for seeing that these procedures are followed.

5.3.2 Sanitary and Hazardous Waste

Sanitary waste from portable units will be collected from the portable units by a licensed sanitary waste management Contractor, as required by NYSDEC regulations.

The installation of the overland transmission cable will require the transport, handling, use, and onsite storage of hazardous materials and petroleum products, and small amounts of hazardous wastes would be generated as by-products of the transmission cable installation and burial process. All hazardous waste materials will be disposed of in a manner specified by local or state regulations or by the manufacturer. Project personnel will be instructed in these practices and the individual who manages day-to-day project operations will be responsible for seeing that these practices are followed.

Procedures for the storage and use of hazardous products are outlined in the "Spill Prevention" section of the SWPPP which is included in Appendix G. These products may include but are not limited to petroleum products, fertilizers, and paints. These procedures are used to reduce the risks associated with hazardous materials.

5.4 CONSTRUCTION MATERIALS

Table 5.2 summarizes the locations of where construction materials and equipment will be temporarily staged during the construction of Segment 1 and 2. Construction materials will be stored in a manner that minimizes exposure to precipitation and runoff, where appropriate, or otherwise to prevent the contamination of stormwater and the environment. The Construction Contractor will have only the minimum amount of material at each work site necessary to complete the work at that site. Construction materials and equipment will be temporarily staged at all entry and exit points for all HDD crossings within Segment 1 and 2. Materials (including fill, construction materials, or debris) cannot be deposited, placed, or stored in any waterbody as described in Section 8.1.

All construction materials stored onsite will be stored in a neat, orderly manner in appropriate containers with appropriate labels. Products will be kept in their original containers with the original manufacturer's label unless the containers are not re-sealable and manufacturer's recommendations for proper use and disposal will be followed. Original labels and Safety Data Sheets (SDSs) will be retained for the period of time that the product is being utilized onsite in accordance with all applicable OSHA regulations (29 CFR 1926.33). Containers will not be stored on the ground but will be stored in cabinets or on a stable working surface such as a portable trailer bed or other secure decking. Containers will be kept closed unless the material is being transferred. All transfer operations will be monitored and not left unattended (2012 BMPs Section 12.3). The Good Housekeeping practices outlined in the "Spill Prevention" section of the SWPPP included in Appendix G will be followed to minimize the risk of spills or other accidental exposure of materials and substances to stormwater runoff and ecologically sensitive sites.

The Construction Contractor will not store, mix, or load chemicals labeled toxic or petroleum products within 100 feet of a wetland, river, creek, stream, lake, reservoir, spring, well or other ecologically sensitive site or existing recreational area along the proposed ROW. This applies to storage and does not apply to normal operation, use of equipment, or refueling of equipment in these areas. All employees and/or other handlers of hazardous materials will be properly trained and instructed on the proper reporting and handling requirements.

Table 5.2 – Segment 1 and 2 Construction Materials and Equipment Staging Location

Segment	Staging Area Description	Location (Approximate- see Drawings for Details)
1	HDD-1 Entry Area	10154+00 to 10155 (C-111)
1	HDD-1 Exit Area	10144+75 to 10145+75 (C-110)
1	Potential Contractor Staging Area	10142+25 to 10143+25 (C-110)
2	HDD-2 Entry Area	12920+50 (C-128 & C-129)
2	HDD-2 Exit Area	12951+00 (C-131)
3	South Ryder Road Staging and Laydown Area	15281+00 to 15285+50 (C-201 of Segment 1 and Segment 2 sheets)

5.5 CONSTRUCTION EQUIPMENT

Table 5.2 summarizes the major locations of where construction materials and equipment will be temporarily staged during the construction of Segment 1 and 2. All on-site construction vehicles including Contractor employee vehicles will be monitored for leaks and will receive regular preventative maintenance to reduce the risk of leakage. Section 4.8 summarizes the locations of access roads within Segment 1 and 2 as well as all procedures that should be followed for vehicle access to Segment 1 and 2 Construction Zone. The following measures will be followed for all construction material and equipment staging locations:

a) Any equipment leaking oil, fuel or hydraulic fluid will be repaired immediately or removed from the site.
b) Contractor personal vehicles (at all times) and construction equipment (at the end of the working day) will be parked at least 100 feet from a wetland, river, creek, stream, lake, reservoir, spring, well or other ecologically sensitive site or existing recreational area along the proposed construction ROW except where it is necessary to maintain continuity of construction.
c) Equipment cannot be deposited, placed, or stored in any waterbody.
d) Equipment or machinery will not be washed in any regulated wetland or adjacent area, and runoff resulting from washing operations will not be permitted to directly enter any regulated wetland or protected stream or waterbody (CC#113f).
e) In accordance with the amended CC114, in general, and to the maximum extent practicable, refueling equipment, storage mixing, or handling of open containers of pesticides, chemicals labeled “toxic,” or petroleum products will not be conducted within 100 feet of a stream or waterbody or wetland. Requirements for refueling within 100 feet of wetlands or streams will be allowed under certain circumstances identified below.

i. Refueling of hand equipment will be allowed within 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 100 feet from wetlands or streams in order to minimize the amount of refueling within these sensitive areas. Crews will have sufficient spill containment equipment on hand at the secondary containment location to provide prompt control and cleanup in the event of a release.

ii. Refueling of equipment will be allowed within 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 100 feet from wetlands or streams in order to minimize the amount of refueling within these sensitive areas. 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 100 feet of a wetland or stream will have sufficient spill containment equipment on board to provide prompt control and cleanup in the event of a release.

iii. Field personnel and Contractors shall be trained in spill response procedures, including the deployment and maintenance of spill response materials.

f) The Contractor will coordinate with the Environmental Inspector to determine the appropriate location for all refueling operations. These areas will be properly contained to prevent excess spillage during routine refueling.

g) Spill containment devices and materials will be readily accessible at the refueling site. Any effluent generated on resulting from these sites will be contained, treated, or disposed of, as appropriate. All drivers of fueling trucks will take all usual and reasonable environmental and safety precautions during refueling, such as connecting a safety grounding strap between the fuel tank and vehicle or equipment being refueled.

h) Drivers will frequently check for fuel spills, drips, or seeps during the refueling operation (2102 BMPs, Section 12). When not feasible to move a vehicle or construction equipment from an environmentally sensitive area to a suitable access area, the following precautions will be used to prevent petroleum products or hazardous materials from being released to the environment.

i. Deployment of portable basins or similar secondary containment devices.
ii. Use of ground covers (such as plastic tarpaulins).
iii. Precautionary placement of floating blooms on nearby surface waterbodies if applicable.

5.6 PETROLEUM AND CHEMICAL HANDLING PROCEDURES

Petroleum and Chemical handling procedures are outlined in the SPCC Plan in Appendix K. These procedures will be used to minimize the potential for spills of petroleum and hazardous substances, or other materials, that have the potential to pollute the environment. The SPCC Plan also describes the response measures that will be implemented to contain, clean-up and dispose of any spilled substances during construction. The Certificate Holders will keep required parties appraised of on-site chemicals and waste stored within 100 feet of their CI or service area. These required parties include Local Fire Departments, Emergency Management Teams, and owners and operators of CI (CC#34).

5.7 SPILL RESPONSE AND CLEANUP PROCEDURES

The spill response and cleanup procedures are outlined and described in the SPCC included in Appendix K.

5.8 NOTIFICATION AND REPORTING

Section 4.0 of the SPCC included in Appendix K describes the notification and reporting requirements that are necessary after a spill has occurred. Reporting obligations are also addressed in Table 3.2.

5.9 UNANTICIPATED ENCOUNTERS WITH CONTAMINATED SOIL

The installation of the overland transmission cables could disturb contaminants potentially deposited in the soil due to the extended use of portions of these areas as road shoulders and the current and former use of nearby areas for industrial and commercial operations. The Soil Management Plan in Appendix L describes procedures for identifying and managing contaminated soils.

6.0 STORMWATER POLLUTION, SOIL EROSION, AND SEDIMENT CONTROL

A SWPPP (Appendix G) was prepared in conjunction with the EM&CP by CHA Consulting, Inc. (CHA) in accordance with the criteria presented in the SPDES General Permit for Construction Activities (GP-0-20-001), the New York State Stormwater Management Design Manual (January 2015), and the New York State Standards and Specifications for Erosion and Sediment Control (July 2016). The SWPPP, as a subsection of the EM&CP covers the first phase of a multi-segment Project and applies to the first segments that spans approximately 17.6 miles including the Putnam Extension. Along with the EM&CP, the SWPPP will be updated for each subsequent project phases and Erosion and Sedimentation plans will be developed for future phases as they occur. A copy of the SWPPP and SPDES general permit will be available on-site at all times during construction.

6.1 TOPOGRAPHY AND SITE SOILS

A summary of the original soils on the Project site are listed and described in the SWPPP included in Appendix G of this EM&CP.

6.2 CONSTRUCTION SEQUENCING

The sequence of construction is summarized in Section 4.0. Erosion and sediment controls must be implemented early in the construction process and prior to the start of grading and excavation activities. All of the erosion and sediment control plans will be temporary. Such procedures will be maintained throughout the construction period in accordance with the Erosion and Sediment Control Plan (ESCP) (EM&CP Appendix C) (CC#114i).

6.3 STRUCTURAL CONTROLS

6.3.1 Erosion and Sediment Control

Soil and sediment control measures will be implemented early in the construction process and installed prior to any site clearing or earth moving operations. These measures will be maintained throughout the duration of construction until the permanent stabilization of soil has been achieved. All erosion and sediment control devices will be installed in accordance with the ESCP in

(Appendix C) and the New York State Standards and Specifications for Erosion and Sediment Control (SSESC) (CC#67).

The "Controls" section of the SWPPP included in Appendix G describes the erosion and sediment controls that will be constructed prior to clearing or grading any portion of the project in order to reduce excessive stormwater runoff. An ESCP is also included as Appendix C. In addition, all erosion and sedimentation controls will follow the Erosion Control notes shown on sheet G-002 of the Plan and Profile Drawings in Appendix C. If needed, additional erosion and sediment control measures will be installed following site inspections.

6.3.2 Dust Control

The Certificate Holders and all Contractors will take appropriate measures to minimize fugitive dust and airborne debris from construction activity associated with Segment 1 and 2 construction (CC#64). Dust control is covered in the SWPPP (Appendix G) and will be controlled as needed based on site conditions. Only plain water will be used for dust suppression. Stabilized construction entrances for dust control will be consistent with NYSDEC stabilized construction entrance requirements (see Plan and Profile Drawings in Appendix C). All applicable regulations and standards related to dust control will be followed including the New York State Standards and Specifications for Erosion and Sediment Control ("Blue Book") for dust control, pages 2.25.

6.3.3 Stream Crossings

There are no stream crossings anticipated in Segment 1 and 2. However, unanticipated culvert replacement(s) within the Road ROW may be required during or following construction. These unanticipated culvert replacements may involve a stream crossing to occur. The stream crossing procedures related to stormwater pollution and soil erosion control are discussed below.

The Certificate Holders will minimize disruption to streams and waterbodies along and within the vicinity of the Project ROW during construction, operation, and maintenance of the Project. While stream crossings are not anticipated to occur in Segment 1 and 2, Section 8.1 of this EM&CP describes measures to implement to protect potential stream crossings. Segment1 and 2. In the event that any construction involves New York State protected stream crossings, the Certificate Holders will notify DPS Staff and NYSDEC at least 5 days prior to construction (CC#115).

6.3.4 Horizontal Directional Drilling

HDD is used to cross utilities, streams, wetlands, and other physical obstructions/barriers that may be encountered during Segment 1 and 2. Table 4.1 in Section 4 summarizes the HDD installations within Segment 1 and 2 (See Sheets C-110 and C-111 of Segment 1 and Sheets C-129 and C-130 of Segment 2 Appendix C). While not used at every encounter, the HDD method will help the Certificate Holders minimize impacts to physical barriers and ecologically sensitive sites and areas. All appropriate erosion and sediment controls described in Section 6.3.1 of this EM&CP, the SWPPP (Appendix G), ESCP (Appendix C), the Erosion Control Notes on sheet G-002 of the Plan & Profile Drawings, and the details shown on the E&S Drawings (C-401 to C-414 for Segment 1 and C-401 to C-418 for Segment 2) will be followed at each HDD crossing. Additionally, an Inadvertent Release and Contingency Plan has been developed to minimize any stormwater pollution that may occur during HDD operations and is included in Appendix J.

6.4 MAINTENANCE, INSPECTION, AND RECORDKEEPING

Sediment and erosion control measures will be inspected at least once every 7 days or more frequently if required. Sediment and erosion control inspections will be performed by the Environmental Inspector who meets the qualifications of a "Qualified Inspector" as specified in Section 3.15 of this EM&CP. All maintenance required by inspection will commence within 24 hours and be completed within 48 hours of the inspector's report. Additional details regarding the minimum required inspection and maintenance practices used to maintain erosion and sediment controls are described in the "Maintenance/Inspection Procedures" section of the SWPPP (Appendix G) as well as Section 3.0 of this EM&CP. These procedures include inspection requirements for Owner/Operator, Qualified Inspectors, and general requirements. The SWPPP is included in Appendix G.

6.5 POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

Construction of Segment 1 and 2 of the Project will result in no increase in impervious area, and it is not anticipated to contribute a significant pollutant load within the watershed or to downstream waterbodies (Appendix G). As such, peak flow mitigation and water quality treatment are not included as a part of this Project, and post construction stormwater management practices are not proposed.

7.0 VEGETATION CLEARING AND DISPOSAL

In general, the limits of clearing are 35-feet or less from each side of the centerline of the conduit. Table 7.1 summarizes the locations of vegetation clearing and tree trimming/removal for Segment 1 and 2. While tree trimming and vegetation clearing will occur at numerous points along Segment 1 and 2, the only tree removal required is from approximately 12919+50 to 12921+00 (Sheets C-128, 129 of Segment 2 Plan and Profile drawings Appendix C). Locations of limits of clearing, and the type of clearing required are shown on the EM&CP Plan and Profile drawings (Appendix C) and the Erosion and Sediment Control Plan (Appendix C).

The objective of vegetation clearing is to remove vegetation from the work area as necessary for safe and proper installation of the Project while utilizing the appropriate vegetation clearing methods to avoid and/or minimize impact to RTE plants and sensitive areas (e.g., streams and wetlands or areas of high visual sensitivity, such as the Lakes to Locks scenic byway). Tree trimming will consist of cutting branches off trees as needed. Both vegetation clearing and tree trimming are accomplished through site specific prescriptions for clearing and disposal of woody vegetation and selective retention of vegetative buffer zones (2012 BMPs, Section 5.1). The following sections identify clearing and disposal methods to be incorporated.

Table 7.1 – Vegetation and Tree Clearing Locations for the Segment 1 and 2

Segment	Description	Location (Approximate – see Drawings for Details)	Vegetation/Tree Clearing Method Type and if within Adirondack Park Agency (APA) boundary
1	Tree trimming and vegetation clearing. No tree removal anticipated.	Near 10000+00 (C-101)	Type I and Type II. Within APA boundary see Section 7.1.4 for standards and specifications for clearing in Adirondack Park.
1	Tree trimming and vegetation clearing. No tree removal anticipated.	10032+50 to 10033+25 (C-103)	Type I and Type II. Within APA boundary see Section 7.1.4 for standards and specifications for clearing in Adirondack Park.
1	Tree trimming and vegetation clearing. No tree removal anticipated.	10046+50 to 10054+00, 10056+20 to 10056+50 (C-104)	Type I and Type II. Within APA boundary.
1	Tree trimming and vegetation clearing. No tree removal anticipated.	10063+00 to 10075+00, 10069+00 to 10070+11, 10070+50 to 10072+75, 10073+00 to 10074+16 (C-105)	Type I and Type II. Within APA boundary.

Segment	Description	Location (Approximate – see Drawings for Details)	Vegetation/Tree Clearing Method Type and if within Adirondack Park Agency (APA) boundary
1	Tree trimming and vegetation clearing. No tree removal anticipated.	10075+00 to 10090+00, 10076+00 to 10077+15, 10077+50 to 10078+00, 10079+00 to 10079+50, 10079+75 to 10081+25, 10081+50 to 10082+50, 10082+75 to 10083+25, 10083+50 to 10083+75, 10084+25 to 10085+00, 10086+00 to 10086+25, 10086+50 to 10088+00, 10088+75 to 10090+00 (C-106)	Type I and Type II. Within APA boundary.
1	Tree trimming and vegetation clearing. No tree removal anticipated.	10090+00 to 10105+00, 10090+06 to 10090+25, 10091+00 to 10091+50, 10091+75 to 10092+25, 10092+75, 10096+25 to 10097+50, 10098+25 10100+50, 10102+00 to 10103+25, 10103+50 to 10105+00 (C-107)	Type I and Type II. Within APA boundary.
1	Tree trimming and vegetation clearing. No tree removal anticipated.	10105+00 to 10120+00, 10105+00 to 10105+75, 10106+00 to 10106+25, 10106+50 to 10109+00, 10110+00 to 10113+75, 10115+00 to 10116+25, 10117+25 to 10117+50, 10117+75 to 10118+00, 10118+25 to 10119+25, 10119+75 to 10120+00 (C-108)	Type I and Type II. Within APA boundary.
1	Tree trimming and vegetation clearing. No tree removal anticipated.	10120+00 to 10121+50, 10120+75 to 10121+00, 10121+50 to 10122+25, 10125+25 to 10128+25, 10128+50 to 10130+50, 10131+00 to 10133+75 (C-109)	Type I and Type II. Within APA boundary.
1	Temporary Access Road for Lake Road HDD 1. Tree trimming and vegetation clearing. No tree removal anticipated.	10138+25 to 10138+50 (C-110)	Type I and Type II. Within APA boundary.
1	Temporary Access Road for Splice Location 007. Tree trimming and vegetation	10207+50 to 10208+50 (C-115)	Type I and Type II. Within APA boundary.

Segment	Description	Location (Approximate – see Drawings for Details)	Vegetation/Tree Clearing Method Type and if within Adirondack Park Agency (APA) boundary
	clearing. No tree removal anticipated.		
1	Temporary Access Road for Splice Location 008. Tree trimming and vegetation clearing. No tree removal anticipated.	10235+25 to 10238+25 (C-117)	Type I and Type II. Within APA boundary.
1	Temporary Access Road for Splice Location 009. Tree trimming and vegetation clearing. No tree removal anticipated.	10261+00 to 10264+00 (C-118)	Type I and Type II. Within APA boundary.
1	Temporary Access Road for Splice Location 010. Tree trimming and vegetation clearing. No tree removal anticipated.	10292+00 (C-120) to 10296+50 (C-121)	Type I and Type II. Within APA boundary.
1	Tree trimming and vegetation clearing. No tree removal anticipated.	10331+00 to 10333+00, 10332+00 to 10334+00, 10334+50 to 10335+50, 10337+00 to 10340+00 (C-123)	Type I and Type II. Within APA boundary.
1	Tree trimming and vegetation clearing. No tree removal anticipated.	10340+00 to 10340+75, 10342+00 to 10344+00, 10345+75 to 10347+00 (C-124)	Type I and Type II. Within APA boundary.
1	Tree trimming and vegetation clearing. No tree removal anticipated.	10355+00 to 10359+00, 10360+50 to 10362+00, 10363+50 to 10364+25, 10367+25 to 10370+00 (C-125)	Type I and Type II. Within APA boundary.
1	Tree trimming and vegetation clearing. No tree removal anticipated.	10372+50 to 10373+25 (C-126)	Type I and Type II. Within APA boundary.
1	Temporary Access Road for Splice Location 013. Tree trimming and vegetation clearing. No tree removal anticipated.	10388+25 to 10390+25 (C-127)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12504+25 to 12505+50, 12507+00 to 12507+75, 12509+00 to 12513+50 (C-101)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12518+00 to 12525+50, 12527+00 to 12529+50 (C-102)	Type I and Type II. Within APA boundary.

Segment	Description	Location (Approximate – see Drawings for Details)	Vegetation/Tree Clearing Method Type and if within Adirondack Park Agency (APA) boundary
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12532+00 to 12534+75, 12538+00 to 12540+50, 12541+00 to 12543+00 (C-103)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12571+00 to 12575+00 (C-105)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12576+00 to 12579+00, 12587+00 to 12589+25 (C-106)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12592+00 to 12593+50, 12597+00 to 12597+50, 12598+43 to 12599+15 (C-107)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12610+50 to 12611+50 (C-108)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12650+25 to 12650+75, 12651+50 to 12652+00, 12664+00 to 12664+65 (C-111)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12678+28 to 12679+30 (C-112)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12695+00 to 12697+75 (C-114)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12726+50 to 12727+00 (C-116)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12758+00 to 12759+12 (C-118)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12826+75 to 12829+00 (C-122)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12842+50 to 12843+00, 12843+77 to 12844+50 (C-123)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12845+00 to 12846+00, 12851+00 to 12852+50, 12853+00 to 12854+00, 12856+25 to 12857+50 (C-124)	Type I and Type II. Within APA boundary.

Segment	Description	Location (Approximate – see Drawings for Details)	Vegetation/Tree Clearing Method Type and if within Adirondack Park Agency (APA) boundary
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12860+25 to 12868+25, 12864+75 to 12868, 12872+00 to 12875+00 (C-125)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12875+00 to 12876+50, 12878+00 to 12879+50, 12882+50 to 12884+50, 12887+00 to 12887+50 (C-126)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12890+19 to 12896+75, 12898+00 to 12898+30, 12902+82 to 12903+38 (C-127)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12917+50 to 12918+00 (C-128)	Type I and Type II. Within APA boundary.
2	Entry and exit pits for HDD-2. Tree clearing and vegetation clearing. Tree removal anticipated.	12919+50 (C-128) to 12921+00 (C-129), 12951+00 to 12954+00 (C-131)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	12957+50 to 12957+75 (C-131)	Type I and Type II. Within APA boundary.
2	Tree trimming and vegetation clearing. No tree removal anticipated.	13030+00 to 13038+25 (C-136)	Type I and Type II

7.1 CLEARING METHODS AND PROCEDURES

The cleared width within the construction and road ROWs and temporary construction workspace will be kept to the minimum that will allow for spoil storage at HDD areas, staging, assembly of materials, construction vehicle passage, and all other activities required to safely install the conduit. The Certificate Holders and their subcontractors will also limit grubbing activities (the removal of stumps and roots) that are not in the footprint of the excavated trench or along access roads to allow re-sprouting and assist in the recovery of woody species, except where removal is required for safe construction or operation of the Project.

All vegetation clearing and removal within Segment 1 and 2 will follow the following best management practices:

a) Trees, shrubs, and other vegetation indicated to remain or to be relocated will not be removed.

b) Minor roots and branches of trees indicated to remain will be cut in a clean and careful manner where such roots and branches obstruct installation of new construction.
c) Cleared vegetation, specifically woody material, will not enter wetlands and/or within 100 feet of wetland areas as such activity may impact water quality.
d) Hand methods will be used for grubbing within tree protection zone.
e) Woody material trimmed from the work area will be chipped on-site and hauled to a disposal facility or mulch recycling location if one is available. In agricultural lands, all black cherry tree material will be segregated and disposed of at a landfill. A list of approved disposal locations will be submitted to DPS Staff and NYSDEC prior to construction.
f) Burning of debris onsite is not permitted.
g) Disposal of all diseased trees will occur within 4 days after cutting by a disposal method to prevent the spread of the Ash borer and Asian longhorn beetle as described in Section 8.3.3.
h) All vegetation clearing will comply with all NYSDEC regulations regarding invasive species.
i) No logs or other woody material will be left in any designated floodway or other flood hazard area.

7.1.1 Tree and Vegetation Clearing Methods

During clearing operations, crews, in coordination with the Environmental Inspector, will scout the terrain ahead for unexpected conditions, check ROW boundaries and review property specific conditions or restrictions noted on the EM&CP Plan and Profile drawings (Appendix C). If tree removal is determined to be necessary, all tree clearing and removal within Segments 1 and 2 will follow the specifications documented above in Section 7.1. Trees will be felled into the ROW to avoid off-ROW damage, using the following methods (2012 BMPs, Section 5.4):

Table 7.2 – Tree and Vegetation Clearing Methods

Method Type	Method Title	Method Description
Type I	Hand Cutting (HC)	This method employs a hand-held chain saw. It is selective but is slower and more expensive than motorized mechanical devices. Residential areas, buffer zones, wetlands, and highway screens are areas where hand cutting is typically prescribed.
Type II	Mechanical Clearing Machine (HA)	This term usually refers to a machine known as the Hydro-ax or Kershaw mower. This machine can cut trees up to 10 inches in diameter at the rate of several

Method Type	Method Title	Method Description
		acres a day, depending on stem density and terrain. It is essentially nonselective and a good device for clearing rights-of-way that are composed of young undesirable species in a relatively uniform stand.
Type III	Mowing	This technique is primarily used in areas of herbaceous vegetation. Terrain must be relatively flat with no gullies or rocks.
Type IV	Mechanical whole-tree felling equipment	This method allows controlled felling and loading of whole trees while minimizing damage to adjacent trees. Where vegetation is cleared, erosion and sediment control measures will be installed and monitored until the topsoil is stabilized and can support grassy vegetation.

7.1.2 Vegetation Clearing in Environmentally Sensitive Areas

Environmentally Sensitive Areas are indicated in the EM&CP Plan and Profile drawings (Appendix C). The specific vegetation clearing of vegetation procedures relevant to those areas are included the following sections of the EM&CP:

1. Wetlands: Section 7.1.5 and Section 8.1 of the EM&CP
2. Stream Crossing: Section 7.1.5 and Section 8.1 of the EM&CP.
3. Threatened and Endangered Species/Sensitive Habitats: Section 8.2 of the EM&CP.
4. Adirondack Park: Section 7.1.4 of the EM&CP
5. Agricultural Lands: Section 7.1.6 of the EM&CP.

In addition to following the sensitive area specific procedures applicable to categories of Environmentally Sensitive Areas, the Contractor will minimize the amount of clearing and grubbing in all of these areas. Unless required for safety or reliable operation of the Facility, the Certificate Holders will limit the removal of stumps and roots that are not in the footprint of the excavated trench in these Environmentally Sensitive Areas and access roads.

As described in Section 8.2 tree clearing and tree trimming activities will be conducted during the winter months (October 31- March 31) where Indiana bats (*Myotis sodalis*) and northern long-eared bats (*Myotis septentrionalis*) are in their winter hibernacula. In the event that tree clearing is necessary between April 1 to October 31, the following restrictions shall be implemented for all tree clearing activities in the Project Corridor, pending approval of the NYSDPS/NYSDEC:

a) The Certificate Holder shall leave uncut all snag and cavity trees, as defined under the NYSDEC Program Policy ONRDLF-2 Retention on State Forests, unless their removal is necessary for protection of human life and property. This restriction pertains to trees that are greater than or equal to 3 inches DBH.
b) When necessary, snag or cavity trees may be removed after being cleared by an Environmental Monitor who shall conduct an emergence survey to document any bats exiting the tree(s). This survey shall begin 30 minutes before sunset and continue until at least 1 hour after sunset or until it is otherwise too dark to see emerging bats.
c) Unoccupied snag and cavity trees in the approved clearing area shall be removed within 48 hours of observation.

In the event of an unanticipated culvert replacement, that requires tree clearing and tree trimming activities to be performed between April 1 to October 31, the above restrictions will apply. The culvert replacement sequence detail (Sheet C-632 Appendix C) will be utilized and all construction relating to unanticipated culvert replacement, will be performed in accordance with the UACOE 404 permit.

7.1.3 Clearing in Upland Areas Along the Overland Route (Type I, II, III, IV)

Initial clearing operations will include the removal of vegetation within any temporary additional construction workspace (e.g., HDD workspace) either by mechanical (Type II, III, IV) or hand cutting (Type I). Vegetation will be cut at ground level, leaving existing root systems intact except for the immediate trench area, and the aboveground vegetation removed in accordance with the methods described in Section 7.3. Tree stumps and rootstock will be left undisturbed in the temporary workspace wherever possible to encourage natural revegetation. Timber, brush and tree limbs will managed for disposal as described in Section 7.3 and the BMP Document (2012 BMPs, Section 19). Any vegetation removal within the ROW of a State highway will be conducted pursuant to a highway work permit issued by NYSDOT and as shown on the Plan and Profile drawings (Appendix C) (2012 BMPs, Section 5.4.1).

7.1.4 Clearing within Adirondack Park Areas

All of Segment 1 and the majority of Segment 2 is located within the boundaries of the Adirondack Park, see Table 1.5 for specific station numbers. The tree trimming and vegetation clearing that is described in Table 7.1 will be occurring within the road ROW or immediately adjacent and will

cause minimal to no visual impact on within the Park areas. Section 1.4.2 summarizes the recreational impact of Segment 1 and 2 on Adirondack Park. Within the Adirondack Park, any vegetation removal (Types I-IV) in a State Road ROW will be in accordance with the NYSDOT Guidelines for the Adirondack Park ("Green Book") and Adirondack State Land Master Plan, in order to achieve and maintain a park-like atmosphere that compliments the total Adirondack environment (2012 BMPs, Section 5.4.1). Applicable measures from the Adirondack Park Green Book include, but are not limited to:

1. Vegetative cover will be maintained on all cut and fill slopes except in areas of rock outcropping or where gabions and retaining walls are essential.
2. In areas of State Administrative, Intensive, and Historic use, tree and vegetation clearing will be limited. None of these areas occur within Segment 1 and 2.

7.1.5 Wetland Areas and Stream Crossings

While no clearing of vegetation in wetlands is anticipated in Segment 1 and 2 because temporary matting will be used for all construction and access within wetlands, the following measures will be implemented if clearing becomes unavoidable.

1. Clearing of existing vegetation (Using Type I clearing only) in or near wetlands or other regulated waterbodies will be limited to that material necessary to allow completion of construction activities and to allow for reasonable access for long-term maintenance so as to reduce the amount of activity and disturbance to the wetland and adjacent area.
2. Cleared vegetation, specifically woody material, will not enter wetlands and/or within 100 feet of wetland areas as such activity may impact water quality.

All protection and mitigation procedures for wetlands and waterbodies are summarized in Section 8.1. These procedures should be followed during any vegetation clearing or removal in wetland areas and near water bodies (i.e., stream crossings).

7.1.6 Agricultural Lands

Agricultural lands within the Segments 1 and 2 are identified in Table 1.4. Additionally, the South Ryder Road Staging and Laydown Area is located within Segment 3 but will be utilized during the construction of Segments 1 and 2. The Certificate Holders have designed Segment 1 and 2 to avoid crop fields or other active agricultural land to the greatest extent possible (CC#75). Clearing of vegetation and trees on agricultural lands will follow all applicable CC requirements.

The Agricultural Inspector and Environmental Inspector will be present for all clearing that takes place on or near agricultural land. Stumps, slash, or chips will not be piled or buried in active agricultural fields or improved pasture. Logs may be piled in areas designated by the landowner.

As per Section 20.2 of the BMP document and CC 149, no cleared vegetation (specifically woody vegetation) will be left on agricultural lands accessible to livestock (CC#149). All cleared woody vegetation will be removed from livestock areas and disposed of following the disposal methods described in Section 7.3 (2012, BMPs, Section 20.2). No cleared woody vegetation will be stockpiled or stored in areas accessible to livestock.

7.2 VEGETATION BUFFER AREAS

7.2.1 Buffer Areas for Streams and Wetlands

Vegetative buffers associated with state wetlands have been maintained to the maximum extent practicable, as identified on the EM&CP Plan and Profile Drawings (Appendix C). Tree cutting in buffer areas will be limited to hand cutting methods (Type I). Buffer areas are clearly marked on the ESCP (Appendix C) and will be marked in the field to avoid unintentional clearing. Additionally, the Environmental Inspector or construction supervisor will notify clearing and other crews of buffer areas that will be encountered that day (2012 BMPs, Section 5.7). None of the wetlands within Segment 1 require an adjacent area buffer since they are not NYSDEC regulated wetlands, but rather are federally regulated wetlands. However, within Segment 2, Wetlands G-A, G-B, G-C, G-E, G-G and G-H correspond to mapped NYSDEC Class 1 regulated wetlands. Their 100-foot adjacent area buffers have been illustrated on the EM&CP Plan and Profile drawings (Appendix C) and will be marked in the field to avoid unintentional clearing. Work within the buffers of these wetlands will be limited to the roadway and road shoulder which is comprised of previously disturbed soils and mowed lawn habitats along the road. Erosion control measures and wetland protection fence will be installed to prevent unintended impacts.

7.2.2 Buffer Areas for Visually Sensitive Locations

Existing vegetation buffers will be maintained at selected road and stream crossings and other visually sensitive locations such as the Adirondack Park, Locks to Lakes Scenic Byway and South Bay Pier, where possible, especially at HDD drilling or boring sites, residential areas, and the peripheries of historic sites.

To the greatest extent practicable, trees that provide a buffer to visually sensitive areas will be avoided. Where buffer areas cannot be avoided, a qualified arborist will be consulted before construction in these areas and Tree Protections Zones (TPZ) will be established (2012 BMPs, Section 5.7).

7.3 TREE AND VEGETATION DISPOSAL METHODS

The log disposal and vegetation disposal methods that may be used for Segment 1 and 2 are described in Table 7.3 (2012 BMPs, Sections 5.5.1-5.5.4).

In general, the log disposal method along the ROW will be selected after assessing each designated clearing area in consideration of:

a) Tree species and potential volumes of marketable timber;

b) Soil and terrain conditions that would allow mechanized collection and skidding without creating severe rutting or significantly increasing erosion potential;

c) Sufficient marketable volumes of wood to make economic utilization practical;

d) Whether adequate log-hauling access exists between the nearest public road and the yarding area on the ROW or yarding directly to a highway is desirable and economically feasible; and

e) Abutter/landowner cooperation, as well as clearing and trimming rights (2012 BMPs, Section 5.5).

In regard to the description of Type C disposal method, the Certificate Holders will negotiate in good faith with each landowner for the purchase of rights to all logs over six (6) inches in diameter at the small end and eight (8) feet or longer ("merchantable logs") to be cleared from Segment 1 and 2. The Certificate Holders will not leave any permanent slash piles or log piles along public highways (CC#65a). No burning of debris is permitted within the work areas Segments 1 and 2. Disposal of all diseased trees will occur within 4 days after cutting by a disposal method to prevent the spread of the Ash borer and Asian longhorn beetle as described in Section 8.3.3. All applicable NYSDEC regulations regarding invasive species will be followed when disposing of trees and logs.

Table 7.3 – Tree and Vegetation Disposal Methods

Method Type	Method Title	Method Description
Type A	Construction Use	Logs may be utilized as needed during construction for wetland access, cribbing, retaining walls, or other uses. Following use, any logs unsuitable for firewood, saw logs, or chipping will be transported off the ROW to an approved disposal site[(1)].
Type B	Log Piles	Logs not needed for construction will be removed from the ROW to an approved disposal area, as shown on the Plan and Profile drawings (Appendix C) if applicable.
Type C	Sale	Where sufficient merchantable volume exists on the site, logs may be sold to a third party. Where appropriate and practical, and with the agreement of landowners, unsold logs will be hauled to accessible locations for salvage by the general public in accordance with the substantive requirements of 6 NYCRR Part 192.5, firewood restrictions to protect forests from invasive species.
Type D	Tree/Log Chipping	When logs cannot be reused or sold, they will be chipped on site. The resulting wood chips will be piled in upland areas within the ROW or transported off ROW to an approved disposal site[(1)]. Wood chips will be spread three (3) to five (5) inches thick with fertilizer spread over the chips to minimize soil nitrogen depletion due to cellulose decomposition.
Type E	Vegetation Chipping	Vegetation including tree limbs may be chipped to reduce debris volume. See Type D description above for the disposal of chips.
Type F	Vegetation Hauling	Vegetation and stumps may be hauled to a NYSDEC approved landfill[(1)] or other suitable off-site location with the approval of the landowner and all applicable permitting agencies.
Type G	Vegetation Burial	Stumps may be buried on the ROW with landowner agreement. The burial areas will be sufficiently compacted and monitored after construction to assure that settling does not occur. Where significant settling after construction has been identified by the Construction Inspector et. al., finished grade will be re-established using locally obtained run-of-bank material and/or topsoil and re-seeded as appropriate as specified in Sections 13.2. Areas where significant amounts of stump burial occur will be noted on As-Built drawings, and monitored for settling during ROW condition surveys and maintenance activities.

[(1)] Disposal Sites are listed in Appendix L and
https://www.dec.ny.gov/docs/materials_minerals_pdf/listregcdprocess.pdf

8.0 ENVIRONMENTALLY SENSITIVE AREAS

8.1 WATERBODIES AND REGULATED WETLANDS

8.1.1 Waterbodies

A total of 48 waterbodies (lakes, rivers, streams, and ponds) were identified in the survey area along the Segment 1 and 2 Project Corridor. Table 8.1 below shows the waterbodies within the Segment 1 and 2 that may be impacted by construction activities. Table 4-2 in Attachment 4 of the Wetland Delineation Report for Segment 1 and 2 of the CHPE conducted by CHA provides a summary of all the waterbodies identified within Segment 1 and 2 (Appendix M)[3]. The data sheets used during the field investigations and surveying are included in Attachment 1 of the Wetland Delineation Report for Segment 1 and 2 of the CHPE Project.

The intent of the EM&CP Plan and Profile drawings is to identify the stream and waterbody crossing method and delineated protective buffer zones where applicable (Appendix C). These protective buffer zones indicate where construction activities will be restricted to the extent necessary to minimize impacts on rivers and streams. All activities that are restricted in those zones are clearly indicated as needed. Segment 1 and 2 of the Project does not require direct impacts to streams and other waterbodies except as noted in Table 8.1. The alignment has been designed to cross under existing culverts. This construction will involve excavating underneath the culvert and using supports to protect and hold the culvert in place. The minimum clearance between the excavation and the culvert as well as the minimum cover required for the cable once installed in the trench are all noted on the Plan and Profile Drawings (Appendix C). NYDOT consultation regarding Segment 1 and 2 culvert crossing is included in Section 11. Larger streams and the South Bay of Lake Champlain will be crossed via horizontal directional drilling (HDD).

The Project is not anticipated to impact any wells along the Segment 1 and 2 Project Corridor. All residences outside of the public water service areas including those on County Road 3, Lake Road and Highway 22 are assumed to be served by private well water supplies. The Certificate Holders

[3] The Wetland Delineation Report in Appendix M also includes Segment 3 (also designated design package 1C in some documents) which is not applicable to this EM&CP but will be included in future EM&CP as described in the schedule in Section 1.1.

performed a review of geospatial data to locate potential private and municipal wells within 200 and 400 feet of the trench, respectively. Specifically, a review of NYDEC data and a review of aerial mapping of buildings/structures (assuming that existing wells will be generally in close proximity to structures) was performed and the data were compiled within a GIS data layer. These data were used to establish a well-protection overlay zone[4]. Refueling of vehicles will not occur within this overlay zone. To the greatest extent possible, the Contractor will limit refueling operations at least 200 feet from residences/wells along the route within the road ROW. When not practical best management practices described in the SPCC will be utilized. These include using secondary containment, having spill kits located nearby, and providing environmental training to construction staff. Additionally, at the laydown area on Ryder Road, refueling will be located toward the south and east, well beyond 200 feet from the adjacent residential properties and potential wells which may be present.

The Certificate Holders have obtained a wetland permit from and are continuing to coordinate with the U.S. Army Corps of Engineers (USACE) to ensure that all Project construction will minimize waterbody impact and will be in compliance with all the requirements of Permit NAN-2009-01089-M5 and all approved permit modifications. Documentation of the coordination with the USACE is included in Appendix A.

8.1.1.1 Avoidance and Minimization

Direct impacts to streams and waterbodies have been avoided by crossing over or under existing culverts, incorporating HDD methods (2012 BMPs, Sections 8 and 18) with the exception of a temporary access road crossing stream CS20. Footnotes are provided to indicate which of the protection measures included in Section 8.1.1.3 will be applicable in the event of an unanticipated culvert replacement.

8.1.1.2 Impacts

Construction activities within the Segment 1 and 2 Project Corridor will primarily include the installation of conduit beneath the ground within a road ROW. Ground disturbance would result in increased potential for erosion and sedimentation in runoff. Runoff on construction sites will be

[4] GIS information containing potential private well information to be provided to DPS for review.

managed in accordance with the requirements for erosion and sedimentation controls as outlined in Section 6.0 of this EM&CP and in accordance with the SWPPP provided in Appendix G. Direct impacts to streams and waterbodies are avoided by crossing under and over existing culverts and utilizing HDD (refer to Appendix C for Plans and Profiles and ESC Plans). The use of HDD has the potential for an inadvertent return or release (i.e., leaks of HDD drilling fluid) that could cause drilling fluid to become suspended or dispersed and could impact water quality. The SPCC in (Appendix K) and an Inadvertent Release Plan (Appendix J) have been developed to address the potential release of drilling fluid. For the Segment 1 and 2 Project Corridor, no significant impacts to groundwater and groundwater wells are expected. An Overland Rock Removal Plan has been developed by Maine Drilling and Blasting, Inc. for the Certificate Holders and is included in Appendix S. Table 8.1 includes the waterbodies identified in Segment 1 and 2 that may be impacted by construction activities and summarizes the measures to avoid stream impacts.

Table 8.1 – Summary of Waterbodies within Segment 1 and 2

Approximate Station & Plan Sheet	Waterbody Name	NYSDEC Classification* & State Water Index Number	Waterbody Field ID**	Coordinates (lat., long.)	Flow Status***	Avoidance & Minimization Measures	Impact
Route 3 (Segment 1)							
P1A/Seg1: 10005+50 to 10008+50 (C-401)	Unnamed Tributary to Lake Champlain	Unmapped	CS1	43.733, -73.376	Intermittent	Avoided	None
P1A/Seg1: 10024+00 to 10024+75 (C-401)	Unnamed Tributary to Lake Champlain	Unmapped	CS2	43.731, -73.38	Intermittent	Cross under culvert	None
P1A/Seg1: 10026+50 to 10027+25 (C-401)	Unnamed Tributary to Lake Champlain	Unmapped	CS3	43.731, -73.381	Intermittent	Cross over culvert	None
P1A/Seg1: 10029+50 to 10030+00 (C-401)	Unnamed Tributary to Lake Champlain	Unmapped	CS4	43.731, -73.382	Intermittent	Cross under culvert	None
P1A/Seg1: 10035+50 to 10036+00 (C-402)	Unnamed Tributary to Lake Champlain	Unmapped	CS5	43.731, -73.385	Intermittent	Cross under culvert	None
P1A/Seg1: 10039+00 (C-402)	Unnamed Tributary to Lake Champlain	Unmapped	CS6	43.731, -73.386	Intermittent	Cross under culvert	None
P1A/Seg1: 10041+00 to 10042+00 (C-402)	Unnamed Tributary to Lake Champlain	Unmapped	CS7	43.731, -73.387	Intermittent	Cross under culvert	None
Lake Road (Segment 1)							
P1A/Seg1: 10065+00 to 10066+00 (C-403)	Unnamed Tributary to Lake Champlain	Unmapped	CS8	43.726, -73.39	Perennial	Cross under culvert	None

Approximate Station & Plan Sheet	Waterbody Name	NYSDEC Classification* & State Water Index Number	Waterbody Field ID**	Coordinates (lat., long.)	Flow Status***	Avoidance & Minimization Measures	Impact
P1A/Seg1: 10080+00 to 10080+50 (C-403)	Unnamed Tributary to Lake Champlain	Unmapped	CS9	43.725, -73.395	Perennial	Cross under culvert	None
P1A/Seg1: 10080+50 to 10081+00 (C-403)	Overflow channel of Wetland CK conveying flow to CS10	Unmapped	CS10	43.725, -73.395	Intermittent	Avoided	None
P1A/Seg1: 10112+00 to 10113+00 (C-404)	Unnamed Tributary to Lake Champlain	Unmapped	CS11	43.722, -73.406	Perennial	Cross under culvert	None
P1A/Seg1: 10128+50 to 10129+00 (C-405)	Unnamed Tributary to Lake Champlain	Unmapped	CS12	43.721, -73.412	Intermittent	Cross under culvert	None
P1A/Seg1: 10148+00 to 10149+50 (C-405)	Mill Brook	C/C(T) 830-432	CS13	43.722, -73.418	Perennial	Cross under culvert via HDD (>5' separation)	None
NYS Route 22 (Segment 1 & 2)							
P1A/Seg1: 10173+00 to 10173+50 (C-407)	Mill Brook	C/C(T) 830-432	CS14	43.72, -73.425	Perennial	Cross over culvert (>5' separation)	None
P1A/Seg1: 10197+75 to 10198+00 (C-408)	Mill Brook	C/C(T) 830-432	CS15	43.714, -73.429	Perennial	Cross over culvert (>5' separation)	None
P1A/Seg1: 10300+00 to 10300+50 (C-411)	Unnamed Tributary to Lake Champlain	D/D 830-433.1	C2S1	43.69, -73.423	Perennial	Cross under culvert (2' separation)	None

Approximate Station & Plan Sheet	Waterbody Name	NYSDEC Classification* & State Water Index Number	Waterbody Field ID**	Coordinates (lat., long.)	Flow Status***	Avoidance & Minimization Measures	Impact
P1A/Seg1: 10321+50 to 10322+25 (C-412)	Unnamed Tributary to Lake Champlain	Unmapped	C2J	43.685, -73.424	Intermittent	Cross under culvert	None
P1A/Seg1: 10329+50 to 10331+75 (C-412)	Unnamed Tributary to Lake Champlain	Unmapped	C2S2	43.683, -73.424	Intermittent	Avoided	None
P1A/Seg1: 10359+50 to 10360+25 (C-413)	Unnamed Tributary to Lake Champlain	C/C 830-433	C2S3	43.679, -73.414	Perennial	Avoided (>5' separation)	None
P1B/Seg2: 12518+50 to 12520+50 (C-401)	Unnamed Tributary to Lake Champlain	Unmapped	CS16	43.67, -73.417	Intermittent	Avoided	None
P1B/Seg2: 12533+25 to 12539+00 (C-402)	Unnamed Tributary to Lake Champlain	C/C 830-433	CS17/ 1B-S1	43.666, -73.42	Perennial	Cross over culvert (> 2' separation)	None
P1B/Seg2: 12533+50 to 12534+50 (C-402)	Unnamed Tributary to Lake Champlain	C/C 830-433	CS18	43.667, -73.419	Perennial	Avoided	None
P1B/Seg2: 12534+25 to 12535+50 (C-402)	Unnamed Tributary to Lake Champlain	Unmapped	CS19	43.666, -73.419	Perennial	Avoided	None
P1B/Seg2: 12538+25 to 12539+50 (C-402)	Unnamed Tributary to Lake Champlain	Unmapped	CS20	43.666, -73.42	Intermittent	Cross under culvert with conduit	Temporary Access Road will require temporary crossing of stream channel.
P1B/Seg2: 12565+00 to 12566+00 (C-403)	Unnamed Tributary to Lake Champlain	Unmapped	CS21	43.662, -73.429	Intermittent	Cross under culvert	None

Approximate Station & Plan Sheet	Waterbody Name	NYSDEC Classification* & State Water Index Number	Waterbody Field ID**	Coordinates (lat., long.)	Flow Status***	Avoidance & Minimization Measures	Impact
P1B/Seg2: 12576+00 to 12577+00 (C-403)	Unnamed Tributary to Lake Champlain	Unmapped	CS22	43.66, -73.431	Perennial	Cross under culvert	None
P1B/Seg2: 12579+00 to 12580+00 (C-403)	Unnamed Tributary to Lake Champlain	Unmapped	CS23	43.659, -73.432	Intermittent	Cross over culvert	None
P1B/Seg2: 12592+50 to 12596+75 (C-404)	Unnamed Tributary to Lake Champlain	Unmapped	CS24	43.655, -73.434	Perennial	Cross under culvert	None
P1B/Seg2: 12599+00 to 12599+50 (C-404)	Unnamed Tributary to Lake Champlain	C/C 830-433	CS25	43.638, -73.446	Perennial	Cross over culvert (>5' separation)	None
P1B/Seg2: 12631+00 to 12631+24 (C-405)	Unnamed Tributary to Lake Champlain	C/C 830-433	C2S4	43.647, -73.442	Perennial	Cross under culvert (2' separation)	None
P1B/Seg2: 12666+75 to 12667+00 (C-406)	Unnamed Tributary to Lake Champlain	C/C(T) 830-434	CS26, Unassessed	43.638, -73.446	Perennial	Cross under culvert (2' separation)	None
P1B/Seg2: 12711+00 to 12713+00 (C-408)	Unnamed Tributary to Lake Champlain	Unmapped	CYY	43.626, -73.445	Intermittent	Cross under culvert	None
P1B/Seg2: 12744+50 to 127745+00 (C-409)	Pine Lake Brook	C/C 830-436	CS27	43.62, -73.438	Perennial	Cross over culvert (>5' separation)	None
P1B/Seg2: 12754+50 to 12754+75 (C-409)	Unnamed Tributary to Lake Champlain	C/C 830-441	CS28	43.617, -73.436	Perennial	Cross under culvert (2' separation)	None

Approximate Station & Plan Sheet	Waterbody Name	NYSDEC Classification* & State Water Index Number	Waterbody Field ID**	Coordinates (lat., long.)	Flow Status***	Avoidance & Minimization Measures	Impact
P1B/Seg2: 12795+75 to 12796+50 (C-410)	Unnamed Tributary to Lake Champlain	B/B 830-441.1	CS29	43.606, -73.432	Perennial	Crosses over culvert (>5' separation)	None
P1B/Seg2: 12795+75 to 12796+50 (C-410)	Unnamed Tributary to Lake Champlain	Unmapped	CS30	43.606, -73.432	Intermittent	Avoided	None
P1B/Seg2: 12846+75 to 12846+00 (C-412)	Unnamed Tributary to Lake Champlain	Unmapped	CS31	43.593, -73.436	Intermittent	Cross under culvert	None
P1B/Seg2: 12853+00 to 12853+50 (C-412)	Unnamed Tributary to Lake Champlain	Unmapped	G-S-I	43.592, -73.437	Perennial	Cross under culvert	None
P1B/Seg2: 12856+50 to 12856+75 (C-412)	Unnamed Tributary to Lake Champlain	Unmapped	G-S-H	43.591, -73.438	Intermittent	Cross over culvert	None
P1B/Seg2: 12861+75 to 12863+00 (C-413)	Unnamed Tributary to Lake Champlain	Unmapped	G-S-G	43.589, -73.438	Intermittent	Cross over culvert	None
P1B/Seg2: 12863+00 to 12863+25 (C-413)	Unnamed Tributary to Lake Champlain	B/B 830-441.1	G-S-F, Unassessed	43.589, -73.438	Intermittent	Cross under culvert (2' separation)	None
P1B/Seg2: 12893+50 (C-414)	Unnamed Tributary to Lake Champlain	C/C 830-441	G-S-E	43.581, -73.44	Perennial	Cross under culvert (2' separation)	None
P1B/Seg2: 12898+75 to 12899+25 (C-414)	Unnamed Tributary to Lake Champlain	Unmapped	G-S-D	43.579, -73.44	Intermittent	Avoided	None

Approximate Station & Plan Sheet	Waterbody Name	NYSDEC Classification* & State Water Index Number	Waterbody Field ID**	Coordinates (lat., long.)	Flow Status***	Avoidance & Minimization Measures	Impact
P1B/Seg2: 12899+75 (C-414)	Unnamed Tributary to Lake Champlain	Unmapped	G-S-C	43.579, -73.44	Perennial	Cross over culvert	None
P1B/Seg2: 12902+75 to 12903+00 (C-414)	Unnamed Tributary to Lake Champlain	Unmapped	G-S-B	43.578, -73.44	Intermittent	Cross under culvert	None
P1B/Seg2: 12905+50 to 12906+00 (C-414)	Unnamed Tributary to Lake Champlain	Unmapped	G-S-AA	43.578, -73.44	Perennial	Avoided	None
P1B/Seg2: 13007+50 (C-417)	Unnamed Tributary to Lake Champlain	Unmapped	G-S-A	43.566, -73.406	Intermittent	Avoided	None

* Per 6 NYCRR Part 703. Classifications identified based on review of NYSDEC Environmental Resources Mapper (ERM).
** Unique flagging sequence used to delineate/differentiate feature in the field.
*** Based on review of USGS Topo Maps, NYSDEC ERM, and stream characteristics and hydrology sources.

8.1.1.3 Stream Protection Measures, Cleanup and Restoration

For Segment 1 and 2 no direct impacts to streams or other waterbodies (no open cut required) are anticipated with the exception of a temporary stream crossing to build an access road as noted in Table 8.1. However, in the event that culverts need to be replaced, many of the measures identified in this section to minimize potential adverse environmental impacts would be applicable. Additionally, some measures are intended to protect streams and other waterbodies by significantly limiting the potential for unintended or accidental impacts, such as fuel spills, associated with general construction activities near these resources.

Adherence to these construction procedures will increase the likelihood that stream flow and water quality will be maintained throughout construction. Most stream crossings will be completed using dry crossing techniques. Dry crossing means that the work area is kept dry either by installing control measures or by avoiding disturbance of the waterbody entirely (i.e., HDD). In the case of a culvert replacement, the work area would be kept dry by installing a cofferdam at the upstream side of the culvert and redirecting the flow either through a bypass culvert or pumping around the work area.

Specific construction timing windows indicate when the conduit installation can be performed for each waterbody. These windows are directly related to the waterbody type and stream classification designated for each waterbody. In general, the protection of significant fisheries (i.e., trout streams and streams classified with an "A" or "B") requires that construction only occur during specific dates if disturbance of the stream bed or interruption of the flow of water will occur, while waterbodies not classified as significant fisheries or waterbodies under which the conduit is installed using HDD do not always have specific construction windows (2012 BMPs, Section 26).

All designated trout streams and higher along the Project route will be avoided by crossing over or under existing culverts, which will avoid disturbance of these streams. Where the Project crosses a waterbody over or under an existing culvert, there will be no time of year restrictions because the method does not require disturbance to the bed or bank of the stream (2012 BMPs, Section 26). Should the culvert require replacement, then time of year restrictions for the work would apply.

Impacts to water quality will be minimized while work is being performed in or near streams and other bodies of water by implementing the following measures:

a) *Not applicable to Segment 1 and 2*.[5] During construction, vegetated buffers at all waterbody crossings will be maintained. Where the vegetation exists along the railroad rights-of-way, a minimum 15 foot buffer will be maintained with existing trees and shrubs except for the portion of the bank that has been cleared for the construction path. (CC # 114d) (2012 BMPs, Section 18).

b) Where HDD is proposed, all vegetation will be maintained between the HDD entry and exit points (2012 BMPs, Section 18).

c) Soil and excavated materials will be characterized and either reused or disposed of in accordance with the Soil Management Plan (Appendix L).

d) Equipment crossings will be carefully installed to minimize streambank disturbance, where applicable. Installation of stream crossings, diversions of water during construction, and removal or restoration of crossings will maintain the original stream conditions and characteristics, unless minor manipulations to prevent stream bank erosion (e.g., placements of boulders, root wads, wing deflectors) are requested or approved by the DPS and NYSDEC (2012 BMPs, Section 18).

e) In accordance with the amended CC114, in general, and to the maximum extent practicable, refueling equipment, storage mixing, or handling of open containers of pesticides, chemicals labeled "toxic," or petroleum products shall not be conducted within 100 feet of a stream or waterbody or wetland. Requirements for refueling within 100 feet of wetlands or streams will be allowed under certain circumstances identified below.

i. Refueling of hand equipment will be allowed within 100 feet of wetlands or streams when secondary containment is used. Secondary containment will

[5] In the event of an unanticipated culvert replacement. This protection measure would be implemented to the greatest extent possible and DPS would be notified of all anticipated impacts. The culvert replacement sequence detail (Sheet C-632) of the Plan and Profile Drawings (Appendix C) would be utilized, and all construction would be performed in accordance with the USACE 404 Permit.

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 100 feet from wetlands or streams in order to minimize the amount of refueling within these sensitive areas. Crews will have sufficient spill containment equipment on hand at the secondary containment location to provide prompt control and cleanup in the event of a release.

ii. Refueling of equipment will be allowed within 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 100 feet from wetlands or streams in order to minimize the amount of refueling within these sensitive areas. 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 100 feet of a wetland or stream will have sufficient spill containment equipment on board to provide prompt control and cleanup in the event of a release.

iii. Field personnel and Contractors shall be trained in spill response procedures, including the deployment and maintenance of spill response materials.

f) Limit construction vehicle access across streams and waterbodies to existing bridges and culverts and to temporary crossings installed in accordance with the provisions set forth in the approved EM&CP (CC#114f).

g) Equipment will be well maintained and checked daily for leaks (2012 BMPs, Section 18).

h) No permanent structural shoreline protection or stabilization will be used, except where such protection is pre-existing (2012 BMPs, Section 18).

i) If at some point stream impacts are unavoidable (e.g., replace a stream culvert), isolate in-stream work from the flow of water and prevent discolored (turbid) discharges and sediments from entering the water due to excavation, dewatering and construction activities (2012 BMPs, Section 18).

j) *Not applicable to Segment 1 and 2.*[6] If at some point stream impacts are unavoidable, exclude the use of heavy construction equipment below mean high water until the work area is protected by an approved structure and dewatered, except where an emergency response requires immediate action and deviation from this requirement (2012 BMPs, Section 18).

k) If at some point stream impacts are unavoidable, stabilize any disturbed banks by grading to an appropriate slope, followed by vegetating or armoring the bank to restore pre-construction conditions, to prevent erosion and sedimentation into the waterbody (2012 BMPs, Section 18).

l) Minimize soil disturbance, provide appropriate grading and temporary and permanent revegetation of stockpiles and other disturbed areas to minimize scour, erosion, and sedimentation potential (2012 BMPs, Section 18).

m) Protect all waters from contamination by deleterious materials such as wet concrete, gasoline, solvents, epoxy resins or other materials used during construction (2012 BMPs, Section 18). This will be accomplished primarily by minimizing the storage or refueling of vehicles within 100 feet of streams and wetlands to the greatest extent possible except in the certain circumstances identified in the amended CC114 above in (e). Additionally, in order to protect waters contamination construction equipment will be properly maintained and checked for leaks, concrete washouts will be properly maintained, and in most cases direct impacts to streams and other waterbodies will be avoided.

[6] In the event of an unanticipated culvert replacement. This protection measure would be implemented to the greatest extent possible and DPS would be notified of all anticipated impacts. The culvert replacement sequence detail (Sheet C-632) of the Plan and Profile Drawings (Appendix C) would be utilized, and all construction would be performed in accordance with the UACOE 404 Permit.

n) Install effective erosion control measures on the downslope of all disturbed areas and maintain them in fully functional condition. Control measures include but are not limited to stabilized construction entrances, temporary and permanent stabilization by seeding and mulching, silt fence, and other measures as identified on the Stormwater Pollution and Prevention Plan (SWPPP) (Appendix G) and Erosion and Sediment Control Plan (Appendix C). These erosion control measures are to be installed before commencing any other activities involving soil disturbance (CC#114i) (2012 BMPs, Section 18).

o) *Not applicable to Segment 1 and 2.*[7] Ensure complete removal of all dredged and excavated material, debris, or excess materials from construction, from the bed and banks of all water areas to an approved upland disposal site where not suitable for backfill or reuse (2012 BMPs, Section 18).

p) Ensure that all temporary fill and other materials placed in the waterbodies are completely removed and the original condition re-established, immediately upon completion of construction, unless otherwise directed by the NYSDEC (2012 BMPs, Section 18).

q) Monitor the status of each HDD waterbody crossing while construction activities are underway until the crossing has been completed and the stream and stream banks have been restored. In the event of any potential or actual failure of the crossing, the Certificate Holders will have adequate staff and equipment available to take necessary steps to prevent or avoid adverse environmental impacts (CC#114n).

r) Clearing of existing vegetation in wetlands or in or near waterbodies will be limited to that material necessary to allow completion of construction activities and to allow for reasonable access for long-term maintenance so as to reduce the amount of activity and disturbance to the wetland and adjacent area (2012 BMPs, Section 19).

[7] In the event of an unanticipated culvert replacement. This protection measure would be implemented to the greatest extent possible and DPS would be notified of all anticipated impacts. The culvert replacement sequence detail (Sheet C-632) of the Plan and Profile Drawings (Appendix C) would be utilized, and all construction would be performed in accordance with the UACOE 404 Permit.

s) Equipment or machinery will not be washed in any regulated wetland or adjacent area, and runoff resulting from washing operations will not be permitted to directly enter any regulated wetland or protected stream or waterbody (CC#113f).

t) Restriction of equipment and materials (including fill, construction materials, or debris) from being deposited, placed, or stored in any waterbody to the greatest extent possible (CC#114f). Materials resulting from trench excavation for utility line installation or ditch reshaping activities which are temporarily side cast into wetland will be backfilled, or removed to an upland area per USACE requirements.

u) Employment of precautions, when not feasible to move the affected vehicle or equipment from an environmentally sensitive area to a suitable access area (i.e., pumping equipment), to prevent petroleum products or hazardous materials from being released into the environment. These precautions include (but are not limited to) deployment of portable basins or similar secondary containment devices, use of ground covers (such as plastic tarpaulins), and precautionary placement of floating booms on nearby surface waterbodies (CC#114h).

v) Pumping of water from dewatering operations into a temporary straw bale or silt fence barrier or filter bag to settle suspended silt material prior to discharge. Direct discharge of sediment laden water to state- and/or federally- regulated wetlands and to streams and stormwater systems will be avoided (CC#114j).

w) Completion of backfilling operations and of cleanup and restoration of the stream crossing, banks, and bank approaches (at least 50 feet adjacent to each bank) within 24 hours. If needed, stream banks will be reestablished to original grade immediately after stream bank work is completed. The banks will then be permanently stabilized by seeding with native grasses, mulching, and, if needed, planting native shrub seedlings (CC#114o) (2012 BMPs, Section 18).

x) Clearing of existing vegetation in wetlands or in or near waterbodies will be limited to that material necessary to allow completion of construction activities and to allow for reasonable access for long-term maintenance so as to reduce the amount of activity and disturbance to the wetland and adjacent area (2012 BMPs, Section 19).

y) Equipment crossings will be constructed to allow for unrestricted flow and to prevent soil from entering streams and waterbodies. Temporary crossings will be designed and constructed to withstand the 2 year flood event at a minimum (CC#114c) (2012 BMPs, Section 18).

z) Vehicle access will be prohibited where alternative access can be provided (CC#114e).

aa) EM&CP procedures will be implemented for erosion and sediment control (in accordance with the SWPPP included with the EM&CP) early in the construction process and prior to the start of grading and excavation activities; such procedures will be maintained throughout the construction period and in accordance with SSESC (CC#114i).

bb) Spill response and cleanup procedures have been developed (refer to Spill Prevention, Control, and Countermeasure Plan (SPCC) in Appendix K) and will be implemented to minimize and respond to any accidental spills of petroleum producing chemicals or hazardous liquids that occur during construction (CC#114l).

cc) It will be required that, during the performance of any HDD waterbody crossing, Contractors monitor the use of inert biodegradable drilling solution and, in the event of a detected release of fluid, implement the procedures specified in the approved EM&CP. For any release occurring in a waterbody, the Certificate Holders will immediately notify DPS Staff and NYSDEC of details of the release and the course of action they recommend taking (CC#114m).

dd) DPS Staff or the Environmental Inspector will promptly notify the appropriate NYSDEC representative of any activity that is a significant environmental threat to a State-regulated wetland or its adjacent area, a protected stream or other waterbody, a TE species, or a State- or Federally- identified hazardous waste site or that may become a violation of CC 54, WQC, or any other Order issued in the Project proceeding pursuant to subsection (d) of CC 54, which reads: *Exercise of Stop Work Authority: If DPS Staff or the Environmental Inspector discovers a specific activity that represents a significant environmental threat that is or immediately may become a violation of this Condition, the WQC, or any other Order in this proceeding, and on-site construction personnel refuse to take appropriate action after being advised of the threat, DPS Staff and/or the Environmental Inspector may direct the field crews to stop the specific potentially harmful activity immediately. If the direction to stop work is issued by DPS Staff and Certificate*

Holders' responsible personnel are not on site, the DPS Staff will immediately thereafter inform the Construction Inspector and/or the Environmental Inspector of the action taken. The stop work order will be lifted by the DPS Staff when the situation prompting its issuance has been resolved (CC#54d).

ee) The Certificate Holders will notify DPS Staff and NYSDEC at least 5 days prior to construction involving protected stream crossings (CC#115).

ff) NYSDEC field representatives will notify the DPS Staff representative and the Certificate Holders' appropriate representative and, for wetlands within the Adirondack Park, APA of any activities that violate or may violate either the terms of this Certificate or the ECL. DPS Staff, NYSDEC field representatives, and, for wetlands within the Adirondack Park, the APA will consult in assessing site conditions and determining whether a recommendation should be made to DPS Staff to exercise its stop work authority or, alternatively, whether the Certificate Holders should be directed to take action to minimize further impacts to streams and regulated wetlands as appropriate (CC#116).

gg) Per the CC 117, the Certificate Holders have established and will implement the following program to monitor the success of stream and wetland restoration upon competition of construction and restoration activities. Per Conditions K and L of the USACE Permit, the following will determine if stream and wetland restoration is successful:

i. All plantings have an 85% survival rate
ii. All established wetland areas in conjunction with the compensatory mitigation have an 85% coverage rate of hydrophytic plants.
iii. Vegetation in newly established wetland areas do not consist of more than 5% total areal coverage of common reed grass, purple loosestrife, reed canary grass, Japanese knotwood, Tartarian honeysuckle, Eurasian milfoil, and/or other invasive species.

Per condition NN of the USACE Permit the Certificate Holders, shall provide additional monitoring reports, as directed in writing, should it be determined that the wetland mitigation success criteria listed above have not been met for 3 consecutive years.

hh) For a proposed change that would involve any State-regulated wetland or protected stream or water body, the Certificate Holders will give at least 2 weeks prior notice to

NYSDEC, and, if within the Adirondack Park, to APA., the Certificate Holders will give at least 2 weeks prior notice to NYSDEC or APA (where applicable) prior to providing notice to DPS staff of the proposed change (CC#158a).

ii) Any proposal to modify this EM&CP or a Segment EM&CP will address, but not be limited to, the following information:

i. Location of the utility, water, steam, sewer, and wastewater crossings and other nearby utility facilities, including CI facilities, and methods for protecting the cable and other facilities, including CI facilities, at those crossings and nearby locations; the plan will include detailed construction techniques, methods, and equipment descriptions for the protection of existing utilities including, but not limited to, how damage to existing utilities will be avoided and how any contingency will be met in case damage does occur, and for coordination with utilities and public service providers (CC#159c).
ii. Impact avoidance and/or minimization measures for regulated wetlands, streams, and other environmental resources including any maps and plan drawings of streams, regulated wetlands, and sensitive habitat crossing locations, site-specific stream-crossing techniques for the construction of the Facility and for the construction of any access roads to be used for such construction, and selective vegetation-clearing techniques in areas near streams or regulated wetlands (CC#159u).
iii. Details of erosion control plans, including grading and filling at the overland Construction Zone, Converter Station, and substation, so as to provide for the control of discharges incidental to the construction of the Facility, including to stormwater, groundwater, and surface waters, and meet applicable water quality standards (CC#159y).
iv. Other mitigation measures as appropriate to demonstrate compliance with other permits and approvals (CC#159ii).

8.1.2 Wetlands

There are a total of 99 wetlands identified within Segment 1 and 2 wetlands. Table 4-1 in Attachment B of the Wetland Delineation Report (Appendix M), prepared by CHA Consulting, Inc. (CHA), provides a summary of the wetlands identified along the entire length of Segment 1 and 2 (including Segment 3), including their National Wetland Inventory (NWI) classification in accordance with Cowardin et al. (1979) and State wetland identifier and classification. Of these

delineated features, 7 wetlands delineated along the Project Corridor correspond with wetlands mapped by the NYSDEC (Wetland IDs: G-H, G-G, G-F, G-E, G-C, G-B, G-A). Although a large portion of Segment 1 and 2 Project Corridor is located within the Adirondack Park, no mapped Adirondack Park Agency (APA) wetlands were identified. Table 4-3 of the Wetland Delineation Report (Appendix M) provides the soil series information assembled for the Project Corridor.

A Wetland Delineation Report (Appendix M) was provided to DEC, DPS, APA and DOS on March 3, 2022, and to the USACE on March 16, 2022 (Appendix A) in accordance with the requirements of the USACE 404 Permit and CC 133a).

The location and type of all wetland resources delineated along the full Project Corridor are shown in the EM&CP Plan and Profile Drawings in Appendix C. The precautionary measures to protect state and federal wetlands during construction are listed in Section 8.1.2.2.

8.1.2.1 Methodology

Wetland impacts for the Segment 1 and 2 Project Corridor were calculated for the 13-footwide permanent ROW for the project (includes the trench (excavation) impacts) and construction access (temporary roads, clear zones, and material side casting/stockpiling). In addition, the impacts are calculated by general vegetative community type (forested, scrub-shrub, and emergent).

8.1.2.2 Avoidance and Minimization

One of the primary goals during the preparation of the project plans and profiles is the avoidance of sensitive and/or regulated environmental resources. Initial wetland mapping was provided in the 2010 Article VII Application. The wetlands within the Project Corridor were re-delineated in 2021 in connection with preparation of this EM&CP to have a current, accurate depiction of the wetland and water resource boundaries. Wetlands were avoided to the greatest extent practicable during design. In most cases, the project could be sited within previously disturbed areas such as roads and road shoulders. In almost all cases, the alignment falls within road right of way, which is often disturbed and cleared. However, there are several instances where the wetland boundaries extend up to the toe of slope of road and options for relocating to the opposite side are not available. Additionally, several wetlands along the roads were contained within roadside ditches and although potentially regulated, they are generally of poor quality and dominated by invasive

species. The permanent impact described in Table 8.2 is a 13-foot permanent ROW, 6.5-feet on either side of the center alignment.

Protection measures, as generally described below and specifically depicted in the Erosion and Sediment Control Drawings in Appendix C, will be implemented to ensure minimization of impacts to wetlands resulting from sedimentation, erosion, turbidity, unanticipated spills, or leaks of fuel, and/or other toxic materials.

The following protection measures include (2012 BMPS, Section 19.2):

a) The Certificate Holders and their Contractors will minimize work within and across streams, wetlands, or other water resources to the extent possible during preconstruction, construction, operation, and maintenance activities. For construction, this has been accomplished as discussed above.

b) The Certificate Holders will notify DPS and NYSDEC staff, and if within the Adirondack Park, APA staff, at least 5 business days prior to construction involving state regulated wetland. There will be no temporary or permanent impacts in Segment 1 and 2.

c) Sediment and erosion control devices will be installed across the ROW on any slopes leading into wetlands and along the edge of the construction ROW, as necessary, to prevent spoil from flowing off the ROW into a wetland. Locations of sediment/erosion control devices will be identified on the Erosion and Sediment Control Plans (Appendix C).

d) To expedite revegetation of wetlands, the top 1 foot of soil will be stripped from over the trench, retained and later replaced. The exception to this requirement includes areas with standing water or saturated soils, areas where no topsoil layer is evident or areas where the topsoil layer exceeds the depth of the trench.

e) Construction vehicles and equipment will be limited to established access roads and construction workspaces depicted on EM&CP Plan and Profile drawings (see sheets C-128 and 129 of Segment 2, and C-201 of Segment 1 and 2).

f) Construction equipment operating within wetlands will be limited primarily to what is needed to dig the trench, install the cable, backfill, and restore the ROW. All other construction equipment will use access roads in upland areas to the extent practicable.

g) To minimize disturbance and compaction in wetlands with saturated soils or standing water, either wide-tracked or balloon-tired equipment operating from timber corduroy or equivalent material mats will be used. Imported rock, stumps, brush, or off-site soil as temporary or permanent fill is prohibited. Following construction, all materials used to stabilize the ROW will be removed (2012 BMPs, Section 19).

h) Construction materials, including fuels, will not be stored within 100 feet of any surface water or wetland system, unless no alternative is available. If no alternative is available, the Environmental Inspector will ensure appropriate protection measures for spill prevention and control are implemented. This may include but is not limited to temporary secondary containment as specified in the SPCC (Appendix K).

i) In accordance with the amended CC114, in general, and to the maximum extent practicable, refueling equipment, storage mixing, or handling of open containers of pesticides, chemicals labeled "toxic," or petroleum products will not be conducted within 100 feet of a stream or waterbody or wetland. Requirements for refueling within 100 feet of wetlands or streams will be allowed under certain circumstances identified below.
    a. Refueling of hand equipment will be allowed within 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 100 feet from wetlands or streams in order to minimize the amount of refueling within these sensitive areas. Crews will have sufficient spill containment equipment on hand at the secondary containment location to provide prompt control and cleanup in the event of a release.
    b. Refueling of equipment will be allowed within 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 100 feet from wetlands or streams in order to minimize the amount of

refueling within these sensitive areas. 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 100 feet of a wetland or stream will have sufficient spill containment equipment on board to provide prompt control and cleanup in the event of a release.

c. Field personnel and Contractors shall be trained in spill response procedures, including the deployment and maintenance of spill response materials.

j) Spill response and mitigation procedures will be implemented in the case of any accidental spills of chemical, fuel, or other toxic materials, as identified in Section 5.0 of this EM&CP.

k) Any temporary access routes or parking areas adjacent to wetlands and waterbodies will be graded to direct runoff away from water resources. If needed, at the determination of the Environmental Inspector, additional erosion control measures will be installed adjacent to wetlands and other water resource areas.

l) The temporary storage of spoil and excavated materials from work in or near wetlands will be avoided to the extent practicable. Any excavated material resulting from trench excavation for utility line installation or ditch reshaping activities that may be temporarily side cast into wetlands will be backfilled or removed into an upland area per USACE requirements.

m) Unless work activities resume within 7 days, the Certificate Holders will stabilize disturbed soils as soon as possible and no more than 7 days upon temporary or permanent completion of ground-disturbing activities. If soil stabilization measures are not possible within 7 days due to snow cover, frozen ground, or other weather conditions, soils will be stabilized as soon as practicable.

n) The construction ROW will be inspected periodically during and after construction until final restoration is complete. Erosion control or restoration features will be repaired as needed in a timely manner until permanent revegetation is successful.

o) Construction through regulated wetlands or adjacent areas will be done with tracked equipment or on temporary mats or geotextile/gravel access roads and will be restricted to access roads and work areas set forth on the approved EM&CP drawings, provided that the Certificate Holders' use of geotextile and gravel for access roads will not contravene the requirements set forth in Condition 77 of this Certificate (CC#113d).

p) Equipment or machinery will not be washed in any regulated wetland or adjacent area, and runoff resulting from washing operations will not be permitted to directly enter any regulated wetland or protected stream or waterbody (CC#113f).

q) If DPS Staff, in consultation with NYSDEC, determines that restoration of damage to wetlands caused by use of temporary road mats has not been adequate, the Certificate Holders will prepare a mitigation plan for impacts arising from the use of temporary road mats. Such plan will provide for compensatory mitigation in the form of a proposed project to address the loss of wetland functions, such as vegetation plantings or a project to address invasive species in wetlands (CC#118).

r) Clearing of existing vegetation in wetlands or in or near waterbodies will be limited to that material necessary to allow completion of construction activities and to allow for reasonable access for long-term maintenance so as to reduce the amount of activity and disturbance to the wetland and adjacent area (CC#113e) (2012 BMPs, Section 19).

s) Cleared vegetation, specifically woody material, will not enter wetlands and/or within one hundred (100) feet of wetland areas as such activity may impact water quality.

t) In accordance with CC 83, application of herbicides will conform to all label instructions and all applicable federal and state laws and regulations. Herbicides will not be applied within one hundred (100) feet of any public water supply (reservoirs and wellheads), or any private well-head of which Certificate Holders have actual knowledge. Applicators will reference maps that indicate treatment areas, and wetland and adjacent area boundaries, prior to treating. Applications required in seasonally flooded freshwater wetlands will be undertaken during a dry season (CC#83).

u) Pumping of water from dewatering operations into a temporary straw bale or silt fence barrier or filter bag to settle suspended silt material prior to discharge. Direct discharge of sediment laden water to state- and/or federally- regulated wetlands and to streams and stormwater systems will be avoided (CC#114j). While the dewatering system will be designed by the construction Contractor, a Sediment Dewatering Bag detail is provided on the Plan and Profile Drawings (Sheet C-602 of Appendix C) to show the general design of one of the methods that may be utilized by the construction Contractor.

8.1.2.3 Impacts

Table 8.2 describes the location and impact for each wetland and vegetative community within Segment 1 and 2. The accounting for impacts is structured to be consistent with how it was presented in the EIS and through the permitting process with USACE. This allows for a direct comparison of impacts as they relate to permit and mitigation thresholds. Permanent ROW impacts are based on the future establishment and maintenance of a 13-foot-wide ROW/easement along the cable route minus directionally drilled sections. Temporary construction impacts represent the remainder of the approximately 35-foot construction corridor (limits of clearing and disturbance).

Table 8.2 – Summary of Wetland Impacts of Segment 1/2 As Final Design

Wetland ID	Jurisdiction	Approximate Station & Sheet Number	Ecological Community Type	Permanent ROW Impacts (square feet)	Temporary Construction Impacts (square feet)	State Wetland Buffer Temporary Construction Impacts (square feet)
C-P	USACE	10146+50 to 10148+00 (Segment 1 C-405)	PEM	0	2131	N/A
C-Q	USACE	10152+50 to 10158+00 (Segment 1 C-406)	PEM	810	1979	N/A
C-T	USACE	10178+50 to 10182+50 (Segment 1 C-407)	PEM	1514	3292	N/A
C-Y	USACE	10207+00 to 10209+00 (Segment 1 C-408)	PEM	251	322	N/A
C2B	USACE	10262+00 to 10263+50 (segment 1 C-410)	PEM	0	1480	N/A
1A-D	USACE	10355+00 to 10357+00 (Segment 1 C-413)	PEM	1,025	789	N/A
CKK	USACE	12556+60 to 12558+00 (Segment 2 C-402)	PEM	390	444	N/A
G-N	USACE	12913+50 to 12921+00 (Segment 2 C-414 to C-415)	PEM	162	1756	N/A
G-H	USACE/NYSDEC (Class 1)	12957+50 to 12960+00 (Segment 2 C-416)	PEM	--	--	60,785
G-G	USACE/ NYSDEC (Class 1)	12961+00 to 12968+00 (Segment 2 C-416)	PEM	--	--	
G-F	USACE/ NYSDEC (Class 1)	12967+50 to 12969+00 (Segment 2 C-416)	PEM	--	--	
G-E	USACE/ NYSDEC (Class 1)	12977+25 to 12989+25 (Segment 2 C-416 to C-417)	PEM/PSS	--	--	55,931
G-C	USACE/ NYSDEC (Class 1)	13015+50 to 13022+75 (Segment 2 C-418)	PEM	--	--	32,168
G-B	USACE/ NYSDEC (Class 1)	13029+75 to 13033+50 (Segment 2 C-418)	PEM	--	--	16,987
G-A	USACE/ NYSDEC (Class 1)	13034+75 to 13037+00 (Segment 2 C-418)	PSS	--	--	6,476
SA-4	USACE	Construction Entrances for Ryder Road Laydown Area (Segment 1 & 2 C-201)	PEM	0	341	N/A
Total				4,152 sf 0.10 ac	12,534 sf 0.29 ac	172,347 sf 3.96 ac

Of the approximately 17.6 miles of Segment 1 and 2, the total area of temporary disturbance to wetlands is 0.29 acres (ac). Permanent ROW impacts to wetlands associated with Segment 1 and 2 is 0.10 acres. All permanent and temporary impacts are to emergent wetland communities.

The construction sequence within wetlands along Segments 1 and 2 would typically consist of vegetation clearing within the construction corridor (tree stumps would only be removed from the trench line or where necessary), removal and stockpiling of soil as needed. All clearing of vegetation and trees will follow the procedures outlined in Section 7.0. Restoration of wetlands would be completed within 24 hours after backfilling is completed.

HDD is used in some locations, such as on Lake Road and at South Bay, to reduce the level of impacts on wetlands when compared to trenching. Where used, the HDD borehole would be drilled underneath the wetland, a conduit would be pulled into the borehole, and then the transmission cables would be pulled into the conduit. The HDD drilling equipment and drill entry point would be located outside the wetland, and the drill would exit beyond the other boundary of the wetland, avoiding direct impacts on wetlands. The procedures outlined in the Inadvertent Release Plan (Appendix J) and SPCC (Appendix K) will be followed in the event of an inadvertent release of drilling fluids.

Per the CC 117 and BMP Document (2012 BMPs, Section 19), the Certificate Holders Per the certificate of conditions (condition 117), the Certificate Holders have established and will implement the following program to monitor the success of stream restoration upon competition of construction and restoration activities. Per Conditions K and L of the USACE Permit, the following will determine if stream and restoration is successful:

a) All plantings have an 85% survival rate
b) All established wetland areas in conjunction with the compensatory mitigation have an 85% coverage rate of hydrophytic plants.
c) Vegetation in newly established wetland areas do not consist of more than 5% total areal coverage of common reed grass, purple loosestrife, reed canary grass, Japanese knotweed, Tartarian honeysuckle, Eurasian milfoil, and/or other invasive species.

Per condition NN of the USACE Permit the Certificate Holders, shall provide additional monitoring reports, as directed in writing, should it be determined that the wetland mitigation

success criteria listed above have not been met for 3 consecutive years. Additional Cleanup and Restoration Requirements are included in Section 13.0 and post construction inspection requirements in Section 3.3.

8.2 ECOLOGICALLY SENSITIVE SPECIES AND HABITATS

8.2.1 Background

The material developed in the Article VII Record in this proceeding included Exhibit 121 to the Joint Settlement Proposal which provided an environmental analysis for Facility impacts to ecologically sensitive species and habitats upon which the Commission relied in issuing Certificate Holders their Certificate in April 2013. Thereafter, an Environmental Impact Statement (EIS) was prepared and finalized in August 2014 by the United States Department of Energy (DOE) in compliance with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act (NEPA) of 1969 and the DOE's NEPA regulations and other applicable regulations. Numerous federal, state, and local agencies were consulted during the preparation of the EIS. The EIS and associated biological assessment evaluated all potential environmental impacts resulting from the construction, operation, and maintenance of the Project on both terrestrial and aquatic species and habitats. In conjunction with the EIS the Certificate Holders conducted a preliminary review and identified all wildlife species, RTE plant species, candidate and special concern species and their habitats, with the potential to occur along the conduit alignment as part of the Article VII Application. The Certificate Holders also consulted with several state and federal agencies and non-governmental organizations (NGOs) during their assessment and review of TE species. These agencies and organizations included the United States Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration (NOAA), NYSDEC, and the New York Natural Heritage Program (NYNHP).

Section 7 Consultation was completed between the DOE and USFWS in 2014 and again in 2021, to address modifications to the Project. Documentation from Section 7 consultation is provided in Appendix A-Agency Correspondence.

The focus of this EM&CP and Section 8.2 will be on Segment 1 and 2 of the Project route. This segment includes the evaluated and approved alternative route known as the Putnam Extension. Given the time that has elapsed since the previous work to identify State and federally listed species and significant natural communities, a NYNHP database review was conducted to update the state species lists and significant natural communities within the Segment 1 and 2 Project route.

Additionally, the NYNHP provided a report of rare or state-listed animals and plants as well as significant natural communities in the vicinity of the Segment 1 and 2 Project Corridor on March 25, 2022 (Appendix A). For federally listed species, recent consultation letters (March 2021) between the DOE and the USFWS were reviewed (Appendix A).

8.2.2 Federally Listed Species

The USFWS has identified the following listed species within the Segment 1 and 2 Project Corridor:

1. Indiana bat (*Myotis sodalis*)- Endangered
2. Northern long-eared bat (*Myotis septentrionalis*)- Threatened

The habitat descriptions for each of the species identified as listed by the USFWS are provided below.

8.2.2.1 Indiana Bat Habitat

According to the USFWS (USFWS 2019), "suitable summer habitat for Indiana bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥5 inches dbh (12.7 centimeter) that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or thin aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat."

8.2.2.2 Northern Long-eared Bat Habitat

According to the NYNHP (NYNHP 2022a), "northern myotis are typically associated with mature interior forest and tend to avoid woodlands with significant edge habitat. Northern myotis may most often be found in cluttered or densely forested areas including in uplands and at streams or vernal pools. Northern myotis may use small openings or canopy gaps as well. In one study in northwestern South Carolina, detection of northern myotis was best predicted in mature stands but also in areas with sparse vegetation. Some research suggests that northern myotis forage on

forested ridges and hillsides rather than in riparian or floodplain forests. Captures from New York suggest that northern myotis may also be found using younger forest types. Northern myotis select day roosts in dead or live trees under loose bark, or in cavities and crevices, and may sometimes use caves as night roosts. They may also roost in buildings or behind shutters. A variety of tree species are used for roosting. The structural complexity of surrounding habitat and availability of roost trees may be important factors in roost selection. Roosts of female bats tend to be large diameter, tall trees, and in at least some areas, located within a less dense canopy. Northern myotis hibernates in caves and mines where the air temperature is constant, preferring cooler areas with high humidity."

8.2.3 State Listed Species & Significant Natural Communities

The NYNHP correspondence dated March 25, 2022 (Appendix A) identified the following species and significant natural communities:

- Timber Rattlesnake *(Crotalus horridus*)-Threatened
- Northern Long-eared Bat- Threatened
- Bald Eagle (*Haliaeetus leucocephalus*)- Threatened
- Lake Water Cress (*Rorippa aquatica*)- Threatened
- Hill's Pondweed (*Potamogeton hillii*) Threatened
- Deep Emergent Marsh
- Red Cedar Rocky Summit
- Silver Maple-Ash Swamp

The habitat descriptions for each of the state-listed species and significant natural communities are provided below.

8.2.3.1 Timber Rattlesnake Habitat

The NYNHP timber rattlesnake guide (NYNHP 2022b) indicates that "In the Northeast, this species inhabits mountainous or hilly deciduous or mixed deciduous-coniferous forests, often with rocky outcroppings, steep ledges, and rockslides (Petersen and Fritsch 1986, Brown 1993). Dens, or hibernacula, are located in rocky areas where underground crevices provide retreats for overwintering (Brown 1993). New York dens are often located in accumulations of talus below

ledges or in fractures within or underneath ledges or rock outcrops. Rattlesnakes use open canopy, rocky areas for basking, shedding, gestating, and birthing. Foraging areas are generally located within forested habitat surrounding the den."

8.2.3.2 Northern Long-eared Bat Habitat

See the habitat description provided above.

8.2.3.3 Bald Eagle

According to the NYNHP (NYNHP 2021), "Bald eagles are typically found near large bodies of water (rivers and lakes) that support a population of fish, their primary food source. Bald eagles tend to avoid areas of heavy development and human activity, however, their tolerance for human activity appears to be increasing. They will perch in tall, mature deciduous or coniferous trees that offer a wide view of the surroundings. They typically nest in forested areas adjacent to water. Their nests are large, typically 5 to 6 feet in diameter and 2 to 4 feet tall and ranging in shape from cylindrical to conical to flat, depending on the supporting tree. Although usually solitary birds, non-breeding adults and wintering birds are known to have communal roost and feeding sites."

8.2.3.4 Lake Water Cress Habitat

The NYNHP guide for lake water cress (NYNHP 2022c) indicates that this species can be found in shallow, still water. This could include rivers, lakes, backwater and oxbow areas, marly ponds and lakes and shores of larger lakes that are rocky or silty.

8.2.3.5 Hill's Pondweed Habitat

The Hill's Pondweed Guide (NYNHP 2022d) indicates that this aquatic plant can be found in alkaline waterways. These waterways include lakes, ditches, impoundments, ponds, marshes, and streams.

8.2.3.6 Deep Emergent Marsh Description (Significant Natural Community)

According to the NYNHP (NYNHP 2022e), the general description of this community is as follows, "A marsh community that occurs on mineral soils or fine-grained organic soils; the substrate is flooded by waters that are not subject to violent wave action. Water depths can range from 15 cm to 2 m (6 inches to 6.6 feet); water levels may fluctuate seasonally, but the substrate

is rarely dry, and there is usually standing water in the fall. Deep emergent marshes are quite variable. They may be co-dominated by a mixture of species or have a single dominant species."

8.2.3.7 Red Cedar Rocky Summit Description (Significant Natural Community)

The NYNHP guide (NYNHP 2022g) for this community describes it as "A community that occurs on warm, dry, rocky ridgetops and summits where the bedrock is calcareous (such as limestone or dolomite, but also marble, amphibolite, and calcsilicate rock), and the soils are calcareous. The vegetation may be sparse or patchy, with numerous lichen-covered rock outcrops. This community is often surrounded by Appalachian oak-hickory forest. Eastern red cedar (*Juniperus virginiana*) is a characteristic tree. In many examples, dead or dying red cedars may be evident, which is often associated with the severe heat stress characteristic of this community (Edinger et al. 2014)."

8.2.3.8 Silver Maple-Ash Swamp Description (Significant Natural Community)

According to the NYNHP (NYNHP 2022), "Silver maple-ash swamps are hardwood basin swamps that occur in poorly drained depressions or on poorly drained soils along the borders of large lakes or, less frequently, rivers. The sites are characterized by uniformly wet conditions, with minimal seasonal fluctuation in water levels. The tree canopy is dominated by silver maple and green ash, but typically includes a variety of other hardwood species such as American elm, red maple, swamp white oak (*Quercus bicolor*), and ironwood (*Carpinus caroliniana*). This community has a well-developed understory of tall shrubs, short shrubs, and herbaceous species. Silver maple-ash swamps often occur over calcareous bedrock, and the plant species composition may reflect this influence with the presence of calciphiles such as northern white cedar (*Thuja occidentalis*) and alder-leaf buckthorn (*Rhamnus alnifolia*)."

The following sections summarize the potential impacts on the current list of species; their general locations within this segment of the Project, where applicable; and the protection measures that the Certificate Holders and their subcontractors will follow during the construction of the transmission line. Potential impacts to significant natural communities are discussed in Section 8.2.9.

8.2.4 Impacts

During the construction of Segment 1 and 2, both upland and wetland habitats and species may be encountered. See Tables 8.3 and 8.4 for a summary of habitat presence/absence and avoidance and minimization measures for federal and state listed species, respectively.

Construction of the Project would generally include the temporary removal of vegetation, soil disturbance for trenching, dust generation, and possible temporary impacts to streams and wetlands to accommodate open cut installation of conduit. Noise and human activity would temporarily increase during construction that could result in impacts on wildlife through reduced communications ranges, interference with predator/prey detection, or habitat avoidance. The direct displacement of some wildlife species would occur during vegetation removal; however, habitat fragmentation and permanent displacement of entire breeding populations would not occur because construction activities will be in fringe habitat within or along existing road ROWs. Additionally, the intent is to avoid any habitat of rare and protected species.

Ecological communities are identified according to *Ecological Communities of New York State, Second Edition* (Edinger 2014) and *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1979). Wetland communities within the Project Corridor include palustrine emergent (PEM), palustrine scrub-shrub (PSS), and palustrine forested (PFO) wetlands, palustrine unconsolidated bottom (PUB), lacustrine limnetic unconsolidated bottom (L1UB), and lacustrine littoral aquatic bed (L2AB).

Ecological upland communities within the Segment 1 and 2 Project Corridor include mowed lawn, mowed roadside/pathway, rip rap/erosion control roadside, pastureland, cropland/field crops, successional old field, successional shrubland, beech-maple mesic forest and successional northern hardwoods.

The impact areas are primarily roadways and road ROWs within Segments 1 and 2 and as a result, no impacts to State or federally listed RTE are anticipated. If culvert replacements are required along Route 22, there is a potential to directly or indirectly impact Hill's pondweed. This is discussed further in Section 8.2.4.2. In addition to significant avoidance of habitat, BMPs have been incorporated to avoid any unintended encounters or impacts to RTE, as described in the sections to follow.

8.2.4.1 Federally Listed Species

Table 8.3 below summarizes the locations, best management practices and impacts for the federally listed species that may occur on or in the vicinity of Segment 1 and 2.

Table 8.3 – Summary of Federal Listed Species

ESA Type	Location	Best Management Practices	Impacts
ESA 4	Throughout Segment 1 and 2 in Forested Areas	a) Conduct tree clearing and tree trimming activities between October 31 and March 31. Tree clearing and tree trimming activities are not allowed between April 1 and October 30.[9] b) During the preconstruction survey, the contractors would identify large live or dead trees with peeling bark, including large specimens of shagbark hickory (*Carya ovata*), with the potential to serve as maternity or roost trees and these would be marked. Potential roost trees identified within the construction limits would be avoided where possible during construction activities.	None
ESA 9	Throughout Segment 1 and 2 in Forested Areas	a) Conduct tree clearing and tree trimming activities between October 31 and March 31. Tree clearing and tree trimming activities are not allowed between April 1 and October 30.[8] b) During the preconstruction survey, the contractors would identify large live or dead trees with peeling bark, including large specimens of shagbark hickory (*Carya ovata*), with the potential to serve as maternity or roost trees and these would be marked. Potential roost trees identified within the construction limits would be avoided where possible during construction activities.	None

More detail regarding potential impact to the Indiana bat and northern long-eared bat is presented below.

8.2.4.1.1 Indiana Bat

The Project includes potential Indiana bat summer foraging and roosting habitat. The main impact of concern is the cutting or removal of potential roost trees. See Table 7.1 in Section 7.0 for the locations where tree removal is anticipated for Segment 1 and 2. Trees with exfoliating bark (e.g., shagbark hickory) ≥ 5-inch diameter at breast height (dbh) are likely present within the Segment 2 Project Corridor clearing area. Additionally, snags and other trees ≥ 5-inch dbh with areas of peeling bark, cracks and crevices are also likely present. Therefore, potential Indiana bat roosting habitat is present.

Tree removal and tree trimming activities will be conducted during the winter months (October 31- March 31) where Indiana bats are in their winter hibernacula. Tree clearing and tree trimming activities are not allowed between April 1 and October 30. Additionally, during the preconstruction

[9] In the event of an unanticipated emergency that requires tree clearing or tree trimming during April 1 – October 30, the procedures described in Section 7.1.2 will be followed.

survey, the contractors would identify large live or dead trees with peeling bark, including large specimens of shagbark hickory (*Carya ovata*), with the potential to serve as maternity or roost trees and these would be marked. Potential roost trees identified within the construction limits would be avoided where possible during construction activities. Based on these best management practices there is no anticipated impact on the Indiana Bat.

8.2.4.1.2 Northern Long-eared Bat

The Project is within the range of the northern long-eared bat summer foraging and roosting habitat. The main impact of concern is the cutting or removal of potential roost trees. See Table 7.1 in Section 7.0 for the locations where tree removal is anticipated for Segment 1 and 2. Trees with exfoliating bark (i.e., shagbark hickory) ≥ 3-inch dbh are likely present within the Segment 2 Project Corridor cutting area. Additionally, snags and other trees ≥ 3-inch dbh with areas of peeling bark, cracks and crevices are also likely present within the Segment 2 Project Corridor cutting area. Therefore, potential northern long-eared bat roosting habitat is present.

Tree removal and tree trimming activities will be conducted during the winter months (October 31- March 31) where Indiana bats are in their winter hibernacula. Tree clearing and tree trimming activities are not allowed between April 1 and October 30. Additionally, during the preconstruction survey, the contractors would identify large live or dead trees with peeling bark, including large specimens of shagbark hickory (*Carya ovata*), with the potential to serve as maternity or roost trees and these would be marked. Potential roost trees identified within the construction limits would be avoided where possible during construction activities. Based on these best management practices there is no anticipated impact on the northern long-eared bat.

The DOE requested re-initiation of informal consultation pursuant to Section 7 of the Endangered Species Act in a letter dated March 17, 2021 (Appendix A). Minor route modifications and proposed relocation of the site of the converter station were noted. DOE's determination in their Biological Assessment is that the Project "may affect but is not likely to adversely affect the endangered Indiana bat or the threatened and northern long-eared bats critical habitat."

The USFWS responded in a letter dated March 29, 2021 (Appendix A), indicating that they concur with the above determination for Indiana bat and the northern long-eared bat.

8.2.4.2 State Listed Species

Table 8.4 below summarizes the locations, best management practices, and anticipated impacts for the state-listed species that will be encountered on or in the vicinity of Segment 1 and 2.

Table 8.4 - Summary of State-Listed Species

ESA Type	Location	Best Management Practices	Impacts
ESA 14	Segment 1: Stations 10120+00 to 10283+50	a) Prior to April 1 or the commencement of construction, an exclusionary fence will be installed along the work area to prevent foraging snakes from entering the work area. The fence should be in place between March 31st and November 1st and left in place until work is completed within a given active construction area within the portion of the Project Corridor where timber rattlesnakes may be present. All fencing should be removed upon completion and stabilization of construction areas. b) The project Environmental Inspector will inspect the work area daily for the presence of timber rattlesnakes. If a timber rattlesnake is found within the work area, the Environmental Inspector will contact a licensed rattlesnake biologist to remove snakes from the construction area prior to the start of work. c) Environmental training for Contractors and construction crews will include training on the identification of timber rattlesnake. Construction personnel will be instructed to stop work immediately if a timber rattlesnake is found within the construction area. d) If any timber rattlesnakes are discovered, the Certificate Holders and associated Contractors will report findings to the NYSDEC within 24 hours and consult with the NYSDEC for guidance to avoid and/or minimize the potential for disturbance.	None
ESA 9	Throughout Segment 1 and 2 in Forested Areas	a) Conduct tree clearing and tree trimming activities between October 31 and March 31. Tree clearing and tree trimming activities are not allowed between April 1 and October 30.[10] b) During the preconstruction survey, the contractors would identify large live or dead trees with peeling bark, including large specimens of shagbark hickory (*Carya ovata*), with the potential to serve as maternity or roost trees and these would be marked. Potential roost trees identified within the construction limits would be avoided where possible during construction activities.	None
ESA 1	Segment 1: Stations 10005+50 to 10096+50	a) Locations of bald eagle nests within 0.5 mile of construction will be identified. b) If any blasting activities are necessary within 0.5 mile of active bald eagle nests, the Certificate Holders will contact USFWS and NYSDEC for guidance to avoid and/or minimize the potential for noise-related disturbance;	None

[10] In the event of an unanticipated emergency that requires tree clearing or tree trimming during April 1 – October 30, the procedures described in Section 7.1.2 will be followed.

ESA Type	Location	Best Management Practices	Impacts
		c) If construction will occur within 660 feet of an active nest during the nest-building or breeding season (January 1-September 30), the Certificate Holders contact USFWS and NYSDEC for guidance to avoid and/or minimize the potential for noise-related disturbance. d) Environmental training for Contractors and construction crews will include training on the identification of bald eagles and location of nests. Construction personnel will be instructed to report any sightings of potential eagle nests that were not previously identified by the NYSDEC. e) If any previously unidentified eagle nests are discovered, the Certificate Holders will report findings to the NYSDEC as soon as possible and consult with the NYSDEC and USFWS for guidance to avoid and/or minimize the potential for disturbance.	
Lake Water Cress (*Rorippa aquatica*)-Threatened	Segment 1	No impacts to habitat suitable for lake water cress. 100% avoidance is anticipated.	None
ESA	Segment 1 (C-119)	100% avoidance is anticipated.	None

In addition to their federal listing, the northern long eared bat is state-listed as threatened. The NYNHP noted that the northern long-eared bat has been documented in the Town of Dresden within 2.5 miles of the project and in the Town of Hague within 4 miles of the Project. Individual animals may travel 5 miles from documented locations. Section 8.2 describes the impacts to these species. More detail regarding potential impact to the timber rattlesnake and bald eagle is presented below. Additional state-listed terrestrial species that could occur in the Segment 1 and 2 Project Corridor include the timber rattlesnake and bald eagle.

8.2.4.2.1 Timber Rattlesnake

The NYNHP has documented the timber rattlesnake within 1/3 mile of the Segment1Project Project in the Town of Putnam. Individual animals may travel 1.5 miles from documented locations. The area potentially within range of the timber rattlesnake is located in the northern portion of Segment 1, along portions of Lake Road and Route 22. According to the NYSDEC timber rattlesnake fact sheet (NYSDEC), these snakes have an active season that is from April 1 to September 31.

The project is expected to have no negligible effects on timber rattlesnake habitat such as dens and gestation areas which are not located within or adjacent to the Segment 1 Project Corridor, which consists primarily of developed highway ROW, or in close proximity. In addition, the project will not indirectly affect those critical habitats. Impacts to transient individuals can be avoided or minimized by incorporating best management practices such as conducting work procedures while

the snakes are in hibernation October 1 – March 31, constructing exclusion fencing, and employing an on-call licensed timber rattlesnake monitor to provide monitoring and removal services if construction activities must occur outside of the hibernation period. The best management practices for the timber rattlesnake that will be followed by the Certificate Holders are described in Section 8.2.5.2.

8.2.4.2.2 Bald Eagle

The NYNHP has documented bald eagle within Segment 1 and 2 within mile of the Project in Putnam Station.

According to the Conservation Plan for Bald Eagles in New York State (NYSDEC 2016), the breeding period is January 1 - September 30. For new construction (buildings, utilities, roads and other permanent structures), the plan notes that those items are not recommended within 1,320 feet of an eagle nest if there is no visual buffer. If there is a visual buffer such activities should not occur within 660 feet of the nest.

See Table 8.4 for the approximate location of the documented bald eagle occurrence which is located greater than 1,320 feet from the Project. This eagle nest location was evaluated and is anticipated to be greater than a half mile from potential areas where rock removal could require blasting. No impacts to bald eagles are anticipated.

8.2.4.2.3 Lake Water Cress and Hill's Pondweed

The NYNHP documented Hill's pondweed along the Project Corridor near Route 22 and B Lane near the border between the Towns of Dresden and Putnam. In this location, the Project Corridor is located on the opposite side of the road and therefore any direct or indirect impacts to this known location of Hill's pondweed as a result of the installation of the conduit will be avoided. However, if the culvert that connects the wetlands on either side of the road is required to be replaced, there is a potential for impact to this species. A population of Hill's pondweed was identified based on a survey conducted on July 12, 2022. The location of the plants is approximately 15 feet upstream of the culvert. As a result, it is reasonable to assume that the plants can be avoided, should culvert replacement be required. With water flow passing through the culvert from east to west, erosion and sedimentation are not expected to be a concern. Direct impacts from grading and construction can be avoided by placing construction fence between the culvert and the plants. There will be no impact to the habitat of this species anywhere else within the Project Corridor. The NYNHP documented lake water cress ¼ mile east of the Project Corridor near Dresden and is therefore not

located within the Project Corridor nor does that habitat for this species occur within the Project Corridor with the possible exception of South Bay. The crossing of South Bay will be by HDD and there will be no in-water work.

Potential impacts to the significant natural communities are discussed in Section 8.2.9.

8.2.5 Mitigation and Protection Measures

Procedures for the identification and protection of RTE animal species and their occupied habitats and RTE plants, as well as significant natural communities are intended to ensure that potential impacts are avoided and/or minimized. Measures employed will include general procedures applicable to all RTE species and their occupied habitats and RTE plants, as well as specific measures that have or will be developed through consultation with agencies including the NYSDEC and USFWS.

Protection measures from Section 16.0 of the BMP document (2012 BMPs, Section 16) for all TE species and their occupied habitats and RTE plants include the following:

a) Any known RTE species occupied habitats and locations where RTE plants have been observed to be present will be clearly marked on the EM&CP Plan and Profile drawings (Appendix C). With the exception of Hill's pondweed, no specific locations of RTE species have been identified and are therefore not shown on the plans. Potential habitat exists for the northern long-eared bat and Indiana bat based on the presence of potential summer roost trees. Based on the location of the Project Corridor within roads and road ROW, no critical habitat for the timber rattlesnake is likely present. However, it is possible that the timber rattlesnake could pass through the Project Corridor as it would be in their range within Segment 1.

b) The EM&CP Plan and Profile drawings (Appendix C) are provided to the NYSDEC, NYNHP, and DPS Staff with this submission for review of mapped occupied habitat areas and locations where RTE plants have been observed to be present;

c) Locations of known RTE species occurrences or habitat will be treated as confidential. The Certificate Holders have and will label any documents or plans containing information on RTE species as "confidential" and will provide appropriate training to employees and Contractors as to the confidential nature of this information.

d) As part of environmental training, the Certificate Holders and associated Contractors will provide training to Contractors and employees regarding known and potential RTE species and significant natural communities that may be encountered, and the identification and protection measures that are included in this EM&CP; and

e) While the Certificate Holders are responsible for ensuring the prescribed protection measures are appropriately utilized during construction, the Environmental Inspector will be responsible for implementing the prescribed protection measures as needed.

8.2.5.1 Indiana Bat and Northern Long-eared Bat

a) Segment 1 and 2 of the Project has been designed to remain outside of forested areas to the greatest extent possible. See Table 7.1 in Section 7.0 for the limited locations where tree removal is anticipated for Segment 1 and 2. The impacts to trees are limited to the width of clearing necessary to install the transmission line to minimize impacts.

b) Tree clearing and tree trimming activities will be conducted during the winter months (October 31- March 31). Tree clearing and tree trimming activities will not be allowed between April 1 and October 30 unless in the case of an unanticipated emergency as described in Section 7.1.2.

8.2.5.2 Timber Rattlesnake

a) The NYNHP has documented the timber rattlesnake within 1/3 mile of the Project in the Town of Putnam.

b) An on-call licensed timber rattlesnake monitor will be employed by the Certificate Holders if construction activities are being performed during the active season (April 1st to September 31st) within known NYSDEC mapped timber rattlesnake areas. The licensed timber rattlesnake monitor with the assistance of the Environmental Inspectors will ensure all protection measures for the timber rattlesnake are adhered to. If a timber rattlesnake is found within the work area, work will be halted, and the on-call licensed timber rattlesnake monitor will be contacted immediately to remove the snake from the construction area to NYSDEC approved locations prior to the start of work.

b) For Segment 1, an exclusionary fence will be installed along the work area to prevent foraging snakes from entering the work area. This exclusionary fence will be installed prior to April 1, the start of the active season of the timber rattlesnake. If the exclusionary fence cannot be installed prior to April 1st, the fence will be installed prior to the commencement

of work in the Project Corridor where timber rattlesnakes may be present. Based on information provided by the NYNHP, the potential presence of timber rattlesnakes will be limited to the northern portions of Segment 1. All fencing should be removed within 14 days upon completion and stabilization of construction areas. The exclusionary fence should be constructed in accordance with the following design specifications:

i. Made of 1/4" square hardware cloth or wire mesh
ii. A minimum of 48" in height
iii. Installed in the ground with reinforcement bars placed on the "disturbance side" of the barrier and spaced approximately 6-8 feet apart
iv. The barrier should be secured at the base with at least 6 inches of fence material covered with soil/backfill.
v. The barrier should be placed away from trees or cleared woody material in order to ensure the effectiveness of the barrier.
vi. The barrier should surround the majority or entirety of the work area if possible.

d) The exclusionary fencing should be inspected daily during the active season April 1st to September 31st by the Environmental Inspector to ensure no snakes are trapped within the area and to confirm the fence remains effective in excluding snakes. If a timber rattlesnake is found within the work area, the Environmental Inspector will contact a licensed rattlesnake biologist to remove snakes from the construction area prior to the start of work.

e) Environmental training for Contractors and construction crews will be provided by the licensed timber rattlesnake monitor with the assistance of the Environmental Inspector. This will include training on the identification of timber rattlesnake and the procedures to be followed if a snake is observed within the active work area. If a snake is observed within the exclusionary fencing by a Contractor or a member of the construction crew, work should be halted immediately, and the on-call timber rattlesnake monitor notified immediately so that the snake can be safely removed and relocated to an NYSDEC approved location. If a snake is observed outside of the active work area, construction activities may continue, however the timber rattlesnake monitor will be notified immediately to ensure the snake does not enter the work area.

f) As described in CC 52, the Certificate Holders and associated contractors shall promptly notify (within 24 hours) DPS Staff, NYSDEC, and the USFWS if any timber rattlesnakes are observed to be present in the Project Corridor so as to determine the appropriate measures to be taken to avoid or minimize impacts. If necessary to avoid or minimize impacts to such species or as directed by DPS Staff, the Certificate Holders shall stabilize

the area and cease construction or ground disturbing activities in the Project Area until DPS Staff have determined the appropriate protection measures have been implemented (CC#52). As needed NYSDEC will provide the licensed timber rattlesnake monitor with an area to re-locate the rattlesnakes if individuals are observed to be present in the Project Corridor.

8.2.5.3 Bald Eagle

While it is unlikely the bald eagle will be impacted by the construction of the Project, the following protection measures from Section 16.2 of CHPE BMPs document (2012 BMPs, Section 16) as well as Appendix G- Applicant-Proposed Impact Avoidance and Minimization Measures will be implemented if any previously unidentified nests are discovered:

a) During the preconstruction survey, the locations of bald eagle nests within 0.5 mile of construction will be identified.

b) If construction will occur within 660 feet of an active nest during the nest-building or breeding season (January 1- September 30), the Certificate Holders contact USFWS and NYSDEC for guidance to avoid and/or minimize the potential for noise-related disturbance.

c) If any blasting activities are necessary within 0.5 mile of active bald eagle nests, the Certificate Holders will contact USFWS and NYSDEC for guidance to avoid and/or minimize the potential for noise-related disturbance.

d) Environmental training for Contractors and construction crews will include training on the identification of bald eagles and location of nests. Construction personnel will be instructed to report any sightings of potential eagle nests that were not previously identified by the NYSDEC.

e) If construction will occur within 660 feet of an active nest during the nest-building or breeding season (January 1- September 30), the Certificate Holders contact USFWS and NYSDEC for guidance to avoid and/or minimize the potential for noise-related disturbance.

f) As described in CC 52, the Certificate Holders and associated contractors shall prompt (within 24 hours) notify DPS Staff, NYSDEC, and the USFWS if any Bald Eagles or

previously unidentified eagle nests are observed to be present in the Project area so as to determine the appropriate measures to be taken to avoid or minimize impacts. If necessary to avoid or minimize impacts to such species or as directed by DPS Staff, the Certificate Holders shall stabilize the area and cease construction or ground disturbing activities in the Project Area until DPS Staff have determined the appropriate protection measures have been implemented (CC#52).

8.2.6 Unanticipated Discovery of Threatened and Endangered Species

In the event RTE wildlife species are encountered during the preconstruction or construction phases of the Project that were not identified previously, the following measures from Section 16.3 of the BMP document (2012 BMPs, Section 16) will be implemented:

a) The Environmental Inspector will identify the area of the sighting or encounter, flag the boundaries of the newly identified occupied habitat or locations where RTE species have been observed to be present along the overland portions of the cable route, and record GPS locations of the likely habitat boundary.

b) Any unanticipated sightings or observations of RTE species will be reported as soon as possible to DPS Staff, NYSDEC, and/ or USFWS. The Certificate Holders will consult with applicable resource agencies for measures to avoid and/or minimize impacts to RTE species and their occupied habitat (CC#52).

c) If RTE species or their occupied habitats are discovered during construction activities, the Certificate Holders and associated Contractors will temporarily halt construction activities, excepting any activity required for immediate stabilization of the area, to avoid and/or minimize the impacts to the species or habitat. Construction activities in the area will resume once protective measures, developed in consultation with DPS Staff, NYSDEC, or USFWS, are implemented (CC#52).

d) If new RTE species occupied habitat is identified or RTE plants are observed and verified, EM&CP Plans will be updated to show the new RTE occupied habitat(s) and locations of RTE plants. Areas of RTE occupied habitat and locations of RTE plants along the overland route will also be flagged in the field.

e) Construction personnel will be updated on the locations of any new RTE species or occupied habitats that are identified. These areas will be reported to the applicable resource agencies.

8.2.7 Significant Natural Communities

The significant natural communities that could occur in the Segment 1 and 2 Project Corridor include deep emergent marsh, red cedar rocky summit, and silver maple-ash swamp community.

The deep emergent marsh and silver maple-ash swamp have been identified within the Project Corridor. Specifically, the NYNHP has indicated that the deep emergent marsh is an enormous marsh complex that occupies 50 percent of the upper portion of Lake Champlain. The NYNHP also indicated that the silver maple-ash swamp is located in a narrow strip along the west shore of Lake Champlain in the Town of Dresden near Chubbs Dock. The most likely area of potential impact is the HDD crossing at South Bay of Lake Champlain. This area likely coincides with the general area described as deep emergent marsh. However, specific mapping for this community and the other communities described by the NHP are not currently available. It is anticipated that the HDD crossing will be accomplished without any impacts to the lake. However, in the event that there are inadvertent returns of drilling fluids in the lake, there is an Inadvertent Release Plan that will address this impact and clean up the sediments that may be deposited on the lake bottom (Appendix J).

The Project does not propose impact to forested wetland, therefore, there would be no impact to silver maple-ash swamp. The Project does not propose impact to forested wetland, therefore, there would be no impact to silver maple-ash swamp.

The NYNHP identified 3 areas of red cedar rocky summit in proximity to Segment 1. The first is located in the vicinity of station 10331+00, and is mapped approximately 350 feet off of Route 22. The second location is in the vicinity of station 10310+00, and is mapped approximately 525 feet off of Route 22. The third is in the vicinity of station 10274+00 and is approximately 960 feet from Route 22. All three of the areas are well beyond the Project Corridor. The work in these areas will be completed along the roadside and will not impact the red cedar rocky summit community.

While it is unlikely the significant natural communities will be impacted from the construction of the Project, the following protection measures from Section 16.2 of CHPE BMPs document (2012 BMPs, Section 16) will be implemented to protect significant natural communities:

a) Significant natural communities will be shown on the EM&CP Erosion and Sediment Control drawings if specific mapping is made available by NYSDEC and if the communities occur within or immediately adjacent to the Project Corridor.

b) The EM&CP drawings will be provided to the NYSDEC, NYS Natural Heritage Program, and DPS Staff for review of significant natural community mapping prior to start of construction.

c) Significant natural communities within or adjacent to the construction work space will be clearly flagged in field prior to the start of vegetation clearing or construction activity. Currently the limits of the South Bay are mapped and on the plans. We do not anticipate any of the remaining communities will be located adjacent to the Project Corridor and therefore will not require mapping or flagging/marking.

d) Access through or impact to any significant natural communities will be avoided and/or minimized.

e) If access through a significant natural community is unavoidable, the Certificate Holders will develop additional measures, in consultation with appropriate agencies as applicable, to avoid and/or minimize any potential impacts. This is addressed by the use of HDD to cross South Bay should this area be determined to be part of the deep emergent marsh community.

8.2.8 Other Environmentally Sensitive Areas

There were no other sensitive land uses and resources identified within or adjacent to Segment 1 and 2 of the Project Corridor that may be affected by the construction of the transmission cable or by the construction related traffic. If such sensitive land uses and resources are discovered during construction, the necessary schedule adjustments will be made to minimize impacts on these resources including consideration for scheduled events at historical or cultural sites. Based on review of the New York State Coastal Atlas (NYSDOS), no significant coastal fish and wildlife areas were determined for this segment of the Project.

8.3 INVASIVE SPECIES MANAGEMENT

The Certificate Holders have identified certain invasive species as occurring or potentially occurring along Segment 1 and 2 primarily based on the wetland field survey (Appendix M). The Certificate Holders have included Best Management Practices (BMPs) in this section to control the transport of invasive plant species from areas where they occur along the Segment 1 and 2 Project Corridor. Measures such as training personnel in the identification of invasive species, inspecting and cleaning vehicles, and equipment, and practices to encourage rapid stabilization, restoration and revegetation of disturbed work areas, have been incorporated to minimize adverse impacts due to invasive species (2012 BMPs, Section 21.0). An Invasive Species Control Plan (Appendix N) was created for the entire overland portion of the project, referencing BMPs from the Environmental Energy Alliance of New York (EEANY), New York Utility Company Best Management Practices for Preventing the Transportation of Invasive Species (2015).

8.3.1 Species Descriptions within Segment 1 and 2

A list of invasive plant species developed by the NYSDEC and (NYSDAM) is provided in *New York State Prohibited and Regulated Invasive Plants (2014)* Appendix N. There has been no comprehensive survey for Invasive species for Segment 1 and 2. However, based on the wetland delineation performed for this Segment during October and December 2021, invasive species were encountered in uplands and wetlands throughout the Project Corridor, occurring as individual plants or groupings of plants. Specific locations of individual species were not necessarily recorded. However, a large stand of Japanese knotweed (*Fallopia japonica)* was identified on the east side of NY Rt 22. A comprehensive list of known invasive species encountered within the entire overland portion of the Project Corridor is provided in Appendix N.

8.3.2 Measures to Prevent or Control the Transport of Invasive Plant Species

On a Project-wide basis, the Certificate Holders will perform the measures outline below (2012 BMPs, Section 21.1.1) to prevent or control the transport of invasive species in accordance with applicable regulations and guidance from NYSDEC and the New York Invasive Species Council. No pre-construction survey for invasive species have been conducted for Segment 1 and 2 but invasives are known to occur throughout. The following measures will be implemented:

8.3.2.1 Pre-construction Measures

Prior to construction, an Environmental Monitor or other qualified professional will conduct training to educate the Project Contractor(s) and subcontractor(s) on identifying invasive plant species and the site-specific protocol for preventing or controlling their transport throughout or off of the Project Site as identified in the Invasive Species Control Plan (See Appendix N of this EM&CP). These protocols include the various cleaning or decontamination methods to be used on the Project. In addition, the Contractors will be instructed to stay within access paths and work areas that are designated on the EM&CP Plan & Profile drawings to minimize ground disturbance (2012 BMPs, Section 21.1.1.).

The Environmental Monitor will inspect work areas each day prior to work beginning to identify invasive species and notify the Contractor of the procedures needed to remove these species from the work area and properly dispose of them in a licensed landfill.

Sediment and erosion control devices (See Appendix C) will be installed across the construction right-of way on slopes leading into wetlands and along the edge of the construction ROW to prevent spoil from migrating into these areas. This will also help to prevent the dispersion of seeds from invasive plant species into un-infested areas during construction (2012 BMPs, Section 21.1.1).

8.3.2.2 Construction Measures for Overland Activities

a) Vehicles (including trailers) machinery, equipment, and materials (including swamp mats) will be inspected for, and cleaned of, any visible soils, vegetation, and debris **before** bringing them to the Site or moving them to the next construction area along the construction ROW (2012 BMPs, Section 21.1.1). The above measures are specified under the EEANY, New York Utility Company Best Management Practices for Preventing the Transportation of Invasive Species (2015) (Appendix N) and the BMP Document (2012 BMPs, Section 19).

b) Equipment used in areas containing invasive plant species will be cleaned using pneumatic brushes and brooms. If sufficient space is not available or is precluded by terrain to provide a cleaning station on site, upon approval of the Environmental Inspector, cleaning may occur adjacent to the infested area provided that the wash water does not discharge within

100 feet of any stream or stormwater conveyance. Hand tools (brush, broom, screwdriver, shovel) may be allowed per direction of the Inspector.

c) Loose plant and soil material that has been removed from clothing, boots and equipment, or generated from cleaning operations will be a) rendered incapable of any growth or reproduction, b) appropriately disposed of off-site, or c) handled as follows (2012 BMPs, Section 21.1.1).

d) In the areas that remain infested with invasive plant species following completion of work, the invasive material cleaned from equipment used within the same construction area may remain within the infested area, provided that no filling of a wetland will occur.

e) If disposed of off-site, the plant and soil material will be transported in a secure manner. Any off-site disposal must occur at either a landfill-incinerator or a State-approved disposal facility.

f) Revegetation of wetlands will be expedited by stripping the topsoil from over the trench, except in areas with standing water or heavily inundated soils, or where no topsoil layer is evident or where it exceeds the depth of the trench. Topsoil will then be stockpiled separately from subsoil to insure preservation of the native seed bank. It is likely that areas containing invasive species will have a significant invasive species seed bank; however, the intent is not to restore native species to areas of invasive species dominance but rather to prevent the spread of these species to other locations.

g) Following conduit installation, the disturbed areas will be backfilled and the area recontoured to its original grade. Segregated topsoil will be replaced and natural drainage patterns restored to facilitate natural re-establishment of native vegetation.

h) The restored ROW will be seeded with an invasive species free seed mix and mulched (See Appendix G – SWPPP) immediately after final regrading to create a rapid cover over the disturbed ROW and to encourage the establishment of native species. However, it is recognized that the soils in currently infested areas are likely to have a significant seed bank of invasive species and that they will likely continue to dominate. which typically colonize disturbed sites.

i) Expediting construction in and around wetlands and limiting the amount of equipment and construction activities within wetlands will reduce the amount and duration of disturbances. In addition, equipment used will be tracked or balloon-tired, often operating on top of timber mats or corduroy. This will minimize the amount of heavily disturbed soils in which invasive species might colonize.

j) To the extent practicable, water for dust control and other uses will come from municipal water supplies or other potable sources. If surface waters are used, equipment will be disinfected afterwards.

k) To the extent practicable, the movement of invasive-plant-infested soils, gravel, rock, and other fill materials to relatively-invasive-plant-free locations will be avoided. Soil, gravel, rock, and other fill material will come from invasive-plant-free sources on and off the site, if such sources are available.

l) Revegetation of disturbed areas will utilize seed and other plant materials that have been checked and certified as noxious-weed-free, as described in Section 20.6 of the BMP Document (2012 BMPs, Section 20.6) and/or the SWPPP (See Appendix G).

8.3.2.3 Construction Measures Within the Adirondack Park

The following additional procedures will be followed to monitor invasive species within and immediately adjacent to the construction ROW along County Route 3, Lake Road, and Route 22 Travel Corridor (See Table 1.5 for a description of the Adirondack Park location within Segment 1 and 2):

a) The Environmental Inspector will record the presence/absence and abundance of invasive species prior to construction.
b) The Certificate Holders will arrange for post construction annual surveys for a period of up to 4 years after Segment 1 and 2 completion.
c) Control Measures in Appendix N and BMPs within this EM&CP will be employed in the event that there is a significant change in the composition of invasive species within the Segment 1 and 2 area of disturbance.

8.3.2.4 Additional Construction Measures

Because Segment 1 and 2 construction is not occurring within streams or waterbodies, the BMP to minimize the spread of aquatic invasive species do not apply. However, they are described in

the following section to provide information in the event that an unanticipated construction activity results in the potential for the introduction or spread of aquatic invasive species. The BMP Document (2012 BMPs, Section 21.4) identifies additional invasive species that are either known to occur or have the potential to occur within the shallow and deep-water habitats within Lake Champlain and the fringing lacustrine wetlands within its embayments. These include zebra mussel (*Dreissena polymorpha*), spiny water flea (*Bythotrephes cederstroemi*), rusty crayfish (*Orconectes rusticus*), Eurasian water milfoil (*Myriophylum spicatum*) and water chestnut (*Trapa natans*). In accordance with BMP Section 21.4, the Certificate Holders will perform the following measures to prevent or control the transport of these invasive species:

a. All construction equipment that has been in contact with standing or flowing water will be carefully inspected and thoroughly washed-down prior to moving to another location to remove potentially infested water, attached mussels (and other epiphytes), spiny water fleas, rusty crayfish (or other macrocrustaceans), plant materials and soil.
b. Should construction need to occur within an area identified as containing Eurasian water milfoil and/or water chestnut, existing plant beds will be avoided where possible and construction will take place only during the non-germination periods.

8.3.2.5 Post-construction Measures

Monitoring revegetation of disturbed areas will occur following construction until coverage requirements identified in Section 8.1.2.3 above and/or the SPDES SWPPP (See Appendix G) have been achieved.

8.3.3 Measures to Prevent or Control the Transport of Invasive Insect Species

The BMP Document (2012 BMPs, Section 21.2) identifies the Asian longhorned beetle (*Anoplophora glabripennis*) and the emerald ash borer (*Agrilus planipennis*) as 2 invasive insects that the NYSDEC has identified as a potential problem to native trees and vegetation. If, during construction, these insects are found, they will be reported to the NYSDEC regional forester. In addition, prior to construction, training will be conducted to teach project Contractor(s) and subcontractor(s) to identify invasive insect species and the Project- wide protocol for reporting such insects to the NYSDEC regional forester. Unmerchantable timber will be provided as firewood to interested parties pursuant to the substantive requirements of NYSDEC's firewood restrictions to limit the spread of invasive insect species found in 6 NYCRR Part 192.5.

9.0 NOISE AND NOISE MITIGATION PLAN

Construction of the overland portion of the transmission line would is anticipated to cause a temporary increase in noise levels along Segments 1 and 2 consistent with a large construction project. The Project will not result in any permanent increases to noise levels along the Segment 1 and 2 Project Corridor. The sections below summarize the noise control and mitigation measures for Segments 1 and 2.

Overland transmission cable installation requires a wide range of site preparation and construction activities and equipment that generate temporary noise increases. Table 9.1 summarizes the types of equipment and activities that may occur during construction of Segments 1 and 2 of the Project as well as their typical associated noise level. Some of the equipment listed may have multiple uses during the construction phase but is listed under its primary use.

Table 9.1 – Noise Impact Summary

Use	Type of Equipment	Equipment Noise Level at 50 feet, dBA
Site clearing and earth moving operations.	Bulldozer	86
	Loader	78
	Excavator	80
	Dump Trucks	84
Compaction during earth moving operations.	Vibratory Drum Compactor	73
Vegetation and tree clearing.	Kershaw mower	85
	Mower	75
	Hydro-ax	85
	Chainsaw	85
Resurfacing	Crawler Tractor	82
	Sandblaster	85
	Asphalt paver	85
Cable and conduit installation.	Backhoe	80
	Cable puller	85
HDD	Directional drilling rig	85

Data is compiled from FHWA 2006 Handbook.

Note: Data is provided for illustrative purposes only and may not be representative of final equipment used during Project construction.

HDD installation activities within Segments 1 and 2 would result in temporary noise level increases at nearby noise-sensitive receptors. Noise generated from the HDD operation would be relatively constant and, at a level of up to 89 dBA within 100 feet (30 meters) of the HDD equipment, slightly louder than typical construction noise levels. HDD operations would be in place for up to approximately 2 weeks, and, where warranted, the Certificate Holders will perform the noise minimization measures described below and in Section 9.2.

Overland construction would generally occur approximately 100 to 500 feet (30 to 152 meters) from residences and users of recreational resources along the overland portions of the Project. However, in a few places along the transmission line route, construction activities would occur within 100 feet (30 meters) of residences. Noise at these distances could result in speech or sleep interference in areas for individuals located close to the operating construction equipment. Certificate Holders-proposed measures such as equipping construction equipment with appropriate sound-muffling devices (i.e., Original Equipment Manufacturer (OEM) or better), always maintaining equipment in good operating condition, and limiting high-noise construction activities to daylight hours in areas with sensitive noise receptors will minimize impacts. The Certificate Holders will notify residents ahead of time regarding construction activities in residential areas traversed by Segments A and B.

HDD operations would be in place for up to approximately 2 weeks, and, where warranted, the Certificate Holders will perform the noise minimization measures described in Section 9.2.

Construction of the Project will comply with applicable noise policies and laws, unless otherwise waived by the Commission.

9.1 NOISE SENSITIVE RECEPTORS

Significant or sensitive noise receptors include, but are not limited to, residences, schools, hospitals and libraries. All noise generated by the construction of the Project along Segments 1 and 2 will be temporary and therefore impacts on any noise receptors will also be temporary. The noise receptors that occur near Segment 1 and 2 at various points include residences and businesses. Buildings that occur within the vicinity of Segment 1 and 2 are shown on the design drawings in Appendix C. because the majority of Segment 1 and 2 is located along the road ROW, the majority of noise receptors already experience ambient noise levels typical of a trafficked road ROW. The

procedures described in Section 9.2 will ensure that Project-related noise at residences in the vicinity of the Segment 1 and 2 is minimized.

9.2 NOISE CONTROL MEASURES

9.2.1 Noise Control Measures for Equipment and Linear Construction

Noise control measures for conduit construction include the following:

a) Locating equipment yards and marshalling areas away from noise-sensitive receptors as practical;
b) Installing improved mufflers on heavy construction equipment when used in close proximity to noise sensitive areas;
c) Utilizing low-noise technologies (e.g., vibratory pile drivers) as appropriate; and
d) Limiting high noise level construction activities (e.g., wood chipping, pile driving, rock drilling, blasting, excavation and loading) to daylight hours as much as possible when construction is conducted in close proximity to noise-sensitive receptors.

9.2.2 Noise Control Measures for Point Source Producers

Noise control measures for point sources (e.g., HDD, or other activities that remain in a single location for an extended period of time) may include the following:

a) Limiting construction to daylight hours as much as possible when construction is conducted in close proximity to noise-sensitive receptors[11]; and
b) Installing of temporary wooden sound barriers to reduce noise levels.

[11] There may be instances when construction will be required outside of these working hours for safety or operational purposes (e.g., HDD boring). The Certificate Holders and/or Contractor will inform the DPS and local municipalities forty-eight (48) hours in advance.

10.0 CULTURAL RESOURCES

Cultural resources include archaeological and historic architectural resources that are listed on, eligible, or potentially eligible for listing on the National Register of Historic Places (NRHP). Table 10.1 summarizes the generalized locations of cultural resources, anticipated impacts, and the protection measures that will be implemented along Segment 2. There were no cultural resources identified within Segment 1. Impacts to cultural resources identified within Segment 2 as well as associated protection and mitigation measures are described in the Cultural Resource Management Plan (CRMP) included in Appendix O as required per the BMP Document (2012 BMPs, Section 17).

Table 10.1 – Segment 1 and 2 Cultural Resources

Segment	Cultural Resource Name	Location	Impact	Protection Measure
2	Wreck A5: Canal Boat	South bay Crossing	Avoidance/No Impact	HDD
2	Wreck D5: Steamboat Reindeer	South bay Crossing	Avoidance/No Impact	HDD
2	Wreck E5: Canal Boat	South bay Crossing	Avoidance/No Impact	HDD
2	Wreck F5: Canal Boat	South bay Crossing	Avoidance/No Impact	HDD
2	Wreck G5: Canal Boat	South bay Crossing	Avoidance/No Impact	HDD
2	Wreck H5: Canal Boat	South bay Crossing	Avoidance/No Impact	HDD
2	Wreck I5 Canal Boat	South bay Crossing	Avoidance/No Impact	HDD
2	Wreck J5: Canal Boat	South bay Crossing	Avoidance/No Impact	HDD
2	Wreck K5; Canal Boat	South bay Crossing	Avoidance/No Impact	HDD

The CRMP (Appendix O) includes provisions for identifying traditional cultural properties in consultation with Native tribes whose ancestorial land may potentially be affected by Project construction or operation. The procedures for determining the appropriate treatment, avoidance, or mitigation of Project effects on these resources have been developed in consultation with the affected Native tribe, the NYSHPO, and the other Consulted Parties, as appropriate. The CRMP (Appendix O) has been approved by the NYSHPO.

The Certificate Holders will avoid creating adverse impacts on heritage resource sites, archeological sites, historic structures, and underwater cultural resources in the vicinity of the

Project by implementing location, design, vegetation management, resource protection, and construction scheduling measures as specified in the CRMP (Appendix O) and CC 107 (CC#107).

Hartgen Archeological Associates will act as the Consulting Archeologists (CA) and will work closely with the Project Preservation Officer (PPO). The CA will be responsible for training the PPO construction personnel on the identification of archaeological remains and the procedures for notification of the PPO when archaeological remains and the procedures for notification of the PPO when archaeological remains have been discovered or are believed to have been uncovered. The CA will develop a mandatory, hands-on workshop to familiarize construction personnel with examples of the types of artifacts that may be uncovered in the ground. The PPO and the construction team will have an understanding of cultural resources present in different areas as well as an understanding of the potential of encountering unknown cultural deposits. Per the CRMP (Appendix O), the PPO will be present for all ground disturbing activities and will have "stop work" authority. The PPO will have the authority to cease excavation or construction work. In the event of encountering cultural materials or human remains, it is the responsibility of the PPO to halt construction activities and contact and coordinate with the CA to visit the location of the discoveries as quickly as possible. In the event of these discoveries, the CA will have up to 3 workdays to excavate and remove cultural material from the APE before the construction continues. The Consulting Archaeologist, in consultation with the PPO and the NYSHPO, may request additional archeological field assistance to complete the necessary work in a timely manner. It is the responsibility of the PPO to work with the appropriately trained archeologists to ensure that the survey and assessment of any change in the APE is completed prior to construction taking place.

The Certificate Holders will refrain from undertaking construction in areas where archeological surveys have not been completed and until such time as the appropriate authorities, including NYSHPO and DPS Staff, have reviewed the results of any additional historic properties and archeological surveys that are required. Areas where archeological surveys have not been conducted include all areas outside of the Facility ROW.

10.1 UNANTICIPATED DISCOVERY OF ARCHAEOLOGICAL RESOURCES

The specific procedures for the unanticipated discovery of archaeological resources during Project's construction were developed in consultation with the necessary State, Federal, and Local agencies and described in the CRMP (Appendix O). As specified in the CRMP, should archeological materials be encountered during constructions, the Certificate Holders will stabilize

the area and cease all construction activities in the immediate vicinity of the find, and protect the site from further damage. As stated in the BMP Document, typically, measures and barriers to avoid known archaeological sites include installation of temporary fencing, and site delineation of Facility maps. Specific control measures and barriers will be developed in consultation with the NYSHPO and other Consulted Parties, as appropriate. In addition, cultural resources sensitivity training will be provided to all Contractors and others that will be working on the Facility in a capacity that has the potential to cause ground disturbing activities in areas of known historic properties or areas where construction preparation work is being conducted prior to archaeological assessment of the area (2012 BMPs, Section 17). Within 24 hours of such discovery, the Certificate Holders will notify and seek to consult with DPS Staff and the OPRHP Field Services Bureau to determine the best course of action. The Project PPO must be notified immediately upon discovery of cultural resources and the PPO must notify the CA. No ground-disturbing activities will 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 have been determined.

10.2 UNANTICIPATED DISCOVERY OF HUMAN REMAINS

As described in the CRMP (Appendix O), should human remains or evidence of human burials be encountered during the conduct of archeological data recovery fieldwork or during construction, all work in the vicinity of the find will be halted immediately and the site will be protected from further disturbance. Within 24 hours of any such discovery, the Certificate Holders will notify the DPS Staff and NYSHPO Field Services Bureau. Treatment and disposition of any human remains that may be discovered will be managed in a manner consistent with the Native American Graves Protection and Repatriation Act (NAGPRA); the Advisory Council on Historic Preservation's (ACHP) Policy Statement Regarding Treatment of Burial Sites, Human Remains, any Funerary Objects (February 2007); and NYSHPO's Human Remains Discovery Protocol. All archaeological or remains-related encounters and their handling will be further reported in the status reports summarizing construction activities and reviewed in the site-compliance audit inspections. The following measures will be implemented in accordance with the BMP Document (2012 BMPs, Section 17):

a) Any human remains discovered will be treated with the utmost dignity and respect.
b) Work in the general area will stop immediately, and the area will be physically secured and a barrier prohibiting vehicles, equipment, and unauthorized persons from accessing the discovery site will be put in place. The site will be protected from damage and disturbance to the fullest extent possible.

c) Human remains and associated artifacts will be left in-situ and not disturbed. No human remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place.
d) The Certificate Holders will contact local law enforcement, the county coroner's office, the NYSHPO, and Native tribes, as appropriate. Local law enforcement officials, and the county coroner's office will examine the remains to determine if the remains are forensic or archaeological.
e) Within 24 hours of any such discovery, the Certificate Holders will notify the DPS Staff and OPRHP Field Services Bureau/NYSHPO. Treatment and disposition of any human remains that may be discovered will be managed in a manner consistent with the Native American Graves Protection and Repatriation Act ("NAGPRA"); the Council's Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects (February 2007); and NYSHPO's Human Remains Discovery Protocol. All archaeological or remains-related encounters and their handling will be reported in the status reports summarizing construction activities and reviewed in the site compliance audit inspections.
f) If the remains are determined to be Native American, the remains will be left in-situ and protected from disturbance until a plan for their protection or removal can be generated. The Certificate Holders will notify the NYSHPO and Native tribes within 24 hours (during normal business hours) or as soon as possible after the discovery has been determined to be archaeological rather than forensic. The Certificate Holders will consult with the NYSHPO and Native tribes to develop a plan of action, consistent with the guidance provided in the NAGPRA, the Council's 2007 Policy Statement, and the OPRHP/NYSHPO's Human Remains Discovery Protocol. Avoiding further disturbance of the remains is the preferred option.
g) If the human remains are determined to be non-Native American, the remains will be left in-situ and protected from disturbance until a plan for their avoidance or removal can be generated. The Certificate Holders will consult with the NYSHPO and other appropriate parties to determine a plan of action.
h) Work will resume only after the completion of the necessary consultation and treatment.

The Certificate Holders will respond promptly to any complaints of negative archeological impacts during the Project's construction and will consult with NYSHPO, the Advisory Council on Historic Preservation (ACHP), Native tribes, and other appropriate parties identified in the CRMP to resolve adverse effects on historic properties and determine the appropriate avoidance, treatment, or mitigation measure.

11.0 ROADWAY CONSTRUCTION AND MPT PLAN

During Segment 1 and 2 construction, minor and temporary impacts to existing transportation and infrastructure will likely occur where they are crossed or paralleled by the Project, where construction occurs within a highway ROW, and/or where construction vehicles are entering and existing the Construction Zone from a local roadway. In areas where the Segment 1 and 2 crosses existing infrastructure, such as Route 3 and Highway 22, the Certificate Holders have evaluated the impacts associated with each infrastructure crossing to determine whether open trenching or a trenchless method is appropriate (i.e., HDD). The Certificate Holders have coordinated with state and local authorities and owners to minimize disruption of existing infrastructure to the greatest extent possible. The Certificate Holders have consulted and will continue to consult with the host municipalities, NYSDOT, regulatory agencies, and all applicable infrastructure owners and representatives when developing the construction schedule for the Project in order coordinate system outage requirements and avoid any construction conflicts with these agencies. The construction schedule is included in Section 1.1. Section 4.0 summarizes the various construction methods that will be utilized during the construction of Segment 1 and 2.

11.1 ROAD AND HIGHWAY CROSSINGS

The majority of construction for Segment 1 and 2 will take place within the New York State Road ROW. All appropriate safety and construction procedures that involve the crossing of or construction within a road or highway will be addressed in the Maintenance and Protection of Traffic (MPT) Plan included in Appendix C (CC#39). Table 11.1 below describes all road and highway construction within Segments 1 and 2. Perpendicular road or highway crossings within Segments 1 and 2 are designed as open cut crossing. All road/highway construction will follow the specifications summarized in Section 11.1.3 below, as well as the technical specifications included in Appendix C (CC#162g).

Table 11.1 – Segment 1 and 2 Road and Highway Construction and Crossings

Segment	Description	Location (Approximate see Drawings for Details)
1	County Route 3 ROW Construction	10000+00 (C-101) to 10046+00 (C-104)
1	Lake Road (County Jurisdiction) ROW Construction	10046+00 (C-104) to 10142+00 (C-110) 10155+00 (C-111) to 10162+00 (C-112)

Segment	Description	Location (Approximate see Drawings for Details)
1	Route 22 (NYSDOT road/highway) ROW construction	10162+00 (C-112) to 10367+00 (C-125) 10374+50 (C-126) to 10390+53 (C-127) Road Crossing (west-east): 10330+00 to 10331+25
2	Route 22 (NYSDOT road/highway) ROW construction	12500+00 (C-101) to 12913+00 (C-128)
2	Route 22 (NYSDOT road/highway) ROW construction	12953+00 (C-131) to 13036+00 (C-136)

11.1.1 Preconstruction Planning

Where installation of Segments 1 and 2 occurs within a road ROW, the Certificate Holders have coordinated with the jurisdictional municipality or regulatory agency to ensure appropriate protection and safety measures are employed. The local jurisdictional entity could be the Town, Village, or County highway departments, or the NYSDOT. All necessary highway work permits that have been or will be applied for are described in Table 11.2 below (CC#18).

Table 11.2 – Segment 1 and 2 Highway and Road Work Permits

Segment	Description	Status
1, 2	NYSDOT Highway Work Permit (HWP)for Utility Work (PERM 32)	Planned submittal after final design has been completed.
1, 2	Washington County Department of Public Works	Planned submittal after final design has been completed.
1, 2	Town of Dresden: Highway Work Permit	Planned submittal after final design has been completed.
2	Town of Whitehall: Highway Work Permit	Planned submittal after final design has been completed.
1,2	Special Hauling Permit (for heavy loads)	Planned submittal after final design has been completed

Where New York State Highway ROW is to be occupied, as described in Table 11.1, all work will be performed in accordance with 17 NYCRR Part 131 of the Highway Law covering Accommodation of Utilities within State Highway ROW and the applicable design standards of the American Association of State Highway Transportation Officials (AASHTO), the guidance in Requirements for the Design and Construction of Underground Utility Installations within the

State Highway ROW (NYSDOT 2007), the Manual of Uniform Traffic Control Devices (MUTCD) (NYSDOT 2008b, USDOT 2009), the Highway Design Manual (NYSDOT), the Policy and Standards for Entrances to State Highways (NYSDOT), the Requirements for the Design and Construction of Underground Utility Installations with the State Highway ROW (NYSDOT 2007), the Accommodation Plan (NYSDOT 1995), and the NYSDOT 2008 Standard Specifications.

The Certificate Holders have been coordinating and will continue to coordinate with DPS and NYSDOT for all work to be performed in the State Road ROW (CC#68). Prior to submitting construction plans for any State Road ROW segment, the Certificate Holders have provided to DPS and NYSDOT a preliminary design marked to avoid conflict with potential transportation projects that NYSDOT may seek to undertake in the future and will offered to consult with NYSDOT concerning any comments it may offer and will use reasonable efforts to accommodate any NYSDOT concerns (CC#68).

The Certificate Holders have examined existing conditions and traffic flow and volume patterns to determine the appropriate construction methods for all areas identified in Table 11.1 where the Segment 1 and 2 installation occurs within a road ROW. Where in-road work will be extensive enough to require detours or road closings, a MPT Plan has been completed in consultation with all affected agencies. The MPT plan for Segment 1/B is included in Appendix C. By complying with this plan, The Certificate Holders will minimize the impact of construction of the Project on traffic circulation (CC#71).

Consultation with NYSDOT has been ongoing throughout the Project's development. Recent consultation occurred in August and September 2022, when NYSDOT reviewed the alignment on the Project's Plan and Profile Drawings to the Certificate Holders. Documentation of NYSDOT Concurrence with the Conceptual Design, dated December 2021 is included in Appendix A. Additional coordination with NYSDOT will be ongoing throughout the project construction in accordance with the permit conditions for the permits described in Table 11.2.

The Certificate Holders will consult periodically with state and municipal highway transportation agencies about traffic conditions near Segment 1 and 2 and will notify each such transportation agency of the approximate date work will begin in its jurisdiction, using access points with direct access from highways in that jurisdiction (CC#69a 72).

Table 11.3 – NYSDOT Coordination Summary

Coordinating Parties	Description	Current Status
Certificate Holders, DPS Staff, NYSDOT	All plans and work to be performed in State-owned ROW under NYSDOT's supervision and management.	Ongoing throughout
Certificate Holders, DPS Staff, NYSDOT staff	Certificate Holders shall provide DPS Staff and NYSDOT staff with a preliminary design marked to avoid conflict with potential transportation projects that NYSDOT Staff may seek to undertake in the future and shall offer to consult with NYSDOT Staff concerning any comments it may offer and shall use reasonable efforts to accommodate any NYSDOT concerns (CC#68).	Prior to filing any Segment EM&CP involving any such state-owned ROW.
Certificate Holders, NYSDOT, Agency crossed by project	Certificate Holders will consult with each transportation department or agency having jurisdiction over any roads, related structures, and components that will be crossed by the Facility or used for direct access to the Construction Zone. If the access road takes direct access from, or lies within the limits of, such roads, the Certificate Holders will notify each relevant transportation department or agency of the approximate date when work will begin (CC#69a).	During preparation of the EM&CP and when work begins.
Certificate Holders, NYSDOT, DPS Staff, NYSDEC	The Certificate Holders will provide status reports summarizing construction and indicating construction activities and locations scheduled for the next month (CC#47).	Bi-weekly.

11.1.2 Signage

Traffic control personnel and safety signage will be employed to facilitate safe and adequate traffic flow when secondary roadways are affected by construction (CC#71). Maintenance and protection of traffic, including protection of the public from damage to persons and property within the limits of (and for the duration of) work within the State Road ROW, will be done in full conformance with the Section 619 – Maintenance and Protection of Traffic of the NYSDOT Standards Specifications for Construction and Materials (NYSDOT 2008a), and all addenda thereto. Additionally, all maintenance and protection of traffic activities, materials, signage, and construction details will comply with the Manual of Uniform Traffic Control Devices (NYSDOT 2008b, USDOT 2009) and permits issued by NYSDOT (CC #39a). All placements of signs will be determined in consultation with the applicable jurisdictional agencies (CC#39a). At minimum, signs will be placed at the following distances:

1. Signs announcing construction at 500 feet and 1,000 feet.
2. Signs depicting workers at 300 feet.
3. Where blasting is to take place within 50 feet of a road, a blast warning sign at 1,000 feet.

Flagmen will be present at all times when equipment is crossing or entering any road, when equipment is being loaded or unloaded and when two-lane traffic has been reduced to one lane (CC #39b). All flagging operations will comply with 17 NYCRR Part 131 (#39b).

11.1.3 Parallel Road Construction

The following specifications will apply where the cable will be installed longitudinally within the roadway or its shoulder (CC#162g):

a) Owners/operators of other underground utilities in the area will be consulted during the EM&CP development and notified no less than 30 business days prior to the start of construction.
b) All existing underground facilities will be marked prior to the initiation of cutting or excavation.
c) Tree limbs, shrubs, cobble stones, or any other natural or man-made features that are at risk of damage will be temporarily moved, protected, or removed and stored. Where landscaping trees are affected, an arborist will be consulted. All vegetation and tree clearing will follow the procedures summarized in Section 7.0 of this EM&CP.
d) Detours, signage, and public notice will be posted approximately 1 week prior to the initiation of construction.
e) Where possible, all areas of open trench will be backfilled or plated prior to the end of the construction day.
f) All areas of open trench unable to be plated will be barricaded and lit with warning lights prior to the end of the construction day.
g) Driveways and drainage ditches will be access and restored following the descriptions in Section 4.9.1.
h) Construction Access to the Segment 1 and 2 Construction Zone at controlled-access highways will be provided from off-highway locations (CC#70).
i) Access to driveways will be maintained to the maximum extent practicable. See Section 4.9.1 for additional details.
j) Temporary patch of asphalt road cuts will begin immediately after backfilling.
k) Temporary patch of major road damage (i.e., ruts, potholes, grade loss, etc.) will begin immediately after backfilling.
l) Road shoulder and ROW will be fully restored following the methods in Section 13.2.

12.0 CO-LOCATED INFRASTRUCTURE

12.1 CO-LOCATION INFRASTRUCTURE CONSULTATIONS DURING DESIGN AND CONSTRUCTION

During the construction of Segments 1 and 2, minor and temporary impacts to existing transportation and utility infrastructure ("CI") may occur where they will be crossed or paralleled by the Project. Section 11.0 summarizes the roadway and highway construction within Segments 1 and 2. In areas where Segments 1 and 2 cross or parallel existing infrastructure such as buried utility lines, or other features, the Certificate Holders have evaluated the impacts associated with each infrastructure crossing to determine whether open trenching or a trenchless method is appropriate (i.e., HDD). The Upland Co-Located Utility Summation Matrix in Appendix R summarizes the locations of all utility crossings for Segments 1 and 2. The Certificate Holders have coordinated with state and local authorities, as well as utility owners, to minimize disruption to existing CI to the greatest extent practicable. This coordination has and will demonstrate that no interference or adverse effects will occur on CI for Segments 1 and 2 (CC#162a and 162d). The Certificate Holders will continue to consult with all applicable CI owners and representatives when developing the construction schedule for Segments 1 and 2 in order to coordinate system outage requirements and avoid any construction conflicts with this infrastructure (CC#28b). Section 12.1.2 below summarizes the outreach and consultation efforts that have been performed by the Certificate Holders. The construction schedule is included in Section 1.1.

The Certificate Holders' construction Contractor will coordinate with "Dig Safely New York" and DigNet for underground utility locating prior to any underground construction work. The Certificate Holders will comply with procedures identified by the CI owners and representatives including but not limited to obtaining relevant rights and permissions where applicable.

Utility and other infrastructure crossings will be completed consistent with site-specific design measures for each such crossing. These site-specific design measures are indicated on the Plan & Profile Drawings in Appendix C.

A Corrosion Study is being conducted by the Certificate Holders to determine if the Project may have corrosive effects on any CI that are crossed or occur within close proximity to the Project cables. While conclusions have not been finalized, no permanent or significant impacts to CI have been identified. This study will be provided to DPS and included as Appendix P when complete.

Additionally, Cable Ampacity and Thermal Calculations consistent with CC 162(c) will be included as Appendix Q when complete.

12.1.1 Pre-Installation Survey of Co-located Infrastructure

The Certificate Holders have conducted a pre-installation survey that has documented the location and condition of CI within the Segment 1 and 2 Project Corridor and identified the parties owning and operating such CI and the agencies exercising regulatory jurisdiction over the same. The results of the pre-installation survey are included in Appendix R. The physical condition of CI within Segments 1 and 2 will be further evaluated prior to construction, during potholing in the area of each CI. The procedures that will be followed to avoid damages to the CI documented are described in the sections below.

12.1.2 Consultations with Co-Located Infrastructure

Commencing the week of September 6, 2021, the Certificate Holders notified owners of CI of their plans to develop detailed construction plans for EM&CP Segment 1 and 2. Table 12.1 lists the CI Owners that were identified within Segments 1 and 2. An example email notification is included in Appendix R including the accompanying fact sheet describing the Project and providing construction timing and EM&CP, an overview of CI crossings and CHPE construction, a route map for Segments 1 and 2, and typical engineering trench and crossing drawings. Emails were sent to the CI owners who were identified through a variety of methods including Dig Safe record requests, computer search of available records, and discussions with known and potential CI owners.

This outreach was conducted in early September 2021, at least 180 days prior to the filing of EM&CP Segment 1 and 2, in accordance with CC 23(d). Cooperation and collaboration to date has been positive and Certificate Holders' early engagement well received.

Since the initial email notifications, Certificate Holders' representatives have had additional telephone and email communications to identify CI owners' processes and requirements for engaging in the review of the Project's construction plans, initial conditions for crossing the respective CI owner's infrastructure, providing as-built drawings, and fees for engaging in the review process. A summary of those activities is included in Table 12.1, below, and sample engagement materials are included in Appendix R.

Table 12.1 – Segment 1 and 2 Co-located Infrastructure Consultation Summary

Owner	Utility	Initial Contact Date	Initial CI-Owner Response	Outreach Mailing #2	Outreach Mailing #3	Outreach Mailing #4	Summary of CI-Owner Response
AT&T	Fiber/ Telephone	9/9/21	Crossing conditions received	1/27/22 email sent with .kmz digital map of route and request for records, data & information of CI along Project route.	4/13/22 Plan & Profile drawings provided for review. Responses requested by 4/29/2022.	N/A	No AT&T Core facilities in Washington County.
Level 3 Communications (now Lumen Technologies)	Fiber	9/10/21	Support services agreement in place. Crossing conditions received. Reimbursement fund established.	1/27/22 email sent with .kmz digital map of route and request for records, data & information of CI along Project route.	4/13/22 Plan & Profile drawings provided for review. Responses requested by 4/29/2022.	7/11/22 updated Plan & Profile drawings provided for review.	Concurred that alignment is acceptable provided that the specified separation distances and concrete encasement are observed/provided.
National Grid/ East/ Electric	Electric/ Gas	9/10/21	Crossing conditions received.	1/27/22 email sent with .kmz digital map of route and request for records, data & information of CI along Project route. Received locations of overhead electric lines.	4/29/22 Plan & Profile drawings provided for review. Responses requested by 4/29/2022.	On-going coordination.	Required PTR application has been completed and provided to National Grid for review and approval
Time Warner Cable (Charter Communications /Spectrum)	Fiber/ CATV	9/10/21	No action required until plans are available for review.	1/27/22 email sent with .kmz digital map of route and request for records, data & information of CI along Project route.	4/14/22 Plan & Profile drawings provided for review. Responses requested by 4/29/2022.	On-going coordination.	CI owner provided additional utility location information which has been included in revised plan/profile.
Verizon or Verizon/ East	Telecom; Fiber/ Telephone	9/10/21	No action required until plans are available for review.	1/27/22 email sent with .kmz digital map of route and request for records, data & information of CI along Project route.	4/14/22 Plan & Profile drawings provided for review. Responses requested by 4/29/22.	Not needed.	Verizon responded that they will not need to relocate any of their facilities/infrastructure. May provide foreman contractor to

Owner	Utility	Initial Contact Date	Initial CI-Owner Response	Outreach Mailing #2	Outreach Mailing #3	Outreach Mailing #4	Summary of CI-Owner Response
							assist construction Contractor if an immediate response is required. No separation requirement specified.
NYSDOT Albany Region 1	Traffic Signals Highway	Ongoing for a number of years. See Also Table 11.3	N/A	N/A	1/27/22 Plan & Profile drawings provided for review.	On-going coordination.	Provided signed/sealed drawings to NYSDOT on 9/20/22 in response to most recent NYSDOT comments and asked for confirmation that comments have been sufficiently addressed.
Washington County	Storm Sewer/ Sanitary Sewer/ Water	8/31/22	N/A	N/A	N/A	On-going coordination.	Awaiting Response
Town of Dresden	Storm Sewer/ Sanitary Sewer	8/7/21	Draft plan & profile sent for review.	N/A	1/27/22 Plan & Profile drawings provided for review.	On-going coordination.	No concerns expressed by town.
Town of Whitehall	Traffic Signals/ Storm Sewer/ Culverts/ Sanitary Sewer/ Water	8/7/21	Draft plan & profile sent for review.	N/A	1/27/22 Plan & Profiles drawings sent for review.	On-going coordination.	No concerns expressed by town.
Village of Whitehall	Traffic Signals/ Storm Sewer/ Culverts/ Sanitary Sewer/ Water	8/8/21	Draft plan & profile sent for review.	N/A	1/27/22 Plan & Profile drawings sent for review.	On-going coordination.	DPW confirmed concurrence with alignment.

2. Reviewing pre-construction activities, designs, construction methods, maintenance and repair protocols, and means of gaining access to Potential CI or CI proposed by the Certificate Holders.
3. Reviewing studies and design proposals described by CC 28(d) and the EM&CP filings described in CC 162.
4. Conducting or preparing such additional studies and designs as may be agreed to by the Certificate Holders or approved by the Commission pursuant to CC 29(a)(3).
5. Coordinating with, and monitoring the activities of, the Certificate Holders during pre-construction activities, construction, maintenance and repair of the Project.
6. Conducting maintenance and repair work on CI property or facilities, but only to the extent of increases in such costs that result from the presence of the Project.
7. Repairing damage to Potential CI or associated property caused by the Certificate Holders or their representatives in connection with any studies, surveys, testing, sampling, preliminary engineering, pre-construction activities, construction, operation, maintenance or repair of the Project.
8. Scheduling and implementing electric system outages required by any studies, surveys, testing, sampling, preliminary engineering, preconstruction activities, construction, operation, maintenance, or repair of the Project.

Disputes concerning the Certificate Holders' cost reimbursement responsibility will be brought to the PSC for resolution. The time required to resolve any dispute arising will not be counted in the calculation of any limitation on the time available for commencement or completion of construction of the Project.

12.2 RAILROAD CROSSINGS

Segments 1 and 2 do not cross any active or inactive railroads.

12.3 UTILITY CROSSINGS

All utilities such as water, sewer, electric, telecommunication, etc., facilities and infrastructure that occur within Segments 1 and 2 are indicated on the Plan and Profile Drawings in Appendix C and all utility crossings will be completed as shown in the Plan and Profile Drawings. The Upland Co-Located Utility Summation Matrix Table in Appendix R summarizes the utility crossings for Segments 1 and 2. The procedures that will be followed to minimize impacts on utilities to be crossed by Segments 1 and 2 are described in the sections below.

Existing utility owners have been contacted and will continue to be consulted throughout the construction process as detailed in Appendix R. Consultations will include protection measures and specifications for existing utility facilities.

12.3.1 Water Supply Intakes

The CCs concerning water supply intakes apply to marine segments of the Project and are not applicable to Segments 1 and 2.

12.3.2 Overhead Electric Facilities

Segments 1 and 2 will cross many overhead electric facilities. Impacts to these facilities are expected to be minimal given the underground installation of the CHPE transmission line.

The following specifications will apply where construction or pre-construction activities are undertaken in an overhead utility line ROW:

a) The utility responsible for the operation and maintenance of the overhead line will be contacted and consulted throughout the siting and construction process concerning the proposed work within the ROW as described in greater detail in CCs 27 to 29 (CC#27-29). This interaction is described in the Upland Co-located Utility Summation Matrix of Appendix R.

b) The responsible utility will be consulted concerning "safe minimum clearance" for construction machinery. A minimum 5 foot offset from electric poles was included in the design for trenching activities.

c) All guy wires, ground lines, and other surface or subsurface supports or facilities were located and added to the plans in Appendix C; and

d) Depending on the length of cable to be installed, the voltage of electric lines to be crossed, and existing weather and topography, the cable and the associated construction equipment may need to be temporarily grounded. This activity will be performed in compliance with the National Electrical Safety Code (NESC), as applicable.

The following specifications will apply where the cable will parallel an overhead electric line ROW:

a) The Certificate Holders contacted the owner of the overhead utility to determine appropriate safety precautions and minimum clearance requirements as described in the Upland Co-located Utility Summation Matrix of Appendix R;

b) If voltages warrant, no ungrounded vehicle will be allowed within two hundred (200) feet of the electric line;

c) All vehicles on the ROW will be grounded if necessary by use of grounding strips or chain devices;

d) Vehicles parked overnight on the ROW will be grounded to an embedded ground rod by a cable;

e) Fuel trucks will have sufficient ground cables and clamps to complete an electrical bond with every vehicle to be refueled; and

f) The Safety Inspector will monitor construction equipment and warn operators if the safe minimum clearance zone is entered.

12.3.3 Underground Crossings and Parallel Subsurface Utilities on the Overland Route

The Segment 1 and 2 Project Corridor was surveyed for the presence of existing underground utilities to be crossed or run parallel to, and the results of this survey are included on the plans and profile drawing in Appendix C and Table 12.1.

Owners of CI were consulted as described in Table 12.1 and documented in Appendix R.

Whether CI is privately or publicly owned, standards for "Good Engineering Practices" will be followed and levels of investigative Subsurface Utility Engineering (SUE) efforts performed per ASCE 38-02 and as set forth in 16 N.Y.C.R.R. Part 753, entitled "Protection of Underground Facilities." The basis of design for paralleling or crossing any CI by the proposed duct bank will be used throughout the entire alignment, unless otherwise revised based on:

a) CI owner specific requirements
b) Site conditions
c) Utility condition
d) Material compatibilities

In general, and as shown on Typical Separation Details presented on Sheets C-901 and C-902, the horizontal and vertical separation standards used within the proposed design is 5' (H) and 2' (V). To date, no additional guidelines have been received for Segments 1 and 2, the established process

and continued communications with CI owners leave the discussion open for possible additional crossing guidelines to be provided and included within the developed Plans. Separations proposed outside these standards will be highlighted on the Plans (Appendix C) and conditions warranting the variance will be documented.

At least 30 days prior to construction, CI owners will be contacted and will be given all reasonable opportunity to be present during excavation and construction. The CI owners will identify and marked their facilities in the field.

The following specifications will apply where the cable will parallel an underground electric line right-of way:

a) In situations where Segments 1 and 2 will parallel an underground electric line ROW, the Certificate Holders will contact the owner or operator of the underground utility to determine appropriate safety precautions and minimum clearance requirements.

b) Owners/operators of other underground utilities in the area will be consulted and notified no less than 30 days prior to the start of construction.

12.3.4 Underwater Utility Crossings

There will be no underwater construction required for Segments 1 and 2 and therefore no underwater utilities will be crossed.

13.0 CLEANUP AND RESTORATION

Timely cleanup and restoration will assist in minimizing potential environmental impacts associated with the Project. Procedures for cleanup and restoration are described in the following sections (2012 BMPs, Section 11.0). In accordance with CC 48, within 10 days of the completion of final restoration activities, the Certificate Holders will notify the PSC Secretary that all restoration has been completed in compliance with the Certificate and the Order(s) approving the EM&CP (CC#48).

13.1 CLEANUP STANDARDS AND PROCEDURES

In accordance with the BMP document, clean-up, restoration, and revegetation procedures will be ongoing during construction as each Segment is completed. During construction, road and construction ROWs will be kept free of debris and discarded material to the greatest extent possible. As construction continues, each section of the ROWs will be thoroughly cleaned after construction is completed on that particular section. Vegetation clearing, and disposal methods are summarized in Section 7.0 of this EM&CP and are indicated on the Plan & Profile Drawings in Appendix C. All cleared vegetation will be disposed of in accordance with the appropriate disposal techniques described in Section 7.0. All man-made debris, including piping, fencing, wiring, and any other materials used during construction, will be disposed of at an approved disposal site in compliance with all appropriate environmental regulations (CC#8). No man-made debris be burned or buried (2012 BMPs, Section 11.1).

As described in the BMP Document, all trucks leaving the construction area will be loaded and covered in accordance with applicable regulations as needed.

At the end of all construction, the construction and road ROWs and respective work areas will be thoroughly cleared of debris such as nuts, bolts, spikes, wire, pieces of steel, and other assorted items (CC#88).

13.1.1 Landscaping

While currently no landscaping needs have been identified within Segment 1 and 2, the Certificate Holders will, upon completion of construction of the Project, provide an assessment of the need for landscape improvements (CC#89a). If deemed necessary, these improvements may include vegetation planting, earthwork, or installed features to screen or landscape with respect to road crossings, residential areas, parks, and highways. If visual mitigation is required, the Certificate

Holders will prepare plans for the visual mitigation, such as removal, rearrangement, and supplementation of existing landscape improvements or planting (CC#89b). If needed, the Certificate Holders will consult with the DPS Staff on the content and execution of their landscape improvement assessment, resultant landscaping plan specifications, and materials list (CC#89c). If deemed necessary, the assessment and plans for landscaping improvements will be submitted to DPS staff within 1 year of the date the Project is placed in service.

13.2 RESTORATION AND PLANTING

The final stage of construction will consist of restoring the road and construction ROWs and Segment 1 and 2 Project Corridor to its original condition and character the extent practicable, unless doing so would interfere with the safe or reliable operation and maintenance of the Project. Restoration activities may vary with the specific area to be restored, but will consist predominantly of restoring topography to original grade and reseeding backfilled areas over the trench as identified below (2012 BMPs, Section 11.2).

13.2.1 Site Preparation for Revegetation

As described in the BMP Document, the surface of the road and construction ROWs disturbed by construction activities will be graded to match the original topographic contours and to be compatible with surrounding drainage patterns where appropriate. It should be noted that subcontractors will typically limit grubbing (the removal of stumps and roots) to the footprint of the excavated trench and access roads to allow re-sprouting and assist in the recovery of woody species, except where removal is required for safe construction. Where needed, it may be necessary to import topsoil to return an area to grade. Imported topsoil will follow classification and characterization measures outlined in the Soil Management Plan in Appendix L. All imported topsoil will be free and clear of invasive species. HDD entry and exit pits will be backfilled and the disturbed ground surface will be similarly graded. The entry and exit points for each HDD crossing are described in Section 5.4 Table 5.2 of this EM&CP. Trenches will be backfilled in accordance with the measures outlined in Section 4.2.3.

The Certificate Holders will be responsible for checking all culverts to assure that they are not crushed or blocked during construction and restoration of the Segment 1 and 2 and, if a culvert is blocked or crushed, take immediate steps to clear, repair or replace the culvert in accordance with applicable state or local standards (CC#73).

13.2.2 Seeding and Planting

As described in the BMP Document, seeding operations across the 35-foot-wide construction and Facility ROWs as well as within staging and laydown areas (See Section 13.4 below) will commence only after an acceptable seedbed has been established, as described above. Seed will be applied by hand, or via hydro-seeders. The entire seeded area will be watered with a fine spray, as necessary, until a uniform moisture depth of approximately 1 inch has been achieved as applicable. Mulching and anchoring of the mulch may be necessary in some areas unless a hydromulch/seed slurry is used. On steep slopes, jute net will be used to provide stabilization. Fertilizer will be added, as applicable, at the appropriate rates after seed is applied and/or to a hydromulch/seed slurry. No fertilizer will be applied in wetland resource areas. Seeding/mulching will take place under the supervision of the Environmental Inspector. The seed mixture and rate of application will depend on the soil type, land use, available moisture, and season at the time of application. Seedbed preparation (final tillage, fertilizing, liming) and seeding will follow recommendations as contained in *New York State Farmland: Seeding, Fertilizing and Lime Recommendations for Gas Pipeline ROW Restoration in Farmlands* (revised 4-27-2011) if applicable or as specified by the landowner. All seed mixes will be free of invasive species. All seed bag tags (either original or scanned copies) will be provided to the Environmental Inspector either original tags or scanned copies. Seeded areas will be monitored following restoration until a minimum vegetative cover of eighty (80) percent is achieved. The seed mixtures will follow the technical specifications included on the Plan and Profile Drawings in Appendix C (Sheet G-020 of both Segment 1 and Segment 2) for uplands and wetland buffer zones. For wetland resource areas, emergent communities should be revegetated with an Ernst FACW Wetland Meadow Mix (ERNMX-122) or equivalent, and for shaded sites within forested/shrub-shrub wetland communities, disturbed areas should be revegetated with Ernst Specialized Wetland Mix for Shaded Areas (ERNMX-137) or equivalent.

The majority of soil disturbance for Segment 1 and 2 will be within the trench-line for the conduit/cable. However, some disturbance will also occur during installation and removal of temporary access roads as describe in Section 4.9. All trench areas and other excavated areas will be reseeded with an appropriate seed mix as identified above. Vegetation throughout the construction ROW will be cut to ground level and root systems will remain intact to allow for resprouting following construction, unless resprouting would interfere with the safe and reliable operation of the Project.

Minimal tree clearing is anticipated to be required in Segment 1 and 2 (See Table 7.1 in Section 7.0); if required, all trees over 2 inches in DBH or shrubs over 4 feet in height that are damaged or destroyed by activities during construction, operation, or maintenance within associated urban, residential or Adirondack Park landscaped areas, will be replaced within the following year by the Certificate Holders with the equivalent type of trees or shrubs except if:

a) equivalent type replacement trees or shrubs would interfere with the proper clearing, construction, operation, or maintenance of the Facility or would be inconsistent with State-invasive species policy; or
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 ROW; or
c) the owner of land where the damaged or destroyed trees or shrubs were located (or other recorded easement or license holders with the right to control replacement) declines replacement.

13.2.3 Restoration of Waterbodies

Direct impacts to streams and waterbodies associated with Segment 1 and 2 have been avoided by crossing over or under existing culverts, and incorporating HDD methods. However, if impacts to waterbodies do occur, per the certificate of conditions (CC117), the Certificate Holders have established and will implement the following program to monitor the success of stream restoration upon competition of construction and restoration activities. Per Conditions K and L of the USACE Permit, the following will determine if stream and restoration is successful:

1. All plantings have an 85% survival rate
2. All established wetland areas in conjunction with the compensatory mitigation have an 85% coverage rate of hydrophytic plants.
3. Vegetation in newly established wetland areas do not consist of more than 5% total areal coverage of common reed grass, purple loosestrife, reed canary grass, Japanese knotwood, Tartarian honeysuckle, Eurasian milfoil, and/or other invasive species.

Per condition NN of the USACE Permit the Certificate Holders, shall provide additional monitoring reports, as directed in writing, should it be determined that the wetland mitigation success criteria listed above have not been met for 3 consecutive years.

13.2.4 Restoration of Construction Materials and Equipment Staging Locations and Temporary Access Roads

The construction materials equipment staging locations for Segment 1 and 2 are summarized in Table 5.2 in Section 5.4 and are shown in the Plan and Profile Drawings (Appendix C) and ESCP

(Appendix C). These areas will be restored as close as practicable to pre-construction conditions and contours to the extent practicable.

All temporary fencing and erosion controls will be removed and disposed of in an acceptable manner at a State-approved disposal facility approved by DPS Staff and the Certificate Holders. All motorized construction equipment will be transported to off-site facilities. All other usable construction equipment and materials will be collected, packed, and transported to off-site storage facilities or to the next segment's staging area as needed. All unusable equipment and materials will be removed from the laydown yard and disposed of appropriately.

13.2.5 Pavement and Roadway Restoration

Currently, limited restoration needs in Urban/residential areas have been identified within Segment 1 and 2.

As described in the BMP Document and CCs, curbs, sidewalks, and streets damaged by construction will be restored to pre-existing condition or better (CC#74). Further, disturbed areas, ruts, and rills along roadways shall be restored to original grades and conditions with permanent revegetation and erosion controls appropriate for those locations, as appropriate (CC#74).

The Certificate Holders will consult the municipal road or highway department and/or the Regional Office or County Engineer of the NYSDOT in order to identify and incorporate appropriate specifications for curb, sidewalk, or street restoration. All surface restoration will follow the specifications and details provided in the Plan and Profile Drawings (Sheet C-631 of both Segment 1 and 2). Guide Rails will be removed and replaced in accordance with NYSDOT Standard Sheet 606-01. County Route 3 in Segment 1 will be restored under a different county restoration requirement as shown in the Plan and Profile Drawings in Appendix C.

13.2.6 Restoration of Recreational Areas

Following construction, the Certificate Holders will reseed the construction area within recreational areas such as the Adirondack Park using the procedures and methods specified in the sections above where needed. If necessary, additional revegetation and tree planting may be performed depending on the impact of construction.

13.3 PLANT INSPECTION, GUARANTEE AND MAINTENANCE

Vegetation restoration also includes the maintenance of plantings for specified time periods and the replacement of unsuccessful plantings. Prior to planting, the Environmental Inspector will inspect all plants in containers. Plantings will be performed by a qualified landscape or nursery Contractor. The Environmental Inspector will also inspect all plants after competition of planting to ensure proper planting procedures and the correct plant species were used. Additionally, the Environmental Inspector will conduct a final inspection of all revegetated areas after the end of the monitoring period to ensure final stabilization. All vegetation replaced will have a minimum 2 year survival guarantee. As described in the BMP document, where tree or shrub plantings are needed, a post construction survival survey will be performed 1 year after the plantings. If any tree or shrub has not survived or is in poor health, the tree/shrub will be replaced.

SWPPP inspections will be performed by the Environmental Inspector on a weekly basis until all disturbed areas have achieved 80% revegetation and have achieved final stabilization. Following final restoration, erosion and sediment control measures will be removed from the site and disposed of appropriately.

13.4 CLEANUP AND RESTORATION OF AGRICULTURAL LANDS

Table 13.1 below summarizes the location of agricultural lands that will require restoration following construction.

On affected farmland, restoration practices will not be taken unless favorable (workable, relatively dry) topsoil/subsoil conditions exist (CC#80). Stockpiled topsoil will not be re-graded until plasticity, as determined by the Atterberg field test, is significantly reduced. No restoration activities will occur in agricultural fields during the months of October through May unless DPS Staff has determined after consultation with the NYSDAM that favorable soil moisture conditions exist. The Certificate Holders will monitor and advise NYSDAM and DPS Staff regarding tentative restoration scheduling.

Table 13.1 – Agricultural Lands Requiring Restoration

Segment	Description	Agricultural Lands	Location (Approximate – see Drawings for Details)
1	Lake Road HDD 1 Exit Pit	Washington Co. - Ag District 2. See Table 1.4 for details.	North and small portion of south side of Lake road from 10141+50 to 10148+00 (C-110)
1	Gravel Access Road for Lake Road HDD 1 Exit. See Table 4.3 for details.	Washington Co. - Ag District 2. See Table 1.4 for details.	North side of Lake road from 10142+00 (C-110) to 10148+00 (C-110)
1	Lake Road HDD 1 Entry Pit	See Table 1.4 for details.	North side of Lake road from 10151+50 to 10158+50 (C-111)
1	Gravel Access Road for Lake Road HDD 1 Entry. See Table 4.3 for details.	See Table 1.4 for details.	North side of Lake road from 10151+00 (C-111) to 10158+00 (C-111)
3	South Ryder Road Staging and Laydown Area	Washington Co. – Ag District 1. See Table 1.4 for details.	15281+00 to 15285+50 (C-201 of Segment 1 and 2 sheets)

13.4.1 **Restoration of Agricultural Lands: Access Roads and Laydown Areas**

As described in the BMP document, once construction activities are completed, gravel will be removed from the temporary access roads, work areas, and/or staging areas that disturbed agricultural areas, subsoil will be de-compacted in these areas to a depth of 18 inches with deep tillage by such devices as a deep ripper (subsoiler). Soil compaction results will be no more than 250 pounds per square inch (PSI) as measured with a soil penetrometer. Following decompaction, all stone and rock material 4 inches and larger in size will be removed from the surface. The disturbed areas will then be backfilled with topsoil and graded to restore the original soil profile. Finally, deep subsoil shattering will be performed with a subsoiler tool having angled legs as applicable. Stone removal will be completed, as necessary, to eliminate any additional rocks and stones brought to the surface as a result of any final subsoil shattering process. The topsoil will then be stabilized by seeding and/or mulching as described in Section 13.4.5 below. As previously mentioned, Subsoil decompaction and topsoil replacement will not be performed between October and May, unless approved on a site-specific basis by DPS and NYSDAM in consultation with the Agricultural Inspector. In the event that subsequent construction or clean-up activities result in additional compaction, additional deep tillage will be performed to alleviate such compaction.

Segments of farm roads utilized for access will be improved as required following consultation with the farm owner and NYSDAM prior to use. Such improvements will include the installation

of geotextile fabric and crushed stone. Fences, gates, and stonewalls disturbed during construction will be restored to their pre-construction condition, or as otherwise agreed to by the landowner.

The Certificate Holders will comply with Additional requirements relating to restoration of construction entrances across agricultural lands as outlined in CC 77.

13.4.2 Restoration of Drainage Features

No farm drainage features are anticipated to be impacted from Segment 1 or 2 construction. As described in the BMP document, in the event that farm drainage features are affected by construction, they will be rebuilt to like-new condition upon completion of construction, or as otherwise agreed to by the landowner. Locations for drainage line repair will be identified by the Agricultural Inspector for the repair of crushed or severed clay tile or plastic drain lines. The procedure will be in consultation with NYSDAM and landowner. If needed the Certificate Holders will also consult with the local Soil and Water Conservation district upon referral from the NYSDAM. If a farm drainage feature will be impacted, drawings. Drawings depicting the general drain line repair practices will be provided to the Contractor in the construction technical specifications. All new plastic drain tubing will meet or exceed the AASHTO M252 specifications. Functional stone drainage systems severed during cable installation will be repaired during the restoration phase. All drainage pipe installation shall follow either the appropriate manufacturer's installation instructions, the American National Standards Institute (ANSI) applicable standard, and/or the American Society of Testing and Materials (ASTM) applicable standard. All drainage pipe used during installation will be subject to a visual inspection in order to identify proper alignment, grade, and excessive deflection.

13.4.3 Fertilizer Application

As described in the BMP document, in areas where construction has affected the soil nutrient levels in agricultural areas, fertilizer may be applied to restore soil productivity, as appropriate and desired by the underlying landowner. The Certificate Holders will adhere to the NYSDAM guidance entitled "Fertilizing, lime, and Seeding Recommendations for Restoration of Construction Projects on Farmland in New York State" for the appropriate formula and application rates for the affected areas. Fertilizer will be applied under the direction and supervision of the Agricultural Inspector.

13.4.4 Aeration and Raking

As described in the BMP document, soil compaction in construction areas frequently may occur because of the movement of heavy equipment over soil. Soil compaction in the construction and road ROWs is expected to be minimal because most vehicles and equipment will be working off mats in agricultural areas as conditions dictate. However, if compaction occurs, soils will be aerated. Aeration in agricultural areas will typically be accomplished using a mechanical power aerator. Following use of the aerator, the area will be thoroughly raked. If soil is compacted below trees, the area below the tree canopy will be aerated by probing holes in the soil, which then will be backfilled with clean sand.

13.4.5 Revegetation of Agricultural Lands

As described in the BMP document, after topsoil replacement, seedbed preparation (final tillage, fertilizing, liming) and seeding will follow recommendations as contained in *New York State Farmland: Seeding, Fertilizing and Lime Recommendations for Gas Pipeline ROW Restoration in Farmlands* (revised 4-27-2011) if applicable or as specified by the landowner. Seeding will be monitored for two (2) years after completion at least three (3) times per growing season (2012, BMPs, Section 20.6.1).

As described in Section 20.6 of the BMP document, seed mixes will be applied during the appropriate season for the crop species selected. If the timing of restoration activities precludes the establishment of the chosen crop species, an annual cover crop to be planted will be chosen in consultation with the landowner or land manager. If restoration takes place outside of the growing season, the disturbed area will be stabilized with mulch. Mulch will consist of clean straw. The mulch will be spread uniformly in a continuous blanket of sufficient thickness to hold the soil in place.

As described in the BMP document, lime will be applied to the soil surface where necessary to achieve conditions favorable for seed establishment and development (2012, BMPs, Section 11.2). The local Soil & Water Conservation District will be consulted regarding appropriate lime application rates. Lime will be applied under the direction and supervision of the Environmental Inspector and/or Agricultural Inspector (2012, BMPs, Section 11.2).

The Agricultural Inspector will work with farm operators during the planning phase to develop a plan to delay pasturing of livestock in restoration portions of the Construction Zone, work areas, access roads, or staging areas following construction until pasture areas are adequately revegetated

(CC#79). The Certificate Holders will be responsible for maintaining temporary fencing around restored Segment 1 and 2 work areas, access roads, or staging areas until the Agricultural Inspector determines that the vegetation in the these is established and able to accommodate grazing. At such time, the Certificate Holders will be responsible for removal of the fences.

13.4.6 Remediation and Monitoring of Agricultural Lands

As described in the BMP Document, the Certificate Holders will provide for monitoring and remediation of agricultural lands for two (2) years after the completion of the initial restoration (CC#78). The Certificate Holders will employ an Agricultural Inspector on at least a part-time basis through this period. The remediation and monitoring phase will be used to identify any remaining agricultural impacts associated with construction that are in need of mitigation and to implement the follow-up restoration (2012 BMPs, Section 20.7).

As described in the BMP Document (2012 BMPs, Section 20.7), conditions to be monitored include topsoil thickness, relative content of rock and large stones, crop production, drainage, and repair of severed fences, etc. Impacts will be identified through on-site monitoring of all agricultural areas along the trenched area and through contact with respective farmland operators, the NYSDAM, and if needed the local Soil and Water Conservation District.

As described in the BMP Document (2012 BMPs, Section 20.7), post-construction monitoring will include a comparison of growth and yield for crops within and adjacent to the Project Construction Zone. When the subsequent crop productivity within the Project Construction Zone is less than that of the adjacent unaffected agricultural land, the Agricultural Inspector, in conjunction with the Certificate Holders, NYSDAM, as well as other appropriate organizations, will help to determine the appropriate rehabilitation measures for the Certificate Holders to implement. During the various stages of remediation, all affected farm operators will be periodically apprised of the restoration activities by the Agricultural Inspector.

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