Overland Segment 3 - Package 1C/2
Case Number (10-T-0139)

Environmental Management and Construction Plan

Whitehall to Fort Ann
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	”Ag & Mkts” is an abbreviation used in the Certificate but current abbreviation for the agency is NYSDAM
ADZ	Allowed Deviation Zone
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
CO	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	United States 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	United States 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
IRCP	Inadvertent Release and Contingency Plan
J&B	Jack and Bore
L2AB	Lacustrine Littoral Aquatic Bed
LCMM	Lake Champlain Maritime Museum
LOW	Limit of Work
MCL	Maximum Contaminant Level
MPT	Maintenance and Protection of Traffic
MS4	Municipal Separate Storm Sewers Systems
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
NYCEC	New York City Electrical Code
NYCFC	New York City Fire Code
NYISO	New York Independent System Operator
NYPA	New York Power Authority
NPCC	Northeast Power Coordinating Council
NWI	National Wetland Inventory
NYNHP	New York Natural Heritage Program
NYSDPS	New York State Department of Public Service Commission
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 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
TO	Transmission Owner
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

Units of Measure	
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 3 of the last 5 years.

Allowed Deviation Zone (CC3) - 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 CC3, as amended by the Commission.

Centerline (CC3) - The nominal centerline of the proposed cable trench, 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 (CC27) - 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 (CC4) - 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 (CC5) - The portions of the Allowed Deviation Zone to be occupied by the Facility/Project once construction is complete.

Good Utility Practice (CC20) - "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).

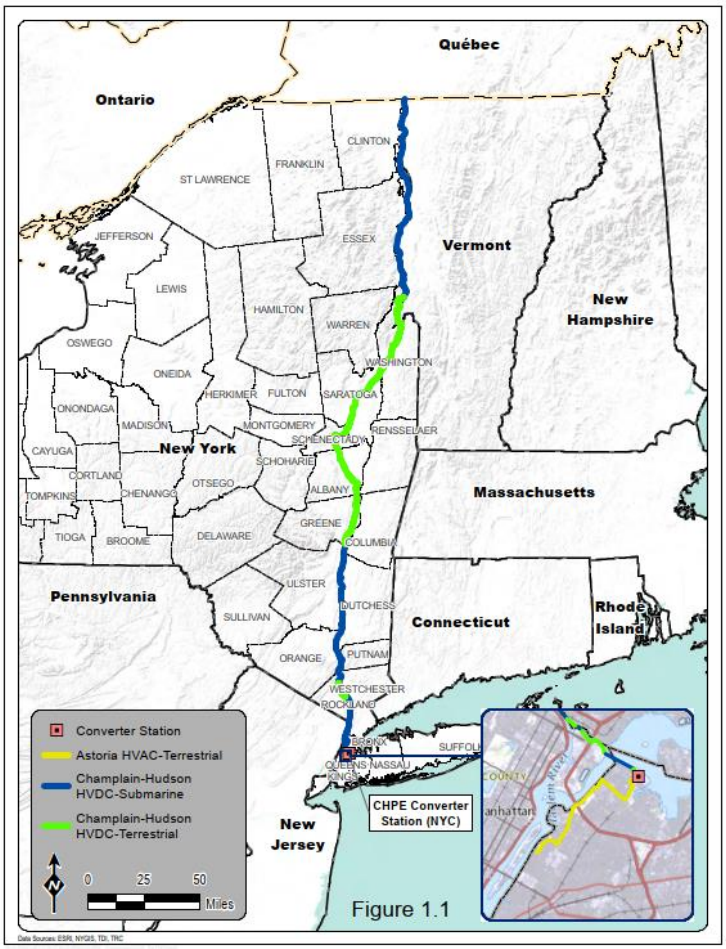
Package 1C/2– Segment 3 is comprised of design Packages 1C and 2. See Table 1-1 for associated EM&CP Segments and Design Packages.

Project Corridor - the route that the Segment 3 - Packages 1C/2 are located along, see Plan and Profile Drawings in Appendix C for details.

1.0 SITE AND PROJECT DESCRIPTION

The Champlain Hudson Power Express (CHPE) Project involves the construction of approximately 339 miles of high voltage direct current (HVDC) underground and underwater transmission cable from Montreal, Quebec, to Queens, New York (see Figure 1.1). It will bring 1,250 megawatts (MW) of renewable energy into New York by May 2026 to replace the use of fossil fuels and reduce 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.

Figure 1.1 - Overview Map



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) (CC1). An Order granting the Granting Certificate of Environmental Compatibility and Public Need (the "Certificate") was granted on April 18, 2013. In August 2020, CHPE, 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. (hereafter collectively referred to as CHPE and the "Certificate Holders"). The Certificate was amended eight times (March 20, 2020, August 13, 2020, September 21, 2020, January 26, 2021, May 14, 2021, February 17, 2022, March 16, 2022, and December 15, 2022) to reflect revisions in the alignment and other Certificate Conditions (CCs).

The Article VII Application included the development of numerous documents which identified natural resources within the route that the Segment 3 - Packages 1C/2 are located along ("the Project Corridor") and best management practices (BMP's) to minimize impacts to those natural resources as a result of the construction or operation of the Project. Specifically, the Article VII Application and the resulting Certificate included the following environmental guidance documents:

- Joint Proposal (Case 10-T-0139 Item 295)
- CCs contained within the issued Certificate
- EM&CP Guidelines (Appendix E to the Joint Proposal)
- Best Management Practices (BMP Document) (Attachment F to the Certificate).

Other relevant authorizations/approvals/guidance include the following:

- U.S. Army Corps of Engineers (USACE) Section 404 Clean Water Act Permit
- Section 401 Water Quality Certification
- Applicant Proposed Impact Avoidance and Minimization Measures (Appendix G to the Environmental Impact Statement prepared in accordance with the National Environmental Policy Act [NEPA]).

This Environmental Management and Construction Plan (EM&CP) has been developed to facilitate construction, operation and maintenance of the transmission line, known collectively by the Certificate as "the Facility", in accordance with the terms and conditions of the Certificate issued by the PSC on January 18, 2013 and the documents listed above. CCs 6 and 7 allow 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 CC6, 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 (CC6). Separate EM&CPs will be developed for the Overland Segments as well as the Marine Segments outlined in Table 1.1. On October 13, 2022, the Commission approved the first CHPE EM&CP for Segments 1 and 2 of project construction.

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

EM&CP		Location Description	Segment Length (miles)	Anticipated (or Actual) Filing with DPS	Anticipated Start of Construction
Construction Segment	Design Packages				
OVERLAND SEGMENTS					
1, 2	Package 1A/Package 1B	Putnam to Dresden/Dresden to Whitehall	17.6	(April 15, 2022)	November 2022
3	Package 1C/Package 2	Whitehall to Fort Ann/Fort Ann to Kingsbury	20.8	December 2022	May 2023
8	Package 5A	Rotterdam to Bethlehem	16.99	(December 21, 2022)	May 2023
9	Package 5B	Selkirk Bypass	5.31	(December 21, 2022)	May 2023
4, 5	Package 3	Kingsbury to Milton	26.5	January 2023	June 2023
10	Package 6	Ravena to Catskill	20.9	January 2023	June 2023
13, 14, 15	Package 8	Queens	2.13	January 2023	June 2023
6	Package 4A	Milton to Ballston	10.2	February 2023	July 2023
7	Package 4B	Ballston to Schenectady/Rotterdam	9.6	February 2023	July 2023
11	Package 7A	Catskill to Germantown	8.6	February 2023	July 2023
12	Package 7B	Stony Point to Haverstraw	7.6	February 2023	July 2023
Laydown Yards	3, 5B, 6	Fort Edward, Bethlehem, Coxsackie	N/A	(November 11, 2022)	February 2023
MARINE SEGMENTS					
16	Package 9	Transitional HDD (Stony Point)	N/A	(September 29, 2022)	July 2023
17	Package 10	3 Transitional HDDs (Putnam, Catskill, Clarkstown)	N/A	(December 14, 2022)	June 2023
18	Package 11	Lake Champlain	96	February 2023	June 2023
19	Package 12	Hudson River (Pre-Lay Mattressing)	89.1	March 2023	August 2023
20	Package 13	Hudson River (Cable Installation)	89.1	December 2023	June 2024

EM&CP		Location Description	Segment Length (miles)	Anticipated (or Actual) Filing with DPS	Anticipated Start of Construction
Construction Segment	Design Packages				
21	Package 14	Harlem River	6.3	December 2023	June 2024
NEW YORK CITY INTERCONNECTION					
22	TBD	Converter Station, Astoria Complex (Queens)	N/A	January 2023	June 2023
23	TBD	Astoria Rainey Cable HVAC System (Queens)	3.5	TBD	TBD

Appendix A includes documentation showing 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 Maintenance and Protection of Traffic (MPT) Plans are included in Appendix C.

1.1.1 EM&CP Certificate Conditions and Environmental Protection Measures

As previously indicated, multiple documents developed in support of the Article VII Application, Certificate, and other permits/approvals issued in accordance with federal regulatory processes outline environmental protection measures relevant to the Project. 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. Section 2.0 provides the details of the method by which all CCs are addressed and includes the location within the EM&CP where information pertaining to the CC requirement can be located. Table 1.2 provides a summary of all CCs applicable to EM&CP Segment 3-Package 1C/2. Those CCs that are not relevant to this specific EM&CP are not included in Table 1.2 but will be included in all applicable EM&CP Segments (CC145).

Table 1.2 – Summary of Applicable EM&CP CCs

Section	Certificate Conditions	Section Title	Location of Conditions within EM&CP
A	1-15e	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.

Section	Certificate Conditions	Section Title	Location of Conditions within EM&CP
B	16-20	Laws and Regulations	General requirements and best practices for entire construction of the Project
C	21-26	HVDC-AC Converter Station Design, Interconnection and Construction	Does not apply to Segment 3 - Package 1C/2.
D	27-29d	Special Conditions Regarding Co-Located Infrastructure and Related Matters	Addressed in Section 13 Co-Located Infrastructure and Appendix R
E	30-40	Public Health and Safety	Addressed in Sections 3, 4, 12, 13
F	41-52	Notices and Public Complaints	Addressed in Section 3, Appendix A, B, I
G	53-57	Environmental Supervision	Addressed in Section 3 and Appendix F
H	58-74	Overland Installation	Addressed in Sections 1, 3, 4, 6, 8, 12, 13, 14
I	75-80	Agricultural Lands	Addressed in Section 3, 4, 7, 14
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 3 - Package 1C/2
L	88-89	Overland Restoration	Addressed in Section 14
M	90-91	Overland Habitat Areas	Addressed in Section 9, Appendix M and T
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 11 and Appendix O
Q	113-118	Waterbodies and Regulated Wetlands	Addressed in Section 9and Appendix M
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
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 3 – PACKAGE 1C/2 PROJECT LOCATION AND DESCRIPTION

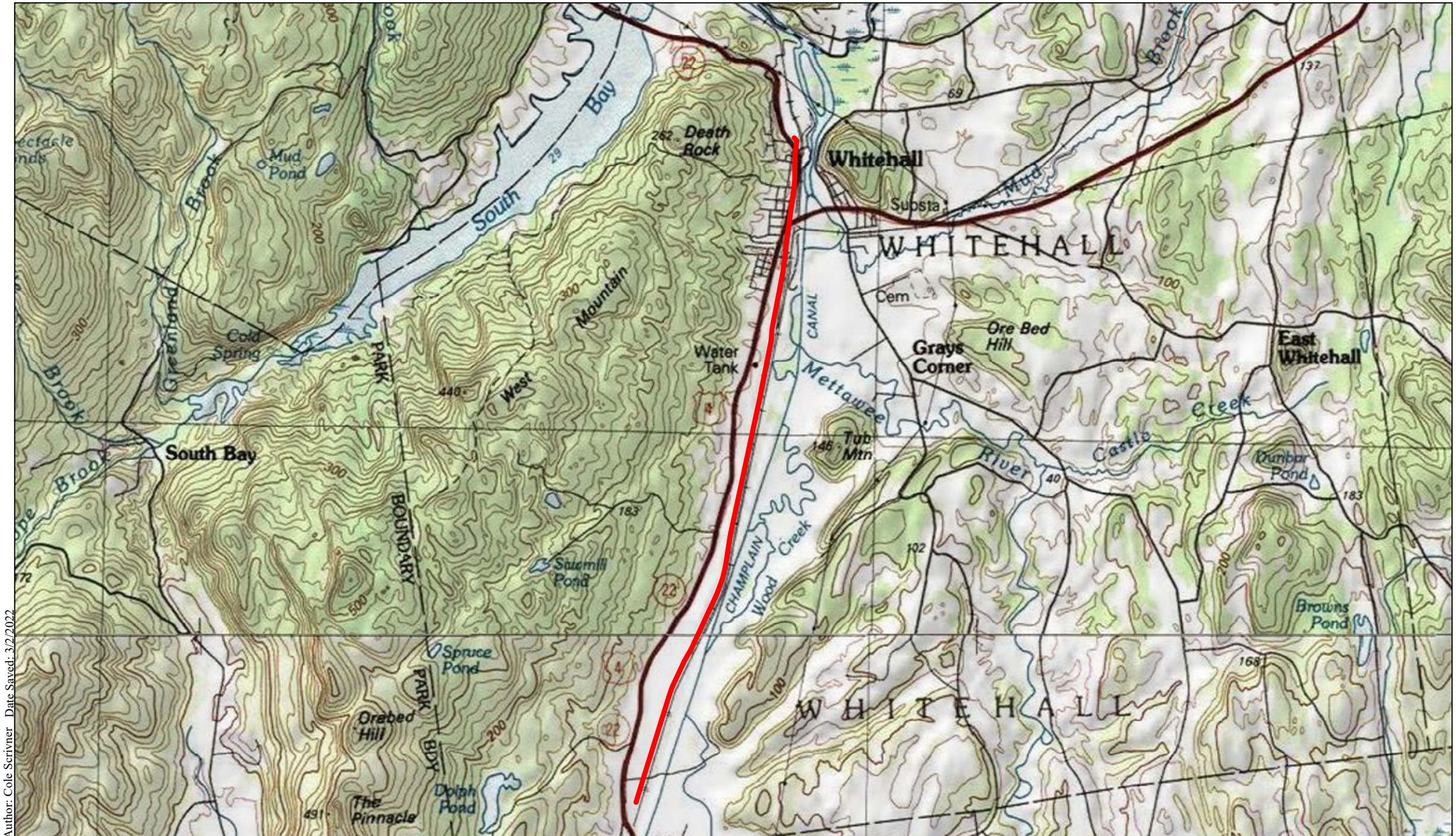
This EM&CP outlines CHPE's management and construction plan for the Segment 3of the Project including the terrain and facilities that will be encountered during construction and installation of the overland transmission cable beginning from the Town of Whitehall and continuing through the Town of Fort Ann to end in the Town of Kingsbury, Washington County, NY (See Figure 1.2 and 1.3), crossing through the Village of Whitehall, Village of Fort Ann, and Town of Hartford. The conduit route for Segment 3 occurs within the Canadian Pacific (CP) right of way (ROW) (approximately Sta. 15000+00) transitions to the Old Route 4 ROW (approximately Sta. 20280+00) and reverts back to the CP ROW (approximately Sta. 20280+00) to the end (approximately Sta. 20781+73+00) for a total of roughly 20.8 miles.

The Certificate Holders have signed an agreement with CP Rail and have closely coordinated the design directly with the CP Rail to obtain the consents necessary to construct the Facility. Section 13 includes a summary of the consultations with CP Rail. Ownership of the lands underlying any state, county and town roads crossed by this segment are vested in the municipalities; the Certificate Holders have obtained or will obtain municipal consents necessary to place infrastructure within these municipally owned ROWs. The Certificate Holders have also obtained or will obtain options, easements or other agreements to utilize a small number of privately owned lands, generally adjacent to the CP ROW on a temporary or permanent basis to facilitate installation of Segment 9. The Certificate Holders will provide required documentation to the Secretary prior to commencement of construction work on those lands as required by CC 10 and 142, as discussed further in Table 3.2 and Section 4.

Proposed work consists of installing two 8-inch-diameter schedule (SCH) 40 polyvinyl chloride (PVC) conduits (or approved equal), associated access and site work required for trench installing, and the subsequent installation of the electric cables within the conduit. All trenching activities and horizontal directional drilling (HDD) work will be located within the permitted deviation zone except as noted in Section 1.3. In accordance with CC140, except as may be detailed, justified, and approved by the Department of Public Service (NYSDPS/DPS) pursuant to the EM&CP process, the Facility ROW will be no closer than the following distances:

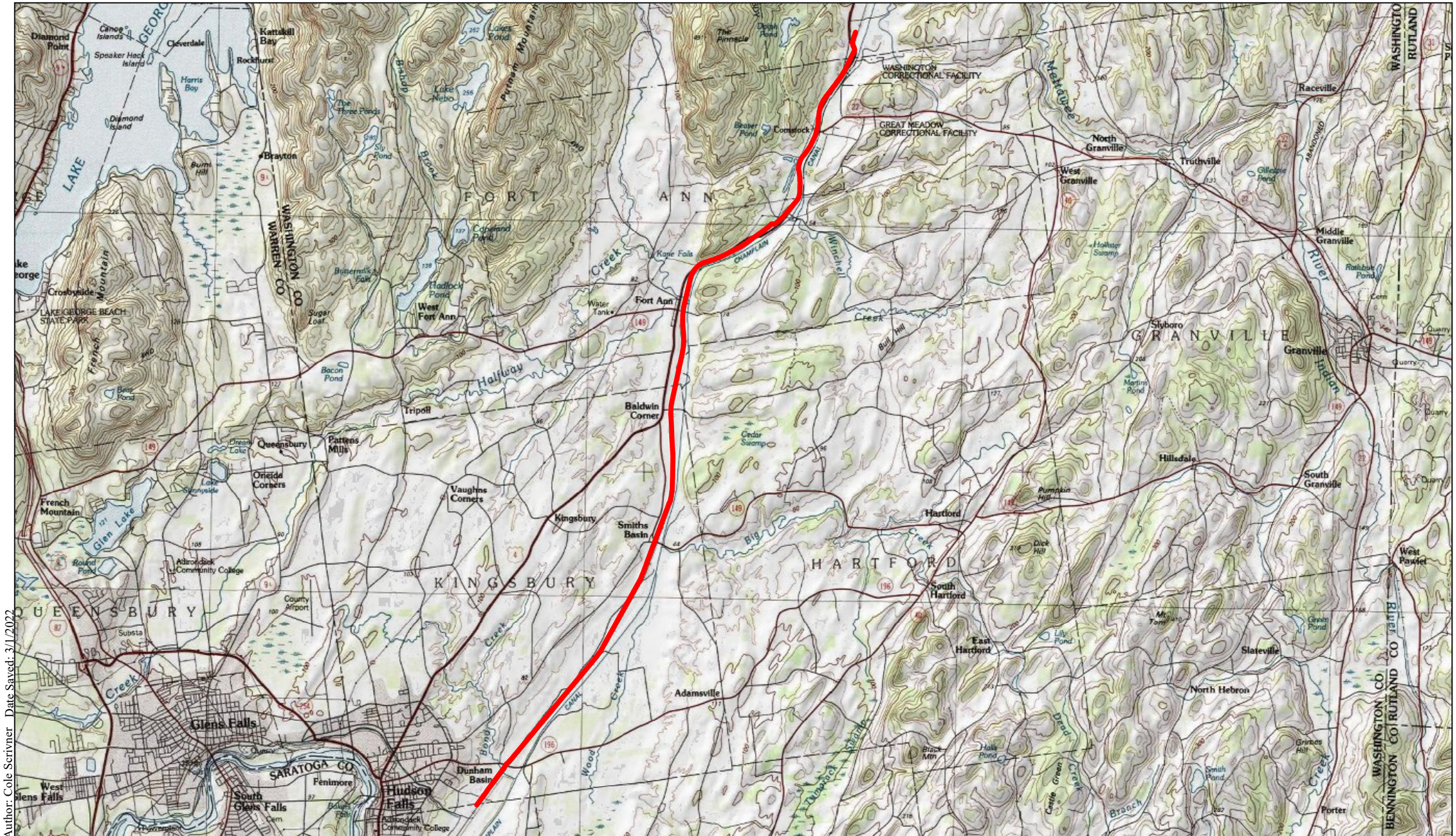
1. 6 feet to the outer surface of the nearest installed cable (when located entirely within lands owned or controlled by a railroad company or public highway).
2. 8 feet to the outer surface of the nearest installed cable (in all other areas).

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



Author: Cole Scrivner Date Saved: 3/2/2022

Figure 1.2 - Champlain Hudson Power Express
Segment 3 - Package 1C
USGS Project Location Map



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N

Legend

Package 2 Project Corridor

0 4 8 Miles

Figure 1.3 - Champlain Hudson Power Express

Segment 3 - Package 2

USGS Project Location Map

1.3 DEVIATION ZONE EXCURSIONS IN SEGMENT 3

The Allowed Deviation Zone (ADZ) is defined as the boundary of the Facility ROW, as approved by the Certificate. Any installation of cable outside the ADZ requires DPS approval prior to construction (CC 140, 156a, 157). Table 1.3 below summarizes the unique locations where cable is designed to be installed outside the deviation zones for Segment 3 as well as their justification and any changes to environmental impact. In the instance of an excursion that occurs within an HDD, there will be no negative change in environmental and cultural impact due to resources being avoided by the HDD. Additional information is included in Appendix E, Justification for Deviation Zone Excursions.

1.4 TEMPORARY LAYDOWN YARDS

During the construction of the CHPE Project, and as previously outlined in other EM&CP Submissions made to date (Temporary Laydown Yards EM&CP filed November 17, 2022), the project will construct temporary laydown yards (estimated to be in service for two – four years), to serve as storage for construction equipment, construction materials, and assembly of construction crews. Temporary laydown yard locations may require connection to public water systems, a drilled non-potable water well, or other water source. Additionally, connection and disposal of sanitary waste may utilize public sewer system, septic holding and transfer system, or similar system. Article VII generally preempts the local permits related to the construction and operation of major electric transmission lines (NY Pub. Serv. Law Section 130). The construction of the temporary laydown yards will meet the substantive requirements of local laws, engineering standards, and regulations. Where appropriate and authorized by the Public Service Commission, CHPE will obtain local ministerial permits related to the temporary laydown yard; for example, an interconnection to public water system. Decommissioning and site restoration of the temporary laydown yards will be completed at the end of construction. See Section 3.5 for more information on decommissioning.

Construction work on Segment 3 of the CHPE Project will utilize the Temporary Laydown Yard proposed in the Segment 1 and 2 EM&CP (Ryder Road Laydown Yard – Approved October 13, 2022), and Fort Edward Laydown Yard, for which the Certificate Holders have sought approval in an EM&CP filed November 17, 2022 (DMM Item 909). The temporary laydown yard components were separated from their respective segments and filed sooner in order to ensure that agency review and approval of those components allowed sufficient time within the appropriate seasons to begin setting up those proposed laydown yards. For that reason, CHPE will not be seeking additional authorization for a laydown yard with this Segment 3 EM&CP, in anticipation of the Temporary Laydown Yard EM&CP obtaining approval by the PSC prior to this submission.

Table 1.3 - Deviation Zone Revisions in the Segment 3 – Package 1C/2

Deviation Zone Excursion Number	Parcel	Sheet Number	Location (Approximate – see Drawings for Details)		Justification for Revision	Change in Environmental Impact
			Start	Stop		
Excursion S3-P1C #1	60.05-4-18	C-103	15032+20	15032+83	Avoid Bridge Abutment at Poultney Street and design requirements associated with Splice Location 031	None – no resources present
	60.09-2-8.6 60.09-2-8.6		15034+55	15040+05		
Excursion S3-P1C#2	60.09-2-8.6	C-104	15045+18	15054+62	Avoid existing utilities and steep slope adjacent to railroad tracks	None – no resources present
Excursion S3-P1C#3	69.-2-11	C-112	15169+48	15179+84	Steep slopes on the west side of the rail were not constructable; the alignment crosses to the East side of rail ROW. The conduit was not able to be constructed immediately adjacent to the rail because of the slope and Railroad requirements (zone of influence). The ROW is narrow in this location resulting in a DZ excursions (See Appendix E for additional information).	Wetland G-R-U/G-R-V is impacted by alignment outside the DZ, the old Champlain Canal and surrounding wetlands and agricultural areas are avoided by crossing to the east side of the tracks.
	69.-1-1	C-112, C-113	15179+89	15188+63		
Excursion S3-P1C#4	69.-1-1	C-114, C-115	15196+49	15219+20		Wetland G-R-W is impacted by alignment outside the DZ, the old Champlain Canal and surrounding wetlands areas are avoided by crossing to the east side of the tracks.
Excursion S3-P1C#5	77.-1-4.1	C-115 to C-117	15222+65	15252+45	HDD#6, Splice 38; steep slope adjacent to railroad.	Wetland G-R-X
Excursion S3-P1C#6	77.-1-4.1	C-118	15255+50	15257+88	HDD#7 work area utilities and steep slope adjacent to railroad.	Wetland G-R-X
	86.-1-5	C-118	15257+88	15263+84		
	86.-1-2.1	C-118 to C-119	15263+84	15273+56		
	86.-1-6	C-119	15273+56	15281+05		
	86.-1-18.1	C-119	15281+33	15283+04		
Excursion S3-P1C#7	69.-1-1	C-121	15301+73	15304+55	HDD#8 work area	None
Excursion S3-P2#1	103.-1-5	C-113 to C-114	20192+50	20204+00	HDD#12A (2nd conduit)	None
	103.-1-6.22	C-114	20204+00	20206+75		

Deviation Zone Excursion Number	Parcel	Sheet Number	Location (Approximate – see Drawings for Details)		Justification for Revision	Change in Environmental Impact
			Start	Stop		
	103.-1-11	C-114	20206+75	20209+00		
Excursion S3-P2#2	103.-1-35	C-117	20249+50	20254+35	HDD#13 – Design constraints (second conduit). Available space between RR and road	Wetland G-R-DD in HDD work areas
	103.-1-11	C-117 to C-118	20254+35	20269+94		
Excursion S3-P2#3	112.10-4-2	C-119 to C-120	20284+00	20290+00	HDD#13A Second conduit	Crossing under Stream G-R-S-C No impacts (all work outside DZ is below grade)
Excursion S3-P2#4	112.10-5-8.1 112.00-3-20	C-121 to C-122	20300+50 20310+50	20304+60 20320+50	Narrow ROW and design criteria requirements for offset of access road and alignment from tracks.	Temporary conduit crossing of Stream G-R-S-R and G-R-S-S and Wetland G-R-GG
Excursion S3-P2#5	112.00-3-20	C-122 to C-123	20329+74	20332+00	Design Constraints for HDD14A	Wetland G-R-GG
Excursion S3-P2#6	121.00-1-6	C-126	20383+09	20385+00	Design constrains for Baldwin Road Crossing	Wetland WLF-CD by access road (not conduit)
Excursion S3-P2#7	121.00-1-6, 121.00-1-14, 121.00-1-14.2, 121.-1.17, 130-3-1 130-3-7.3	C-126 to C-130	20388+74	20449+00	Design Constraints with other utilities closest to railroad	Wetlands WLF-CD, CE, CF, CG Stream G-R-S-T (by HDD), G-R-S-U (open cut) G-R-S-V (open cut), and P2-G -Agricultural lands for parcels 121.00-1-17, 130.-3-1, 130-3-7.3
Excursion S3-P2#8	130-3-7.4, 130.3-7.1, 130-3-7.5	C-132 to C-133	20473+00	20485+00	Design Constraints for splice location 55 and narrow ROW	Wetland G-R-MM Agricultural lands. Land for all three parcels
Excursion S3-P2#9	130.-3-7.5, 139.-1-12	C-134	20498+40	20501+10	Work Area for HDD#16	No resources present
Excursion S3-P2#10	138.-1-21.1	C-139	20578+35	20580+40	Design constraints for crossing stormwater culvert	Agricultural Land
Excursion S3-P2#11	138.-1-24	C-140	20587+30	20590+06	Design constraints for crossing stormwater culvert	Agricultural Land
Excursion S3-P2#12	147-1-15	C-144	20647+88	20656+16	Permanent easement where alignment separates from CP Rail for HDD#18. Avoidance of Wetland G-R-RR.	Wetland G-R-RR in HDD work areas (crossing under via HDD#18)
Excursion S3-P2#13	155.-1-8	C-148	20715+50	20718+00	Minor Excursion to cross stormwater culvert	Wetland G-R-RR (state wetland); Utility (stormwater culvert)
	155.-1-9					

Deviation Zone Excursion Number	Parcel	Sheet Number	Location (Approximate – see Drawings for Details)		Justification for Revision	Change in Environmental Impact
			Start	Stop		
Excursion S3-P2#14	155.-1-4 155.-1-14.1 154.-1-15 154.-1-16 154.-1-17 154.-1-18	C-149 to C-154	20733+00	20801+71	Permanent easement where alignment separates from CP Rail for HDD#20. Permanent easement where alignment separates from CP rail for U.S. 196 crossing. Permanent easement for where alignment separates from CP Rail for HDD#21 and HDD#21A.	- HDD#20 and #21 and #21A - NY Route 196 -Ag Land Properties 154.-1-15, 154.-1-16 - Potential avoidance of Stream G-R-S-Z - Potential avoidance Wetland G-R-SS

2.0 CERTIFICATE CONDITIONS WITH CHPE RESPONSE

Table 2.1 below identifies where each applicable CC to Segment 3-Package 1C/2 is addressed in this EM&CP.

Table 2.1 – Certificate Conditions

	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 generally comply, though this EM&CP includes requested Deviation Zone Exceedances outlined in Appendix E.	Section 1.0; Appendix C and E
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 generally comply,	Appendix C and E

	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)].	though this EM&CP includes requested Deviation Zone Exceedances outlined in Appendix E.	
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 generally comply, though this EM&CP includes requested Deviation Zone Exceedances outlined in Appendix E.	Appendix C; 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 generally comply, though this EM&CP includes requested Deviation Zone Exceedances outlined in Appendix E.	Section 1.3 & Glossary, Appendix C and E
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
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	CHPE complied in connection with first Segment EM&CP	Section 1.1

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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.	submission on April 15, 2022 (dmm Item 862).	
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, Section 2.0
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. All permits/consents required for or obtained in connection with site preparation and construction shall be provided to the Secretary before commencement of any activity requiring such permits.	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. Evidence of the obtaining of such interests shall be provided to the Secretary prior to commencement of the work.	See Section 1.2-1.3; Table 3-2.

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
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 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 Practices (BMPs), including, without limitation, section 11 of the BMPs. [as Amended by Order Approving Amendment Issued Sept. 21, 2020]	CHPE has complied (see DMM items 755and 756) 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)
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. Reports have been filed periodically to DMM as required since this provision was Ordered on Sept. 21, 2020, most recently on Sept. 30, 2022 (DMM Item 898).	Section 3.3; reports have been filed periodically to DMM as required since this provision was Ordered on September 21, 2020, most recently on February 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	CHPE will comply	Section 1.2; see permitting status report filed February 16, 2022 (DMM Item 847).

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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.		
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
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 and 881), as affirmed in the Order Approving Segment 1 and 2 EM&CP, Ordering Clause 2 (October 13, 2022) (DMM Item 903)
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	CHPE will comply	CHPE LLC executed a Firm Electric Transmission Rights Purchase Agreement (TRA) with H.Q. Energy Services (U.S.) Inc. CHPE LLC executed a Firm Electric Transmission Rights

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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 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.		Purchase Agreement (TRA) with H.Q. Energy Services (U.S.) Inc. (HQUS) on November 29, 2021. Pursuant to the TRA, HQUS is contracted for 100% of the transmission line capacity (1,250 MW). Further, a proposed 25-year contract between HQUS and the NYSERDA for 1,250 MW to be delivered from Quebec to the City of New York over the CHPE line was approved by Order of the Commission on April 14, 2022, in Case 15-E-0302 (DMM Item 993, Order Approving Contracts for the Purchase of Tier 4 Renewable Energy Certificates).
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 3 - Package 1C/2 - will be addressed in EM&CP for Astoria-Rainey segment.

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 3 - Package 1C/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 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.	CHPE will comply	General condition not related to EM&CP
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 CC 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	Does not apply to Segment 3 - Package 1C/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 3 - Package 1C/2; will be addressed for EM&CP Segments in CNY

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
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 3 - Package 1C/2; will be addressed for EM&CP Segments in CNY
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
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

Certificate Condition (Changes by Amendments and the Certificate Order in red) C. HVDC-AC Converter Station Design, Interconnection and Construction		Compliance Status CHPE Response	EM&CP Section/ Appendix 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 3 - Package 1C/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) 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.	CHPE will comply	Does not apply to Segment 3 - Package 1C/2
22(b)	The Converter Station shall be designed to minimize visibility and visual impacts.	CHPE will comply	Does not apply to Segment 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/2
23	The EM&CP Site Plan for the Converter Station site shall include the following:	CHPE will comply	Does not apply to Segment 3 - Package 1C/2

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/2
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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 13.0 & 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 13
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 13

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
27(c)	but do not include railroads, railways, highways, roads, streets, or avenues.	CHPE will comply	Section 12 and Section 13
28	In order to protect CI, Certificate Holders shall:	CHPE will comply	Section 13
28(a)	within 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 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	CHPE has complied.	Sections 3.3 and 13; Appendix R
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 has complied.	Sections 3.3 and 13; 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	CHPE will comply	Section 13.0

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	the circumstances, and except where such procedures are subject to the Commission's 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 13.0; 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 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 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 13
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
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.	CHPE will comply	Section 3.3 and 13; Appendix F (Compliance Assurance Plan)

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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		
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 3 - Package 1C/2
29	Reimbursement of Owners or Operators of CI and/or Potential CI for Certain Expenses:	CHPE will comply	Section 13
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 13
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 Condition, the total cost to be borne by the Certificate Holders is five thousand dollars ($5,000) or less.	CHPE will comply	Section 13
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	CHPE will comply	Section 13

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
	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 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 30 days of receipt.		
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 13
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 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	CHPE will comply	Does not apply to Segment 3 - Package 1C/2

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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.		
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 3 - Package 1C/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
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 13.3

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 4.10; Appendix C
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 4.7; 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 12.1 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 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.	CHPE will comply	Section 12.1 Appendix C
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 12.1 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 12.1 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	CHPE will comply	Section 3.3 and Appendix I

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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.		
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. A copy of these notices shall be filed with the Secretary.	Section 3.3
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 has complied (see DMM Item 905, filed November 3, 2022).	No further discussion provided.

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
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 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 60days 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 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
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 9.3; 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 9.3; 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	CHPE will comply	Section 3.1; Appendix F

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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").		
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 3 - Package 1C/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 inspectors and the extent of their presence at the Project site may be temporarily increased commensurate with the increase in activity levels.	CHPE will comply	Section 3.1
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 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

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
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
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

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
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 Staff will immediately thereafter inform the Certificate Holders' Construction Inspector and/or Environmental Inspector of the action taken.	CHPE will comply	Section 3.4
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 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

	Certificate Condition (Changes by Amendments and the Certificate Order in red) H. Overland Installation	Compliance Status CHPE Response	EM&CP Section/ Appendix 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 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.	CHPE will comply	Section 3.2
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
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 4.7.
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	Does not apply to Segment 3 - Package 1C/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 4.10
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
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.	CHPE will comply	Section 6.3.2 and Appendix K - SPCC

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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 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 8.4
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 8.4
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 8.4, 9.4 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 8
66	All trees over 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 14.2
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	CHPE will comply	Section 3.3, 6.3 and SWPPP (Appendix G)

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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 5 days written notice.		
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 12.1; 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 12.1; 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 3 - Package 1C/2
70	Construction access to the Construction Zone at controlled-access highways shall be provided from off-highway locations.	CHPE will comply	Does not apply to Segment 3 - Package 1C/2
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 12.1 and Appendix C

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 12.1
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 13.4 and 14.2
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 13.4 and 14.2
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 7.1, 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 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.	CHPE will comply	Section 4.10
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	CHPE will comply	Section 14.5

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
	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.		
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 14.5
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 & Mkts that favorable soil moisture conditions exist. The Certificate Holders shall monitor and advise Ag & Mkts and DPS Staff regarding tentative restoration planning.	CHPE will comply	Section 14.5
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	CHPE will comply	There is no planned herbicide use during construction.

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
	be present in the field to ensure compliance with provisions in such documents for targeting species and for proper application of authorized herbicides.		
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 3 - Package 1C/2
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 3 - Package 1C/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 3 - Package 1C/2

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 14.1
89	The Certificate Holders shall, on completion of construction of the Facility:	CHPE will comply	Section 14.1
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 14.1
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 14.1
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 14.1
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 C and 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 14.1
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 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.	CHPE will comply	Does not apply to Segment 3 - Package 1C/2

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 3 - Package 1C/2
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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 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,	CHPE will comply	Does not apply to Segment 3 - Package 1C/2

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
	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 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.	CHPE will comply	Does not apply to Segment 3 - Package 1C/2
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 3 - Package 1C/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	CHPE will comply	Does not apply to Segment 3 - Package 1C/2

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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.		
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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 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.	CHPE will comply	Does not apply to Segment 3 - Package 1C/2
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	CHPE will comply	Does not apply to Segment 3 - Package 1C/2

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
	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.		
99(c)	Barge overflow is prohibited.	CHPE will comply	Does not apply to Segment 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/2
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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/2
99(m)	In no instance shall excavated contaminated sediment be placed back into a waterbody.	CHPE will comply	Does not apply to Segment 3 - Package 1C/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 3 - Package 1C/2

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 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.	CHPE will comply	Does not apply to Segment 3 - Package 1C/2
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 3 - Package 1C/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 3 - Package 1C/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	CHPE will comply	Does not apply to Segment 3 - Package 1C/2

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
	water samples collected from the PWS facilities should be reported using a twenty-four (24) hour turnaround.		
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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/2
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 3 - Package 1C/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 3 - Package 1C/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	CHPE will comply	Section 11

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	heritage resource impact mitigation measures as specified in the approved EM&CP or facility management and restoration plan(s).		
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 11
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 effects on historic properties within the APE and determining the appropriate treatment, avoidance, or mitigation of any effects of the Facility on these resources.	CHPE will comply	Section 11 & Appendix O
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 11 & 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 11.0 & Appendix O

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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	Section 11.0 & Appendix O
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 9.1 and 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. Delineation report shared with agencies in March and May 2022.	Section 3.3, 9.1, Appendices A and M
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 9.1
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 9.1
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 9.1
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 8.2
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 9.1
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 4.4, Section 9.1
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	CHPE will comply	Section 9.1

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	runoff and sedimentation during construction (other than installation of underwater cables in navigable waters) shall include:		
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 has complied. Documentation showing the inventory was delivered to NYSDPS, NYSDOS and NSDEC staffs 30 days prior to this filing is included in Appendix A.	Section 3.3, 9.1 and Appendix A
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 9.1
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 9.1
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 9.1
114(e)	Prohibition of vehicular access where alternative access can be provided;	CHPE will comply	Section 4.10, 9.1
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, 9.1 and Appendix F
114(g)	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	CHPE will comply with this section, as amended on December 15, 2022.	Section 5.4, 5.5, 9.2 and Appendix K

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
	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 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 9.1
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 9.1
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 9.1
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	CHPE will comply	Section 3.3 and Appendix J and K

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	the procedures specified in the approved EM&CP. For any release occurring in a waterbody, the 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 9.1
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 9.1
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 9.1, Section 14
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 9.1

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 3 - Package 1C/2; will be addressed in other filings/processes, as appropriate.
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 3 - Package 1C/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	CHPE will comply	General Requirement; Does not apply to Segment 3 - Package 1C/2; will be addressed in other filings/processes, as appropriate

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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.		
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 3 - Package 1C/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 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.	CHPE will comply	General Requirement; Does not apply to Segment 3 - Package 1C/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	CHPE will comply	Section 3.3

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	fund construction of the System Deliverability Upgrades (as that term is defined in the OATT) required to obtain such additional CRIS rights;		
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
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	CHPE will comply	General Requirement; Does not apply to Segment 3 - Package 1C/2; will be addressed in other filings/processes, as appropriate

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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.		
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 3 - Package 1C/2; will be addressed in other 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 3 - Package 1C/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 3 - Package 1C/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.	CHPE will comply	Section 3.3

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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.		
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 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.	CHPE will comply	General Requirement; Does not apply to Segment 3 - Package 1C/2; will 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

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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, 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.	CHPE will comply	Section 3.3
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

	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 4.7
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 4.7
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 4.7

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 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.	CHPE will comply	General Requirement.
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 13.0 and Appendix C and R..

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
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 13.0 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 8
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 3 - Package 1C/2.
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.

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
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 Appendix B
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 Appendix 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; Appendix B

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
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
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. Proofs of service will be provided once available.
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 to be filed as soon as available.
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	CHPE will comply	Does not apply to Segment 3 - Package 1C/2

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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 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	CHPE will comply	Does not apply to Segment 3 - Package 1C/2

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	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; 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 3.2.6 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 3.2.6
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 3.2.6

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 3.2.6
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 3.2.6
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 12. 13 and 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 12, 13 Appendix C and R.
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 12, 13, Appendix C and R.
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 13
159(e)	each construction activity as discussed in Condition 58;	CHPE will comply	Section 3.2
159(f)	a comprehensive plan to identify encroachments within the Construction Zone as discussed in Condition 60;	CHPE will comply	Section 4.7

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 4.3 & 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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 10
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 4.10, 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 14.5.2
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	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

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
	superseded these standards at the time of consideration by the Commission of the EM&CP or a particular Segment EM&CP;		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)
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	Section 9
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 9.3
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	Does not apply to Segment 3-=Package 1C/2
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

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
159(bb)	a blasting plan that includes the information described in the BMPs;	CHPE will comply	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)
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 3 - Package 1C/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 3 - Package 1C/2
159(gg)	invasive species control measures during construction;	CHPE will comply	Section 9.4 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 3 - Package 1C/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 3 - Package 1C/2
159(jj)	other mitigation measures as appropriate to demonstrate compliance with other permits and approvals;	CHPE will comply	Section 9.1, 9.2, 9.4, Appendix M and N
159(kk)	plans and specifications for site and pavement restoration, including pre-existing drainage systems;	CHPE will comply	Section 14.2 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 10.1 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 3 - Package 1C/2

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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.
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	Does not apply to Segment 3 - Package 1C/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	Does not apply to Segment 3 - Package 1C/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,	CHPE will comply	Appendix F

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
	operation, or maintenance of the Facility; f. A schedule for monthly environmental audits during 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 13.0, 13.3, and Appendix R
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 13.1
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
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

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 13.1
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 3 - Package 1C/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 13.1, 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 13.1, 13.2, 13.3 and Appendix C
162(h)	protocols for performing repair and maintenance work on the Facility in proximity to CI;	CHPE will comply	Section 13, 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 13, Appendix R

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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, 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.	CHPE will comply See DMM Items 746, 750, 753, 848, 879.	Does not apply to Segment 3 - Package 1C/2; No further discussion provided
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.	See DMM Item 879.	Not within the scope of the EM&CP.

	Certificate Condition (Changes by Amendments and the Certificate Order in red)	Compliance Status	EM&CP Section/ Appendix
165(b)	Within 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 has complied.	Does not apply to Segment 3 - Package 1C/2; is addressed by separate filings to the PSC
165(c)	Within 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 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	CHPE has complied.	Does not apply to Segment 3 - Package 1C/2; is addressed by separate filings to the PSC

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
	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 3 - Package 1C/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 will comply	Does not apply to Segment 3 - Package 1C/2; is addressed by separate filings to the PSC
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 3 - Package 1C/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 3 - Package 1C/2; is addressed by separate filings to the PSC

Certificate Condition (Changes by Amendments and the Certificate Order in red)		Compliance Status	EM&CP Section/ Appendix
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 3 - Package 1C/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 3 - Package 1C/2; is addressed by separate filings to the PSC
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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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 3 - Package 1C/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; 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 summarizes the 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 (CC53c). All Project personnel including the Certificate Holders' employees, contractors, and subcontractors will be properly trained in the construction, operation, and maintenance of the Project (CC53i). The necessary contact information for the inspectors will be included in Appendix F Compliance Assurance Plan. Additional contact information for other onsite inspectors will be provided to DPS and NYSDEC Staff at least 2 weeks prior to the start of the Project construction (CC53g).

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

1. Possess good communication skills, both oral and written.
2. Be honest, fair, straightforward, sincere, and possess a strong sense of integrity.
3. 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.
4. Be experienced with underground utilities. (BMP Document, Section 2.0)

Figure 3.1 – High Level Construction Organization Chart

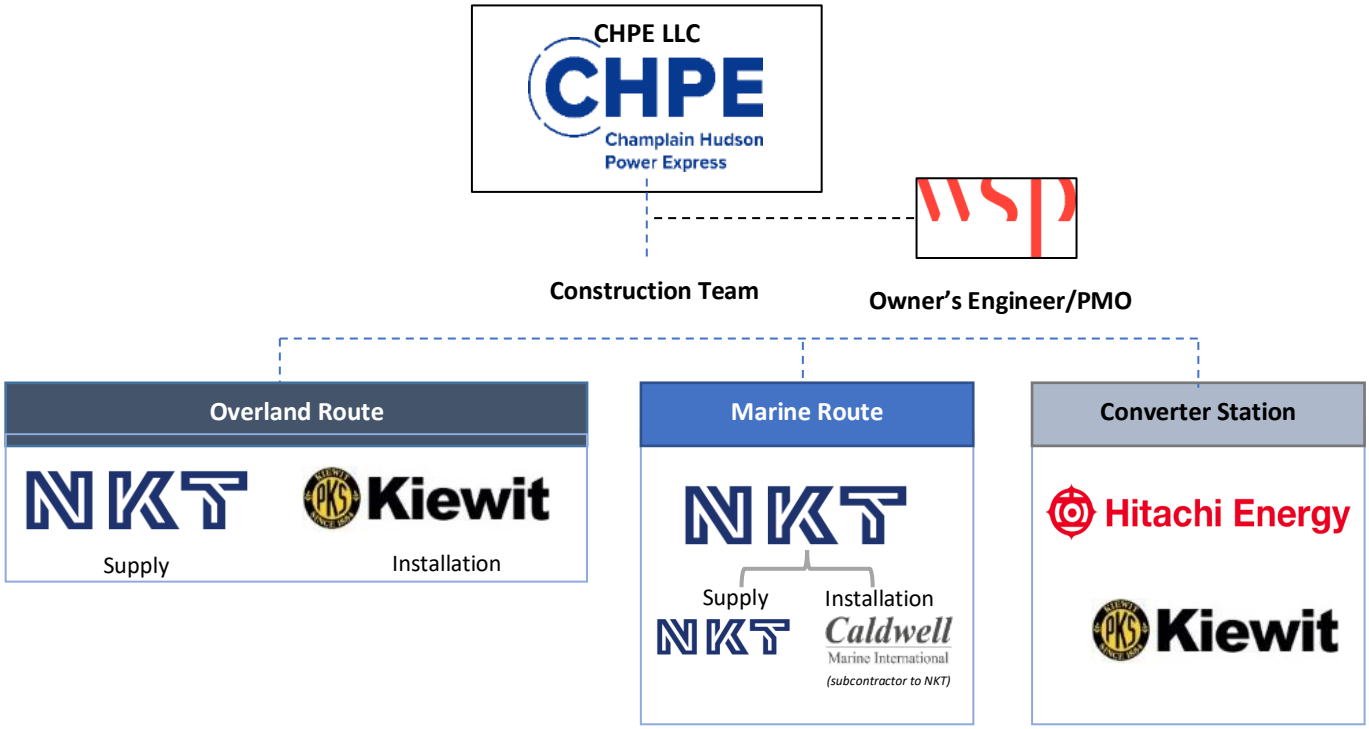
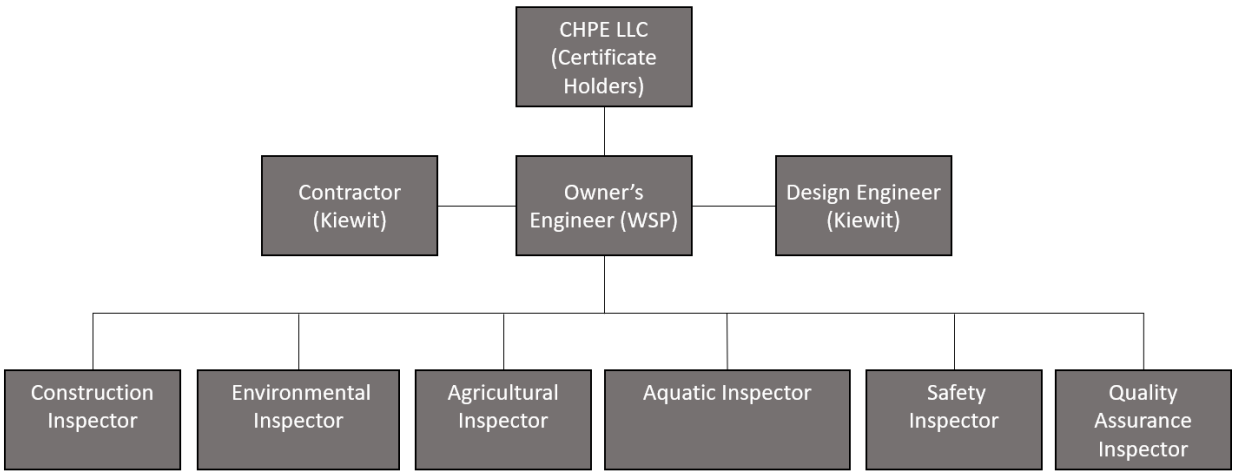


Figure 3.2 – Construction Inspectors Organizational Chart



*An Aquatic Inspector is not required for this Segment

3.1.1 Contractors

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 (CC43).

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 (CC44).

Kiewit will serve as the EPC Contractor for the overland segments and will hire subcontractors as determined necessary to complete the construction of the Project.

3.1.2 Environmental Inspector

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, the ECL, the WQC issued in connection with the Project pursuant to section 401 of the Federal Clean Water Act, and the procedures outlined in this EM&CP (CC53e).

At least one Environmental Inspector will be employed full-time during construction and restoration (CC53a) on Segment 3 – Package 1C/2 (see Appendix F for further detail). 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.

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, significant natural communities, and rare, threatened, and endangered (RTE) plants, restoration work, etc.
2. Provide DPS and NYSDEC, as well as 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 two weeks.
3. Coordinate inspections of the Project by NYSDEC, New York State Department of Agriculture and Markets (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 PSL, and the EM&CP.
6. Verify that the ROW and any 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 the boundaries of sensitive resource areas (e.g., waterbodies and wetlands) or other areas where special requirements will be in effect, including trees marked for removal or protection.
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, topsoil, and vegetation where applicable.
12. Determine the need for additional erosion and sediment controls other than those already required by the Certificate and the EM&CP and ensuring 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-0-10-001 (CC53h)).
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 (in coordination with the Safety Inspector) 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 any 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 (BMP Document, Section 2.1.1).
20. Monitor all construction activities on, above, below or in the vicinity of Railroad ROW to assure that work in the ROW of a track is performed in accordance with the Railroad Owner ROW Work Permit issued by the railroad and, as applicable,

any use and occupancy permits, leases or other permits or agreements issued by, with or involving the Railroad.

21. Direct informal and formal training of other company/sponsor staff (e.g., land men, craft inspectors, Construction Inspector, Agricultural Inspector, etc.) and construction personnel in the proper use and application of the environmental ROW standards and case-specific orders of certification.

3.1.2.2 Qualifications

The Environmental Inspector must have the following qualifications:

1. Sufficient knowledge and experience to manage the environmental compliance procedures described in the EM&CP.
2. 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.

Necessary qualifications consistent with a "Qualified Inspector" pursuant to the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-10-001) (BMP Document, Section 2.1.2).

3.1.3 Construction Inspector

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 section 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:

1. Ensure that high standards of contract compliance are consistently maintained.
2. Work with the appropriate individuals to fully understand contract program needs and ensure that promised commitments are delivered on time and within budget.
3. Participate in construction conference calls and meetings to provide weekly updates and reports.

4. Assure that site personnel are properly directed, trained, licensed, and evaluated.
5. 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 NYSDOT and, as applicable, any use and occupancy permits, leases or other permits or agreements issued by, with or involving NYSDOT.
6. 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 (BMP Document, Section 2.4.1).

3.1.3.2 Qualifications

The Construction Inspector must have the following qualifications:

1. An Associate degree or higher in a construction related discipline.
2. 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.
3. Knowledge of federal, state, Occupational Safety and Health Administration (OSHA), local, and applicable environmental rules and regulations.
4. A thorough understanding of electrical principles and the hazards associated with electrical transmission work.
5. The ability to travel throughout the Project area and work extended hours and weekends in emergency situations, as needed (BMP Document, 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 7.1 in Section 7.1 summarizes the agricultural lands that will be impacted by the construction activities of Segment 3 - Package 1C/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:

1. The basic standards of NYSDAM including the recommendations in the Pipeline ROW Construction Project guidance document (NYSDAM 1997), and
2. 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:

1. 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.
2. 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.
3. Direct the on-site monitoring of, and the follow-up restoration in, agricultural lands.
4. 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.
5. Communicate with the County Soil and Water Conservation Districts and NYSDAM.
6. Maintain regular contact with the Environmental Inspector and Construction Inspector throughout the construction phase (CC53f) (BMP Document, Section 2.2.1).

3.1.4.2 Qualifications

The Agricultural Inspector must have the following qualifications:

1. 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 five years; or
2. Steady advancement in a career through on-the-job training and performance, regionally, for a minimum of ten 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

3. Combination of 1 and 2 above; or
4. Steady advancement in a career through on-the-job training and field performance for a minimum of five (years in construction/restoration ROW work, with at least two 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 (BMP Document, Section 2.2.2).

3.1.5 Aquatic Inspector

An Aquatic Inspector is not required for Segment 3 - Package 1C/2 as there will be no aquatic installation, construction, or impact (BMP Document, Section 2.3).

3.1.6 Safety Inspector

One Safety Inspector will work full-time on Segment 3 - Package 1C/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:

1. 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.
2. Assist management and directing safety specialists in analyzing any serious incidents.
3. 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.
4. 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.
5. 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 (BMP Document, Section 2.5.1).

6. Advise management on problem solving or decision making regarding the discovery of pre-existing onsite hazardous materials in coordination with the Environmental Inspector.

3.1.6.2 Qualifications

The Safety Inspector must have the following qualifications:

1. A Bachelor's degree – preferably in Safety Management, a related science or engineering discipline.
2. Have 5 to 7 years of professional safety experience.
3. Have 5 to 7 years of experience in electric or gas operations or in a related industry, preferably in a supervisory or leadership role.
4. Be certified as a Safety Professional or Occupational Health Professional or another equivalent recognized credential.
5. Have knowledge of federal, state, and local safety and health laws and regulations.
6. Have knowledge of electric operations, experience with underground utilities is a plus.
7. Have knowledge of industrial hygiene principles.
8. Have 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.
9. Demonstrated ability to manage multiple high-priority tasks and engage in complex problem-solving.
10. Demonstrated high level of ethical behavior; and
11. Have excellent judgment and decision-making skills (BMP Document, Section 2.5.2).
12. Have OSHA 40-hour HAZWOPER training or other applicable training regarding hazardous materials.

3.1.7 Quality Assurance Inspector

The Quality Assurance Inspector will conduct the Quality Control Audits described in the Compliance Assurance Plan in Appendix F.

At least one Quality Control and Assurance Inspector will be employed on a part-time basis as needed for the Project.

3.1.7.1 Responsibilities

The Quality Assurance Inspector will have the following responsibilities:

1. Perform quality audits on transmission lines, converter stations and substations.
2. Verify that installation of the cable complies with construction specifications.
3. Write and publish reports detailing results of field construction audits.
4. Track non-conformances for work not meeting the required specifications.
5. Require submission of corrective and preventive action from the Certificate Holders for any non-conformance with the construction plans.
6. Maintain documentation in a systematic and orderly manner.
7. Identify areas where the quality of work can be improved.
8. Participate in conference calls and meetings.
9. Develop in-process quality statistical reporting forms and charts to support the Compliance Assurance Plan found in Appendix F; and
10. Conduct audits of compliance with the Certificate, Orders, and legal requirements as required by the CCs (BMP Document, Section 2.6.1).

3.1.7.2 Qualifications

The Quality Assurance Inspector will have the following qualifications:

1. A Bachelor's degree and a minimum of three years of experience in a quality assurance role; or an equivalent combination of technical education and training and a minimum of eight years of experience in a quality assurance role.
2. Ability to undertake tasks with limited supervision and be highly motivated.
3. Demonstrated analytical skills with the ability to evaluate and produce routine reports.
4. Ability to collect, enter, analyze, track, and produce data.
5. Demonstrated organization and planning skills, with the ability to schedule and perform quality audits across internal and external functions.
6. The ability to solve complex issues; and
7. 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) (BMP Document, 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 (CC57). The Certificate Holders will also continue to coordinate with CP Railroad for work within the railroad ROW as described in Section 13.0 of the EM&CP.

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 (including railroad owners) to enter and inspect the Project 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 (CC56). The Certificate Holders will also continue to coordinate with CP Railroad for work within the railroad ROW as described in Section 13.0 of the EM&CP.

3.2.2 Inspection and Coordination Requirements and Schedule

Table 3-1 identifies the inspections required, as well as the person who will perform or coordinate the inspections and their frequencies. Additional information for various inspections is detailed in Section 3.2.3.

Table 3.1 – Inspection and Coordination Requirements and Schedule

Inspection/Coordination Required	Person Performing Inspections/Coordination	Frequency of Inspections
Pre-construction Meeting	Certificate Holders invite DPS Staff, NYSDOT, Railroad Owner, and NYSDEC.	Two weeks prior to start of overland construction
Foundation inspections to adjacent buildings and structures within Segment 3 -Package 1C/2	Certificate Holders' hired inspectors/contractors.	Prior to construction at each location
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 years of Operation
SWPPP BMPs	Environmental Inspector	Weekly during soil disturbing activities

Inspection/Coordination Required	Person Performing Inspections/Coordination	Frequency of Inspections
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
Coordination meetings per contract agreements as applicable (i.e. weekly progress meetings, monthly progress meetings, monthly design review meetings, etc.)	Certificate Holders' hired Inspectors/Contractors.	Weekly, bi-weekly, or monthly as applicable.

3.2.3 Inspection/Coordination Additional Details

3.2.3.1 Construction Meeting

For the preconstruction meeting, the agenda, location, and attendee list 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 (CC58, 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 two years after the commencement of operation of the Project (CC55). 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. Perform activities that the Certificate Holders or DPS Staff consider appropriate (CC55a).

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 (CC55b).

3.2.3.3 SWPPP Inspections

As specified in the SWPPP in Appendix G, the Certificate Holders, via the Environmental Inspector shall inspect the erosion and sediment control measures as identified in the SWPPP to ensure that they are being maintained in effective operating conditions at all times. When soil disturbance activities occur, a site inspection will be conducted by the Environmental Inspector at least once every seven 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 SWPPP inspections, if reducing the frequency is mutually agreed upon by the ROW owner.

The Environmental Inspector shall resume inspections when soil disturbing activities begin again. The Environmental Inspector shall 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 two 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 14.0 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 procedures for the post-installation inspection plan are described in the Compliance Assurance Plan (Appendix F) (CC161). The Certificate Holders will conduct an immediate post-installation inspection of the alignment for Segment 3 – Package 1C/2.

3.2.4 Notifications

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 this Segment of the Project. This notice will be distributed 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:

1. **Newspapers** (CCs152& 154): the notice will be published within one week prior to the filing the EM&CP and will continue through the following week in three local newspapers in accordance with CCs 152 and 154. Certificate Holders selected the official newspapers of record for the host municipalities : the *Post Star* (a daily newspaper with broad circulation in the Segment 3 area), the *Granville Sentinel* 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.
2. **Parties to the Proceeding** (CC152): the notice will be posted to the PSC's online DMM docketing system in Case 10-T-0139 for distribution to all Parties to the proceeding.
3. **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 Segment 3-Package 1C/2 (CC153); and the owners of Critical Infrastructure (CI) and railroads whose facilities, properties and/or structures fall within the geographic scope of Segment 3-Package 1C/2 (CC152) (see Appendix B).

4. **Structure Owners** (CC154): a Structure Owner notice letter was provided to the owners of residences, buildings and other structures within 100 feet of any trenching activity or HDD location providing general notice of the filing and offering to inspect foundations in accordance with CC 154 (see Appendix B).
5. **Interest Holders** (CC143 & 155): this Segment includes 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 or will obtain a temporary or permanent interest in the Facility site properties, in accordance with CC 143 (see Appendix B).
6. **Agricultural Consultation** (CC76): 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 NYSDAM 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 (CC42 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 below. Section 12.1 describes the notices to be performed for municipal transportation agencies and Section 13.1 describes the notices to be performed for all infrastructure owners within Segment 3 – Package 1C/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 Appendix I.

3.2.5 SPDES Notice of Intent

In accordance with the State Pollution Discharge Elimination System (SPDES) General Permit for Construction Activities (GP-0-20-001), the Certificate Holders will maintain 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 five years from the date that the site is finally stabilized. Additional details are provided in Section 6.0.

3.2.6 Modifying the EM&CP

The Final EM&CP approved by the PSC may incorporate modifications from this Proposed EM&CP by the Certificate Holders. No change to the approved EM&CP may thereafter be made except in accordance with the following procedures (CC158):

For a proposed change that:

1. Would involve a site listed or eligible for listing on the New York State or National Register of Historic Places (NRHP), the Certificate Holders will give at least 2 weeks prior notice to the Field Service Bureau of OPRHP.
2. 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.
3. 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.
4. Would affect the individual or habitat supporting RTE plants, the Certificate Holders will give at least 2 weeks prior notice to NYSDEC and DPS.
5. Would involve agricultural land, the Certificate Holders will give at least 2 weeks prior notice to NYSDAM.
6. 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.
7. Would affect land or water owned or controlled by CNY, the Certificate Holders will give at least 2 weeks prior notice to CNY (CC158a).

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 (CC158b). 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 notified, as well as property owners or lessees whose property is affected by the proposed change. The notice will:

1. Describe the original conditions and the requested change,
2. Provide documents supporting the request, and
3. State that persons may comment by writing to the PSC within 21 days of the notification date (CC158c).

The Certificate Holders will not execute any proposed change until they receive written approval from the PSC (if PSC approval is required 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 has obtained oral approval from DPS Staff for a change, DPS Staff will confirm such approval in writing within 10 business days (CC158d).

3.3 REPORTING AND DOCUMENT MANAGEMENT

Several CCs identified in Section 2.0 explicitly address the timing requirements for Project notifications and reports. Table 3.2 summarizes these CCs based on if the notification is required before, during, after construction, or at any point during those three periods. Not all notices are required for the Segment 3 - Package 1C/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 (CC68).	DPS Staff and NYSDOT.	Prior to filing any Segment EM&CP involving any state-owned ROW. Pre-EM&CP coordination is described in Section 12, Table 12.2 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 (CC151).	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 (CC152).	Relevant parties specified in CC152.	Upon filing the applicable Segment EM&CP. See Section 3.2.4, Section 12.1, and Section 13.1 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 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 (CC154).	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 (CC143).	Relevant parties specified in CC143.	Upon filing the applicable Segment EM&CP. See Appendix B and Section 4.7
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 (CC28d).	Owners and operators of all co-located infrastructure	At least 180 days prior to the filing of the Segment 3 - Package 1C/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. (CC152). The notice will contain the information outlined in CC155a.	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 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 CC 153. 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 153. Proof of notice to residents, businesses, and building and structure owners will be provided to the Secretary (CC153).	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
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" (CC28a, 28b, 162).	Owners and operators of all co-located infrastructure	Within 180 days of submission of Segment EM&CP. See discussions in Section 13 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 (CC28, 162).	Owners and operators of all co-located infrastructure, as applicable.	Upon filing the applicable Segment EM&CP. See discussions in Section 13 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 (CC113a).	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 M.
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 (CC114a).	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 M.
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 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 operations through to the permanent stabilization of the soil. The SWPPP will be available at the construction site and available to the public upon 5 days written notice (CC67).	Included in the EM&CP	Concurrent with filing of Segment EM&CP. Included as Appendix G.

Description	Submitted to	Approximate Due Date
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 NYSDAM 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) (CC76).	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 (CC69).	Included in the EM&CP	Prior to filing date of applicable Segment EM&CP. Design consultations completed with the 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 (CC155b).	Secretary to the Commission.	Following each applicable Segment EM&CP filing.
BEFORE CONSTRUCTION		
All necessary permits and consents referred to in CC 16 that pertain to the Segment 3 - Package 1C/2 (CC9).	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 (CC46).	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 department or agency of the approximate date when work will begin (CC69a).	Transportation Department or Agency crossed by project.	When work begins; Pre-EM&CP coordination is described in Section 12, Table 12.2.
The Certificate Holders will provide notification prior to construction involving protected stream crossings (CC115).	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 (CC53g).	DPS Staff and NYSDEC.	At least 2 weeks prior to the start of construction.

Description	Submitted to	Approximate Due Date
At least 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. (CC58)	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 (CC59).	DPS Staff	Prior to construction.
The Certificate Holders will keep required parties apprised of on-site chemicals and waste stored within 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 300-feet of such facilities (CC34).	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 (CC76).	Agricultural landowners and 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 CC42.	Local officials and Emergency Personnel.	2 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 CC42.	Media for public display.	2 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 100 feet of their property at least 2 weeks prior to the commencement of construction in these areas and provide copies of all correspondence to the DPS Staff. The notice will meet the conditions outlined in CC42 (CC33, 42).	Adjacent landowners & Tenants with copies to DPS Staff	2 weeks prior to commencement of site preparation in area of landowner or tenant.
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	DPS Staff as needed.	Upon commencement of construction. See Appendix I for current toll-free number, Public Involvement Plan and Compliant Resolution Plan.

Description	Submitted to	Approximate Due Date
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 3 business days after receipt of the complaint (CC41).		
The Certificate Holders will provide status reports summarizing construction and indicating construction activities and locations scheduled for the next month (CC47).	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 (CC60).	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 (CC72).	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 (CC110). (see Cultural Resources Section 11 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 (CC111). (see Cultural Resources Section 11 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 (CC51).	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 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 (CC52).	DPS Staff, NYDEC, USFWS, NMFS.	As soon as possible upon discovery.
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 (CC114m).	DPS Staff and NYSDEC.	Immediately.
Immediate notification of any petroleum product spills (CC35).	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.

Description	Submitted to	Approximate Due Date
Notification prior to the commencement of any herbicide application on the Project (CC84).	DPS Staff and the appropriate NYSDEC Regional Natural Resource Supervisor(s) and Pesticide Control Specialist.	14 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 (CC133). 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 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 (CC132).	Secretary of the Commission.	60 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 (CC48).	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 CC139.	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 (CC136).	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 (CC50).	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 CC91.	Secretary of the Commission.	Within 6 months after commencement of commercial operation.
The Certificate Holders will notify NYSDOT, NYSDEC, and the Secretary to the Commission of the date of commencement of commercial operation (CC50).	NYSDOT, NYSDEC, and the Secretary to the Commission.	3 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.	DPS Staff, NYPA, Con Edison.	Within five business days of any failure of equipment causing a reduction of more than 10 percent in the capacity of the Project.
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.	DPS Staff, NYPA, Con Edison.	Monthly until repairs are completed.

Description	Submitted to	Approximate Due Date
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.	Secretary to the Commission.	Within nine months and two 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.	Bulk Electric System Section of DPS Staff, Con Edison, and NYPA	Within one 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 (CC136).	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.	DPS Staff	If the HVDC transmission system trips offline (other than as a result of any Operational Measures).
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 (CC134).	DPS Staff, NYPA, Con Edison	
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 CC134. The Certificate Holders will work cooperatively with Con Edison, NYPA, NYISO, NPCC, NYSRC, NERC, and DPS Staff to prevent any future occurrences (CC134).	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 (CC139).	DPS	Within 90 days following the completion of construction.
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 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 (CC49)	OGS	Within 60 days of completing construction.

Description	Submitted to	Approximate Due Date
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 (CC11a).	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) (CC11a).	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 (CC11c).	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. (CC11c).	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 (CC125).	Secretary to the Commission.	As available and when updated, throughout the life of Facility.
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 (CC45).	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 (CC18b).	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 (CC12).	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 (CC40).	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 45	DPS Staff	As needed with 45 days of notification by DPS Staff.

Description	Submitted to	Approximate Due Date
days of notification by DPS Staff that DPS Staff has determined that a reliability problem exists (CC131).		
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.	DPS Staff	As needed within one 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 3.2.6	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 (CC28g).	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 (CC28f).	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 (CC128).	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
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 (CC130).	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 for the occurrence or prevention of violations of a CC or a condition of another Project permit. The Safety Inspector will 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, Project Preservation Officer, 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 Monitor Environmental Inspector until the situation is resolved (BMP Document 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 (CC54a). 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 Commission, the stop work order will be lifted. If the emergency has not been satisfactorily resolved, the stop work order will remain in effect (CC54b).

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 Certificate Holders or their 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).

NYSDEC field representatives 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 streams and regulated wetlands 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 11.0 of the EM&CP for additional information related to the response to cultural resources encountered during construction.

3.5 DECOMMISSIONING PLAN

The permanent Project components involved in Segment 3 - Package 1C/2 are all buried infrastructure which is entirely located within or adjacent to the CP Rail 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 (CC162k). Given the anticipated depth of burial, the continued presence of buried infrastructure is not anticipated to pose a concern following de-energizing of the Project (CC162k). Therefore, the decommissioning plan for Segment 3 - Package 1C/2 will be to leave buried Project components in place (CC162k). Any at surface components (e.g., manhole) splice vault structures) within four feet of ground elevation would be removed and the area would be restored in accordance with the CCs 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 the any segment 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 14.0. The schedule of construction for each EM&CP segment is provided in Table 1.1. All vegetation clearing methods and protection measures to be used prior to and during construction are described in Section 8.0.

As described in the SWPPP (Appendix G) the approximate construction sequence for each segment 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. Build gravel access roads.
5. Place temporary timber mattings through accessible wetland areas (where required).
6. Within HDD areas, set up laydown, staging and excavate pits.
7. Perform HDD.
8. Perform trench excavation to facilitate conduit placement or splice pits.
9. Perform conduit, splice box, handhole, etc. installation.
10. Backfill the trench in accordance with project details and specifications.
11. Restore HDD disturbed areas in accordance with the plans.
12. Within pavement areas, restore pavement to pre-existing grade, mill and overlay areas as depicted on the plans.
13. Pull and/or splice cable.
14. Restore signage, guiderail, mailboxes etc. and staging/access roads impacted by construction to pre-existing condition.
15. Remove temporary timber mattings through wetland areas and apply appropriate seed mixture where necessary.

16. 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 and aboveground) owners and operators within 100 feet of any HDD staging area or trenching activity with an offer to inspect foundations before, during, and after construction (See Appendix B). Table 4.1 describes the locations of HDD activity in Segment 3 – Package 1C/2. Table 4.2 identifies the structures located within 100 feet of HDD and trenching activities as well as their owners and their approximate locations on the Plan and Profile Drawings (Appendix C). The notice provided included the following provisions (CC154a):

1. An offer to inspect building, facility, and structure foundations before, during, and after construction.
2. An explanation of the benefits of such inspections and what documentation will be provided to building or facility or structure owners and operators; and

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:

1. Provide each building, facility, or structure owner or, to the extent known, operator with documented conditions at each significant stage of construction.
2. Include photographs of any existing and post-construction damage and document measurements of foundation crack lengths during each inspection phase.
3. Provide each building, facility, and structure owner/operator a report detailing foundation condition findings; and
4. Provide a copy of each prepared report to DPS Staff within 30 days of completion (CC154b).

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 100-feet of non-natural gas operating of CI and 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 the Project or has the potential to be impacted. This includes any emergency situation involving imminent risk to health, safety, property, or the environment that requires the Segments to cross CI or to use any associated CI owned property to address the emergency. All known locations of CI within Segment 3 – Package 1C/2 and appropriate BMPs are summarized in Section 13 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) 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 CABLE INSTALLATION REQUIREMENTS

Segment 3 - Package 1C/2 and associated transmission cable is not proposed to be 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 following:

1. The Building Code of New York State, including Section 1803 and other relevant sections
2. The Occupational Safety and Health Administration (OSHA) Technical Manual (OTM), including Section V: Chapter 2 and other relevant sections;
3. 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) (CC30 and CC159(s)). 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 (BMP Document, Section 19).

4.3 HORIZONTAL DIRECTIONAL DRILLING

HDD will be performed in accordance with the Horizontal Direction Drilling Site Investigation and Planning Report in Appendix J, the specifications described in Section 4.3.1 "Installation and Performance Controls" below, the Inadvertent Release and Contingency Plan (IRCP) in Appendix J, and the BMP Document (BMP Document, Section 8.1). Dewatering procedures at the bore pits are described in Section 4.4.6. Table 4.1 describes the locations of HDD activity in Segment 3 – Package 1C/2. More specific design details are included in the HDD design drawings in Appendix C.

Table 4.1 - Segment 3 - Package 1C/2 HDD Locations

Segment/ Package	HDD Designation	HDD Length, feet	Reason for HDD	Sheet Number	Location (Approximate- see Drawings for Details)
3/1C	HDD-3	1893, 1894	Wetlands	C-106 to C-107	15074+25 to 15093+00
3/1C	HDD-4	628, 650	Culvert	C-110	15138+60 to 15144+75
3/1C	HDD-4A	735, 760	Railroad Tracks	C-111 to C-112	15163+05 to 15170+50
3/1C	HDD-5	712, 723	Culvert & Wetlands	C-112 to C-113	15175+15 to 15182+40
3/1C	HDD-6	1339, 1453	Railroad Tracks & Culvert	C-115 to C-116	15218+15 to 15231+50
3/1C	HDD-7	1305	Wetlands	C-118	15256+05 to 15269+00
3/1C	HDD-8	655, 838	Railroad Tracks & Culvert	C-120 to C-121	15295+95 to 15302+55
3/2	HDD-9	548, 552	Culvert	C-101 to C-101	20004+95 to 20010+50
3/2	HDD-10	1210, 1240	Road	C-106	20075+10 to 20087+40
3/2	HDD-11	1200	Culvert & Canal	C-107 to C-108	20104+90 to 20116+90

Segment/ Package	HDD Designation	HDD Length, feet	Reason for HDD	Sheet Number	Location (Approximate- see Drawings for Details)
3/2	HDD-12	705, 920	RR Crossing	C-112 to C-113	20178+50 to 20187+70
3/2	HDD12A	1492	Rock Face & Culvert	C-114	20193+10 to 20207+90
3/2	HDD-13	1513, 1525	Culvert	C-117 to C-118	20248+75 to 2063+90
3/2	HDD-13A	914, 925	Bridge	C-119 to C-120	20281+00 to 20290+25
3/2	HDD-14	705, 819	RR Crossing & Road Crossing (at-grade)	C-120	20292+00 to 20300+10
3/2	HDD-14A	612	RR Crossing	C-123	20331+25 to 20337+40
3/2	HDD-15	624, 627	Wetlands	C-128 to C-129	20418+10 to 20424+30
3/2	HDD-16	619, 641	Culvert & Wetlands	C-134	20499+00 to 20505+40
3/2	HDD-17	575, 662	Culvert & Wetlands	C-137	20546+00 to 20551+60
3/2	HDD-18	614, 620	Culvert & Water	C-144	20649+00 to 20655+20
3/2	HDD-19	590	Culvert & Wetlands	C-147	20696+60 to 20702+60
3/2	HDD-20	1,200	Road & Water	C-150	20737+30 to 20749+30
3/2	HDD-21	1975	Wetlands	C-151 to C-152	20756+50 to 20776+25
3/2	HDD-21A	1965	Wetlands	C-152 to C-154	20780+00 to 20799+30

4.3.1 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 9.0. Additionally, where applicable the Certificate Holders will follow all avoidance and minimization measures related to vegetation clearing (Section 8.0), sensitive noise receptors (Section 10.0), cultural resources (Section 11.0), and co-located infrastructure (Section 13.0). 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 14.0 and the Soil Erosion & Sediment Control Plans & Details (Appendix C).

There are no known hazardous materials within the work area for Segment 3 – Package 1C/2 that could affect HDD operations. 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 and Soil and Materials Management Plan (Appendix L) 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 4.3.3 summarizes the drilling fluids management measures that will be followed during all HDD installation.

4.3.2 Structures within 100 Feet of HDD or Trenching Operations

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. Monitoring will be performed at these locations, if requested. The 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 (BMP Document Section 8.1.3).

A desktop assessment has identified approximately 80 building structures within 100 feet of trenching and HDD activities in this Segment of the Project. Table 4.2 identifies those structures' owners and their approximate locations on the Plan and Profile Drawings (Appendix C). All of the parcel owners of the identified structures have been notified (see Appendix B, Structure Owner Notice) regarding pending construction activities.

Table 4.2 - Structures within 100 Feet of HDD or Trenching Operations

HDD#/ Trench	Structure	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Notes
Trench	Private Residence	51.13-4-2	C-101	15000+00	North Side of Lower Bellamy Street
Trench	Private Residence	51.13-4-3	C-101	15000+00	North Side of Lower Bellamy Street
Trench	Private Residence	51.17-3-2	C-101	15000+00	South Side of Lower Bellamy Street
Trench	Private Residence	51.17-3-3	C-101	15000+50	South Side of Lower Bellamy Street
Trench	Private Residence	51.17-3-4	C-101	15000+75	South Side of Lower Bellamy Street
Trench	Private Residence	51.13-3-9	C-101	15001+00	East of Lower Bellamy Street - East side of CP Rail
Trench	Private Residence	51.17-4-41	C-101	15006+75	North of Division Street - East side of CP Rail
Trench	Commercial Business – New Woman II	51.17-4-40	C-101	15007+50	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Commercial Warehouse/Storage	51.17-4-39	C-101	15008+25	East of Broadway Street/Rte. 22/Saunders St. - East side of CP Rail
Trench	Commercial Building – 1st Presbyterian Church -Whitehall	51.17-2-21	C-101	15008+00	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Building – Longti's Boat Service	51.17-6-3	C-101	15010+00	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Warehouse/Storage	51.17-4-30	C-101	15009+50	East of Broadway Street/Rte. 22 - East side of CP Rail

HDD#/ Trench	Structure	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Notes
Trench	Commercial Building	51.17-4-25	C-101	15010+50	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Private Residence	51.17-6-4	C-101	15010+50	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Building	51.17-4-24	C-101	15011+00	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Private Residence	51.17-6-5	C-101	15011+00	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Building	51.17-4-23 and 51.17-4-22	C-101	15011+50	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Private Residence	51.17-6-7/	C-101	15011+50	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Building	51.17-4-21	C-101	15012+00	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Private Residence	51.17-6-8	C-101	15012+00	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	51.17-6-8	C-101	15012+50	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	51.17-6-12	C-101	15013+00	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	51.17-6-12.1	C-101	15014+00	West of Broadway Street/Rte. 22 - West side of CP Rail

HDD#/ Trench	Structure	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Notes
Trench	Whitehall Fire Department	51.17-4-20	C-101	15014+00	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Commercial Building – Vacant	51.17-6-14.1	C-101	15015+00	West of Broadway Street/Rte. 22 – North of Chapin Alley - West side of CP Rail
Trench	Commercial Building – Carol's Collectibles	51.17-6-15	C-101	15015+00	West of Broadway Street/Rte. 22 – North of Chapin Alley - West side of CP Rail
Trench	Commercial Building – US Post Office	51.17-6-16	C-102	15016+25	West of Broadway Street/Rte. 22 – South of Chapin Alley - West side of CP Rail
Trench	Commercial Building – Police Station	60. 5-5-1	C-102	15017+00	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Private Residence / Commercial Bldg.	51.17-6-17	C-102	15017+25	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	60.5-4-1	C-102	15018+50	East of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	60.5-4-2	C-102	15019+50	East of Broadway Street/Rte. 22 – Opposite School St. - West side of CP Rail
Trench	Private Residence	60.5-4-3	C-102	15020+00	East of Broadway Street/Rte. 22 – Opposite School St. - West side of CP Rail
Trench	Private Residence	60.5-4-4	C-102	15020+50	East of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	60.5-4-5	C-102	15021+00	East of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	60.5-4-7	C-102	15021+50	East of Broadway Street/Rte. 22 - West side of CP Rail

HDD#/ Trench	Structure	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Notes
Trench	Private Residence	60.5-5-4.3	C-102	15021+75	West of Skenesborough Drive - East side of CP Rail
Trench	Private Residence	60. 5-4-8	C-102	15022+25	East of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	60.5-4-9	C-102	15022+75	East of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	60. 5-4-10.1	C-102	15023+25	East of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	60.5-4-10.1	C-102	15023+75	East of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Building – Skenesborough Emergency Facility	60.5-5-5	C-102	15023+50	West of Skenesborough Drive - East side of CP Rail
Trench	Private Residence	60. 5-5-10.4	C-102	15024+50	East of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Building – Retro Hoarders Gaming Store	60.5-4-10.2	C-102	15025+50	East of Broadway Street/Rte. 22 - Opposite Gilmore St. - West side of CP Rail
Trench	Private Residence	60.5-4-10.3	C-102	15026+25	East of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Multi-family Private Residence	60.0-4-11	C-102	15027+50	East of Broadway Street/Rte. 22 - West side of CP Rail

HDD#/ Trench	Structure	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Notes
Trench	Commercial Building – Putort's Repair Shop	60.5-4-12	C-102	15028+50	East of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Building – Putort's Broadway Market	60.5-4-13	C-102	15029+25	East of Broadway Street/Rte. 22 - Opposite Queen St. - West side of CP Rail
Trench	Private Residence	60.5-4-15.1	C-102 &103	15030+25	East of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence/Garage	60.5-4-17	C-103	15031+50	East of Broadway Street/Rte. 22 - E. Boardman St. - West side of CP Rail
Trench	Commercial Building – Power Station	60.9-2-8.6	C-103	15035+50	West of Riverside Drive - E. Boardman St. – East side of CP Rail
Trench	Commercial Building – Power Station	60. 9-2-8.6	C-103	15036+00	West of Riverside Drive - E. Boardman St. – East side of CP Rail
HDD #3/Trench	Railroad Building	68.-1-10	C-107	15094+00	HDD #3 - Between main railroad tracks and spur (west side)
Trench	Railroad Building	68.-1-10	C-107	15095+00	HDD #3 - Between main railroad tracks and spur (west side)
Trench	Private Residence	51.13-4-2	C-101	15000+00	North Side of Lower Bellamy Street
Trench	Railroad Building	68.-1-10	C-107	15095+00	HDD #3 - Between main railroad tracks and spur (west side)
Trench	Private Residence	51.13-4-2	C-101	15000+00	North Side of Lower Bellamy Street
Trench	Private Residence	51.13-4-3	C-101	15000+00	North Side of Lower Bellamy Street
Trench	Private Residence	51.17-3-2	C-101	15000+00	South Side of Lower Bellamy Street
Trench	Private Residence	51.17-3-3	C-101	15000+50	South Side of Lower Bellamy Street

HDD#/ Trench	Structure	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Notes
Trench	Private Residence	51.17-3-4	C-101	15000+75	South Side of Lower Bellamy Street
Trench	Private Residence	51.13-3-9	C-101	15001+00	East of Lower Bellamy Street - East side of CP Rail
Trench	Private Residence	51.17-4-41	C-101	15006+75	North of Division Street - East side of CP Rail
Trench	Commercial Business – New Woman II	51.17-4-40	C-101	15007+50	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Commercial Warehouse/Storage	51.17-4-39	C-101	15008+25	East of Broadway Street/Rte. 22/Saunders St. - East side of CP Rail
Trench	Commercial Building – 1st Presbyterian Church -Whitehall	51.17-2-21	C-101	15008+00	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Building – Longti's Boat Service	51.17-6-3	C-101	15010+00	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Warehouse/Storage	51.17-4-30	C-101	15009+50	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Commercial Building	51.17-4-25	C-101	15010+50	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Private Residence	51.17-6-4	C-101	15010+50	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Building	51.17-4-24	C-101	15011+00	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Private Residence	51.17-6-5	C-101	15011+00	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Building	51.17-4-23 and 51.17-4-22	C-101	15011+50	East of Broadway Street/Rte. 22 - East side of CP Rail

HDD#/ Trench	Structure	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Notes
Trench	Private Residence	51.17-6-7	C-101	15011+50	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Commercial Building	51.17-4-21	C-101	15012+00	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Private Residence	51.17-6-8	C-101	15012+00	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	51.17-6-8	C-101	15012+50	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	51.17-6-12	C-101	15013+00	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Private Residence	51.17-6-12.1	C-101	15014+00	West of Broadway Street/Rte. 22 - West side of CP Rail
Trench	Whitehall Fire Department	51.17-4-20	C-101	15014+00	East of Broadway Street/Rte. 22 - East side of CP Rail
Trench	Commercial Building – Vacant	51.17-6-14.1	C-101	15015+00	West of Broadway Street/Rte. 22 – North of Chapin Alley - West side of CP Rail
Trench	Commercial Building – Carol's Collectibles	51.17-6-15	C-101	15015+00	West of Broadway Street/Rte. 22 – North of Chapin Alley - West side of CP Rail
Trench	Commercial Building – US Post Office	51.17-6-16	C-102	15016+25	West of Broadway Street/Rte. 22 – South of Chapin Alley - West side of CP Rail
Trench	Commercial Building – Police Station	60. 5-5-1	C-102	15017+00	East of Broadway Street/Rte. 22 - East side of CP Rail
HDD #9	Private Residence	86.1-1-8	C-101	20006+75	West Side of N Old Route 4
HDD #9	Private Residence	86.-1-9	C-101	20009+00	West Side of N Old Route 4
HDD #9/ Trench	Private Residence/ Garage/Sheds	86.-1-9.1 & 86.-3-3	C-101	20012+00	West Side of N Old Route 4

HDD#/ Trench	Structure	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Notes
Trench	Private Residence	86.-3-2	C-101	20014+00	West Side of N Old Route 4
Trench	Pool -Private Residence	86.-3-2	C-101	20015+00	West Side of N Old Route 4
Trench	Private Residence	86.-3-8	C-102	20017+00	West Side of N Old Route 4
Trench	Canal Bulkhead	86.-4-3	C-102 to C104	20025+75 to 20049+00	East Side of N Old Route 4
Trench	Canal Lock #11	86.-4-3	C-103	20034+50 to 20038+00	East Side of N Old Route 4
Trench	Private Residence	95.-1-13.2	C-106	20077+00	West Side of N Old Route 4
HDD #10/ Trench	Private Residence	95.-1-13.3	C-106	20079+50	West Side of N Old Route 4
Trench	Shed – Private Residence	95-.1-4	C-109	20131+50	West Side of N Old Route 4
Trench	Private Residence/Sheds	95-.1-5	C-109	20133+00	West Side of N Old Route 4
Trench	Industrial Building	104.-1-7	C-111	20160+00	West Side of N Old Route 4
Trench	Private Residence	104.-1-6	C-112	20167+50	West Side of N Old Route 4
Trench	Barge Loading Facility	104.-1-8	C-112	20169+50	East Side of N Old Route 4
Trench	Private Residence	103.-1-5	C-113	20193+50	West Side of Flat Rock Road
HDD #12A	Private Residence/Sheds	103.-1-8	C-114	20196+00 to 20197+00	East Side of Flat Rock Road

HDD#/ Trench	Structure	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Notes
HDD #13	Shed – Private Residence	112.10-4-1	C-120	20287+75	Side of Canal Street
HDD #13	Shed – Private Residence	112.10-4-1	C-120	20288+75	East Side of Canal Street
HDD #14	Park Structures	112.10-4-5	C-120	20295+00	Champaign Canal Waterfront Park (Fort Ann)/North of Ann Street
Trench	Railcar Loading Facility	112.10-5-9	C-121	20305+50	East Side of Canal Street
HDD #16/ Trench	Industrial Building	130.-3-7.5	C-134	20497+50	East Side of NYS Route 149
HDD #16	Private Residence	139.-1-12	C-134	20501+50	East Side of NYS Route 149
Trench	Shed – Industrial Building	139.-1-3.1	C-135	20515+75	East Side of Towpath Road
HDD #17	Abandoned Building	138.-1-20	C-137	20549+50	East Side of Towpath Road
HDD #17	Private Residence	138.-1-20	C-137	20550+00	East Side of Towpath Road
Trench	Private Residence/Sheds	155.-1-8	C-148	20716+00 to 20717+00	East Side of Towpath Road
HDD #20	Private Residence & Electrical Building/Shed	155.-1-14.1	C-150	20741+00	South Side of Rabideau Lane

4.3.3 Inadvertent Release Contingency Plan and Drilling Fluid Management

An Inadvertent Release and Contingency Plan (Appendix J) was prepared and addresses the following:

1. Provides an overview of the HDD process with a specific focus on the composition, management, and use of drilling fluids.
2. Identifies controls to be implemented during construction to minimize the potential of an inadvertent release.
3. Identifies the planned means of monitoring to permit early detection of inadvertent releases.
4. Identifies planned means to protect areas that are considered environmentally sensitive (rivers, wetlands, other biological resources or cultural resources).
5. Establishes site-specific environmental protection measures to be utilized prior to, during, and following drilling and pipe installation activities to minimize and control erosion and sediment releases to adjoining wetlands or watercourses.
6. Has site specific preplanned general response programs in place at the start of construction that is understood and can be implemented immediately by all field crews in the event of an inadvertent release of drilling fluid occurs.
7. Establishes a chain of command for reporting and notifying, in a timely manner, the construction management team, the Certificate Holders, and the proper authorities in the event of an inadvertent release of drilling fluid and of the preplanned actions that are to be implemented.

4.3.3.1 Drilling Fluid Management

As described in the BMP Document and IRCP (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 the HDD. The drilling fluid management system and subsequent disposal will adhere to the following requirements:

1. Used drilling fluid will be processed through an initial clearing that separates the solid materials from the fluid.

2. 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.
3. 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.
4. 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 not pre-approved by DPS will be included in the EM&CP as a modification and submitted via the procedures described in Section 3.2.6.
5. A supply of spill containment equipment and measures shall 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.
6. Under no circumstances will drilling fluid that has escaped containment be reused in the drilling system.

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. Drilling Fluid may be solidified by the HDD subcontractor using solidification agents for the purposes of complying with landfill requirements and aiding with disposal.

4.3.4 Road and Railroad Crossing Methods

Table 12.1 and Section 12.2 describes the road construction that will occur within Segment 3 – Package 1C/2. Section 13.2 discusses the railroad crossings. The majority of crossings will be completed utilizing trenchless techniques, including HDD, resulting in minimal disruption of traffic patterns Where HDD is not feasible due to site conditions, open cuts will be conducted. Each crossing method is discussed in the sections mentioned above.

4.4 TRENCHING

All trenching during the construction of Segment 3 - Package 1C/2 will follow the specifications on the Plan and Profile Drawings (Appendix C) and the BMPs below. All excavated material will

be managed in accordance with the Soil and Materials Management Plan in Appendix L. All dewatering, bedding, and backfilling will follow the measures specified in Section 4.4.6 and 4.4.7.

All excavation shall 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 shall 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 Plan and Profile Drawings (Appendix C). Hand trench or vacuum excavation may be required to protect existing utilities and structures.

4.4.1 Trenching in Agricultural Lands

In all agricultural areas, a minimum depth of 48 inches of cover over the Facility is required. In areas where the depth of soil over bedrock ranges from 0 to 48 inches, the cable will be buried entirely below the top of the bedrock. All excavated material will be segregated as ballast, cinders, topsoil, and subsoil, as appropriate. Section 7.1 identifies agricultural lands within Segment 3-Package 1C/2. They are also shown on the Plan and Profile Drawings (Appendix C).

4.4.2 Trenching in Roadways

Table 12.3 notes the Project road crossings and the method that will be used. Trenched road crossings will be conducted in accordance with the following specifications in accordance with Section 10.1.2.1 of the BMP Document:

1. Owners or operators of other underground utilities in the area (identified in Table 13-1) have been consulted during the EM&CP development and will be notified no less than 30 days prior to the start of construction. Notice provided after normal business hours or on weekends will not begin the notice period.
2. All existing underground facilities will be marked prior to the initiation of cutting or excavation.
3. Tree limbs, shrubs, cobble stones, or any other natural or man-made features that are not at risk of damage will be temporarily moved, protected, or removed and stored. Where landscaping trees are affected, an arborist will be consulted regarding root cutting and pruning.
4. Detours, signage, and public notice will be posted no later than 24 hours prior to the initiation of construction.

5. Traffic flow will be provided in at least one lane of the road at all times or a detour will be provided. Flaggers or temporary traffic lights will be used where necessary to control traffic flow.
6. Any water control devices (roadside ditches, culverts, etc.) disturbed during excavation or construction will be restored immediately after conduit installation.
7. Temporary restoration of the roadway will occur immediately after the conduits are installed.
8. All work within state highway ROW will be conducted in accordance with a highway work permit issued NYSDOT and the requirements of 17 NYCRR Part 131.

4.4.3 Trenching in Wetlands

Where trenching occurs in wetland areas (shown in Appendix C), the following procedures will be implemented (BMP Document Section 19.2.4):

1. The mixing of topsoil with subsoil will be minimized by using topsoil segregation construction methods in wetlands (except when standing water or saturated soils are present);
2. Trench plugs will be installed where necessary to ensure that the trench does not act as an underground drainage channel; and
3. Should it become necessary to remove water from the trench, it will be pumped to a stable, vegetated upland area (where practical) and filtered through a filter bag or siltation barrier;
4. If needed, water can also be pumped to a storage tank and discharged in an approved upland area.

4.4.4 Length of Open Trench

The length of the open trench for traditional installation will be determined by the maximum length of conduit that can be placed during a working day. For land installation, the typical length of trench that will be open per day is 200 feet but may be more if conditions allow.

The general sequence of conduit placement and cable installation is as follows:

- Excavate a portion of trench,
- Place conduit,
- Backfill the portion of trench,
- Repeat for all portions of trench,

- Pull cable at splice and vault locations.

4.4.5 Splicing and Jointing

The number of splices required will be determined either by the maximum length of conduit that can be efficiently transported and pulled. Joints may also be required where trenching methods change and where there are transitions from underwater to overland cable.

The jointing work will be performed in a jointing enclosure (house) supported on a stable work base of crushed stone, concrete or suitable native soil. The jointing house controls the ambient conditions during the splicing operation, including controlled levels of humidity, temperature, and airborne dust. The jointing house is a pre-constructed modular unit. The units include heating, air conditioners, dehumidifiers, and lifting equipment such as traverse carriers. Where necessary, the jointing house and splicing location (bay) may include a concrete base and side walls for mechanical protection and separation from parallel utilities (BMP Document Section 7.3.3). Table 4.3 notes the splice locations for Segment 3-Package 1C/2.

Table 4.3 - Splice Locations in Segment 3-Package 1C/2

Segment/ Package	Splice Number	Sheet Number	Center of Splice Location (Approximate – see Drawings for Details)
3/1C	30A	C-102	15017+27
3/1C	31	C-103	15036+00
3/1C	32	C-105	15067+00
3/1C	33	C-107	15095+50
3/1C	34	C-109	15127+25
3/1C	35	C-111	15159+50
3/1C	36	C-113	15191+33
3/1C	37	C-115	15213+75
3/1C	38	C-117	15246+25
3/1C	39	C-120	15277+50
3/2	40	C-101	20000+00
3/2	41	C-103	20032+50
3/2	42	C-105	20064+00
3/2	43	C-107	20095+50
3/2	44	C-109	20127+00
3/2	45	C-111	20158+00
3/2	45A	C-113	20190+00
3/2	46	C-114	20219+25
3/2	47	C-116	20237+00

Segment/ Package	Splice Number	Sheet Number	Center of Splice Location (Approximate – see Drawings for Details)
3/2	48	C-118	20269+00
3/2	49	C-119	20279+50
3/2	49A	C-121	20307+50
3/2	50	C-122	20324+50
3/2	51	C-124	20353+50
3/2	52	C-126	20381+00
3/2	53	C-128	20413+50
3/2	54	C-130	20445+00
3/2	55	C-132	20477+50
3/2	56	C-134/135	20510+00
3/2	57	C-137	20542+50
3/2	58	C-139	20575+00
3/2	59	C-141	20607+60
3/2	60	C-143	20640+00
3/2	61	C-145	20672+50
3/2	62	C-147	20705+50
3/2	63	C-149	20735+00
3/2	64	C-152	20778+25

4.4.6 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:

1. 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 100 feet from a wetland or waterbody or disposed of at an off-site disposal location in accordance with the Soil and Materials 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.

2. Manage trapped sediment collected during dewatering activities as excavated soil materials as described in the Soil and Materials Management Plan (Appendix L).
3. Include standby pumps and power sources for continuous operation.
4. 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
5. 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 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 and Materials 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.

4.4.7 Bedding and Backfilling Methods

The conduits will be encased with fluidized thermal fill (thermal resistant concrete) as described on C-621 in Appendix C. All non-conduit 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 (American Society of Testing and Materials [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 three 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.

Scenarios exist where flowable fill is applied to side walls of a vault in lieu of earthen backfill. The unit weight of flowable fill is 140 pounds per cubic foot. The hydrostatic fill of flowable fill is critical as compared to its hardened state. When hardened, it is assumed that flowable fill has K_O=0. A detail is shown on Sheet C-621 of the Plan and Profile Drawings (Appendix C).

4.5 DREDGING

There will be no dredging activities in Segment 3 – Package 1C/2; therefore, the Certificate Conditions associated with the Dredge Management Plan and the Turbidity Monitoring Plan do not apply.

4.6 CONVERTER STATION AND SUBSTATION REQUIREMENTS

Converter station and substation requirements do not apply to Segment 3 – Package 1C/2 of the Project.

4.7 RIGHT OF WAYS AND EASEMENTS

The Certificate Holders have acquired or will continue to acquire control of all lands within the Facility ROW by fee, easement, or other appropriate interest (CC141), including through

municipal consents. For permanent rights acquired, the Certificate Holders 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 (CC141). 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 or will provide 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 (CC142).[1] Temporary rights will be obtained through appropriate instruments and recorded where required by law. 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 or will obtain initial title information, to the extent available, and will continue to develop the required title information consistent with CC 143.

The majority of the construction of Segment 3 – Package 1C/2 will take place within ROWs. Table 4.4A summarizes the easements that are in place along Segment 3 – Package 1C/2 that CHPE is seeking waivers per CC 140, which reads:

> *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, 6 feet to the outer surface of the nearest installed cable and (b), in all other areas, 8 feet to the outer surface of the nearest installed cable. [as amended in Amendment 1 (March 20, 2020)].*

There will be no permanent infrastructure placed in these locations and construction will not be conducted in these areas; Facility operation and maintenance activities can take place wholly within existing permanent easement areas already obtained without the need for additional ROW

1 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.

width at the identified locations. For those reasons, CHPE does not believe that the easement widths set forth in CC 140 are necessary to the safe and reliable operation of the Facility and submits that acquisition of private easements solely to meet CC 140 ROW widths at these locations imposes unnecessary costs and restrictions on private property, without a concomitant benefit to the Facility. Therefore, CHPE respectfully requests waiver of the ROW width requirements for the specific easement locations detailed in Table 4.4A.

Table 4.4B summarizes parcels upon which the alignment and Construction Zone will be located.

Table 4.4A – CC 140 Waivers Requested for Segment 3

Segment/ Package	Parcel ID	Description	Location (Approximate – See Drawings for Details)	Comments
S3/P1C	51.17-3-3	Permanent Easement	15000+00 to 15000 +48 (C-101)	Private easement; Lower Bellamy St. - Private Landowner -
S3/P1C	51.17-3-4	Permanent Easement	15000 + 48 to 15001+08 (C-101)	Private easement; Lower Bellamy St. - Private Landowner - Transition from Lower Bellamy St. to CP Rail
S3/P1C	State Route 22	Permanent Easement	15002+66 to 15016+31 (C-101 to C-102)	Public easement; Along SR22 @ Retaining Wall to meet CC140 requirements
S3/P1C	86.-1-6	Permanent Easement	15273+56 to 15281+05 & C-119)	Private easement; – running adjacent to W side of CP Rail; outside deviation zone
S3/P1C	86 .6-1-18.1	Permanent Easement	15281+33 to 15283+10 (C-119)	Private easement; – running adjacent to W side of CP Rail; outside deviation zone
S3/P2	104.-1.1.1	Permanent Easement	20185+22 to 20189+60 (C-113)	Private easement, HDD 12A work area, 2nd conduit out of DZ, NW of CP rail
S3/P2	112.00-1-5.10	Permanent Easement	20371+26 to 20377+61; (C-125 & C-126)	Private
S3/P2	130.-3-7.3	Permanent Easement	20456+81 to 20464+15; (C-131 & C-132)	Private
S3/P2	139.-1-21	Permanent Easement	20544+99 to 20548+13 (C-137)	Private
S3/P2	138.-1-20	Permanent Easement	20549+12 to 20553+08; (C-137)	Private - HDD Work Area
S3/P2	138.-1-24	Permanent Easement	20587+04 to 20590+10 (C-139 & C-140)	Private
S3/P2	147.-1-8	Permanent Easement	20613+41 to 20608+83 (C-141)	Private
S3/P2	147.-1-17	Permanent Easement	20647+39 to 20650+63 (C-144)	Private - HDD Work Area
S3/P2	155.-1-3	Permanent Easement	20695+65 to 20699+96	
S3/P2	155.-1-4	Permanent Easement	20699+96 to 20703+91 (C-147 & C-148)	Private

Table 4.4B – Segment 3 Parcels Containing Facility ROW/Construction Zone

Segment/ Package	Parcel ID	Description	Location (Approximate – See Drawings for Details)	Comments
S3/P1C	60.05.-4-18	Permanent Easement	15032+20 to 15032+83	Private easement

Segment/ Package	Parcel ID	Description	Location (Approximate – See Drawings for Details)	Comments
S3/P1C	60.09-2-8.6	Temporary & Permanent Easements	15034+55 to 15037+00 (C-103 to C-104)	Private easement; Access Road; Permanent Easement for Project ROW and Temporary Easement for construction access
S3/P1C	60.-2-4.2, 60.-2-3, 60.-22-4.1, 60.2-2-4.3	Temporary Easement	15069+72to 15071+96 (C-105)	Private easement; Access road
S3/P1C	69.-2-1	Temporary & Permanent Easement	15162+47 to 15175+70 (C-111 to C-112) 15169+48 to 15179+84 (C-111 to C-112)	Private easement; HDD#5 work area; outside deviation zone
S3/P1C	69.-1-1	Permanent & Temporary Easement	15179+89 to 15188+98 & 15181+98 to 15182+92 (C-112 to C-113)	Public easement; HDD#5 work area; outside deviation zone
S3/P1C	68.-1-16.1	Temporary Easement	15164+61 to 15165+11 (C-111)	Private easement; Access road
S3/P1C	77.-1-9.1	Temporary Easement	15187+68 to 15188+44 (C-113)	Private easement; Access road
S3/P1C	69.-1-1	Permanent & Temporary Easement	15194+99 to 15218+48 & 15196+49 to 15220+12 (C-114 to C-115)	Public easement - running adjacent on E side of CP Rail. Temporary Easement for construction access; HDD#6 work area
S3/P1C	77.-1-4.1	Permanent & Temporary Easement	15222+65 to 15257+88, 15231+18 to 15256+48, 15240+50 to 15241+47 (C-115 to C-118)	Private easement – running adjacent to W side of CP Rail. Temporary Easement for construction access; outside deviation zone; HDD#6 & 7 work area
S3/P1C	86.-1-5	Permanent Easement	15257+88 to 15263+84 (C-118)	Private easement – running adjacent to W side of CP Rail; outside deviation zone;HDD#7 work area
S3/P1C	86.-1-2.1	Permanent & Temporary Easement	15263+84 to 15273+56 & 15268+70 to 15270+43 (C-118 to C-119)	Private easement; – running adjacent to W side of CP Rail; ; outside deviation zone
S3/P1C	86.-1-6	Temporary Easement	15280+39 to 15281+05 (C-119)	Private easement; – running adjacent to W side of CP Rail; outside deviation zone
S3/P1C	Ryder Road/Town of Whitehall	Permanent & Temporary Easement	15281+05 to 15281+33 (C-119)	Public easement; access road; outside deviation zone

Segment/ Package	Parcel ID	Description	Location (Approximate – See Drawings for Details)	Comments
S3/P1C	86 .6-1-18.1	\ Temp\orary Easement	15281+33 to 15285+10 & (C-119)	Private easement; – running adjacent to W side of CP Rail; outside deviation zone
S3/P1C	86.-1-7	Temporary Easement	15288+15 to 15288+78; (C-120)	Private easement; – running adjacent to W side of CP Rail; outside deviation zone; Access Road
S3/P1C	69.-1-1	Permanent & Temporary Easement	15301+73 to 15304+55 & 15302+91 to 15304+50 (C-121)	Public easement; – running adjacent to W side of CP Rail; outside deviation zone; HDD#8 work area
S3/P2	86.-4-3	Temporary Easement	20004+40 to 20005+87; 20010+35 to 20011+25 (C-101)	Public, HDD work area
S3/P2	104.-1-5	Temporary Easement	20031+64to 20033+34 (C-103)	Private, Splice Vault 041 work area
S3/P2	95.-2-2	Temporary Easement	20062+90 80 to 20064+87 (C-105)	Public, Splice Vault 042 work area
S3/P2	State Route 22	Permanent Easement	20081+44 to 20083+90 (C-106)	Road Crossing Rt 22
S3/P2	95.-2-2	Temporary Easement	20094+80 to 20096+30 (C-107)	Public; Splice Vault 043 work area
S3/P2	95.-1-3	Temporary Easement	20116+84 to 20117+53 (C-108)	Private, Splice Vault 041 work area
S3/P2	104.-1-7	Temporary Easement	20157+28 to 20161+65 (C-111)	Private, Old Route 4 - Temp. easement zone NW and adjacent to CP rail for muster area and splice vault 45
S3/P2	104.-2-45	Permanent Easement	20178+64 to 20183+37 (C-112)	Public - Permanent
S3/P2	104.-2-45	Temporary Easement	20177+85 to 20179+05 (C-112)	Public - Temporary Construction
S3/P2	104.-1.1.1	Temporary Easement	20185+22 to 20189+60 (C-113)	Private easement, HDD 12A work area, 2nd conduit out of DZ, NW of CP rail
S3/P2	103.1-5	Temporary & Permanent Easement	20189+60 to 20195+24 (C-113 to C-114)	Private Easement NW of CP rail though running adjacent
S3/P2	103.1-8	Permanent Easement	20195+24 to 20197+56 (C-114)	Private Easement, outside deviation zone, NW of CP rail though running adjacent
S3/P2	103.1-6.21	Temporary & Permanent Easement	20197+56 to 20204+04; 20203+95 to 20204+08 (C-114)	Private easement, outside deviation zone, access road, NW of CP rail though running adjacent areas
S3/P2	103.-1-6.22	Temporary & Permanent Easement	20204+08 to 20204+39; 20204+08 to 20206+70 (C-114)	Private, access road; splice vault area

Segment/ Package	Parcel ID	Description	Location (Approximate – See Drawings for Details)	Comments
S3/P2	103.-1-11	Temporary & Permanent Easement	20206+70 to 20209+23 (C-114)	Public
S3/P2	103.-1-35	Temporary & Permanent Easement	20217+16 to 20219+69; 20234+54 to 20239+65 (C-115 & C-116)	Private, HDD Work Area; Access Road
S3/P2	State Route 4 ROW	Temporary & Permanent Easement	20245+38 to 20255+41; 20245+38 to 20249+35 (C-117 & C-118)	Public
S3/P2	103.-1-11	Permanent Easement	20255+41 to 20270+63 (C-118 & C-119)	Public
S3/P2	103.-1-11	Permanent Easement	20255+41 to 20270+63 (C-118 & C-119)	Public - HDD Work Area; Splice Vault
S3/P2	103.-1-11	Temporary Easement	20276+78 to 20280+90 (C-119)	Public - Access Road
S3/P2	103.-1-16.1	Temporary Easement	20279+13 to 20280+53 (C-119)	Private - Access Road
S3/P2	103.-1-11	Permanent Easement	20284+03 to 20285+24 (C-119 & C-120)	Public
S3/P2	112.10-4-2	Permanent Easement	20285+24 to 20289+29 (C-120)	Public
S3/P2	112.10-4-1	Permanent Easement	20285+55 to 20290+02 (C-120)	Private
S3/P2	112.10-4-2	Temporary Easement	20289+40 to 20293+01 (C-120)	Private - HDD Work Area
S3/P2	Clay Hill Road	Temporary Easement	20295+11 to 20295+39 (C-120)	Public
S3/P2	112.10-5-8.1	Temporary Easement	20300+75 to 20309+34 (C-121)	Public - HDD Work Area
S3/P2	112.10-5-8.1	Permanent Easement	20300+75 to 20306+45 (C-121)	Public - HDD Work Area
S3/P2	112.10-5-8.1	Permanent Easement	20310+59 to 20311+65 (C-121)	Public
S3/P2	112.00-3-20	Temporary & Permanent Easement	20311+65 to 20320+55; 20314+18 to 20318+62; 20322+90 to 20326+07; 20329+40 to 20332+07; 20328+90 to 20332+17 (C-121 to C-123)	Public - Splice Vault
S3/P2	112.00-4-17.1	Temporary Easement	20338+86 to 20340+30 (C-123)	Private - (Muster Area)
S3/P2	12.00-2-9	Temporary Easement	20340+30 to 20340+74 (C-123)	Private
S3/P2	121.00-3-5.1	Temporary Easement	20351+53 to 20355+80; 20357+50 to 20358+20 (C-124)	Private - Access Road
S3/P2	112.00-1-5.10	Temporary & Permanent Easement	20379+74 to 20382+02; 20382+38 to 20382+66 (C-125 & C-126)	Private

Segment/ Package	Parcel ID	Description	Location (Approximate – See Drawings for Details)	Comments
S3/P2	Baldwin Corners Rd	Temporary & Permanent Easement	20382+66 to 20383+22 (C-126)	Public
S3/P2	121.00-1-6	Permanent Easement	20383+22 to 20384+01; 20388+77 to 20394+98 (C-126 & C-127)	Private
S3/P2	121.00-1-6	Temporary Easement	20383+22 to 20384+69; 20388+54 to 20394+98 (C-126 & C-127)	Private
S3/P2	121.00-1-14	Permanent Easement	20394+98 to 20399+38 (C-127)	Private
S3/P2	121.00-1-14	Temporary Easement	20394+98 to 20399+38 (C-127)	Private
S3/P2	121.00-1-14.2	Temporary & Permanent Easements	20399+38 to 20403+63; 20399+38 to 20403+63 (C-127)	Private
S3/P2	121.00-1-14.1	Temporary & Permanent Easements	20403+63 to 20407+83; 20403+63 to 20407+83 (C-127 & C-128)	Private
S3/P2	121.-1-17	Temporary & Permanent Easements	20407+83 to 20427+92 (C-128 & C-129)	Private - HDD Work Area
S3/P2	130.-3-1	Temporary & Permanent Easements	20427+92 to 20447+60 (C-129 & C-130)	Private
S3/P2	130.-3-1	Temporary Easement	20446+04 to 20447+60 (C-130)	Private - Access Road
S3/P2	130.-3-7.3	Temporary & Permanent Easement	20447+60 to 20449+03 (C-130)	Private
S3/P2	130.-3-7.3	Temporary Easement	20453+16 to 20465+64 (C-131 & C-132)	Private
S3/P2	130.-3-7.3	Temporary & Permanent Easement	20462+46 to 20465+73 (C-131 & C-132)	Private
S3/P2	130.-3-7.4	Temporary Easement	20465+64 to 20465+73 (C-132)	Private
S3/P2	130.-3-7.4	Temporary Easement	20465+73 to 20466+31 (C-132)	Private - Access Road
S3/P2	130.-3-7.4	Temporary & Permanent Easement	20470+41 to 20477+85 (C-132)	Private
S3/P2	130.3-7.1	Temporary & Permanent Easement	20477+85 to 20479+15 (C-132)	Private
S3/P2	130.-3-7.5	Temporary & Permanent Easement	20479+15 to 20493+82; 20479+15 to 20494+56 (C-132 & C-133)	Private
S3/P2	130.-3-7.5	Temporary Easement	20498+34 to 20499+23 (C-134)	Private - HDD Work Area

Segment/ Package	Parcel ID	Description	Location (Approximate – See Drawings for Details)	Comments
S3/P2	139.-1-3	Temporary Easement	20511+59 to 20512+01 (C-135)	Private - Access Road
S3/P2	138.-1-21.2	Temporary Easement	20540+11 to 20544+67 (C-137)	Public - Access Road
S3/P2	138.-1-21.2	Temporary Easement	20544+99 to 20546+35 (C-137)	Public
S3/P2	139.-1-21	Temporary Easement	20544+99 to 20546+35 (C-137)	Private - HDD Work Area
S3/P2	138.-1-21.2	Permanent Easement	20548+13 to 20549+12 (C-137)	Public
S3/P2	138.-1-20	Temporary & Permanent Easement	20551+58 to 20552+76 (C-137)	Private - HDD Work Area
S3/P2	138.-1-21.1	Temporary Easement	20572+92 to 20577+02; 20578+33 to 20579+88 (C-139)	Private - Access Road
S3/P2	138.-1-24	Permanent Easement	20579+88 to 20580+34; (C-139 & C-140)	Private
S3/P2	147.-1-8	Temporary & Permanent Easement	20605+46 to 20608+83; (C-141)	Private
S3/P2	New Swamp Road	Temporary & Permanent Easement	20613+85 to 20614+48; 20614+23 to 20614+34 (C-141)	Public
S3/P2	147.-1-13	Temporary Easement	20638+16 to 20641+45 (C-143)	Private - Splice Vault
S3/P2	147.-1-15	Temporary Easement	20643+24 to 20643+82 (C-143)	Private - Access Road
S3/P2	138.-1-21.2	Temporary & Permanent Easement	20645+56 to 20648+21 (C-144)	Public
S3/P2	147.-1-15	Temporary & Permanent Easement	20647+28 to 20648+92; 20647+28 to 20650+48 (C-144)	Private - HDD Work Area
S3/P2	147.-1-17	Permanent Easement	20647+39 to 20649+09, (C-144)	Private - HDD Work Area
S3/P2	147.-1-18	Temporary Easement	20669+48 to 20675+01 (C-145 & C-146)	Private
S3/P2	147.-1-18	Temporary Easement	20673+95 to 20675+01 (C-145 & C-146)	Private - Access Road
S3/P2	155.-1-3	Temporary & Permanent Easement	20650+63 to 20669+48; 20654+49 to 20669+48 (C-144 & C-145)	Private - HDD Work Area
S3/P2	155.-1-4	Temporary & Permanent Easement	20702+00 to 20705+98 (C-147 & C-148)	Private
S3/P2	155.-1-2.1	Temporary Easement	20706+61 to 20706+93 (C-148)	Private - Access Road
S3/P2	155.-1-8	Permanent Easement	20715+38 to 20716+62 (C-148)	Private
S3/P2	115.-1-9	Temporary Easement	20716+62 to 20717+56 (C-148)	Private

Segment/ Package	Parcel ID	Description	Location (Approximate – See Drawings for Details)	Comments
S3/P2	155.-1-13	Temporary & Permanent Easements	20732+77 to 20738+58; 20733+06 to 20738+58; 20733+74 to 20738+58 (C-149 & C-150)	Private - HDD Work Area
S3/P2	State Route 196	Permanent Easement	20740+58 to 20740+00 (C-150)	Public
S3/P2	Rabidau Lane	Permanent Easement	20740+00 to 20740+49 (C-150)	Public
S3/P2	155.-1-14.1	Temporary & Permanent Easement	20740+49 to 20742+67 (C-150)	Private - HDD Work Area
S3/P2	154.-1-15	Temporary & Permanent Easement	20744+74 to 20755+61; 20746+33 to 20746+80; 20748+70 to 20750+13; 20749+52 to 20755+61; 20754+03 to 20755+61(C-150 & C-151)	Private
S3/P2	154.-1-16	Temporary & Permanent Easement	20755+61 to 20757+34; 20755+61 to 20759+89; 20755+61 to 20757+54 (C-151)	Private - HDD Work Area
S3/P2	154.-1-17	Permanent Easement	20759+89 to 20764+72 (C-151)	Private
S3/P2	154.-1-18	Permanent Easement	20764+72 to 20785+81 (C-152 & C-153)	Private - HDD Work Area
S3/P2	138.-1-21.2	Permanent Easement	20776+13 to 20779+10 (C-152)	Private
S3/P2	138.-1-21.2	Temporary Easement	20776+13 to 20779+81 (C-152)	Private
S3/P2	Towpath Lane	Temporary Easement	20776+13 to 20801+00 (C-152 & C-153)	Private- Access Road
S3/P2	154.-1-18	Temporary Easement	20776+13 to 20779+10 (C-152)	Private
S3/P2	163.-2-1.3	Permanent Easement	20785+81 to 20801+00 (C-153 & C-154)	Private
S3/P2	163.-2-1.3	Temporary Easement	20797+00 to 20800+00 (C-154)	Private

4.7.1 Right of Way Encroachment Plan

There were no encroachments identified along Segment 3 – Package 1C/2 of the Project. Any vegetation and tree encroachments encountered should be handled according to the procedures outlined in Section 8.0. All wetlands encountered in the Facility ROW or adjacent areas should be handled according to the procedures outlined in Section 9.1.

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.

4.8 RIGHT OF WAY CLEARING

The procedures for vegetation and tree clearing, as well as the locations where clearing is occurring within Segment 3 – Package 1C/2 are described in Section 8.0.

4.9 BUILDING AND STRUCTURE REMOVAL

There will be no building or structural removal required for the construction of Segment 3 – Package 1C/2.

4.10 ACCESS ROADS

Table 4.5 summarizes the temporary access roads that will be built as part of the Segment 3 - Package 1C/2 construction and includes their approximate locations. Access to the road ROWs will be required for the duration of construction and will be used by various pieces of equipment including trucks, concrete trucks, clearing equipment, cranes, loaders, bulldozers, HDD rigs, and skidsteers. Direct disturbance to properties will be avoided wherever feasible by accessing the

Project Corridor via the road ROW. Parking for workers will be in designated areas (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 highway or railroad ROW. Where direct access to the Project via the road ROW is not available, the Project will utilize temporary access roads.

The construction specifications for the temporary access roads are included in the Plan and Profile Drawings in Appendix C (see also Table 4.5). 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) (CC67).

All temporary access roads will be restored after construction as described in Section 14.2.4. To the extent practicable, access roads were routed to avoid areas of unstable soils, steep banks, wetlands, and streams (BMP Document, Section 6.1). All impacts to agricultural lands from the access road in Segment 3 – Package 1C/2 are temporary, and all agricultural land will be fully restored in accordance with Section 145. Before construction of Segment 3 – Package 1C/2 begins, the Certificate Holders will stake and flag all access roads and extra workroom areas that may be used during any construction activities. All information related to the permitting and consultation with transportation departments such as NYSDOT and Locality Road ROW Owners is summarized in Section 12.0.

Except as authorized in Table 4.6, 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. 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 his or her request.

4.10.1 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. This is discussed further in Section 12. Owners of private driveways will be notified of the work before it takes place and coordinated with during construction. Driveways are shown on the Plan and Profile Drawings in Appendix C.

4.10.2 Access through Wetlands

These 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 (BMP Document, Section 19.2.3).

If the Construction Inspector or Environmental Inspector determines that conditions are unsuitable for normal construction techniques, Type 4 access roads will be installed using the following equipment options: 1) swamp mats; 2) geotextile fabric and stone; or 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:

1. Presence and depth of standing water;
2. Moisture content and substrate composition; and
3. 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 3 - Package 1C/2 are provided in the Plan and Profile Drawings in Appendix C.

In general, stockpiling spoils and grading soils for any roads, work areas, or pads is prohibited within wetland areas. Timber matting shall be layered (stacked) to achieve required elevations. The contours shown within wetland areas in these plans (Appendix C) are intended to depict the elevation difference between existing and proposed elevations only and are not intended to represent grading soils or earthwork activities.

4.10.3 Access through Agricultural Lands

Where temporary access roads are required within agricultural lands, geotextile fabric will be placed and weighted with rock as needed to provide a level access surface. Where the sole use of geotextile fabric is not practical to maintain a level access surface, mats will be layered as needed. 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 Appendix C. The mats will be inflexible and geotextile fabric will be installed under matting.

Any grading necessary for temporary access roads constructed in active agriculture areas will first remove topsoil from the A 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 (BMP Document, Section 20.3.2).

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

1. Stockpile topsoil away from the edge of any excavation areas and stockpiled in a manner to limit intermixing with subsoil and prevents erosion and the transport of sediment.
2. Topsoil will not be stockpiled within tree protection zones, where applicable, as shown on the Plan and Profile Drawings (Appendix C where applicable).
3. Topsoil will not be stockpiled within at least 100 feet of state-regulated wetlands and waterbodies as described in Section 9.1 and Appendix M and shown on drawings in Appendix C.
4. Topsoil will not be stockpiled in environmentally sensitive areas and/or adjacent areas as defined in Section 9 and Appendix T.

5. Grade and shape topsoil stockpiles to drain surface water and cover to prevent windblown dust.
6. Topsoil will be reused on site whenever possible following the procedures outlined in the Soil and Materials Management Plan (Appendix L) and applicable NYSDEC regulations and railroad owner requirements. Excess removed topsoil from agricultural lands will not be utilized for fill within the Project Area or disposed of off-site.
7. Limit height of temporary topsoil stockpiles from active trenching to 72 inches. Topsoil in laydown yards and equipment staging areas (Table 5.2) may require taller heights up to 15 feet.
8. Per NYSDAM Guidelines for Construction Mitigations for Agricultural Lands in Agricultural Areas, excess removed topsoil shall not be utilized for fill within the Project Site. Any excess topsoil removed from impacted areas will be evenly spread in adjacent agricultural areas within the limit of disturbance. This spreading of excess topsoil will be performed in a way that does 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 three bushels per acre and mulched with straw mulch at a rate of two to three bales per 1,000 square feet. Topsoil stockpiles left in place between October 31 and May 31 will be mulched with straw (not hay) mulch at a rate of two to three bales per 1,000 square feet (BMP Document, Section 20.3.2).

All disturbed areas will be restored following construction as described in Section 14.5 and CC78 (BMP Document, Section 20.3.1). Once access is no longer required across agricultural areas, the geotextile fabric and rock/stone or 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 (BMP Document, Section 20.3.1). If needed all compacted areas will be remediated as described in Section 14.6. All restoration using stockpiled soils and revegetation will be overseen by the Environmental and Agricultural Inspectors.

4.10.4 Drain Lines and Under Drains within Agricultural Areas

No subsurface drainage lines or plans have been identified within Segment 3- Package 1C/2. 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 (BMP Document, Section 20.4). The Plan and Profile Drawings (Appendix C) will be updated to reflect these depths as needed. All drainage pipe installation shall follow either the appropriate manufacturer's installation instructions, ANSI applicable standard, NYSDAM Guidelines, and/or the 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.

4.10.5 Access Roads in Segment 3 – Package 1C/2

Table 4.5 below identifies each proposed access road in Segment 3 – Package 1C/2, their locations, and any sensitive areas that are crossed. Those labeled RD (road) will be temporarily installed. Those labeled RTE (route) are existing routes that will be utilized. For access roads that are perpendicular to the alignment, the disturbance zone in which sensitive areas was evaluated begins at the end of the Railroad or Road ROW. For example, if a perpendicular access road meets an access road that is parallel to the alignment and the area where they meet is located within a delineated wetland within the Railroad ROW, the impact to said wetland would be for the parallel access road. Table 9.2 describes the square foot wetland impacts in Segment 3 – Package 1C/2.

Table 4.5 – Access Roads in Segment 3 – Package 1C/2

Segment/ Package	Sheet Number	Location (Approximate – see Drawings for Details)	Access Road Description	Parcel ID	Type of Access Road	Impacts to Environmentally Sensitive Areas	Impacts to Agricultural Land	Access road Crosses Railroad
3/1C	C-101	15001+00 to 15006+50	Access Road Parallel to Trench	51.17-3-4, 60.9-2-8.1	Temporary; Type 2 and 3	No	No	No
3/1C	C-101 to C-105	15009+00 to 15072 +00	Access Road Parallel to Trench	60.9-2-8.1, 60.05-4-18, 60.09-2-8.6	Temporary; Type 2	No	No	Yes
3/1C	C-103 & C-210	15036+50	Access Road off Poultney Street	60.09-2-8.6	Temporary; Type 2	No	No	No
3/1C	C-105 & C-211	15070+00	Access Road off NYS Route 4	60.-2-4.2	Temporary; Type 1, 3 and 4	No	No	No
3/1C	C-107 to C-112	15094+00 to 15174+00	Access Road Parallel to Trench	68.-1-8.1, 68.-1-10, 60.-2-11, 69.-2-11	Temporary; Type 2 and 4	Yes-Wetland G-R-X-1	No	Yes
3/1C	C-111 & C-212	15165+00	Access Road off NYS Route 4	68.-1-10, 68.-1-16.1	Temporary; Type 3, 5	Yes-NYS mapped Stream Crossing and Access road within Wetland G-R-U	Yes	Yes
3/1C	C-113 to C-115	15183+00 to 15216+50	Access Road Parallel to Trench	68.-1-10, 69.-1-1	Temporary; Type 3,4	Yes-Wetland G-R-W	No	No
3/1C	C-114 & C-213	15196+75	Access Road off Old State Road	77.-1-9.1, 68.-1-10	Temporary; Type 3, 4, 5	Yes-NYS mapped Stream Crossing	Yes	Yes
3/1C	C-116 to C-118	15233+50 to 15255+50	Access Road Parallel to Trench	77.-1-4.1, 68.-1-10	Temporary; Type 4, 5	Yes-Wetland G-R-X	Yes	No

Segment/ Package	Sheet Number	Location (Approximate – see Drawings for Details)	Access Road Description	Parcel ID	Type of Access Road	Impacts to Environmentally Sensitive Areas	Impacts to Agricultural Land	Access road Crosses Railroad
3/1C	C-117 & C-214	15241+00	Access Road off NYS Route 4	77.-1-4.1	Temporary; Type 4, 5	Yes -Wetland P1C-A and P1C-B	Yes	No
3/1C	C-119 to C-120	15270+00 to 15297+00	Access Road Parallel to Trench	86.-1-2.1, 86.-1-6, 86.-1-18.1, 86.-1-7, 68.-1-10	Temporary; Type 4, 5	Yes-Wetland G-R-Y	Yes	No
3/1C	C-120 & C-215	15297+00	Access Road off NYS Route 4	86.-1-14.2	Temporary; Type 4, 5	Yes	Yes	No
3/1C	C-121	15305+25 to 20001+75	Entrance/Road	69.-1-1	Temporary; Type 3	No	No	No
3/2	C-101	(End of Package 1C) 15305+25 to 20001+75	Access Road	69.-1-1	Temporary; Type 3	No	No	No
3/2	C-112	20177+25 to 20178+25	Access Road	104.-2-45, 104.-1-5	Temporary; Type 3	No	No	No
3/2	C-112/C-113 & C-203	20182+00	Access Road at 20182+00 West and East	104.-1-1.1	Temporary; Type 3	No	No	No
3/2	C-113 to C-119	20182+00 to 20280+50	Access Road Parallel to Tracks	104.-1-1.1. 103.-1-5, 103.-2-6.21, 103.-1-6.22, 103.-1-35, 103.-1-11, 104.-1-5	Temporary; Type 3, 4, 5	Yes-Wetland G-R-DD & G-R-EE Stream G-R-SP	Yes	No
3/2	C-114 & C-204	20204+00	Access Road at 20204+00	103.-1-6.22	Temporary; Type 3	No	No	No
3/2	C-116 & C-204	20235+00	Access Road at 20235+00 (East)	103.-1-35	Temporary; Type 3	No	No	No
3/2	C-119 & C-205	20280+00	Access Road at 20280+00	103.-1-11	Temporary; Type 3	Yes - Wetland P2-E	No	No

Segment/ Package	Sheet Number	Location (Approximate – see Drawings for Details)	Access Road Description	Parcel ID	Type of Access Road	Impacts to Environmentally Sensitive Areas	Impacts to Agricultural Land	Access road Crosses Railroad
3/2	C-120	20290+50 to 20295+50	Access Road to Ann Street, Parallel to Tracks	112.10-4-1, 112.10-5-5	Temporary; Type 3	No	No	No
3/2	C-120 to C-123	20296+00 to 20331+75	Access Road from Ann Street, Parallel to Tracks	112.10-5-8.1, 112.10-5-5, 112.00-3-20	Temporary; Type 3, 4	Yes-Wetlands G-R-FF, G-R-GG, Stream G-R-S-R, G-R-S-S	No	No
3/2	C-122	20328+87	At Grade Crossing of Tracks	112.00-4-17.1	Temporary; Type 3	No	No	Yes
3/2	C-123 to C-126	20339+00 to 20382+50	Access Road Parallel to Tracks	112.00-4-17.1, 12.00-2-9, 112.-2-10, 121.00-3-5.1, 121.00-1-5.10	Temporary; Type 3	Yes - Wetland CC	Yes	No
3/2	C-124 & C-206	20357+00	Access Road at 20357+00	121.00-3-5.1	Temporary; Type 3, 5	Yes- Wetland CC	Yes	No
3/2	C-126 to C-129	20382+75 to 20420+25	Access Road Parallel To Tracks	121.00-1-6, 121.00-1-14, 121.00-1-14.2, 121.00-1-14.1, 121.00-1-17	Temporary; Type 3, 5	Yes - Wetland CD	Yes	No
3/2	C-128/C-129 & C-207	20419+50	Access Road at 20419+50	121.00-1-17	Temporary; Type 3, 5	No	Yes	No
3/2	C-129 to C-134	20425+00 to 20502+00	Access Road Parallel To Tracks	121.00-1-17, 130.-3-1, 130.-3-7.3, 130.-3-7.4, 139.-1-20, 130.-3-7.1, 130.-3-7.5	Temporary; Type 3, 4, 5	Yes-Wetlands G-R-LL & G-R-MM	Yes	No

Segment/ Package	Sheet Number	Location (Approximate – see Drawings for Details)	Access Road Description	Parcel ID	Type of Access Road	Impacts to Environmentally Sensitive Areas	Impacts to Agricultural Land	Access road Crosses Railroad
3/2	C-130 & C-208	20446+00	Access Road at 20446+00	130.-3-1	Temporary; Type 3, 4, 5	Yes – Wetland P2-G & CG	Yes	No
3/2	C-132 & C-209	20466+00	Access Road at 20466+00	130.-3-7.4	Temporary; Type 3, 4, 5	Yes – Wetland P2-A	Yes	No
3/2	C-134 to C-141	20502+25 to 20613+56	Access Road Parallel To Tracks	139.-1-13, 139.-1-3, 139.-1-20, 139.-1-3.1, 138.-1-21.2, 138.-1-20, 138-1-21.1, 138.-1-21.1, 138.-1-24, 147.-1-8	Temporary; Type 3, 4, 5	Yes-Wetlands G-R-NN & G-R-QQ	Yes	No
3/2	C-135 & C-210	20512+00	Access Road at 20512+00	139.-1-3.1	Temporary; Type 3, 4, 5	Yes-Wetland G-R-NN	Yes	No
3/2	C-138 & C-211	20576+00	Access Road at 20576+00	138-1-21.1	Temporary; Type 3, 5	No	Yes	No
3/2	C-141 to C-144	20614+00 to 60648+00	Access Road Parallel To Track	147.-1-13, 139.-1-20, 138.-1-21.2	Temporary; Type 3, 4	Yes-Wetland G-R-RR	No	No
3/2	C-143 & C-212	20643+00	Access Road at 20643+00	147.-1-15	Temporary; Type 3	No	No	No
3/2	C-144 to C-150	20655+25 to 20739+25	Access Road Parallel to Track	147.-1-17, 147.-1-18, 139.-1-20, 155.-1-3, 155.-1-4, 155.-1-2.1, 155.-1-8,	Temporary; Type 3, 4	Yes -Wetland G-R-RR	No	No

Segment/ Package	Sheet Number	Location (Approximate – see Drawings for Details)	Access Road Description	Parcel ID	Type of Access Road	Impacts to Environmentally Sensitive Areas	Impacts to Agricultural Land	Access road Crosses Railroad
				155.-1-9, 155.-1-13				
3/2	C-145 & C-212	20674+00	Access Road at 20674+00	147.-1-18	Temporary; Type 3	No	No	No
3/2	C-148 & C-213	20707+00	Access Road at 20707+00	155.-1-2.1	Temporary; Type 3, 5	No	Yes	No
3/2	C-150 to C-151	20747+00 to 20755+00	Access Road Parallel to Track	155.-1-14.1, 154.-1-15	Temporary; Type 3, 4	Yes – Wetland G-R-S-Z	No	Yes
3/2	C-214 to C-217	20747+00	Splice Location 064 Access Road off Towpath Lane	154.-1-15	Temporary; Type 3	No	No	No

4.11 SOIL AND MATERIALS MANAGEMENT PLAN

The Soil and Materials Management Plan is included in Appendix L attached to this EM&CP, which sets guidelines for the management of excess excavated soil associated with all excavation and other land disturbance activities associated with construction.

4.12 CULVERT REPLACEMENT

Culverts damaged by construction activities throughout the Facility ROW will be repaired in accordance with the sequence provided on Sheet C-631 of the Segment 3-Package 1C/2 Plan and Profile Drawings in Appendix C.

Appendix R identifies all the culverts present within Segment 10 of the Project and their approximate locations.

4.13 ROCK REMOVAL

Based on a geotechnical analysis of the bedrock conditions within Segment 3-Package 1C/2, there are a few locations where rock conditions may require rock removal (see Table 1 of Appendix S). If rock removal is required, it will be performed in accordance with the Rock Removal Plan included as Appendix S.

4.14 INADVERTENT DAMAGE TO EXISTING UTILITIES

If, during construction, damage occurs to existing utilities discussed in Section 13 and Appendix R, the typical process will be to:

1. Ensure the site personnel & public are safe.
2. Contact CHPE, LLC Safety and Construction Inspectors who will immediately notify the Utility Owner; If the damaged utility poses an imminent danger to public safety, the contractor will contact emergency services and the utility owner.
3. Document the damage by filing a Utility damage report, and notify the one-call center (811) about utility damage.
4. Follow the utility owner repair procedures.

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, some polluting materials may be found in staging/laydown areas and active work sites during construction of the Project (See Table 5.1).

Table 5.1 – Potential Pollutant Sources for Segment 3 - Package 1C/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	6,000 gallons	Double wall UL-2085 tank
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
HDD Fluid	Final volume determined by 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 (Appendix G). These good housekeeping practices will be followed within Project construction areas to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff.

- Where possible store only enough products required to do the job.

- Store all materials within Project Areas in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
- Keep products in their original containers with the original manufacturer's label.
- Avoid mixing substances with one another unless recommended by the manufacturer.
- Whenever possible, use all of a product up before disposing of the container.
- Follow manufacturers' recommendations for proper use and disposal.
- The site superintendent 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 Corridor will be disposed of in a portable container unit (dumpster). No waste materials will be buried within the Project Corridor. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the project trailer the Contractor (or their designee) 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. These will be handled in accordance with the Construction and Safety Policies and Procedures (see Appendix H). Handling of hazardous soil materials will be in accordance with the Soil and Materials Management Plan (Appendix L).

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 daily 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 3 – Package 1C/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 horizontal direction drilling HDD crossings within the Project. Materials (including fill, construction materials, or debris) cannot be deposited, placed, or stored in any waterbody as described in Section 9.1.

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 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 (BMP Document 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.

Table 5.2 – Segment 3 – Package 1C/2 Construction Materials and Equipment Staging Locations

Segment/ Package	Location (Approximate- see Drawings for Details)	Sheet Number	Staging Area Description
3/1C	15074+25	C-105	HDD-3 Entry Area
3/1C	15093+20	C-107	HDD-3 Exit Area

Segment/ Package	Location (Approximate- see Drawings for Details)	Sheet Number	Staging Area Description
3/1C	15138+60	C-110	HDD-4 Entry Area
3/1C	15144+75	C-110	HDD-4 Exit Area
3/1C	15163+05	C-111	HDD-4A Entry Area
3/1C	15170+50	C-112	HDD-4A Exit Area
3/1C	15175+15	C-112	HDD-5 Entry Area
3/1C	15182+40	C-113	HDD-5 Exit Area
3/1C	15218+15	C-115	HDD-6 Entry Area
3/1C	15231+50	C-116	HDD-6 Exit Area
3/1C	15256+05	C-118	HDD-7 Entry Area
3/1C	15269+00	C-118	HDD-7 Exit Area
3/1C	15295+95	C-120	HDD-8 Entry Area
3/1C	15302+55	C-121	HDD-8 Exit Area
3/2	20004+95	C-101	HDD-9 Entry Area
3/2	20010+50	C-101	HDD-9 Exit Area
3/2	20075+10	C-106	HDD-10 Entry Area
3/2	20087+40	C-106	HDD-10 Exit Area
3/2	20104+90	C-107 to C-108	HDD-11 Entry Area
3/2	20116+90	C-108	HDD-11 Exit Area
3/2	20178+50	C-112	HDD-12 Entry Area
3/2	20187+70	C-113	HDD-12 Exit Area
3/2	20193+10	C-113	HDD-12A Entry Area
3/2	20207+90	C-114	HDD-12A Exit Area
3/2	20248+75	C-117	HDD-13 Entry Area
3/2	20263+90	C-118	HDD-13 Exit Area
3/2	20281+00	C-119	HDD-13A Entry Area
3/2	20290+25	C-120	HDD-13A Exit Area
3/2	20292+00	C-120	HDD-14 Entry Area
3/2	20300+10	C-120 to C-121	HDD-14 Exit Area
3/2	20331+25	C-123	HDD-14A Entry Area
3/2	20337+40	C-123	HDD-14A Exit Area
3/2	20418+10	C-128	HDD-15 Entry Area
3/2	20424+30	C-129	HDD-15 Exit Area
3/2	20499+00	C-134	HDD-16 Entry Area
3/2	20505+40	C-134	HDD-16 Exit Area
3/2	20546+00	C-137	HDD-17 Entry Area
3/2	20551+60	C-137	HDD-17 Exit Area
3/2	20649+00	C-144	HDD-18 Entry Area
3/2	20655+20	C-144	HDD-18 Exit Area
3/2	20696+60	C-147	HDD-19 Entry Area
3/2	20702+60	C-147	HDD-19 Exit Area
3/2	20737+30	C-150	HDD-20 Entry Area
3/2	20749+30	C-150	HDD-20 Exit Area
3/2	20756+50	C-151	HDD-21 Entry Area
3/2	20776+25	C-152	HDD-21 Exit Area
3/2	20780+00	C-152 to C-153	HDD-21A Entry Area
3/2	20799+30	C-154	HDD-21A Exit Area
3/2	20466+00	C-201	Kingsbury Show up Yard

5.4.1 Secondary Containment

Secondary containment shall be used to prevent leaks or spills from reaching the environment and to contain spills until they can be cleaned up. The CCs require that any amount of hazardous materials must be stored in secondary containment. Spill management will be required for any stationary piece of equipment staying onsite for more than 4 hours. Secondary containment for portable containers (drums and buckets) will be of sufficient size to contain 110% of the capacity of the largest container. Tank containment will be of sufficient size to contain 100% of the capacity of the largest tank within its boundary and have additional capacity sufficient to contain precipitation from a 25-year, 24 hour rainfall event. The liner or structural material used for secondary containment will be compatible with the product that it's expected to contain. Carbon steel, for example, would not be compatible with corrosive liquids such as sulfuric acid. In this case, plastic should be used.

Spill management consists of plastic laid underneath oil containing equipment. Plastic will be replaced on as needed basis.

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 3 – Package 1C/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 4.10 summarizes the locations of access roads within Segment 3 – Package 1C/2 as well as all procedures that should be followed for vehicle access to Segment 3 – Package 1C/2 construction zone. The following measures will be followed for all construction material and equipment staging locations:

1. Any equipment leaking oil, fuel or hydraulic fluid will be repaired immediately or removed from the site.
2. 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.
3. Equipment cannot be deposited, placed, or stored in any waterbody.

4. Equipment or machinery will not be cleaned in any regulated wetland or adjacent area, and debris resulting from cleaning operations will not be permitted to directly enter any regulated wetland or protected stream or waterbody (CC113f).
5. 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.
6. 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.
7. 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 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.

8. Drivers will frequently check for fuel spills, drips, or seeps during the refueling operation (2012 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 Spill Prevention, Control, and Countermeasure Plan (SPCC) 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 (CC34).

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

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 and Materials Management Plan in Appendix L describes procedures for identifying and managing contaminated soil.

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 State Pollutant Discharge Elimination System (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 was prepared to cover Segment 3 – Package 1C/2 (approximately 20.41 miles) of a multi-phase project. Along with the EM&CP, the SWPPP and Erosion and Sedimentation plans will be updated with subsequent Project phases for future segments 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 in the Segment 3 – Package 1C/2 Corridor 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 and further detailed in the SWPPP (Appendix G). All of the erosion and sediment controls will be temporary. Erosion and sediment controls must be implemented early in the construction process and prior to the start of grading and excavation activities. Such procedures will be maintained throughout the construction period in accordance with the ESC Plan (Appendix C) (CC114i).

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 be 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 ESC Plan in (Appendix C) and the New York State Standards and Specifications for Erosion and Sediment Control (SSESC or “Blue Book”) (CC67).

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. 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 3 – Package 1C/2 construction (CC64). Only plain water will be used for dust suppression. Stabilized construction entrances will be consistent with NYSDEC stabilized construction entrance requirements (see Plan and Profile Drawings in Appendix C) and will also provide dust control. All applicable regulations and standards related to dust control will be followed including the SSESC for dust control, pages 2.25.

6.3.3 Stream Crossings

Unanticipated culvert replacement(s) within the public road ROW or Railroad ROW may be required during or following construction as a result of damage. These unanticipated culvert replacements may involve a stream crossing. Other protection measures that may be used to minimize impacts to streams and waterbodies include the erecting of silt fences and inlet protections in accordance with the specifications provided on the Plan & Profile Drawings as needed to minimize erosion and sediment runoff. Section 9.1 of this EM&CP describes any impacts to streams and waterbodies that may occur along Segment 3 – Package 1C/2 of the Project. The Certificate Holders will minimize disruption to streams and waterbodies along and within the vicinity of the Facility ROW during construction, operation, and maintenance of the Project.

For any construction that involves New York State protected stream crossings, the Certificate Holders will notify DPS Staff and NYSDEC at least 5 days prior to construction (CC115).

6.3.4 Horizontal Directional Drilling

HDD is typically used to cross utilities, streams, wetlands, and other physical obstructions/barriers that may be encountered along Segment 3 – Package 1C/2. There are 24 HDD installations within Segment 3 – Package 1C/2 (See Table 4.1, Appendix C and Appendix J). 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 (G-002) of the Plan & Profile Drawings, and the details shown on the Keyplan E&S Drawing (C-400) (Appendix C) will be followed at each HDD crossing. Additionally, an IRCP 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

In accordance with the SWPPP (Appendix G), sediment and erosion control measures will be inspected at least once every seven days. More frequent inspections will occur as needed and defined in the SWPPP (e.g., land disturbance exceeds five acres). Sediment and erosion control inspections will be performed by the Environmental Inspector. 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 in Section 3.0 of this EM&CP. These procedures include inspection requirements for Owner/Operator, Qualified Inspectors, and general requirements.

6.5 POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

Construction of Segment 3 – Package 1C/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 SENSITIVE LAND USES

Given that most of the overland portion of the Project is sited within existing railroad or road ROWs, most of the land use is considered disturbed/maintained. However, portions of the Project cross sensitive land uses, and those specific to EM&CP Segment 3 – Package 1C/2 are summarized in the following subsections.

7.1 AGRICULTURAL LANDS CCS AND BMPS

To fulfill the requirements of CC 76, the Certificate Holders initiated consultations with NYSDAM (see Appendix A) for the properties listed in Table 7.1 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.

The 8-inch SCH 40 PVC Conduit or approved equal will be buried at a minimum of four feet within the agricultural areas in Segment 3 (see Table 7.1). The Type 5 access road detailed in Section 4.10 will be used to minimize impact through agricultural areas. Section 4.10.4 further details how access through agricultural areas will be performed, including the requirements for removing and stockpiling soil.

Section 8.1 summarizes the requirements and procedures for any vegetation or tree clearing that may occur within agricultural lands, all of which both the Agricultural and Environmental Inspector will be present for (BMP Document Section 20.2). Table 14.1 summarizes the locations of agricultural lands that will require restoration following construction. Section 14.5 of this EM&CP and Section 20.5 of the BMP Document 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 in Appendix C.

7.1.1 Agricultural Lands within Segment 3 – Package 1C/2

Agricultural lands identified along the Segment 3 - Package 1C/2 are summarized in Table 7.1.

Table 7.1 – Segment 3 - Package 1C/2 Agricultural Lands

Segment/ Package	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Location Description	Anticipated Impacts to Agricultural Activities/Land
3/1C	68.-1-16.1	C-110 to C-111	15142+75 to 15162+00	East of CP Railroad east of Route 4	Construction activity will occur within the western edge of the CP-Railroad ROW and is not anticipated to impact these areas.
3/1C	68.-1-16.1	C-212	15165+00	Area east of Route 4 and west of tree line	Construction activity associated with the installation of a temporary access road as described in Table 4.6 and temporary bridge construction may impact these agricultural lands. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/1C	68.-1-21	C-112	15165+50 to 15178+00	Area east of stream 830-469 and west of tracks	Alignment crosses to east side of tracks to avoid impact to agricultural land.
3/1C	77.-1-9.1	C-112 to C-114	15179+00 to 15201+50	Area east of stream 830-469 and west of tracks	Alignment crosses to east side of tracks to avoid impact to agricultural land except for temporary access road described in the table row below.
3/1C	77.-1-9.1; 77.-1-10.1	C-213	15196+00	Parcels between Route 4 and CP Rail	Anticipated impacts including the installation of a temporary perpendicular access road as described in Table 4.6 may impact these agricultural lands. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/1C	77.-1-4.1	C-114 to C-116	15201+50 to 15230+75	West of CP Railroad east of Route 4	Alignment crosses to east side of tracks to avoid impact to agricultural land except for temporary access road described in the table row below.
3/1C	77.-1-4.1	C-116 to C-118	15230+75 to 15258+00	West of CP Railroad east of Route 4	Construction activity including the installation of the alignment and the installation of an access road as described in Table 4.6 will occur along the eastern edge of agricultural lands. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/1C	77.-1-4.1	C-117 & C-214	15241+00	West of CP Railroad east of Route 4	Construction activity associated with the installation of an access road off NYS Route 4 as described in Table 4.6 may impact these agricultural lands. All agricultural lands will be fully restored in accordance with Section 14.5.
3/1C	86.-1-5	C-118	15258+00 to 12562+00	Area between CP Rail ROW and Railway	This parcel is avoided by HDD#7. No impacts to agricultural lands are anticipated.

Segment/ Package	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Location Description	Anticipated Impacts to Agricultural Activities/Land
				Reorganization Est Inc property	
3/1C	86.-1-2.1	C-118 to C-119	15264+00 to 15273+50	West of CP Railroad east of Route 4	Construction activity including the installation of the alignment and clearing as described in Table 8.4 will occur along eastern edge of agricultural lands and is not anticipated to impact the area used for agricultural activities.
3/1C	86.-1-6	C-119	15273+50 to 15281+00	West of CP Railroad east of Route 4	Construction activity including clearing along eastern edge of agricultural lands as described in Section 8.3 is not anticipated to impact the area used for agricultural activities.
3/1C	86.-1-7	C-120	15285+50 to 15293+00	Adirondack Natural Stone	Agricultural lands registered with Washington County Ag District but appears to not be used for agricultural activities. Construction activity within agricultural lands will include the installation of an access road as described in Table 4.6 and clearing along the eastern edge of the property as described in Table 8.4. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/1C	86.-1-14.2	C-120	15293+00 to 15300+00	West of CP Railroad east of Route 4	Anticipated impacts to agricultural lands include clearing along eastern edge of the work areas and for HDD#8 Work Area as described in Table 8.4. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/2	104.-01-1.1	C-113	20186+00 to 20190+00	West of CP Railroad east of Route 4 Lands N/F of Jenkinsville Sand & Gravel	Construction activity will occur within the CP-Railroad ROW/eastern edge of agricultural lands. Anticipated impacts to agricultural lands include clearing along property edge as described in Table 8.4. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/2	112.4-27	C-123 to C-124	20338+00 to 20350+00	CP Railroad within agricultural land – cable west of tracks east of Route 4	Construction activity will occur within the CP-Railroad ROW within agricultural lands and is not anticipated to impact these areas.

Segment/ Package	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Location Description	Anticipated Impacts to Agricultural Activities/Land
3/2	121.00-1-17	C-128 to C-129	20407+00 to 20428+00	CP Railroad within/ adjacent (west) of agricultural land– cable west of tracks east of Route 149	The majority of construction activity will occur within the CP-Railroad ROW except for the installation of an access road as described in Table 4.6. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/2	130.-3-1	C-129 to C-130	20428+00 to 20447+50	CP Railroad within/ adjacent (west) of agricultural land– cable west of tracks east of Route 149	Construction activity the installation of the alignment, and tree and vegetation clearing as described in Table 8.4 will impact these agricultural lands. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/2	130.-3-7.3	C-130 & C-208	20447+00	West of CP Railroad	Agricultural lands registered with Washington County Ag District 7. Access road will be constructed perpendicular to the CP-Railroad ROW as described in Table 4.6. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/2	130.-3-7.3 130.-3-7.4 130.-3-7.1 130-3-7.5 130-3-7.12 139.-1-13 139.-1-3 139.-1-3.1 138.-1-21.2	C-130 to C-137	20447+50 to 20549+00	West of CP Railroad	Agricultural lands registered with Washington County Ag District 7. Construction activity will occur within CP-Railroad, except for portions of the access roads as described in Table 4.6, the exit and entry points for HDD#16 & #17. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/2	130.-3-7.4	C-132 & C-208	20466+00	West of CP Railroad	Agricultural lands registered with Washington County Ag District 7. Access road will be constructed perpendicular to the CP-Railroad ROW as described in Table 4.6. Kingsbury Show Up Yard located on this parcel as described in Table 5.2. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/2	139.-1-3	C-135 & C-210	20512+00	West of CP Railroad	Agricultural lands registered with Washington County Ag District 7. Access road will be constructed perpendicular to the CP-Railroad ROW as described in Table 4.6. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.

Segment/ Package	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Location Description	Anticipated Impacts to Agricultural Activities/Land
3/2	138-1-20 138-1-21.1	C-137 to C-138 & C-211	20549+00 to 20580+00	West of CP Railroad	Agricultural land registered with Washington County Ag District 7. Construction activity including installation of the alignment via HDD#17 and via trenching will occur within the CP-Railroad ROW except for portions of the access roads and portions of the HDD assembly areas that are located parallel to the tracks. All impacts to agricultural lands will be fully restored in accordance with Section 14.5
3/2	138.-1-21.1	C-139 & C-211	20576+00	West of CP Railroad	Agricultural lands registered with Washington County Ag District 7. Access road will be constructed perpendicular to the CP-Railroad ROW as described in Table 4.6. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/2	138.-1-24 147.-1-8	C-139 to C-141	20580+00 to 20614+00	West of CP Railroad	Construction activity will occur within CP-Railroad ROW and is not anticipated to impact these areas.
3/2	147.-1-17	C-144 to C-145	20650+00 to 20670+00	West of CP Railroad east of Towpath Road – cable west of tracks	Agricultural lands registered with Washington County District 7. Construction activity associated with the installation of the alignment via HDD#18 will be located within these agricultural lands adjacent to the CP-Railroad ROW. An access road as described in Table 4.6 will be constructed within these agricultural lands. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/2	155.-1-2.1	C-148 & C-213	20706+00 to 20711+00	West of CP-Railroad	Agricultural lands registered with Washington County Ag District 7. Access road will be constructed perpendicular to the CP-Railroad ROW as described in Table 4.6. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/2	155.-1-6 155.-1-8 155.-1-9 155.-1-11 155.-1-13	C-148 to C-150	20711+00 to 20740+00	West of CP-Railroad	Construction activity will take place within the CP-Railroad ROW except for the installation of an access road as described in Table 4.6, and the associated HDD#20 assembly area. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.
3/2	154.-1-15 154.-1-16	C-150 to C-151	20740+00 to 20756+00	Northeast of CP Railroad and south of NY Route 196	Construction activity will involve the installation of the alignment via HDD #20, installation of the alignment via trenching, construction of temporary access road as

Segment/ Package	Parcel ID	Sheet Number	Location (Approximate – see Drawings for Details)	Location Description	Anticipated Impacts to Agricultural Activities/Land
					described in Table 4.6. All impacts to agricultural lands will be fully restored in accordance with Section 14.5.

7.2 RECREATIONAL AREAS CCS AND BMPS

Per the BMP Document (Section 12.3), The Certificate Holders will not store, mix or load chemicals labeled toxic or petroleum products within 100 feet of an existing recreational area along the Project Corridor. This applies to storage and does not apply to normal operation or use of equipment in these areas.

Per the BMP Document (Section 14.3.2), herbicides will not be applied within recreational areas.

Section 8.3.2 describes the procedures to be followed for vegetation, tree clearing, and disposal is occurring within the boundary of a recreational area.

Section 14.2.4 summarizes the cleanup and restoration procedures that will be followed after construction in a recreational area is completed.

7.2.1 Recreational Areas within Segment 3 – Package 1C/2

Table 7.2 describes the recreational areas within Segment 3 – Package 1C/2. A small portion of Segment 3 – Package 1C is located adjacent to the Empire State Trail which follows NYS Route 22. Aside from the temporary reduction of the number of traffic lanes on local roadways there is no anticipated impact to this recreational area. Construction activities associated with the Segment 3 - Package 2, are along existing roadway ROWs and Railroad ROWs, and are not anticipated to impact recreational areas.

Table 7.2 – Segment 3 - Package 1C/2 Recreational Areas

Segment/ Package	Recreational Area	Location (Approximate – see Drawings for Details)
3/1C	Empire State Trail	15007+00 (C-101) to 15016+00 (C-102)
3/2	Recreational Area Along the Canal	20024+00 to 20025+00 (C-102)
3/2	Champlain Canal Boat Lock #11 (outside LOW)	20032+25 to 20041+00 (C-103)
3/2	Fort Ann Kayak Launch Docks (outside LOW)	20293+00 to 20296+00 (C-120)

8.0 VEGETATION CLEARING AND DISPOSAL

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 sensitive resources (e.g. threatened or endangered species habitat, streams and wetlands or areas of high visual sensitivity). Tree (limb) 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 (BMP Document, Section 5.1). Table 8.1 below provides the terms and definitions associated with vegetation clearing and disposal.

Table 8.1 - Terms and Definitions from BMP Document Section 5.2

Term	Definition
Clearing	the cutting and physical removal, either by hand or mechanical means, of all vegetation from the work area
Grubbing	the mechanical removal of the stump and root mass of felled woody vegetation
Slash	shrubs, saplings, and tops of trees 4 inches in diameter or less at the large end for hardwood and 6 inches in diameter or less at the large end for softwoods.
Stumps	the woody stem and fibrous root mass left in the soil after removing the trunk at the butt.
Timber/logs	trunks and limbs greater than 6 inches in diameter at the small end, with a minimum 8-foot length.

8.1 CLEARING METHODS AND PROCEDURES

The cleared width within the construction and road/rail 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.

In general, the limits of clearing are on average 45 feet from each side of the centerline of the conduit. Locations of limits of clearing, and the type of clearing required are shown on the Plan and Profile drawings (Appendix C) and the Erosion and Sediment Control Plan (Appendix C).

All vegetation clearing and removal within Segment 3 – Package 1C/2 will follow the following management practices:

1. Trees, shrubs, and other vegetation indicated to remain or to be relocated will not be removed.
2. 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.
3. Cleared vegetation, specifically woody material, will not enter wetlands/waterbodies and/or within 100 feet of wetland/waterbody areas as such activity may impact water quality and be considered fill.
4. Hand methods will be used for clearing within tree protection zone.
5. Woody material trimmed from the work area will be chipped on-site and hauled to an upland area on-site or an off-site disposal facility or mulch recycling location if one is available. Any chipped 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.
6. Burning of debris onsite is not permitted.
7. Disposal of all diseased Elmwood will occur within four (4) days after cutting by a disposal method to prevent the spread of the invasive insect as described in Section 9.4.
8. All vegetation clearing and disposal will comply with all NYSDEC regulations regarding invasive species.
9. No logs or other woody material will be left in any designated floodway or other flood hazard area.

8.1.1 Tree and Vegetation Clearing Methods

During clearing operations, crews, in coordination with the Environmental Inspector, will assess the terrain ahead for unexpected conditions, check ROW boundaries and review property specific conditions or restrictions noted on the Plan and Profile Drawings (Appendix C). If tree removal is determined to be necessary, all tree clearing and removal will follow the specifications documented above in Section 8.1 of this EM&CP. Trees will be felled into the ROW to avoid off-ROW damage, using the following methods (BMP Document, Section 5.4).

Table 8.2 – 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 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.

8.1.2 Clearing in Upland Area 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 disposal methods described in Section 8.4. Tree stumps and rootstock will be left undisturbed in the temporary workspace wherever possible to encourage natural revegetation. Timber, brush and tree limbs will be managed for disposal as described in Section 8.4. 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) (BMP Document, Section 5.4.1).

8.2 VEGETATION CLEARING IN ENVIRONMENTALLY SENSITIVE AREAS

Environmentally Sensitive Areas are indicated in the 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 8.2.1 and 9.1.
2. Stream Crossing: Section 8.2.1 and Section 9.1.
3. Threatened and Endangered Species/Sensitive Habitats: Section 9.3.
4. Agricultural Lands: Section 8.2.2.

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 such 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 9.3 tree clearing and tree trimming activities will be conducted during the winter months (November 1 to 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:

1. 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 three inches DBH.
2. 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 one hour after sunset or until it is otherwise too dark to see emerging bats.
3. Unoccupied snag and cavity trees in the approved clearing area shall be removed within 48hours 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 detail (Sheet C-631 Appendix C) will be utilized and all construction relating to unanticipated culvert replacement, will be performed in accordance with the UACOE 404 permit.

8.2.1 Wetland Areas and Stream Crossings

Temporary matting will be used for all construction and access within wetlands. The following measures will be implemented when clearing in wetland areas

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 to reduce the amount of activity and disturbance to the wetland and adjacent area.
2. Cleared vegetation will not be stockpiled within 100 feet of wetlands to avoid impacts to water quality.

All protection and mitigation procedures for wetlands and waterbodies are summarized in Section 9.1. These procedures will be followed during any vegetation clearing or removal in wetland areas and near water bodies (i.e., stream crossings).

8.2.2 Agricultural Lands

Agricultural lands within the Segment 3 - Package 1C/2 are identified in Table 7.1. The Certificate Holders have designed Segment 3 - Package 1C/2 to avoid crop fields or other active agricultural land to the greatest extent possible (CC75). 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. All cleared woody vegetation will be removed from livestock areas and disposed of following the disposal methods described in Section 8.4 (2012, BMPs, Section 20.2). No cleared woody vegetation will be stockpiled or stored in areas accessible to livestock.

8.3 VEGETATION BUFFER AREAS

8.3.1 Buffer Areas for Streams and Wetlands

The Certificate Holders have, where required, created vegetative buffers adjacent to sensitive areas such as state regulated wetlands and streams. These vegetative buffers have been maintained to the maximum extent practicable, as identified on the 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 (BMP Document, Section 5.7). All state and regulated wetlands and their 100-foot adjacent area buffers have been illustrated on the 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.

8.3.2 Buffer Areas for Visually Sensitive Locations

Existing vegetation buffers will be maintained at selected road and stream crossings and other visually sensitive locations where possible, especially at HDD drilling or boring sites, residential areas, and the peripheries of historic sites.

8.4 TREE AND VEGETATION DISPOSAL METHODS

The log disposal and vegetation disposal methods that may be used for Segment 3 - Package 1C/2 are described in Table 8.3 (BMP Document, Sections 5.5.1-5.5.4). The list of disposal locations included in Appendix L will be submitted to DPS and NYSDEC Staff prior to construction.

In general, the log disposal method along the ROW will be selected after assessing each designated clearing area in consideration of the following (BMP Document Section 5.5):

1. Tree species and potential volumes of marketable timber.
2. Soil and terrain conditions that would allow mechanized collection and skidding without creating severe rutting or significantly increasing erosion potential.
3. Sufficient marketable volumes of wood to make economic utilization practical.

4. 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.
5. Abutter/landowner cooperation, as well as clearing and trimming rights (BMP Document Section 5.5).
6. All vegetation disposal will comply with NYSDEC regulations to prevent the spread of invasive species.

Regarding the description of the Type C disposal method (see Table 8.3), the Certificate Holders will negotiate in good faith with each landowner for the purchase of rights to all logs over 6-inches in diameter at the small end and 8-feet or longer (merchantable logs) to be cleared from Segment 3 -Package 1C/2. The Certificate Holders will not leave any permanent slash piles or log piles along public highways (CC65a).

Table 8.3 – Tree and Vegetation Disposal Methods

Method Type	Method Title	Method Description
Type A	Construction Use	Logs may be utilized as needed during construction for 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 (Appendix L).
Type B	Log Piles	Logs not needed for construction will be removed from the ROW to an approved disposal area (Appendix L).
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 (Appendix L). 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 for the disposal of chips.
Type F	Vegetation Hauling	Vegetation and stumps may be hauled to a NYSDEC approved location (Appendix L) or other suitable off-site location with the

Method Type	Method Title	Method Description
		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 reestablished using locally obtained run-of-bank material and/or topsoil and re-seeded as appropriate as specified in Sections 14.2. 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.

8.5 TREE AND VEGETATION CLEARING LOCATIONS WITHIN SEGMENT 3– PACKAGE 1C/2

Table 8.4 identifies clearing locations and methods to be incorporated within Segment 3 – Package 1C/2. The locations identified are approximate and the Plan and Profile Drawings (Appendix C) will be referenced for exact locations.

Table 8.4 – Tree and Vegetation Clearing Locations for Segment 3 – Package 1C/2

Segment/ Package	Description	Sheet Number	Location (Approximate – See Drawings for Details)	Vegetation/Tree Clearing Method Type	Applicable Environmental Sensitive Area Requirements
3/1C	Tree & Vegetation Clearing	C-101	15000+00 to 15003+00	Type IV	Residential Area
3/1C	Tree & Vegetation Clearing	C-102	15017+25 to 15018+25	Type IV	Residential Area
3/1C	Tree & Vegetation Clearing	C-102	15018+50 to 15019+75	Type IV	Residential Area
3/1C	Tree & Vegetation Clearing	C-102	15020+00 to 15021+50	Type IV	Residential Area
3/1C	Tree & Vegetation Clearing	C-102	15021+75 to 15026+50	Type IV	Residential Area
3/1C	Tree & Vegetation Clearing	C-102	15028+50 to 15029+00	Type IV	Residential Area
3/1C	Tree & Vegetation Clearing	C-102 to C-103	15029+75 to 15033+25	Type IV	Residential Area
3/1C	Tree & Vegetation Clearing	C-103	15034+00 to 15036+50	Type IV	N/A
3/1C	Tree & Vegetation Clearing	C-103	15036+75 to 15037+00	Type IV	N/A
3/1C	Tree & Vegetation Clearing	C-103	15037+65 to 15037+75	Type IV	N/A
3/1C	Tree & Vegetation Clearing	C-103	15038+75 to 15040+00	Type IV	N/A
3/1C	Tree & Vegetation Clearing	C-103 to C-104	15041+25 to 15045+75	Type IV	N/A
3/1C	Tree & Vegetation Clearing	C-104	15046+50 to 15048+75	Type IV	N/A
3/1C	Tree & Vegetation Clearing	C-104 to C-105	15049+00 to 15052+00	Type IV	N/A
3/1C	Tree & Vegetation Clearing	C-104 to C-105	15054+75 to 15062+75	Type IV	N/A
3/1C	Tree & Vegetation Clearing	C-105	15063+00 to 15069+75	Type IV	N/A
3/1C	Tree & Vegetation Clearing	C-105	150670+25 to 15074+25	Type IV	N/A
3/1C	Vegetation Clearing	C-107	15096+00 to 15097+50	Type I, II, III	Wetland G-R-X
3/1C	Tree & Vegetation Clearing	C-109	15133+50 to 15135+00	Type IV	N/A
3/1C	Tree & Vegetation Clearing HDD-4 Work Zone	C-110	15137+0 to 15139+00	Type I, II, III	Wetland G-R-
3/1C	Tree & Vegetation Clearing	C-110 to C-111	15144+50 to 15165+00	Type I, II, III	Wetland G-R-X, Agricultural Lands
3/1C	Tree & Vegetation Clearing	C-111 to C-112	15164+50 to 15175+75	Type I, II, III	Wetland GRU, Agricultural Lands
3/1C	Tree & Vegetation Clearing	C-113	15182+00 to 15188+75	Type I, II, III	Wetland G-R-V, Agricultural Lands

Segment/ Package	Description	Sheet Number	Location (Approximate – See Drawings for Details)	Vegetation/Tree Clearing Method Type	Applicable Environmental Sensitive Area Requirements
3/1C	Tree & Vegetation Clearing	C-113	15189+50 to 15190+75	Type IV	Agricultural Lands
3/1C	Tree & Vegetation Clearing	C-113 to C-115	15191+50 to 15218+50	Type I, II, III	Wetland G-R-W, Agricultural Lands
3/1C	Tree & Vegetation Clearing	C-116 to C-117	15231+25 to 15240+75	Type I, II, III	Wetland G-R-X, Agricultural Lands
3/1C	Tree & Vegetation Clearing Temporary Access Road	C-117	15241+00	Type I, II, III	Wetland G-R-X, Agricultural Lands
3/1C	Tree & Vegetation Clearing	C-117 to C-118	15241+25 to 15256+50	Type I, II, III	Wetland G-R-X, Agricultural Lands
3/1C	Tree & Vegetation Clearing	C-118 to C-119	15268+75 to 15280+75	Type I, II, III	Wetland G-R-X, Agricultural Lands
3/1C	Tree & Vegetation Clearing	C-119 to C-120	15281+25 to 15288+25	Type I, II, III	Wetland G-R-Y, Agricultural Lands
3/1C	Tree & Vegetation Clearing Temporary Access Road	C-120	15288+25 to 15288+50	Type I, II, III	Wetland G-R-Y, Agricultural Lands
3/1C	Tree & Vegetation Clearing	C-120	15288+75 to 15296+50	Type I, II, III	Wetland G-R-Y, Agricultural Lands
3/1C	Tree & Vegetation Clearing	C-121	15301+25 to 15304+25	Type IV	N/A
3/1C	Vegetation Clearing	C-210	15037+00 Along Access Road	Type IV	N/A
3/1C	Tree & Vegetation Clearing	C-211	15070+00 Along Access Road	Type I, II, III	Wetland
3/1C	Tree & Vegetation Clearing	C-212	15165+00 Along Access Road	Type IV	Agricultural Lands
3/1C	Tree & Vegetation Clearing	C-213	15196+00 Along Access Road	Type IV	Agricultural Lands
3/1C	Tree & Vegetation Clearing	C-214	15240+00 Along Access Road	Type IV	Wetland P1C-A and P1C-B
3/2	Tree Limb Trimming/Vegetation Clearing	C-101	20008+00 to 20009+50	Type IV	N/A
3/2	Tree Limb Trimming/Vegetation Clearing	C-101 to C-102	20014+00 to 20015+50	Type IV	N/A
3/2	Tree Limb Trimming/Vegetation Clearing	C-102 to C-104	20021+00 to 20052+00	Type III	N/A
3/2	Tree Limb Trimming/Vegetation Clearing	C-107	20094+40 to 20101+00	Type IV	N/A
3/2	Vegetation Clearing	C-108 to C-109	20117+00 to 20128+25	Type I, Type II, and Type IV	Wetland

Segment/ Package	Description	Sheet Number	Location (Approximate – See Drawings for Details)	Vegetation/Tree Clearing Method Type	Applicable Environmental Sensitive Area Requirements
3/2	Tree & Vegetation Clearing	C-111 to C-112	20162+00 to 20179+00	Type I	Wetlands
3/2	Tree & Vegetation Clearing	C-113	20183+50 to 20195+00	Type I or II	Agricultural Lands
3/2	Tree & Vegetation Clearing	C-114	20200+00 to 20201+00 (Along Access Road)	Type IV	N/A
3/2	Tree & Vegetation Clearing	C-114 to C-117	20207+25 to 20220+00; 20221+00 20249+ 50	Type I, Type II, and Type IV	Wetlands
3/2	Tree & Vegetation Clearing	C-118 to C-119	20263+00 to 20281+50	Type IV	N/A
3/2	Tree & Vegetation Clearing	C-120	20289+50 to 20295 +00	Type IV	N/A
3/2	Tree & Vegetation Clearing	C-118 to C-119	20263+00 to 20281+50	Type IV	N/A
3/2	Tree & Vegetation Clearing Tree & Vegetation Clearing	C-120 to C-123	20296+00 to 20332+25	Type I or II	Wetlands
3/2	Tree & Vegetation Clearing	C-123 to C-128	20337+00 to 20382+50; 20383+00 to 20421+00	Type I or II	Wetlands, Agricultural lands
3/2	Tree & Vegetation Clearing	C-129 to C-134	20424+00 to 20497 +00	Type I or II	Wetlands, Agricultural Lands
3/2	Tree Limb Trimming/Vegetation Clearing	C-134	20499+00 to 20502+00 (Along Access Road and HDD#16 entry pit)	Type I or II	Agricultural Lands
3/2	Tree & Vegetation Clearing	C-134 to C-136	20505+00 to 20537+00	Type I or II	Wetlands, Agricultural Lands
3/2	Tree & Vegetation Clearing	C-137	20540+00 to 20546+25 (Around Access Road and Splice Location 057)	Type I or II	Agricultural Lands, Wetlands
3/2	Tree & Vegetation Clearing	C-137 to C-144	20551+00 to 20648+50	Type I or II	Agricultural Lands, Wetlands
3/2	Tree & Vegetation Clearing	C-144 to C-147	20655+00 to 20697+00;	Type I or II	Agricultural Lands, Wetlands
3/2	Tree & Vegetation Clearing	C-147 to C-150	20702+00 to 20738+00	Type I or II	Wetlands, Agricultural Lands
3/2	Tree & Vegetation Clearing	C-150 to C-151	20749+00 to 20750+50 (Within HDD exit pit)	Type I or II	Agricultural Lands

Segment/ Package	Description	Sheet Number	Location (Approximate – See Drawings for Details)	Vegetation/Tree Clearing Method Type	Applicable Environmental Sensitive Area Requirements
3/2	Tree Limb Trimming/Vegetation Clearing	C-150 to C-151	20750+50 to 20757+25	Type I or II	Agricultural Lands
3/2	Tree & Vegetation Clearing	C-152	20767+00 to 20780+00 (Along Access Road)	Type I, Type II, and Type IV	N/A
3/2	Tree & Vegetation Clearing	C-203	Along Access Road at 20182+00 East and West	Type I, Type II, and Type IV	N/A
3/2	Tree & Vegetation Clearing	C-204	Along Access Road at 20235+00	Type I, Type II, and Type IV	N/A
3/2	Tree & Vegetation Clearing	C-205	Along Access Road at 20280+00	Type I, Type II, and Type IV	N/A
3/2	Tree & Vegetation Clearing	C-206	Along Access Road at 20357+00	Type I, Type II, and Type IV	N/A
3/2	Tree & Vegetation Clearing	C-211	Along Access Road at 20576+00	Type I, Type II, and Type IV	N/A
3/2	Tree & Vegetation Clearing	C-212	Along Access Road at 20643+00	Type I, Type II, and Type IV	N/A
3/2	Tree & Vegetation Clearing	C-214	Along Access Road	Type I, Type II, and Type IV	N/A
3/2	Tree & Vegetation Clearing	C-216	Along Access Road	Type I, Type II, and Type IV	Agricultural Lands
3/2	Tree & Vegetation Clearing	C-217	Along Access Road at 20512+00	Type I, Type II, and Type IV	Wetlands, Agricultural Lands

*Field Verification pending, current delineation of wetland based on 2010 delineation.

9.0 ENVIRONMENTALLY SENSITIVE AREAS

This section of the EM&CP addresses Environmentally Sensitive Areas, specifically waterbodies and regulated wetlands, groundwater and wells, ecologically sensitive species and habitats (e.g., state and federally listed species, significant natural communities), and invasive species.

9.1 WATERBODIES AND REGULATED WETLANDS

Waterbodies and wetlands were identified by CHA (see Appendix M)[2] in accordance with the United States Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual, the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (January 2012), as well as the New York State Freshwater Wetlands Delineation Manual (Browne et al. 1995).

9.1.1 Waterbodies

9.1.1.1 Summary of Waterbodies within Segment 3– Package 1C/2

A total of 26 waterbodies were identified in the survey area within the Segment 3 - Package 1C/2 Project Corridor (see Table 9.1 and the Wetland Delineation Report in Appendix M includes additional details). All waterbodies are classified as either perennial or intermittent streams.

9.1.1.2 Waterbody Impact Avoidance, Protection, and Minimization Measures

To the extent practical, the Project has been designed to avoid direct stream impacts by crossing under or over existing culverts. This construction will involve excavating underneath (or above) the culvert and using supports to protect and hold the culvert in place[3]. 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). Impacts will also be avoided by crossing under streams through use of HDD. Although not a Certificate Condition, NYSDEC has indicated that the project should maintain a minimum of 5 feet between

[2] The Wetland Delineation Report in Appendix M also includes Segment 1 and 2 (also as designated design packages 1A and 1B in some documents) which are not applicable to this EM&CP but have been included in previous EM&CPs as described in the schedule in Section 1.1.
[3] Please see Section 13 and Appendix R for additional CI owner consultations.

the bottom of an existing culvert and the installed conduit, wherever the conduit must be constructed beneath a State regulated stream, in order to comply with Article 15 standards for permit issuance and the State's Community Risk and Resiliency Act. Protective buffer zones have been established to define areas where construction activities will be restricted to the extent necessary to minimize impacts on waterbodies. All HDD crossing locations and protective buffer zones are included on the Plan and Profile Drawings (Appendix C). While most impacts to waterbodies have been avoided, construction of Segment 3 will result in minor, temporary impacts to some intermittent streams due to temporary, culverted access road crossings within the Project Corridor (see Table 9.1).

Stream protection measures have been established to ensure that stream flow and water quality will be maintained throughout construction. Most stream crossings will be completed using dry crossing techniques, where the work area is kept dry either by installing control measures or by avoiding disturbance of the waterbody entirely (e.g., crossing under the waterbody). 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.

Impacts to water quality will be minimized while work is being performed in waterbodies by implementing the following measures (BMP Document Section 18.4):

1. During construction, vegetated buffers at all waterbody crossings will be maintained. Where the vegetation exists along the railroad ROWs, a minimum 15-foot buffer will be maintained with existing trees and shrubs except for the portion of the bank hat has been cleared for the construction path. (CC114d).
2. Where HDD is proposed, all vegetation will be maintained between the HDD entry and exit points.
3. Materials resulting from trench excavation for utility line installation or ditch reshaping activities which are temporarily side cast into wetlands will be backfilled or removed to an upland area per USACE requirements. Soil and excavated materials will be characterized and either reused or disposed of in accordance with the Soil and Materials Management Plan (Appendix L).
4. 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. Temporary crossings will be designed and constructed to withstand the two-year flood event at a minimum (CC114c).

5. In accordance with the amended CC 114, 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.
    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.
6. Construction vehicle access will be limited across streams and waterbodies to existing bridges and culverts and to temporary crossings installed in accordance with the provisions set forth in this approved EM&CP (CC114e).

7. Equipment will be well maintained and checked daily for leaks.
8. No permanent structural shoreline protection or stabilization will be used, except where such protection is pre-existing.
9. In-stream work will be isolated from the flow of water and discolored (turbid) discharges and sediments will be isolated from entering the water due to excavation, dewatering and construction activities.
10. The use of heavy construction equipment will be excluded 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.
11. Soil disturbance will be minimized, and appropriate grading and temporary and permanent revegetation of stockpiles and other disturbed areas will be provided to minimize scour, erosion and sedimentation potential.
12. Effective erosion control measures will be installed on the downslope of all disturbed areas and maintained in fully functional condition. Control measures will include but will not be limited to stabilized construction entrances, temporary and permanent stabilization by seeding and mulching, silt fence, and other measures as identified on the SWPPP (Appendix G) and ESC Plan (Appendix C). These erosion control measures are to be installed before commencing any other activities involving soil disturbance (CC114i).
13. All excavated material, debris or excess materials from construction will be removed, from the bed and banks of all water areas to an approved upland disposal site where not suitable for backfill or reuse.
14. All temporary fill and other materials placed in the waterbodies will be completely removed and the original condition re-established, immediately upon completion of construction, unless otherwise directed by the NYSDEC.
15. The status of each HDD waterbody crossing will be monitored 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 (CC114n).
16. Clearing of existing vegetation in or near 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 waterbody and adjacent area.

17. Equipment or machinery will not be cleaned in any regulated waterbody, and runoff resulting from cleaning operations will not be permitted to directly enter any protected stream or waterbody (CC113f).
18. Precautions will be employed, when not feasible to move a vehicle or piece of 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 will 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 (CC114h).
19. Water will be pumped 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 streams and stormwater systems will be avoided (CC114j).
20. Spill response and cleanup procedures have been developed (refer to SPCC in Appendix K) and will be implemented to minimize and respond to any accidental spills of petroleum products or hazardous liquids that occur during construction (CC114l).
21. During the performance of any HDD waterbody crossing, contractors will monitor the use of inert drilling solution and, in the event of a detected release of fluid, will implement the procedures specified in the IRCP (Appendix J) (CC114m).
22. DPS Staff or the Environmental Inspector will promptly notify the appropriate NYSDEC representative of any activity that is a significant environmental threat to a protected waterbody and exercise Stop Work Authority if needed (CC54d, CC116).
23. The Certificate Holders will notify DPS Staff and NYSDEC at least 5 days prior to construction involving protected stream crossings (CC115).
24. 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 prior to providing notice to DPS staff of the proposed change (CC158a).
25. Any proposal to modify this EM&CP will address, but not be limited to, the following information:
    a) 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 (CC159c).

b) Impact avoidance and/or minimization measures for streams including any maps and plan drawings of streams 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 (CC159u).

c) Details of erosion control plans, including grading and filling at the overland Construction Zone 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 (CC159y).

d) Other mitigation measures as appropriate to demonstrate compliance with other permits and approvals (CC159ii).

e) 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 cold-water fisheries (i.e., trout streams) requires that construction only occur during specific dates between June 1 and September 30 (stream/site specific, see Table 9.1), while waterbodies not classified as significant fisheries or waterbodies do not always have specific construction windows (BMP Document Section 26). All designated trout streams along the Project Corridor 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 (BMP Document Section 26). Should the culvert require replacement, then time of year restrictions for the work would apply.

If a dry crossing is proposed for any stream designated as T or TS, the Certificate Holders will adhere to the proposed timing restrictions of October 1 through May 31 (BMP Document Section 18.2.1).

There are no trout streams located within Segment 3 – Package 1C/2; therefore, time of year restrictions do not apply.

9.1.1.3 Waterbody Impacts

Construction activities within the Segment 3 – Package 1C/2 Project Corridor will primarily include the installation of underground conduit within the CP railroad or an existing public road ROW. Direct impacts to streams and waterbodies will be avoided by crossing over existing culverts and utilizing HDD; however, minor and temporary impacts to streams will result from the construction of temporary access roads and installation of the conduit. Table 9.1 identifies where temporary disturbance may occur as a result of Project and summarizes the measures to avoid stream impacts and identifies the temporary impacts that will occur as a result of Project construction.

As indicated in Table 9.1, the construction of Segment 3 – Package 1C/2 will result in approximately 215 linear feet of temporary stream impact for seven temporary stream crossings associated with access roads. Widths of stream crossings by cables and access roads were calculated from the project Site Plans and based on field delineation of stream ordinary high water marks (OHWM). The Certificate Holders have obtained a Section 10/404 permit from, and are continuing to coordinate with, the USACE to ensure that all Project construction will be in compliance with 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.

In addition to temporary stream crossings identified above, ground disturbance from construction activities would not result in any increased potential for indirect impacts associated with erosion and sedimentation. Runoff on construction sites will be 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. Additionally, the use of HDD has the potential for inadvertent returns (i.e., leaks of HDD drilling fluid) that could cause drilling fluid to become suspended or dispersed and could impact water quality. An IRCP (Appendix J) has been developed that addresses the potential release of drilling fluid.

Table 9.1 – Waterbody Impact Summary Within Segment 3 – Package 1C/2

Station & Plan Sheet	Waterbody Name	NYSDEC Classification*	Field ID**	Flow Status***	Lat/Long	Avoidance & Minimization Measures	Impact
CP Rail – Package 1C							
15105+00 (C-107 to 108)	Unnamed Tributary to Champlain Canal	Unmapped	C-R-S3	Intermittent	43.53, -73.409	under culvert (Clearance Approx. 2 feet)	None
15121+00 (C-109)	Unnamed Tributary to Champlain Canal	Unmapped	C-R-S2	Perennial	43.525, -73.411	under culvert (Clearance Approx. 2 feet)	None
15142+00 (C-110)	Unnamed Tributary to Champlain Canal	Unmapped	C-R-S1/ G-R-S-K	Perennial	43.52, -73.412	HDD#4 (Clearance Approx. 16')	None
15178+00 (C-112)	Champlain Canal	C/C 830-469	G-R-S-L	Perennial	43.498, -73.421	HDD#5 (Clearance Approx. 21/22')	None
15227+00 (C-116)	Tributary to Champlain Canal	C/C 830-469	G-R-S-M	Perennial	43.479, -73.43	HDD#6 (Clearance Approx. 18')	None
15298+00 (C-120)	Unnamed Tributary to Champlain Canal	Unmapped	G-R-S-N	Intermittent	43.53, -73.409	HDD#8 (Clearance Approx. 18')	None
Access Road @ 15196+00 (C-213)	Champlain Canal	C/C	N/A	Perennial	43.51, -73.42	N/A	Temporary Crossing Bridge Construction (50 feet, Delineation in Progress)
Access Road @ 15196+00 (C-213)	Tributary to Champlain Canal	C/C	N/A	Perennial	43.51, -73.42	Extension of existing culvert	Temporary Crossing Extension of Existing Culvert (15 feet, Delineation in Progress)

Station & Plan Sheet	Waterbody Name	NYSDEC Classification*	Field ID**	Flow Status***	Lat/Long	Avoidance & Minimization Measures	Impact
Access Road @ 15240+00 (C-214)	Champlain Canal	C/C	N/A	Perennial	43.49, -73.43	N/A	Temporary Crossing Widen existing crossing and extend existing culvert (40 feet)
Old Route 4 — Package 2							
20007+75 (C-101)	Unnamed Tributary to Champlain Canal	C/C 830-478	CS32	Perennial	43.474973 - 73.429681	HDD#9 (Clearance Approx. 15')	None
20026+50 (C-102)	Unnamed Tributary to Champlain Canal	Unmapped	CS34	Intermittent	43.470562 - 73.433258	under culvert (Clearance Approx. 2')	None
20106+50 (C-108)	Unnamed Tributary to Champlain Canal (830-469)	Unmapped (Surface connection to C/C)	CS35	Perennial	43.451012 - 73.445654	HDD#11(Clearance Approx. 16')	None
20112+00 (C-108)	Box Culvert to Champlain	Unmapped	--	Perennial	43.449920 - 73.446988	HDD#11 (Clearance Approx. 21')	None
20134+00 (C-109)	Unnamed Tributary to Champlain Canal	C/C 830-469	CS36	Perennial	43.443922 - 73.447433	under culvert (Clearance Approx. 2')	None
CP Rail – Package 2							
20217+25 (C-115)	Unnamed Tributary to Champlain Canal	Unmapped	G-R-S-O	Intermittent	43.42854 - 73.468416	over culvert	None
20256+00 (C-118)	Unnamed Tributary to Champlain Canal	C/C 830-485	G-R-S-P	Perennial	43.424143 - 73.481728	HDD#13 (Clearance Approx. 20')	None

Station & Plan Sheet	Waterbody Name	NYSDEC Classification*	Field ID**	Flow Status***	Lat/Long	Avoidance & Minimization Measures	Impact
20285+00 (C-119 to C-120)	Halfway Creek	C/C 830-486	G-R-S-Q	Perennial	43.416517 - 73.485342	HDD#13A (Clearance Approx. 40')	None
20301+75 (C-121)	Unnamed Tributary to Champlain Canal	Unmapped	G-R-S-R	Intermittent	43.412082 - 73.485816	Under Culvert; Access Road Stream Crossing by construction of culvert	Temporary (40 feet)
20317+00 (C-122)	Unnamed Tributary to Champlain Canal	C/C 830-469	G-R-S-S	Intermittent	43.408029 - 73.485574	Access Road Stream Crossing by open-cut method using culvert to maintain water flow. No Clearance	Temporary Crossings (35 feet)
20421+00 (C-129)	Unnamed Tributary to Champlain Canal	C/C 830-516	G-R-S-T/P2-S1	Perennial	43.379781 - 73.489285	HDD#15 (Clearance Approx. 17')	None
20425+75 (C-129)	Unnamed Tributary to Champlain Canal	Unmapped	G-R-S-U	Intermittent	43.378564 - 73.489208	Access Road Stream Crossing by open-cut method using culvert to maintain water flow. No Clearance	20 feet
20436+00 (C-130)	Unnamed Tributary to Champlain Canal	Unmapped	G-R-S-V	Intermittent	43.375666 - 73.489241	Access Road Stream Crossing using open-cut method and construction of culvert to maintain water flow and timber matting where needed. No Clearance	15 feet
20501+50 (C-134)	Unnamed Tributary to Champlain Canal	C/C 830-516	G-R-S-W	Perennial	43.358402 - 73.495336	HDD#16 (Clearance Approx. 18')	None

Station & Plan Sheet	Waterbody Name	NYSDEC Classification*	Field ID**	Flow Status***	Lat/Long	Avoidance & Minimization Measures	Impact
20548+75 (C-137)	Unnamed Tributary to Champlain Canal	Unmapped (Surface connection to C/C) (830-471)	G-R-S-X	Perennial	43.346589 - 73.502035	HDD#17 (Clearance Approx. 26')	None
20699+50 (C-147)	Unnamed Tributary to Champlain Canal	Unmapped (Surface connection to C/C) (941-386)	G-R-S-Y	Perennial	43.312994 - 73.534731	HDD#19 (Clearance Approx. 21')	None
20745+00 (C-150)	Bond Creek	C/C 941-386	G-R-S-Z	Perennial	43.303192 - 73.545799	HDD#20A (Clearance Approx. >5')	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.

9.1.1.4 Waterbody Cleanup and Restoration

Upon completion of backfilling operations, cleanup and restoration of waterbody crossings and bank approaches (at least 50 feet adjacent to each bank) will be completed within 24 hours. If needed, stream banks will be re-established to original grade immediately after stream bank work is completed. The banks will then be permanently stabilized by seeding with native grasses, mulched and, if needed, planted with native shrub seedlings. If additional stabilization is needed jute netting or erosion control blankets will be used (BMP Document Section 18.4, CC114o). Restoration and planting are further detailed in Section 14.4.1.

The Certificate Holders have established and will implement a program to monitor the success of stream restoration upon completion of construction and restoration activities as discussed in Section 14.4 (CC117). Per Conditions K and L of the USACE Permit, the following will determine if stream and wetland restoration is successful:

- All plantings have an 85% survival rate
- All established waterbody areas in conjunction with the compensatory mitigation have an 85% coverage rate of hydrophytic plants
- Vegetation in newly established waterbody areas do not consist of more than 5% total areal coverage of common reed grass (*Phragmites australis*), purple loosestrife (*Lythrum salicaria*), reed canary grass (*Phalaris arundinacea*), Japanese knotwood (*Reynoutria japonica*), Tartarian honeysuckle (*Lonicera tatarica*), Eurasin milfoil (*Myriophyllum spicatum*), 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 three consecutive years.

9.1.2 Wetlands

9.1.2.1 Summary of Wetlands within Segment 3 – Package 1C/2

There are a total of 19 wetlands identified within the Segment 3 - Package 1C/2 Project Corridor. Table 4-1 in Attachment 4 of the Wetland Delineation Report (Appendix M) provides a summary of the wetlands identified along the entire length of Segment 3 – Package 1C/2 including their National Wetland Inventory (NWI) classification in accordance with Cowardin et al. (1979) and State wetland identifier and classification. Of these delineated features, 2 wetlands delineated along the Project Corridor correspond with wetlands mapped by the NYSDEC.

Anticipated wetland impacts are presented in Table 9.2, and the location and type of all wetland resources delineated along the Segment 3 – Package 1C/2 Project Corridor are shown in the Plan and Profile Drawings in Appendix C. The precautionary measures to protect state and federal wetlands during construction are listed in Section 9.1.2.2.

9.1.2.2 Wetlands Impact Avoidance, Protection, and Minimization Measures

Wetlands are avoided to the greatest extent practicable by the design of the Project. In most cases, the Project is sited within previously disturbed areas such as existing road and rail ROWs. However, there are several instances where the wetland boundaries extend up to the toe of slope of the public road and railroad ROW and road and rail setbacks prevent complete wetland avoidance. Additionally, several wetlands occur within ditches and although potentially regulated, they are generally of poor quality and dominated by invasive species.

HDD will be used in some locations to reduce the level of impacts on wetlands. Where used, the HDD borehole will be drilled underneath the wetland, a conduit will be pulled into the borehole, and then the transmission cables will be pulled into the DR9 or DR7 HDPE Conduit or approved equal. The HDD drilling equipment and drill entry/exit points will be located outside of wetland boundaries, avoiding direct impacts on wetlands. An IRCP (Appendix J) has been prepared to respond to any inadvertent returns of drilling fluids and a SPCC Plan that outlines procedures and BMPs to control the potential for the occurrence of spills is included in the SPCC (Appendix K).

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 wetland protection measures to be implemented by the Certificate Holders include the following (BMP Document Section 19.2):

1. The Certificate Holders and their Contractors will minimize work within and across wetlands to the extent possible during preconstruction, construction, operation, and maintenance activities.
2. The Certificate Holders will notify DPS and NYSDEC staff, at least five business days prior to construction involving state regulated wetlands.

3. 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 are identified on the ESC Plans (Appendix C).
4. To expedite revegetation of wetlands, the top one 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.
5. To the extent possible, work which must be in a wetland will be scheduled to be started and completed in the dry season or when the ground is frozen.
6. Construction vehicles and equipment will be limited to established access roads and construction workspaces depicted on the Plan and Profile Drawings (See Appendix C).
7. Construction equipment operating within wetlands will be limited primarily to what is needed to dig the trench, install the conduits, backfill, and restore the ROW. All other construction equipment will use access roads in upland areas to the extent practicable.
8. 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.
9. Construction materials, including fuels, will not be stored within 100-feet of any 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).
10. In accordance with the amended CC 114, 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.

11. 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 and Appendix K.
12. Any temporary access routes and 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.
13. 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.
14. Unless work activities resume within seven days, the Certificate Holders will stabilize disturbed soils as soon as possible and no more than seven days following temporary or permanent completion of ground-disturbing activities. If soil stabilization measures are not possible within seven days due to snow cover, frozen ground, or other weather conditions, soils will be stabilized as soon as practicable.

15. 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.
16. 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 CC 77 (CC113d).
17. 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 (CC113f).

11. Clearing of existing vegetation in wetlands 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 (CC113e)
12. Cleared vegetation will not be left within wetlands and/or within 100 feet of wetland areas as such activity may impact water quality.
13. Application of herbicides will conform to all label instructions and all applicable federal and state laws and regulations. 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 (CC83).
14. 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 labels "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 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 wetland or streams in order to minimize the amount of refueling within these sensitive areas.
    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 located 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 contactors shall be trained in spill response procedures, including the deployment and maintenance of spill response materials.

15. Water will be pumped 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 (CC114j).

9.1.2.3 Wetland Impacts

Table 9.2 describes the location and impact for each wetland within Segment 3 – Package 1C/2. The construction sequence within wetlands along the Segment 3 – Package 1C/2 would typically consist of the placement of temporary matting for access followed by vegetation clearing within the Project Corridor (tree stumps would only be removed from the trench line or where necessary), and removal and stockpiling of soil as needed in accordance with the Soils and Materials Management Plan (Appendix L), installation of the SCH 40 PVC Conduit or approved equal, and refilling of the trench. All clearing of vegetation and trees will follow the procedures outlined in Section 8.0. Permanent ROW impacts are based on the future establishment and maintenance of a 13-foot-wide ROW/easement, 6.5 feet on either side of the center alignment, along the cable route, excluding those locations where HDD installation occurs. Temporary construction impacts represent the remainder of the approximately 45-foot average construction corridor (limits of clearing and disturbance).

Table 9.2 – Summary of Wetland Impacts of Segment 3-Package 1C/2

Wetland ID	Jurisdiction	Drawing Sheet Number and Approximate Station	Wetland Community Type [(1)]	Permanent ROW Impacts (square feet)	Temporary Construction Impacts (square feet)	State Wetland Buffer Temporary Construction Impacts (square feet)
CP Rail – Package 1C						
Wetland G-R-X-1	USACE	15095+75 to 15140+00 (C-404 to C-405)	PSS	2200	4,174	0
Wetland G-R-U	USACE	15134+50 to 15171+50 (C-405 to C-406)	PEM	0	0	0
			PFO	4,428	32,858	
Wetland G-R-V	USACE	15186+50 to 15187+75 (C-407)	PFO	1179	2,621	0
Wetland G-R-W	USACE	15198+25 to 15200+00 (C-407 to C-408)	PSS	2,231	1,274	0
			PFO	629	4,060	
Wetland G-R-X	USACE	15228+25 to 15280+00 (C-409 to C-410)	PFO	19,292	21,129	0
			PEM	5,685	57,309	
			PSS	22,044	17,006	
SA-4	USACE	Construction Entrances for Ryder Road Laydown Area 15281+25 (C-410)	PEM	0	318	N/A
Wetland G-R-Y	USACE	15281+250 to 15296+50 (C-409 to C-410)	PEM	16,435	18,601	0
Old Route 4 – Package 2						
COOO	USACE	20062+50 to 20065+20 (C-403)	PSS	0	4070	0
CWWW	USACE	20094+80 to 20096+20 (C-404)	PFO	0	2842	0
CYYY	USACE	20126+40 to 20127+70 (C-405)	PFO	0	2125	0
CBZ	USACE	20141+00 to 20158+00 (C-406)	PFO	0	1024	48525

Wetland ID	Jurisdiction	Drawing Sheet Number and Approximate Station	Wetland Community Type [(1)]	Permanent ROW Impacts (square feet)	Temporary Construction Impacts (square feet)	State Wetland Buffer Temporary Construction Impacts (square feet)
CGZ	USACE, NYSDEC (FA-13)	20165+00 to 20170+00 (C-406)	PFO	6010	3282	10,660
CA	USACE	20176+20 to 20177+00 (C-407)	PFO	264	796	0
CHZ	USACE	20178+50 (C-406)	PFO	0	0	0
CP Rail – Package 2						
G-R-Z	USACE	20217+00 to 20217+90 (C-408)	PFO	0	4748	0
G-R-CC	USACE	20236+00 to 20238+50 (C-408)	PFO	0	2154	0
G-R-DD	USACE	20245+50+00 to 20249+30 (C-409)	PFO	2535	6507	0
G-R-EE	USACE	20277+50 to 20280+70 (C-410)	PFO	0	10368	0
G-R-FF	USACE	20296+50 to 20300+10 (C-410)	PEM	930	3,957	0
			PFO	0	1836	
G-R-GG	USACE	20308+60 to 20332+40 (C-411)	PEM	0	0	0
			PSS	0	0	0
			PFO	1,286	22,682	0
CC	USACE	20339+00 to 20381+00 (C-412 & C-413)	PEM	0	12,277	0
			PSS	0	1,123	0
CD	USACE	20383+00 to 2020421+20 (C-413 to C-415)	PFO	3,128	9,951	0
			PSS	38,410	97,528	0
WLF-CE	USACE	20432+00 to 20437+00 (C-415)	PEM	7,912	14,646	0
WLF-CF	USACE	20438+70 to 20444+80 (C-415)	PEM	4,175	11,132	0
WLF-CG	USACE	20446+40 to 20447+30 (C-415)	PEM	502	2,632	0

Wetland ID	Jurisdiction	Drawing Sheet Number and Approximate Station	Wetland Community Type [(1)]	Permanent ROW Impacts (square feet)	Temporary Construction Impacts (square feet)	State Wetland Buffer Temporary Construction Impacts (square feet)
WLF-CH	USACE	20451+70 to 20465+30 (C-416)	PEM	17,733	6,509	
WLF-P2	USACE	20465+30 to 20466+60 (C-416)	PSS	1114	3,381	0
G-R-MM	USACE	20473+31 to 20495+00 (C-416)	PSS	26,211	52,184	0
G-R-NN	USACE	20505+00 to 20536+50 (C-417 to C-418)	PEM	22,369	71,917	0
G-R-OO	USACE	20551+30 to 20552+80 (C-419)	PEM	4,540	0	0
G-R-OO	USACE	20563+80 to 20572+30 (C-419 & C-420)	PEM	5,218	0	0
G-R-PP	USACE	20587+00 to 20590+40	PEM	2,508	5,893	0
G-R-RR	USACE, NYDEC (HF-10)	20614+50 to 20717+90 (C-421)	PEM	32,541	61497	374,912
G-R-SS	USACE	20758+00 to 20781+70 (C-426 to C-427)	PEM	0	0	0
			PSS	0	0	0
Total by Wetland Community Type			**PEM**	120,548 sf/ 2.77 ac	266,688 sf/ 6.12 ac	N/A
			PSS	92,210 sf/ 2.12 ac	180,740 sf/ 4.15 ac	N/A
			PFO	38,751 sf/ 0.89 ac	128,983 sf/ 2.96 ac	N/A
Total				251,509 sf/ 5.77 ac	576,411 sf/ 13.23 ac	434,097 sf 9.97 ac

[1] PEM – Palustrine emergent, PSS – Palustrine scrub-shrub, PFO – Palustrine forested

Of the 20.41 miles of Segment 3 – Package 1C/2, the total area of temporary disturbance to wetlands is 9.65 acres (ac). Permanent ROW impacts to wetlands associated with Segment 3 - Package 1C/2 is 3.8 acres. The Certificate Holders have obtained a Section 10/404 permit from, and are continuing to coordinate with, the USACE to ensure that all Project construction will be in compliance with the requirements of Permit NAN-2009-01089-M5 and all approved permit modifications. Documentation of the ongoing coordination with the USACE is included in Appendix A.

9.1.2.4 Wetlands and Restoration

Per the CC 117 and BMP Document (2012 BMPs, Section 19), 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 wetland 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, 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 three consecutive years. If re-vegetation is not successful at the end of three years, the Certificate Holders will develop and implement (in consultation with a professional wetland ecologist) a plan to actively revegetate the wetland with native wetland herbaceous plant species.

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).

Additional cleanup and restoration requirements are included in Section 14.0 and post construction inspection requirements in Section 3.2.

9.2 GROUNDWATER AND WELLS

The Project will not impact any wells along the Segment 3 - Package 1C/2 Project Corridor. All residences outside of the public water service are assumed to be served by private well water supplies. The Certificate Holders performed a review of geospatial data to locate potential private and municipal wells within 200 and 400 feet of the alignment, respectively. Specifically, publicly available NYSDEC wells (dated August 2022) will be field located, as applicable and proximal to the LOW, prior to construction. To the greatest extent possible, the Contractor will limit refueling operations at least 200 feet from residences/wells along the route. Refueling of vehicles within 200 feet may occur following implementation of the necessary BMPs (e.g., secondary containment around stationary equipment, drip pans utilized during refueling and routine maintenance operations, and absorbent pad wrapped nozzles to catch drips from refueling) outlined in CC 114(g).

Use of herbicides is not planned during construction. Generally, herbicides will not be applied within 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 (CC 83).

9.3 ECOLOGICALLY SENSITIVE SPECIES AND HABITATS

As part of environmental training, the Certificate Holders and associated Environmental Inspector will provide training to contractors and employees regarding known and potential rare, threatened, and endangered (RTE) plant and wildlife species and significant natural communities that may be encountered, and the identification and protection measures that are included in this EM&CP. Appendix T identifies all ecologically sensitive species and habitats identified by NYSDEC, NYNHP and USFWS across the entire Project and if there are anticipated impacts due to the Project. If a species or community was determined not to be within the Project Corridor or there are no anticipated impacts to the species, that is discussed in Appendix T. The species and communities that require BMPs or avoidance by design are discussed below. These resources are appropriately depicted on the Plan and Profile Drawings (Appendix C). The Plan and Profile drawings will be provided to the NYSDEC, New York Natural Heritage Program (NYNHP), and DPS Staff for review of RTE and significant natural communities mapping prior to start of

construction (BMP Document Section 16.3). The Environmental Inspector will be responsible for ensuring that prescribed protection measures are appropriately utilized during construction (BMP Document Section 16.0).

Section 7.0 of this EM&CP identifies other sensitive lands in Segment 3 – Package 1C/2. Based on review of the New York State Coastal Atlas, no significant coastal fish and wildlife areas were determined for this segment of the Project (BMP Document Section 16.2.1).

9.3.1 Federally Listed Species Within Segment 3 – Package 1C/2

The USFWS has identified the following listed species within the Segment 3 – Package 1C/2 Project Corridor:

- Indiana bat (*Myotis sodalis*) – Endangered
- Northern long-eared bat (*Myotis septentrionalis*) – Threatened (Endangered as of January 30, 2023)
- Monarch butterfly (*Danaus plexippus*) – Candidate

The habitat descriptions for each of the species identified by the USFWS are provided in Appendix T.

9.3.1.1 Federally Listed Species Impact Avoidance and Minimization Measures

Indiana Bat and Northern Long-eared Bat habitat may occur in many locations noted in Table 9.3 and Table 8-5 of Appendix T. However, as discussed in Section 8.2 tree clearing will occur at these locations during the approved winter clearing window between November 1 and March 31 to the extent practicable. This will avoid impacts to these bat species meaning no mitigation will be required. If clearing outside of the winter window is required, it will be performed as described in Section 8.2. This BMP is shown in Table 9.3.

The United States Department of Energy (DOE) requested re-initiation of informal consultation pursuant to Section 7 of the Endangered Species Act in a letter dated March 1, 2021 (Appendix A). Minor route modifications and proposed relocation of the site and 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 northern long-eared bat 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. Due to the up-listing of the species in November 2022 to endangered, the Certificate Holders will continue to coordinate with USFWS if tree clearing is required outside of the seasonal windows.

9.3.2 State Listed Species & Significant Natural Communities within Segment 3 – Package 1C/2

The New York State Natural Heritage Program (NYNHP) correspondence dated April 1st, 2022 (Appendix A) and DEC information provided, identified several RTE species and significant natural communities that may occur along the entirety of the Project. Appendix T addresses the species that are not within the Project Corridor and how there is no anticipated impact to them because of the Project. Some species require the Certificate Holders to implement BMPs to reduce impact to said species. Those species and significant natural communities within Segment 3 – Package 1C/2 are as follows:

- Northern Long-eared Bat - Threatened
- Bald Eagle (*Haliaeetus leucocephalus*) - Threatened
- Northern Harrier (*Circus Hudsonius*) - Threatened
- Short-eared Owl (*Asio flammeus*) – Endangered
- Timber Rattlesnake *(Crotalus horridus*) - Threatened
- Umber Shadowdragon (*Neurocordulia obsolete*) – Unlisted/Conservation Concern Rare
- Eastern Sand Darter (*Ammocrypta pellucida)* – Threatened
- Bridle Shiner (*Notropis bifrenatus*) – Unlisted/Conservation Concern Rare
- Deep Emergent Marsh
- Pitch Pine-Oak-Heath Rocky Summit

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

9.3.3 Summary of Impact and Best Management Practices for Federal and State Listed Species

Table 9.3 below summarizes the locations, best management practices, and likely impacts for the federally listed and state-listed species that will be encountered on or in the vicinity of Segment 3 – Package 1C/2.

Table 9.3 – Federal and State Listed Species Impact Avoidance and Minimization Efforts

Status	ESA Type	Location	Best Management Practices	Impacts
Federal/State Endangered	ESA 4	Assumed to be roosting habitat located throughout the Project Corridor (P1C: 15000+00 to 15306+61; P2: 20000+00 to 20796+50)	a) Conduct tree clearing and tree trimming activities between November 1 and March 31. Tree clearing and tree trimming activities are not allowed between April 1 and October 31.[4] 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
Federal/State Threatened	ESA 9	Assumed to be roosting habitat located throughout the Project Corridor (P1C: 15000+00 to 15306+61; P2: 20000+00 to 20796+50)	a) Conduct tree clearing and tree trimming activities between November 1 and March 31. Tree clearing and tree trimming activities are not allowed between April 1 and October 31.[4] 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
Federal Candidate	ESC – Candidate Insect	Assumed to be habitat in various open areas located throughout the Project Corridor (P1C: 15000+00 to 15306+61; P2:	a) None proposed due to current status as a candidate species and no critical habitat identified by USFWS. Additionally, not listed as a State protected species.	None

[4] In the event of an unanticipated emergency that requires tree clearing or tree trimming during April 1 – October 31, the procedures described in Section 8.2 will be followed.

Status	ESA Type	Location	Best Management Practices	Impacts
		20000+00 to 20796+50)		
Federal – MBTA, Bald & Golden Eagle Protection Act, State-Threatened	ESA 1	NHP documented nesting within 0.5 mile of project alignment in (P2: 20457+00 to 20561+00)	a) Prior to construction, the Certificate Holders would identify all bald eagle nest locations within 0.5 miles (0.8 kilometers [km]) of construction, based on data provided by the NYNHP. b) If any rock removal activities are necessary within 0.5 miles (0.8 km) of active bald eagle nests, the Certificate Holders would contact USFWS and NYSDEC for guidance to avoid or minimize the potential for noise-related disturbance. c) If construction would occur within 660 feet (201 meters) of an active nest during the nest-building or breeding season (December to August) per USFWS guidelines, the Certificate Holders would contact USFWS and NYSDEC for guidance to avoid and minimize the potential for noise-related disturbance. d) Environmental training for contractors and construction crews would include training on the identification of bald eagles and location of nests. Construction personnel would be instructed to report any sightings of potential eagle nests that were not previously identified by the NYNHP. e) If any previously unidentified eagle nests are discovered, the Certificate Holders would report findings to the NYNHP as soon as possible, and consult with the NYSDEC and USFWS for guidance to avoid or minimize the potential for disturbance, if required.	None
State-Threatened	ESA 8	P2: 20680+00 to 20729+00	a) No suitable habitat within the Project Corridor. b) No Impacts Anticipated c) NHP documented breeding along Dike Road about 150 yards from the alignment, northeast of Dunham Basin in the Town of Kingsbury.	None
State-Endangered	ESA 12	N/A	a) No suitable habitat within the project corridor. b) No Impacts Anticipated. c) NHP documented wintering at the Fort Edward Grasslands. NHP mapped area extends to within 1/3 mile of the project alignment northeast of Dunham Basin in the Town of Kingsbury.	None
State-Threatened	ESA 14	P2: 20115+50 to 20120+00	a) Prior to 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. All fencing should be removed upon completion and stabilization of construction areas. b) The Environmental Inspector will inspect the work area daily for the presence of timber	None

Status	ESA Type	Location	Best Management Practices	Impacts
			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.	
State-Threatened	N/A - Fish	P2: 20473+00 to 20554+00	a) NHP documented in Champlain Canal at Smiths Basin and at Lock 9, both within 160 yards of the alignment. b) 100% avoidance anticipated.	None
Unlisted/ Conservation Concern Rare	N/A - Fish	N/A	a) 100% avoidance. Documented in 2008 in unnamed water body approximately 0.6 miles south of Comstock, between Route 4 and the railroad. Project alignment is along Old Route 4, east of the railroad and will not impact this water body.	None
Unlisted/ Conservation Concern Rare	N/A-Insect	N/A	a) NHP documented in Champlain Canal at Lock 11. b) 100% avoidance of aquatic larval stage.	None

9.3.4 Unanticipated Discovery of Threatened and Endangered Species

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

1. 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.
2. Any unanticipated sightings or observations of RTE species will be reported as soon as possible to DPS Staff, NYSDEC, and/ or USFWS (agency notification depends on the RTE status, i.e. state or federal). The Certificate Holders will consult with applicable

resource agencies for measures to avoid and/or minimize impacts to RTE species and their occupied habitat.

3. If RTE species or their occupied habitats are discovered during construction activities, the Certificate Holders and associated Contractors will temporarily halt construction activities, except any activity required for immediate stabilization of the area, to avoid and/or minimize 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.
4. If new RTE wildlife species occupied habitat is identified or RTE plants are observed and verified, the EM&CP and the Plan and Profile Drawings (Appendix C) will be updated to show the new RTE wildlife occupied habitat(s) and locations of RTE plants. Areas of RTE wildlife occupied habitat and locations of RTE plants along the overland route will also be flagged in the field.
5. 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.

Environmental training for the Contractors and construction crews will include training on the identification of bald eagles and location of nests and an overview of potential RTE within the segment. Construction personnel will be instructed to report any sightings of potential eagle nests that were not previously identified by the NYNHP or NYSDEC. If any previously unidentified eagle nests are discovered, the Certificate Holders will report findings to the NYNHP as soon as possible and consult with the NYSDEC and USFWS for guidance to avoid and/or minimize the potential for disturbance, if needed (BMP Document Section 16.2). Additionally, the Certificate Holders will consult with NYSDEC annually for updated eagle nest data.

9.4 INVASIVE SPECIES MANAGEMENT

The Certificate Holders have identified certain invasive species that potentially occur along Segment 3 - Package 1C/2 based on field survey, online research, and consultation with federal and state agencies. Invasive species are typically nonindigenous and include both terrestrial and aquatic species that can spread rapidly in the environment, resulting in the displacement of native species, and potentially causing economic impacts. Additionally, areas that have been disturbed by human activity may provide opportunity for the colonization and spread of invasive species, which are often more disturbance-tolerant than the native communities.

The movement of vehicles, equipment, and personnel, and the transport of materials and/or construction debris to and from areas that are inhabited by invasive species could result in the unintentional spread of these species. The Certificate Holders have included BMPs to control the transport of invasive plant species from areas where they may occur. Measures such as training personnel in the identification of invasive species, inspecting and cleaning vehicles, and equipment, and practices to encourage rapid stabilization, and restoration and revegetation of disturbed work areas have been incorporated to minimize any adverse impacts due to invasive species, as guided by the Environmental Energy Alliance of New York (EEANY), New York Utility Company Best Management Practices for Preventing the Transportation of Invasive Species (2015) (Appendix N).

9.4.1 Invasive Species within Segment 3 – Package 1C/2

Invasive species were encountered in uplands and wetlands throughout the Segment 3 - Package 1C/2 Project Corridor, occurring as individual plants or groupings of plants.

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. Invasive species that may be found to occur within or along Segment 3 – Package 1C/2 include the following:

1. Common Reed Grass (*Phragmites australis*)
2. Oriental Bittersweet (*Celastrus orbiculatus*)
3. Multiflora Rose (*Rosa multiflora*)
4. Japanese Knotweed (*Reynoutria japonica*)
5. Japanese Stiltgrass (*Microstegium vimineum*)

Locations of invasive plants were identified during site walks along Segment 3 - Package 1C/2 and are listed in Table 9.4 below and noted on the Plan and Profile Drawings in Appendix C. The Environmental Inspector will ensure that measures to prevent and control the transport of invasive species described in Section 9.4.2 below and the Invasive Species Control Plan (Appendix N) will be followed during construction. The Environmental Inspector will notify crews if an upcoming work area requires said measures.

Table 9.4 – Aquatic Invasive Species

Species Name (Scientific Name)	Location Wetland ID & Wetland Flag IDs (if applicable)
purple loosestrife (*Lythrum salicaria*)	Wetland G-R-X (1PPPP– 1IIII): 15111+50 to 15115+00
	Wetland G-R-U (13 – 29): 15142+00 to15172+00
	Wetland G-R-X (5 – 30): 15227+00 to 15280+75
	Wetland G-R-Y (1 – 11): 15282+00 to 15297+00
	Wetland CNNN (20049+00, C-402)
	Wetland COOO (20054+75, C-402)
	Wetland CPPP (20062+00, C-403)
	Wetland CSSS (20083+50, C-403)
	Wetland CUUU (20091+50, C-404)
	Wetland CWWW (20093+75, C-404)
	Wetland CBZ (20141+00, C-405)
	Wetland CCZ (20146+50, C-405)
	Wetland GR-AA (20225+50, C-408)
	Wetland GR-BB (20231+00, C-408)
	Wetland GR-DD (20240+50, C-409)
	Wetland GR-EE (20270+00, C-409)
	Wetland GR-FF (20296+25, C-410)
	Wetland GR-GG (20308+25, C-411)
	Wetland GR-LL (20465+00, C-416)
	Wetland GR-OO (20548+50, C-419)
	Wetland GR-PP (20581+50, C-420)
	Wetland GR-QQ (20609+25, C-421)
	Wetland GR-RR (20613+50, C-421)
	Wetland GR-SS (20757+25, C-426)
common reed (*Phragmites australis*)	Wetland G-R-S (3-13): 15084+00 to 15093+00
	Wetland G-R-X (1PPPP – 1IIII): 15111+50 to 15115+00
	Wetland CJJJ (5 – 9): 15305+50 – Const. Entrance
	Wetland CJJJ (20000+00, C-401)
	Wetland CSSS (20083+50, C-403)
	Wetland CUUU (20091+50, C-404
Narrow-leaf cattail (*Typha angustifolia*)	Wetland CYYY (20110+00, C-404)
Eurasian buckthorn (*Rhamnus cathartica*)	Wetland CVVV (20088+75, C-403)
	Wetland CYYY (20110+00, C-404)
	Wetland CAZ (20139+00, C-405)
	Wetland CBZ (20141+00, C-405)
Tatarian honeysuckle (*Lonicera tatarica*)	Wetland CCZ (20146+50, C-405)
	Wetland CDZ (20155+25, C-406)
	Wetland CEZ (20161+50, C-406)
	Wetland CGZ (20165+75, C-406)
	Wetland CIZ (20176+00, C-406)
	Wetland GR-Z (20215+00, C-408)
	Wetland GR-AA (20225+50, C-408)
	Wetland GR-BB (20231+00, C-408)
	Wetland GR-CC (20236+00, C-408)
	Wetland GR-DD (20240+50, C-409)
	Wetland GR-FF (20296+25, C-410)
	Wetland GR-GG (20308+25, C-411)
	Wetland GR-HH (20376+50, C-413)

Species Name (Scientific Name)	Location Wetland ID & Wetland Flag IDs (if applicable)
	Wetland GR-II (20382+50, C-413)
	Wetland GR-KK (20425+00, C-415)
	Wetland GR-LL (20465+00, C-416)
	Wetland GR-MM (20473+00, C-416)
	Wetland GR-II (20382+50, C-413)
	Wetland GR-KK (20425+00, C-415) Wetland GR-LL (20465+00, C-416)
	Wetland GR-MM (20473+00, C-416)
	Wetland GR-NN (20503+50, C-417)
	Wetland GR-PP (20581+50, C-420)
	Wetland GR-QQ (20609+25, C-421)
	Wetland GR-RR (20613+50, C-421)
	Wetland GR-SS (20757+25, C-426)

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

On a Project-wide basis, the Certificate Holders will perform the measures listed below (BMP Document, 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. Measures are also specified under the EEANY, New York Utility Company Best Management Practices for Preventing the Transportation of Invasive Species (2015) (Appendix N):

1. Prior to construction, training will be conducted 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. 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 Plans & Profile Drawings (Appendix C) to minimize ground disturbance.
2. Sediment and erosion control devices (Appendix G) will be installed across the construction ROW 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 wetlands during construction.
3. 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 wetland along the Project Corridor.

As specified under NYSDEC's General Permit for Routine ROW Maintenance Activities, DEC No. 0-0000-01147/00001:

a. Equipment used in areas containing invasive plant species will be mechanically brushed before leaving the invasive infested area or Facility ROW for another project, to prevent the spread of seeds, roots or other viable plant parts, and the debris will not be discharged within 100 feet of any stream, existing or proposed wetland or adjacent area, or stormwater conveyance (ditch, catch basin, etc.).
b. Loose plant and soil material that has been removed from clothing, boots and equipment, or generated from cleaning operations will be rendered incapable of any growth or reproduction, disposed of off-site, or handled as follows: If upon completion of work, the area remains infested with invasive plant species, 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.
c. If disposed of off-site, the plant and soil material will be transported in a secure manner in accordance with the Soil and Materials Management Plan (Appendix L). Any off-site disposal must occur at either a landfill-incinerator or a State-approved disposal facility.

4. 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.
5. Following cable 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.
6. The restored ROW will be seeded with an invasive species free seed mix and mulched (See Appendix G) immediately after final re-grading to create a rapid cover over the disturbed ROW and help to prevent establishment of invasive species which typically colonize disturbed sites.
7. 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 have balloon-tires, often operating on top of timber mats or other approved protective covering. This will minimize the amount of heavily disturbed soils in which invasive species might colonize.
8. 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.

9. 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.
10. Where the NYSDEC has identified the presence of Rock Snot or Didymo (Didymosphenia geminata), any footwear used in streams or waterbodies will be soaked in a 1% percent solution of Virkon® Aquatic for 10 minutes before leaving the area adjacent to the affected waterbody (BMP Document Section 21.3).

The Asian longhorned beetle (*Anoplophora glabripennis*) and the emerald ash borer (*Agrilus planipennis*) are two 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 found in 6 NYCRR Part 192.5 to limit the spread of invasive insect species.

10.0 NOISE AND NOISE MITIGATION PLAN

Construction of the overland portion of the transmission cable is anticipated to cause a temporary increase in noise levels consistent with construction activities associated with linear projects. The Project will not result in any permanent increases to noise levels along the Segment 3 – Package 1C/2 Project Corridor. The sections below summarize the noise control and mitigation measures to be implemented for the Project.

Overland transmission cable installation requires a wide range of site preparation and construction activities and equipment that generate temporary noise increases. Table 10.1 summarizes the types of equipment and activities that are anticipated during construction 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 10.1 – 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.

Overland transmission cable construction would generally occur approximately 100 to 500 feet from residences and users of recreational resources along the overland portions of the Project. However, in a few places within Segment 3 – Package 1C/2 along the transmission line route, construction activities would occur within 100 feet of residences. Noise at these distances could

result in speech or sleep interference at these residences. Certificate Holders-proposed measures to minimize such impacts including equipping construction equipment with appropriate sound-muffling devices (e.g., Original Equipment Manufacturer [OEM] or better), always maintaining equipment in good operating condition, and limiting high-noise construction activities to daylight hours (i.e., 7:00 a.m. to 7:00 p.m.) in areas with sensitive noise receptors. The Certificate Holders will notify residents at least 2 weeks ahead of time regarding construction activities within 100-feet of the Project in accordance with CC33.

HDD operations would be in place for up to approximately 2 weeks at each location. Where warranted, the Certificate Holders will perform the noise minimization measures described in Section 10.2.

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

10.1 SENSITIVE NOISE RECEPTORS

Sensitive noise receptors include, but are not limited to, residences, schools, hospitals, businesses, and libraries. The noise receptors that occur near Segment 3 – Package 1C/2 at various points include residences and businesses as depicted on the Plan and Profiles Drawings in Appendix C. Noise receptors within 100-feet of the trenching activity and HDD activity, along the Segment 3-Package 1C/2 route are summarized in Table 4.2. The majority of these noise receptors are located along existing public road/highway or railroad ROW However, the procedures described in Section 10.2 below will ensure that Project-related noise at receptors in the vicinity is minimized.

10.2 NOISE CONTROL MEASURES

10.2.1 Noise Control Measures for Equipment and Linear Construction

The Certificate Holders will implement the following noise control measures for overland transmission cable construction (BMP Document Section 25.2.1):

- Locate equipment yards and marshalling areas away from sensitive noise receptors as practical.
- Install improved mufflers on heavy construction equipment when used within 100-feet of sensitive noise receptors.
- Utilize low-noise technologies (e.g., vibratory pile drivers) as appropriate.

- Limit high noise level construction activities (e.g., wood chipping, pile driving, rock drilling, rock removal, excavation and loading) to daylight hours as much as possible when construction is conducted in close proximity to noise-sensitive receptors.

10.2.2 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 time) include the following (BMP Document Section 25.2.1):

- Limit construction to daylight hours (i.e., 7:00 a.m. to 7:00 p.m.) as much as possible when construction is conducted within 100-feet of noise-sensitive receptors[5].
- Install temporary wooden sound barriers to reduce noise levels at select locations (if applicable) depicted in the design drawings in Appendix C.

[5] 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 24 hours in advance to the maximum extent practicable.

11.0 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 11.1 summarizes the generalized locations of cultural resources and the protection measures that will be implemented along Segment 3 – Package 1C/2. All impacts to cultural resources identified within Segment 3 – Package 1C/2 as well as associated protection and mitigation measures are described in the Cultural Resource Management Plan (CRMP) included in Appendix O as required by the BMP Document (BMP Document, Section 17).

Table 11.1 – Segment 3- Package 1C/2 Cultural Resources

Segment/ Package	Staging Area/Access Point	Station Number/ Location	Impact[1]	Protection Measure[1]
3/1C	NY SR 4 Access Road	15069/existing lumber yard	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction
3/1C	NY SR 4 Access Road	15165/partial farm road	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction
3/1C	Old State Road Access Road	15192/farm fields	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction
3/1C	NY SR 4 Access Road	15240/farm fields	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction
3/2	Saratoga and Washington Railroad	20627 to 20640	Potential to encounter buried cultural material	Archaeological Inspector to Monitor
3/2	CHPE Site #7 11513.000071	20509-20517	Potential to encounter buried cultural material	Archaeological Inspector to Monitor
3/1C	Old Champlain Canal	Stations 15069, 15165, 15192, 15240	Potential to encounter buried cultural material	Inspector to Monitor placement and removal of mats across the Old Champlain Canal
3/2	Splice Location 43	Station 20103	Potential to encounter buried cultural material	Archaeological Inspector to Monitor
3/2	Splice Location 44	Station 20127	Potential to encounter buried cultural material	Archaeological Inspector to Monitor
3/2	Splice Location 45	Station 20172	Potential to encounter buried cultural material	Archaeological Inspector to Monitor

Segment/ Package	Staging Area/Access Point	Station Number/ Location	Impact[1]	Protection Measure[1]
3/2	Splice Location 63	20734/ Outside of deviation zone	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction
3/2	HDD #20	20737 to 20742/ Crossing NY SR 196 - Pits outside of deviation zone	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction
3/2	HDD #20a	20742 to 20749/ Drainage crossing - Pits outside of deviation zone	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction
3/2	HDD #21	20757 to 20791/ Wet areas/restricted areas - Pits outside of deviation zone	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction
3/2	NY SR 4	20357/ Farm fields, rail trail crossing, and fallow fields, old canal prism	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction
3/2	CR 149	20446/ Mostly active farm field	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction - No archeological testing (if topsoil remains intact)
3/2	Towpath Road	20576/ Active farm field and fallow fields	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction - No archeological testing (if topsoil remains intact)
3/2	Towpath Road	20643/ Scrub and brush land	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction - No archeological testing (if topsoil remains intact)
3/2	Towpath Road	20674/ Fallow fields	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction - No archeological testing (if topsoil remains intact)
3/2	Towpath Road	20707/ Active farm field and fallow fields	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction - No archeological

Segment/ Package	Staging Area/Access Point	Station Number/ Location	Impact[1]	Protection Measure[1]
				testing (if topsoil remains intact)
3/2	Access road, turnabout, and cable route	20422 to 20466/ Wooded, wet, some farm fields	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction - Dry areas only
3/2	Access road and cable	20732 to 20736/ Farm fields	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction
3/2	Access road but mostly cable route	20747 to 20796/ Farm fields, wooded	Potential to encounter buried cultural material	Archeological Inspector to Monitor during construction

11.1 IMPACT AVOIDANCE

The CRMP (Appendix O) includes provisions for identifying traditional cultural properties in consultation with Native American Nations 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 American Nations, the New York State Historic Preservation Office (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, archaeological 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 Certificate Condition 107. In addition to the EM&CP filing with the DPS, the Applicant is also providing links to submitted documents to the NY SHPO (State Historic Preservation Office) for each segment including the narrative report, appendices, and Project plan sheets due to size restriction in the CRIS (Cultural Resources Information System) portal. Appendix O, the Supplemental CRMP (Cultural Resources Management Plan), will be submitted to CRIS directly for review and comment by SHPO.

This Supplemental CRMP has been developed in response to Programmatic Agreement Stipulation IV(B) and Stipulation II(C)(8 – 11 and 19) and to assist Project compliance with Section 106 of the National Historical Preservation Act. TRC Companies, Inc. (TRC) created a draft comprehensive Cultural Resources Management Plan in 2015, finalized in 2021 to include three

additional reports. The Programmatic Agreement specifies the CRMP will be applied in lieu of Section 106 implementing regulations 36 CFR Part 800.4 – 800.6 to satisfy requirements of compliance with Section 106 of the National Historic Preservation Act (16 U.S.C. 470) related to identification of historic properties (36 CFR Part 800 800.4), assessment of adverse effects (36 CFR Part 800 800.5), and resolution of adverse effects (36 CFR Part 800.6).

Current design and engineering requirements indicate effects to historic and landscape resources may also require consideration throughout project execution; the Supplemental CRMP (Appendix O) supports streamlined coordination and consultation with NY SHPO through agreement on programmatic allowances and treatments and provides structure and process for implementing requirements of the Programmatic Agreement and the CRMP (2021).

11.2 CONSULTING ARCHAEOLOGIST

Hartgen Archaeological 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 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 or their designee will be present for all ground disturbing activities and will have “stop work” authority as described in Section 3. 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 or designee 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 three workdays to excavate and remove cultural material 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 archaeological surveys that are required.

11.3 UNANTICIPATED DISCOVERY OF ARCHEOLOGICAL 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 (BMP Document Section 17.1).

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. Where needed 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 (BMP Document, Section 17.1).

Within 24 hours of an unanticipated archaeological 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 archaeological 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 (CC110).

11.4 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 archaeological 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 (CC111).

The following measures will be implemented in accordance with the BMP Document (BMP Document, Section 17.3):

1. Any human remains discovered will be treated with the utmost dignity and respect.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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 twenty-four (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.

7. 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.
8. Work will resume only after the completion of the necessary consultation and treatment.

The Certificate Holders will respond promptly to any complaints of negative archaeological impacts during the Project's construction and will consult with NYSHPO, the Advisory Council on Historic Preservation (ACHP), Native American Nations, and other appropriate parties identified in the CRMP to resolve adverse effects on historic properties and determine the appropriate avoidance, treatment, or mitigation measure (CC112).

12.0 ROADWAY CONSTRUCTION AND MPT PLAN

During construction, minor and temporary impacts to existing transportation and infrastructure will likely occur where such features are crossed or paralleled by the Project, where construction occurs within a highway ROW, and/or where construction vehicles are entering and exiting the Construction Zone from a local roadway. In areas where the Project crosses existing infrastructure, such as county roads and highways, the Certificate Holders have evaluated the construction activities associated with each infrastructure crossing to determine whether open trenching or a trenchless method is appropriate. The Certificate Holders have coordinated with state and local authorities and owners when developing the construction schedule for the Project in order to avoid any construction conflicts to minimize disruption of existing infrastructure to the greatest extent possible. Road Use Agreements or the equivalent will be in place with affected roadway owners prior to construction. Section 4.0 summarizes the various construction methods that will be utilized during the Project construction.

12.1 PRECONSTRUCTION PLANNING

All necessary highway work permits or local road use agreements that have been or will be obtained for are described in Table 12.1 (CC18).

Table 12.1 – Segment 3 - Package 1C/2 Highway and Road Work Permits/Agreements

Segment/ Package	Description	Status
3/1C&2	NYSDOT Highway Work Permit (HWP)for Utility Work (PERM 32)	Planned submittal after final design has been completed.
3/1C&2	NYSDOT Rail Design and Support Section	Planned submittal after final design has been completed. Not Applied for yet.
3/1C&2	Washington County Department of Public Works	Coordination in progress; RUA executed with Washington County.
3/2	Town of Kingsbury Road Use Agreement	Coordination in progress.
3/2	Village of Fort Ann Road Use Agreement	Coordination in progress.
3/1C&2	Town of Fort Ann Road Use Agreement	Coordination in progress.
3/1C	Village of Whitehall Road Use Agreement	Coordination in Progress.
3/1C	Town of Whitehall Road Use Agreement	RUA Executed.

3/1C&2	Oversized Vehicle Permit	Planned submittal after final design has been completed.
3/1C&2	Conduit Spools (OW/OW Permit)	

The Certificate Holders have been coordinating with and will coordinate with DPS and NYSDOT for all work to be performed in the State ROW (CC68). Prior to submitting construction plans for any state ROW segment, the Certificate Holders have provided to DPS and NYSDOT a preliminary design intended to avoid conflict with potential future transportation projects that NYSDOT may seek to undertake and have offered to consult with the NYSDOT concerning any comments it may offer and will use reasonable efforts to accommodate any NYSDOT concerns (CC68). Table 12.2 describes the ongoing coordination with NYSDOT.

Table 12.2 – 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 (CC68).	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 (CC69a).	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 (CC47).	Bi-weekly.

Where installation of Segment 3 – Package 1C/2 occurs within or involving a road ROW, the Certificate Holders have coordinated or are in the process of coordinating 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.

Where New York State Highway ROW is to be occupied, as described in Table 12.3, 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 (BMP Document Section 10.1.1).

12.1.1 Maintenance and Protection of Traffic

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 12.3 where the Segment 3 – Package 1C/2 installation occurs within a road ROW. Where in-road work will be extensive enough to require detours or road closings, an MPT plan has been completed in consultation with all affected agencies. By complying with this plan, the Certificate Holders will minimize the impact of construction of the Project on traffic circulation (CC71).

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

12.1.2 Signage

Traffic control personnel and safety signage will be employed to facilitate safe and adequate traffic flow when secondary roadways are affected by construction (CC71). Maintenance and protection of traffic (MPT), including protection of the public from damage to persons and property within the limits of (and for the duration of) work within the state ROW, will be done in full conformance with Section 619 – Maintenance and Protection of Traffic of the NYSDOT Standards

Specifications for Construction and Materials (NYSDOT 2008a), and all addenda thereto. Additionally, all MPT 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 (CC39a).

All placements of signs will be determined in consultation with the applicable jurisdictional agencies (CC39a). 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 rock removal 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 All flagging operations will comply with 17 NYCRR Part 131 (CC39b).

12.2 ROAD AND HIGHWAY CROSSINGS WITHIN SEGMENT 3 – PACKAGE 1C/2

The majority of construction for Segment 3 - Package 1C/2 will take place within the CP Railroad and public road ROWs. All appropriate safety and construction procedures that involve the crossing of or construction within a railroad, road or highway are addressed in the Maintenance and Protection of Traffic (MPT) Plan included in Appendix C (CC39). Table 12.3 below describes all road and highway crossings within Segment 3 – Package 1C/2. All HDD road/highway crossings will follow the specifications summarized in Section 4.3, those listed below, and the technical specifications on the drawings included in Appendix C (CC162g). All trenched road crossings will follow the specifications in Section 4.4, as well as those listed herein, and technical specifications included in Appendix C (CC162g).

Table 12.3 – Segment 3 – Package 1C/2 Road and Highway Crossings and Parallel Construction

Segment/ Package	Municipality	Jurisdiction	Description	Crossing Method	Sheet Number	Location (Approximate see Drawings for Details)
3/1C	Whitehall	Whitehall	Lower Bellamy Street	Parallel Construction Open Trench	C-101	15000+00 to 15001+00
3/1C	Whitehall	Whitehall	Clinton Street	Under DOT#248-962C bridge. Open Trench.	C-101	15003+00
3/1C	Whitehall	Whitehall	Division Street and Sanders Street	Under DOT #248-961V Bridge. Open Trench.	C-101	15006+69 to 15009+25
3/1C	Whitehall	NYSDOT	Poultney Street	Under DOT#248-960N Bridge. Open Trench	C-103	15033+00 to 15034+00
3/1C	Whitehall	Privately Owned	CP Rail MP 75.36 DOT#249-264M	Open Trench	C-111	15150+30
3/1C	Whitehall	Whitehall	Ryder Road	Open Trench	C-119	15281+00
3/2	Town of Whitehall/Town of Fort Ann	Fort Ann	North Old Route 4 & South Old Route 4 ROW Construction	Parallel Construction (Trenching in ROW)	C-101 to C-112	20001+75 to 20178+00
3/2	Town of Fort Ann	Town of Fort Ann	North Old Route 4 ROW Construction	HDD#9	C-101	20005+00 to 20010+50
3/2	Town of Fort Ann	NYSDOT	Route 22 (NYSDOT road/highway) Crossing	HDD#10	C-106	20082+50

Segment/ Package	Municipality	Jurisdiction	Description	Crossing Method	Sheet Number	Location (Approximate see Drawings for Details)
3/2	Fort Ann	Village of Fort Ann	Ann St & Railroad Crossing	HDD#14	C-120	20295+75
3/2	Kingsbury	Town of Kingsbury	Baldwin Corners Road Crossing	Open Trench	C-126	20382+50
3/2	Kingsbury	NYSDOT	Route 149 (NYSDOT road/highway) Crossing	HDD#16	C-134	20502+25
3/2	Kingsbury	Private Land Owner	Private Crossing	Open Trench	C-136	20537+10
3/2	Kingsbury	Town of Kingsbury	Towpath Road	Open Trench	C-136	20538+00
3/2	Kingsbury	Private Land Owner	Private Crossing	Open Trench	C-138	20563+60
3/2	Kingsbury	Private Land Owner	Private Crossing	Open Trench	C-139	20572+30
3/2	Kingsbury	Private Land Owner	Private Crossing	Open Trench	C-140	20597+25
3/2	Kingsbury	Town of Kingsbury	New Swamp Road	Open Trench	C-141	20613+40
3/2	Kingsbury	Private Land Owner	Private Crossing	Open Trench	C-143	20643+20
3/2	Kingsbury	Private Land Owner	Private Crossing	Open Trench	C-148	20714+50
3/2	Kingsbury	NYSDOT	Route 196 (NYSDOT road/highway) Crossing	HDD#20	C-150	20739+50
3/2	Kingsbury	Town of Kingsbury	Rabideau Lane Crossing	HDD#20	C-150	20740+25
3/2	Kingsbury	CP-Rail MP 58.37	Private Crossing	HDD#20	C-150	20746+50

The following specifications will apply for trenchless (i.e., HDD) crossings of roads:

- Owners/operators of other underground utilities in the area will be consulted during the EM&CP development and notified no less than 30 days prior to the start of construction. Notice provided after normal business hours or on weekends will not begin the notice period.
- All existing underground facilities will be marked prior to the start of drilling or boring.
- Jacking and receiving pits adjacent to the road shoulder will be clearly identified and barricaded to prevent them from being a hazard to pedestrian or vehicular traffic.
- HDD or Jack and Bore (J&B) entry and exit points will be fenced and marked if left open overnight.
- All work within state highway ROW will be conducted in accordance with a highway work permit issued by NYSDOT.

The following specifications will apply for trenched road crossings (BMP Document Section 10.1.2.2):

- Owners or operators of other underground utilities in the area will be consulted during the EM&CP development and notified no less than 30 days prior to the start of construction. Notice provided after normal business hours or on weekends will not begin the notice period.
- All existing underground facilities will be marked prior to the initiation of cutting or excavation.
- 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 regarding root cutting and pruning.
- Detours, signage, and public notice will be posted no later than 24 hours prior to the initiation of construction.
- Traffic flow will be provided in at least one lane of the road at all times or a detour will be provided. Flaggers or temporary traffic lights will be used where necessary to control traffic flow.
- Any water control devices (roadside ditches, culverts, etc.) disturbed during excavation or construction will be restored immediately after cable installation.
- Temporary restoration of the roadway will occur immediately after the cable is installed.
- All work within state highway ROW will be conducted in accordance with a highway work permit issued by NYSDOT and the requirements of 17 NYCRR Part 131.

13.0 CO-LOCATED INFRASTRUCTURE

During Project construction, minor and temporary conflicts with existing utilities and/or co-located infrastructure ("CI") may occur where they will be crossed or paralleled by the Project. CI consists of electric, gas, telecommunication, water, wastewater, sewer, and steam infrastructure, appurtenant facilities, and associated equipment, whether above ground, below ground, or submerged that are located within the Construction Zone approved in this EM&CP (CC27abc).

13.1 CO-LOCATED INFRASTRUCTURE CONSULTATIONS

Section 12.0 summarizes Project construction associated with existing public roadway and highways. In areas where the Project crosses existing infrastructure such as buried utility lines and railroad ROWs, or other features, the Certificate Holders evaluated the construction activities associated with each infrastructure crossing to determine whether open trenching or a trenchless method is appropriate. The Overland Co-Located Utility Summation Matrix in Appendix R summarizes the locations of all utility crossings for Segment 3 – Package 1C/2. The Certificate Holders have coordinated with state and local authorities, as well as CI 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 to CI will occur on CI as a result of the Project (CC162a and 162d). The Certificate Holders will continue to consult with all applicable CI owners and representatives when developing the construction schedule for the Project in order to coordinate system outage requirements and avoid any construction conflicts with this infrastructure (CC28b). Section 13.1.2 below summarizes the outreach and consultation efforts that have been performed by the Certificate Holders.

The Certificate Holders' construction Contractor will join "Dig Safely New York" (now "Udig NY" and DigNet) and will coordinate with them for underground utility locating prior to any underground construction work (BMP Document Section 10.0). 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 has been 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 (Appendix P). Additionally, Cable Ampacity and Thermal Calculations consistent with CC 162(c) are included as Appendix Q.

13.1.1 Pre-Installation Outreach to Co-located Infrastructure

The Certificate Holders have conducted a pre-installation survey that has documented the location and proximity of CI within Segment 3 – Package 1C/2 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 Segment 3 - Package 1C/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 documented CI are described in the sections below.

13.1.2 Summary of Consultations with Co-located Infrastructure

Commencing the week of September 6, 2021, the Certificate Holders notified owners of CI within the Project Corridor of their plans to develop detailed construction plans for this EM&CP. Table 13.1 lists the CI Owners that were identified within Segment 3 – Package 1C/2. Emails were sent to the CI owners listed 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. An example email notification is included in Appendix R including the accompanying fact sheet describing the Project construction timing and introduction of an EM&CP, an overview of CI crossings and CHPE construction, an overview map of the entire project, and typical engineering trench and crossing drawings. This outreach and consultation was initiated on or before September 2021, at least 180 days prior to the filing of EM&CP for Segment 3 – Package 1C/2 (CC28d).

Since the initial email notifications, the Certificate Holders' representatives have had additional telephone and email communications with CI owners to discuss their processes and requirements for engaging in the review of the Project's construction plans, initial conditions for crossing the CI owners' infrastructure, providing as-built drawings, and fees for engaging in the review process. A summary of those activities is included in Table 13.1, below, and sample engagement materials are included in Appendix R.

Table 13.1 – Segment 3 - Package 1C/2 Co-located Infrastructure Consultation Summary

Owner	Utility	Initial Contact Date	CI Owner Response	Outreach Mailing #2	Outreach Mailing #3
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 Corridor.	7/11/22 (Pkg 1C) & 7/15/22 (Pkg 2) Plan & Profile drawings provided for review.
Level 3 Communications (now Lumen Technologies)	Fiber	9/10/21	Support services agreement in place. Crossing conditions received. Reimburse ment fund established.	1/27/22 email sent with .kmz digital map of route and request for records, data & information of CI along Project Corridor.	7/11/22 (Pkg 1C) & 7/15/22 (Pkg 2) Plan & Profile drawings provided for review.
National Grid/ East/ Electric	Electric	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 Corridor. Received locations of overhead electric lines.	Consultations on going/ outreach not provided to date
Time Warner Cable (Charter Communications/ Spectrum)	Fiber/CATV	9/23/21	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 Corridor.	7/11/22 (Pkg1C) & 7/15/22 (Pkg 2) Plan & Profile drawings provided for review.
Verizon or Verizon/East	Telecom; Fiber/ Telephone	9/10/21	No action required until plans	1/27/22 email sent with .kmz digital map of route and request	7/11/22 (Pkg 1C) & 7/15/22 (Pkg 2) Plan & Profile

Owner	Utility	Initial Contact Date	CI Owner Response	Outreach Mailing #2	Outreach Mailing #3
			are available for review.	for records, data & information of CI along Project Corridor.	drawings provided for review.
Washington County	Route 4, Storm Sewers	5/31/21 Zoom Meeting	N/A	N/A	Plans and profiles were submitted to Washington County for review on 7/18/22.
Village of Whitehall	Storm Sewer, Sanitary Sewer, Water Lines	10/7/21	N/A	N/A	Package 1C Plans and profiles were submitted for review on 7/11/22. Coordination is on-going.
Town of Fort Ann	None	N/A	N/A	N/A	Plans and profiles were submitted for review on 07/18/22. Coordination is on-going.
Town of Kingsbury	None	N/A	N/A	N/A	Plans and profiles were submitted to Town of Kingsbury. Coordination is on-going.

13.1.3 Reimbursement of Costs to Co-located Infrastructure

The Certificate Holders will reimburse owners and/or operators of CI for the reasonable costs they incur in the following activities (CC29a):

1. Consulting with Certificate Holders as described in Section 13.1.2.
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 28d and 162.
4. Conducting or preparing such additional studies and designs as may be agreed to by the Certificate Holders or approved by the Commission
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 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.

Cost shall be deemed to be reasonable if in the case of each separate review of a study or design proposal described below, the total cost to be borne by the Certificate Holders is $5,000 or less (CC29b). Any CI owners or operators who intends to incur costs as described above must provide the 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 60 days of the expenditure by the owners and/or operators of affected CI of any funds which are eligible for reimbursement by the Certificate Holders under this Certificate, the CI owner or operator shall present the Certificate Holders with a final invoice for the actual costs incurred, but not to exceed 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 CI owners or operators, by the Commission. Certificate Holders shall pay the authorized invoice amount within 30 days of receipt (CC29c).

To date, there have been no disputes concerning the Certificate Holders' cost reimbursement responsibility. Any that arise 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 (CC29dd).

13.2 RAILROAD CROSSINGS AND PARALLEL RAILROAD CONSTRUCTION

13.2.1 Railroad Crossing Construction Locations Specific to Segment 3 – Package 1C/2

Southern portions of the Segment 3 – Package 1C/2 construction will occur within the CP ROW. Crossings are summarized in Table 13.2. Access roads crossing the railroad are described in Section 4.10. Table 13.3 summarizes the pre-construction coordination with CP Rail. To the extent practicable, construction of the Project will be conducted in accordance with the policies and guidelines identified in Appendix U so as to avoid any interference with interruption, or endangerment of any CP operations and facilities. If any procedure outlined in Appendix U cannot be followed, the Certificate Holders will seek a waiver and/or approval from CP Rail. The Certificate Holders will continue to coordinate directly with CP Rail and DPS staff throughout construction.

Table 13.2 - Segment 3 -Package 1C/2 CP Railroad Crossings

Segment/ Package	Crossing ID	Crossing Method	Sheet Number	Location (Approximate see Drawings for Details)
3/1C	Railroad Spur CP Rail MP 77.01	Open trench	C-105	15062+00 to 15063+00
3/1C	CP Rail Crossing MP 75.10-74.95	HDD#4A	C-111 to C-112	15162+87 to 15171+57
3/1C	CP Rail Crossing MP 74	HDD#6	C-115 to C-116	15217+00 to 15233+00
3/1C	CP Rail Crossing MP 117.55	HDD#8	C-120 to C-121	15296+00 to 15303+00
3/2	CP Rail MP 69.12-68.99	HDD #12	C-112 to C-113	20178+50 to 20187+75
3/2	CP Rail MP 66.97-66.85	HDD #14/Ann Street	C-120	20291+50 to 20300+00
3/2	CP Rail MP66.25 - 66.14	HDD #14A	C-123	20331+25 to 20338+75

Table 13.3 - Segment 3 CP Rail Coordination Summary

Coordinating Parties	Description	Current Status
CP Rail, Certificate Holders	Pre-Construction Planning: CP Rail has provided construction requirements including a minimum 6.6 feet of separation from centerline of track.	Regular meetings to discuss project; Plans and Profiles have been provided for review and comment.

CP Rail, Certificate Holders	Construction Permitting: Certificate Holders will need to have all at grade rail crossing (for access roads) and HDD crossings (for the conduit) permitted by CP Rail prior to discussion.	Regular meetings to discuss project

13.2.2 Railroad Crossing Construction Procedures

The following measures will be followed for all railroad crossings (Design Criteria Report):

1. Any HDD utility crossings under the existing track structure to be drilled at an angle between 45-degrees to 90-degrees to track, unless existing conditions won't allow, and the Railroad is agreeable to a crossing angle less than 45-degrees. Cables to be routed a minimum of 6-feet under existing culverts. Utilities shall not be placed within one-hundred fifty (150) feet of culverts, railroad bridges, track switches, buildings, or other important structures.
2. The railroad ROW will be surveyed for the presence of underground utilities and structures.
3. 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. Notice provided after normal business hours or on weekends will not begin the notice period.
4. NYSDOT will be notified of any crossings of railroad lines.
5. All existing underground facilities will be marked prior to the initiation of cutting or excavation and Dig Safe NNY (811) will be contacted for CI mark outs.
6. The Certificate Holders will coordinate all work with the owner/operator of the rail line to ensure the safety and integrity of the HVDC cable and railroad facilities crossed.
7. In the event that the railway is abandoned, or the operator has no specifications, the Certificate Holders will refer to and apply construction specifications provided by the American Railroad Engineers Association.
8. HDPE conduit system is used for HDD HDPE conduits. If the HDD exit point is within 200 feet of the nearest splice location, then the HDPE shall be continued from HDD to the splice location. If the HDD exit point is beyond 200 feet of the nearest splice location, then the HDPE shall transition to PVC using a transition conduit coupling. All casing will be installed in accordance with the American Railway Engineering and Maintenance of-way

Association (AREMA) Manual for Railway Engineering Chapter 1 Part 5 Section 5.3, latest edition.

9. Minimum pipe cover for cased utilities crossing all tracks shall be the greater of:
    a. Depth below frost line, or
    b. For HDD installation; 2 feet minimum below existing wire, 10 feet minimum depth below railroad structure, and 25 feet minimum from base of rail, and 10 feet minimum horizontal offset from existing near face of bridge pier or abutment.

PVC or HDPE casing conduit, measured perpendicular to and on each side of the track, shall extend 6.6 feet beyond the centerline of nearest track (1.5H:1V).

The minimum length of casing conduit is depicted in Plan and Profile Drawings C-644, C-646, and C-647 for Package 2 and Plans C-641, C-643, C-645, and C-647 for Package 1C(Appendix C).

Where the Certificate Holders will deviate from any procedures outlined above, CP Rail has been made aware during the ongoing coordination and approved said deviations.

13.2.3 Parallel Railroad Construction Locations within Segment 3-Package 1C/2

Parallel railroad construction locations are summarized in Table 13.4.

Table 13.4 - Segment 3 Parallel Railroad Construction

Railroad Owner	Railroad Milepost	Approximate Station Location (See Drawings for Details)
CP Rail	MP 78.11 – MP 72.42	15001+00 to 150303+00 (C-101 to C-121)
CP Rail	MP 69.12 – MP 65.15	20180+00 to 20389+00 (C-113 to C-126)
CP Rail	MP 64.03 – MP 63.55	20449+00 to 20473+00 (C-130 to C-132)
CP Rail	MP 63.17 – MP 58.66	20493+50 to 20733+00 (C-133 to C-149)

13.2.4 Parallel Railroad Construction Procedures

1. Steel casing pipes shall have a wall thickness conforming to E-80 loading requirements,

be coated, and designed for the external applied pressures and installed in accordance with American Railway Engineering and Maintenance-of-way Association (AREMA) Manual for Railway Engineering Chapter 1 part 5 Section 5.1, latest edition. Corrugated metal (CMP) casing may also be used in accordance with CPR Standard plan B-1-4950-2.

2. Polyethylene casing pipes shall have a wall thickness conforming to E-80 loading requirements and designed for the external applied pressures and installed in accordance with AREMA Manual for Railway Engineering Chapter 1 part 5 Section 5.1, latest edition. Polyethylene casing pipes shall not have an outside diameter greater than 4-1/2 inches.
3. Trench details are located on C-621. Depending on the width of the trench, the minimum pipe cover for PVC and HDPE pipe cased utilities parallel to any track shall be a minimum of 4 feet 7 inches.
4. Longitudinal cable runs to be installed approximately 6 feet minimum from the edge of the right-of-way.

Where the Certificate Holders will deviate from any procedures outlined above, Railroad ROW Owner has been made aware during the ongoing coordination and approved said deviations.

13.2.5 CP Rail Notifications

CP Rail has requested to receive the following notifications outlined in Table 13.5.

Table 13.5 - CP Rail Notifications and Submittals

Notification or Submittal Type	Additional Description
Update Reports and Meetings	Monthly frequency of update reports and meetings during construction activities along CP ROW. Include notification timelines for pre- and post-construction. Confirm pre-construction meeting at least two weeks (14 calendar days) prior to start of construction.
Restoration Complete	Notify CP Rail that restoration is "complete" on CP ROW.
	Restoration completion documentation and monitoring/follow up. Confirm consultation with and approval from CP prior to start of work on all segments on CP ROW.
Activation/Energizing	Notify CP Rail of activation/energizing of Facility.
State Listed Species of Concern	Notify CP Rail if New York State listed species of special concern are observed.
Threatened or Endangered Wildlife	Notify CP Rail if any threatened or endangered wildlife species are observed if on or adjacent to the CP ROW.
Karner Blue Butterfly	Karner Blue Butterfly requirements. Confirm CP coordination on all requirements.

Notification or Submittal Type	Additional Description
Weekly Schedules	Certificate Holders shall provide CP staff a weekly schedule of the Environmental Inspector and the Construction Inspector, and their cell phone numbers during periods of activity affecting CP ROW.
Contact Info and Qualifications of EI and CI	The names and qualifications of the Environmental Inspector and the Construction Inspector shall be submitted to CP staff at least two (2) weeks prior to the start of construction.
Notifications to Other Agencies	Notify CP Rail when events occur on CP Rail ROW that trigger notifications to DPS, NYSDEC and/or other outside agencies.
Site-Compliance Audit Inspections	Site-Compliance audit inspections. All requirements for coordination, notification, etc. apply to CP for portions of the work on CP ROW.
Pre-construction Meetings	Preconstruction meeting invitation for overland work shall extend to CP.
Fugitive Dust	Fugitive dust, notification of finding existing contamination or a "Reportable Event", CAMP. CP will be notified immediately for any event on CP ROW.
Cultural Recourses	Cultural recourses identification or disturbance, human remains encountered. CP Rail will be notified immediately in the event of any of these cases.
Protected Stream Crossings	Notify CP at least 5 days prior to construction involving protected stream crossings to CP when on or adjacent to CP ROW.
Wetlands with Adirondack Park	Immediately notify CP in the event of this type of notification when the work is on or adjacent to CP ROW.
Wetlands and Stream Restoration	Copy CP Rail on distribution of all condition assessments and reporting. CP Rail will be consulted in the event that revegetation efforts are required.
As-built Submissions	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." Confirm As-built submission timeline and format (software) for CP ROW segments. Provide as-built information and mapping complying with its specifications.
Inspection of Structures	Confirm assessment inspection coordination with CP prior to completing such that CP inspectors can attend. Confirm all structures on CP ROW within 100ft of any HDD will be inspected before during and after HDD work, with all reports copied to CP.
HDD Site Preparation and Trench Excavation	Confirm HDD site preparation or trench excavation work shall not commence until CP review and acceptance of reporting required related to CC 154(b).
Construction Allowed Outside Allowed Deviation Zone	Confirm coordination with CP for any construction outside the Allowed Deviation Zone adjacent to CP ROW.
EM&CP Modifications	Notify CP for any modification on or adjacent to CP ROW.
Weekly Status Reports/Schedules	CP Rail will be included in the distribution of weekly status reports and schedule during entire duration of work on or adjacent to CP ROW.
Spill Notifications	The EI would work with the CP Rail spill response team.

13.3 UTILITY CROSSINGS

All utilities such as water, sewer, electric, telecommunication, etc. facilities and infrastructure that occur within Segment 3-Package 1C/2 and where they are crossed by the Project are indicated on the Plan and Profile Drawings in Appendix C. The Overland Co-Located Utility Summation

Matrix Table in Appendix R summarizes the utility crossings for Segment 3-Package 1C/2. The procedures that will be followed to minimize impacts on any utilities that may be crossed by the Segment 3-Package 1C/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.

13.3.1 Water Supply Intakes

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

13.3.2 Overhead Electric Facilities

Segment 3 – Package 1C/2 will cross many overhead electric facilities. Impacts to these facilities are expected to be minimal given the underground installation of the CHPE transmission cable.

The following specifications will apply where construction or pre-construction activities are undertaken in an overhead utility line ROW (i.e., a perpendicular crossing) (BMP Document Section 10.3.1.1):

1. 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. Interactions between Segment 3 – Package 1C/2 and existing utilities are described in the Upland Co-located Utility Summation Matrix of Appendix R.
2. 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.
3. All guy wires, ground lines, and other surface or subsurface supports or facilities were located and added to the plans in Appendix C; and
4. 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 (BMP Document Section 10.3.1.2):

1. 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;
2. As described in the Upland Co-located Utility Summation Matrix of Appendix R, if voltages warrant, no ungrounded vehicle will be allowed within 200 feet of the electric line;
3. All vehicles on the ROW will be grounded if necessary by use of grounding strips or chain devices;
4. Vehicles parked overnight on the ROW will be grounded to an embedded ground rod by a cable;
5. Fuel trucks will have sufficient ground cables and clamps to complete an electrical bond with every vehicle to be refueled; and
6. The Safety Inspector will monitor construction equipment and warn operators if the safe minimum clearance zone is entered.

13.3.3 Underground Crossings and Parallel Subsurface Utilities

The Segment 3 - Package 1C/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 13.1.

Owners of CI were consulted as described in Table 13.1 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:

1. CI owner specific requirements
2. Site conditions
3. Utility condition
4. Material compatibilities

In general, 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 Segment 3 – Package 1C/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 Plan and Profile Drawings. 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 (BMP Document 10.3.2). The CI owners will identify and mark their facilities in the field.

The following specifications will apply where the cable will parallel an underground electric line right-of way (BMP Document 10.3.2):

a) In situations where Segment 3 – Package 1C/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.

13.3.4 Underwater Utility Crossings

There will be no underwater construction required for upland segment of the Project, and therefore no underwater utilities will be crossed.

13.4 CULVERTS

A total of 46 culverts (including storm sewers) occur within or adjacent to Segment 3 – Package 1C/2, as identified in Upland Co-located Utility Summation Matrix (Appendix R) and as shown on the Plan and Profile Drawings (Appendix C). 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 (CC73). Section 4.12 details requirements for culvert replacement.

14.0 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 (BMP Document, Section 11.0). 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 this EM&CP (CC48).

14.1 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 Segment of the ROW will be thoroughly cleaned after construction is completed on that section. Vegetation clearing, and disposal methods are summarized in Section 8.0 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 8.0 (BMP Document Section 11.1).

At the end of all construction, the construction, road and rail ROWs and respective work areas will be thoroughly cleared of debris such as nuts, bolts, spikes, wire, pieces of steel, and other assorted items (CC88). 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. No man-made debris will be burned or buried, and all trucks leaving the construction area will be loaded and covered in accordance with applicable regulations as needed (BMP Document, Section 11.1).

14.2 RESTORATION AND PLANTING

The final stage of construction will consist of restoring the ROW to its original condition and character to 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 gradients and reseeding excavated areas over the trench as identified herein (BMP Document, Section 11.2).

14.2.1 Restoration in Non-Agricultural and Non-Urban/Residential Areas

14.2.1.1 Grading

Upon completion of the installation of the overland transmission cable, the surface of the ROW disturbed by construction activities will be graded to match the original topographic contours and to be compatible with surrounding drainage patterns, except at those locations where permanent changes in drainage will be required to prevent erosion that could lead to possible exposure of the cable. Where the trench areas have settled below ground level, it may be necessary to import topsoil to return an area to grade. HDD entry pits will be backfilled, and the disturbed ground surface will be similarly graded (BMP Document Section 11.2.1.1).

14.2.1.2 Lime Application

Lime will be applied to the soil surface where necessary to achieve conditions favorable for seed establishment and development. 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 Environmental Inspector.

14.2.1.3 Fertilizing

In areas where construction has affected the soil nutrient levels, fertilizer will be applied to restore soil productivity. 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 Environmental Inspector.

14.2.1.4 Aerating and Raking

Soil compaction in construction areas frequently occurs as a result of the movement of heavy equipment over soil. Soil compaction in the right-of-way is expected to be minimal because most vehicles and equipment will either be mounted on the track or operating from existing access roads or fill associated with the railroad embankment. However, if compaction occurs, soils will be aerated. Aeration in grassy areas will 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 (BMP Document Section 11.2.1.4).

14.2.1.5 Seeding and Planting

Seeding operations will commence only after an acceptable seedbed has been established, as described above. Seed will be applied by hand, cyclone seeder, drill, or culti-packer-type seeder at a depth of 0.25 to 0.5 inch. The seedbed will be firmed following seeding operation with a roller or light drag, except where culti-packer-type seeders or hydroseeders are used. 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 at the appropriate rates after seed is applied. Seeding will take place under the supervision of the Environmental Inspector (BMP Document Section 11.1.2.5).

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 will be provided to the Environmental Inspector as either original tags or scanned copies. The seed mixtures will follow the technical specifications included on the Plan and Profile Drawings in Appendix C for uplands and wetland buffer zones. Seeded areas will be monitored following restoration until a minimum vegetative cover of 80% is achieved (BMP Document Section 11.1.2.5).

Where tree or shrub plantings are prescribed on the EM&CP, a post-construction survival survey will be performed one year after the plantings. If any tree or shrub has not survived or is in poor health, the tree/shrub will be replaced (BMP Document Section 11.1.2.5).

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.

All trees over 2 inches in diameter at breast height or shrubs over 4 feet in height damaged or destroyed by activities during construction, operation, or maintenance, will be replaced within the

following year by the Certificate Holders with the equivalent type of trees or shrubs except if any of the following conditions are met (CC66):

1. 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.
2. 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.
3. 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.

14.2.2 Restoration in Urban/Residential Areas

Construction in urban or residential areas may require a variety of restoration activities. Aboveground and underground structures (e.g., those related to water and gas services), street pavements, curbs, sidewalks, and other features may require repair or replacement as a result of construction (BMP Document Section 11.2.2, CC74).

Curbs, sidewalks, and streets damaged by construction will be restored to pre-existing condition or better. The Certificate Holders will consult, where applicable, the municipal road or highway department and/or the Regional Office or County Engineer of the NYSDOT in order to identify and incorporate applicable specifications for curb, sidewalk, or street restoration (BMP Document Section 11.2.2). Guide Rails will be removed and replaced in accordance with NYSDOT Standard Sheet 606-01.

Except where replacement would inhibit or impair the safe operation of the cables, shade trees and ornamental shrubs disturbed or damaged by construction will be repaired or replaced, following construction. All vegetation replaced will have a minimum two-year survival guarantee. Limbs damaged by construction activities will be pruned to arboricultural specifications. Root loss or damage due to construction or construction-related soil compaction will be addressed by a trained arborist, and any prescribed treatments will be followed (BMP Document Section 11.2.2).

Groundcover will be restored in areas such as yards and lawns. Restoration work will include the spreading of topsoil, planting of native grass mixtures, and replacement of any damaged extant vegetation, if necessary (BMP Document Section 11.2.2).

14.2.3 Restoration of Railway Ballast

Upon completion of the installation of the overland transmission cable, the surface of the railroad ROW disturbed by construction activities will be graded to match the original topographic contours and to be compatible with surrounding drainage patterns. Backfill or fill will be compacted to match surrounding grade. The ground cover will be returned to pre-existing conditions, by stabilizing with ballast stone. To ensure proper restoration and protection of the railway ballast, the railroad owners have been consulted to ensure restoration meets the engineering requirements of the railways (BMP Document Section 11.2.3).

14.2.4 Restoration of Recreational Areas

Following construction, the Certificate Holders will reseed the construction area within recreational areas such as the canals 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. Recreational areas are described in Section 7.2.

14.3 LANDSCAPING

While no landscaping needs have been identified within the Segment 3 – Package 1C/2, the Certificate Holders will, on completion of construction of all segments of the Project, provide an assessment of the need for landscape improvements (CC89a). 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. Additionally, if deemed necessary, the Certificate Holders will prepare plans for any visual mitigation such as removal, rearrangement, and supplementation of existing landscape improvements or planting (CC89b). If needed, the Certificate Holders will consult with DPS Staff on the content and execution of their landscape improvement assessment, resultant landscaping plan specifications, and materials list (CC89c). The Certificate Holders will 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 (CC89d). If deemed necessary, the assessment and plans for landscaping improvements will be submitted to DPS staff within one year of the date the Project is placed in service (CC89e).

14.3.1 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 completion 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 (BMP Document Section 11.2.2). Where tree or shrub plantings are needed, a post construction survival survey will be performed one year after the plantings. If any tree or shrub has not survived or is in poor health, the tree/shrub will be replaced (BMP Document Section 11.2.1.5).

SWPPP inspections will be performed by the Environmental Inspector in accordance with the SPDES Construction SWPPP requirements (Appendix G). Following final stabilization, erosion and sediment control measures will be removed from the site and disposed of appropriately.

14.4 RESTORATION OF WETLANDS AND WATERBODIES

14.4.1 Restoration of Waterbodies

Upon completion of backfilling operations, cleanup and restoration of the stream crossing, banks and bank approaches (at least 50 feet adjacent to each bank) will be completed within 24 hours. If needed, stream banks will be re-established to original grade immediately after stream bank work is completed. The banks will then be permanently stabilized by seeding with native grasses, mulched and, if needed, planted with native shrub seedlings. If additional stabilization is needed jute netting or erosion control blankets will be used (BMP Document Section 18.4).

Per CC117 and BMP Document Section 19.2, the Certificate Holders have established and will implement a program to monitor the success of wetland and stream restoration upon completion of construction and restoration activities. The description of the program is provided in Section 14.4.2.

14.4.2 Restoration of Wetlands

As a result of the cable installation, there will be some impacts to wetlands. The Certificate Holders' approach to wetland restoration involves a combination of substrate and hydrology restoration, and vegetation establishment involving natural succession processes as a key component. The Certificate Holders will minimize the short and long-term impacts to all wetland types encountered along the Facility route, to the greatest practicable extent (BMP Document Section 19.4).

Restoration of wetland areas will be expedited by minimizing the duration of work and by restoring the preconstruction topographic and hydrologic conditions as quickly as possible following construction. Removal of stumps in wetlands will be limited to directly over the trench unless personnel safety requires additional stump removal. The stumps that are left in place may promote natural regeneration within the construction ROW depending on the species. Except in standing water, saturated soils, or where ledge is encountered at the surface, the top 12 inches of hydric soil in wetland areas over the trench will be segregated and stockpiled separately from subsoils. Once the trench is backfilled, the topsoil will be replaced over the trench to its original grade. This topsoil material typically contains an extensive propagule bank that aids in the revegetation of disturbed areas with herbaceous and woody vegetation (BMP Document Section 19.4).

The cleanup and final restoration phase is critical for mitigating long-term wetland impacts, and therefore will be closely monitored by the Environmental Inspector. During the initial restoration phase, all construction debris will be removed from the ROW. Segregated topsoil will be replaced, and wetland contours and drainage patterns will be restored to approximate original condition by matching that which exists in adjacent undisturbed areas. Restoring the grade, drainage patterns, and topsoil will promote the re-establishment of native hydrophytic vegetation. All materials placed in the wetland to facilitate access and construction will be removed in their entirety unless specified on the EM&CP Plan and Profile drawings (Appendix C) (BMP Document Section 19.4). Cleanup and final grading steps will commence within 21 working days after the trench is backfilled, weather conditions permitting. Restoration of the wetland (other than the travel way) will be completed within 24 hours after backfilling is completed. This will be done for a minimum distance of 50 feet from the wetland edge. Restoration of the wetland will include but is not limited to: final grading, seeding with a native wetland seed mix, fertilizing, and mulching. High organic soils (as determined by NYSDEC, DPS, or the Environmental Inspector) will be graded back to original contours and left unmulched and unseeded to facilitate the germination of native seeds and sprouting of rhizomes from the seed bank. Following cleanup, the wetland will be evaluated

for possible vegetative plantings. This will be done in consultation with the appropriate agencies (BMP Document Section 19.4).

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 (shown on Plan and Profile drawings, Appendix C).

14.4.3 Post-Construction Restoration Monitoring

The Certificate Holders have established and will implement the following program to monitor the success of stream and wetland restoration upon completion of construction and restoration activities (CC117). Per Conditions K and L of the USACE Permit, the following will determine if stream and wetland restoration is successful:

- All plantings have an 85% survival rate
- All established wetland areas in conjunction with the compensatory mitigation have an 85% coverage rate of hydrophytic plants
- 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 three consecutive years.

The success of wetland revegetation will be monitored and recorded annually for the first 3 years after construction, or longer, until wetland revegetation is successful. If revegetation is not successful at the end of two years, the Certificate Holders will develop and implement (in consultation with a professional wetland ecologist) a plan to actively revegetate the wetland with native wetland herbaceous plant species (BMP Document Section 19.4.1).

14.5 CLEANUP AND RESTORATION OF AGRICULTURAL LANDS

On affected agricultural land, restoration practices will take place only when favorable (workable, relatively dry) topsoil/subsoil conditions exist (CC80). 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 and Agricultural Inspector that favorable soil moisture conditions exist. The Certificate Holders will monitor and advise NYSDAM and DPS Staff regarding tentative restoration scheduling.

Table 14.1 summarizes the location of agricultural lands that will require restoration following construction.

Table 14.1 – Agricultural Lands Requiring Restoration in Segment 3 – Package 1C/2

Segment/ Package	Parcel ID	Description	Sheet Number	Location (Approximate – see Drawings for Details)
3/1C	68.-1-16.1	Temporary Gravel Access Road off NYS Route 4	C-111 & C-212	15165+00
3/1C	77.-1-9.1 77.-1-10.1	Temporary Gravel Access Road off NYS Old State Road	C-113 & C-213	15196+00
3/1C	77.1-4.1	West of CP Railroad east of Route 4	C-116 to C-118	15230+75 to 15258+00
3/1C	77.1-4.1	Gravel Access Road off NYS Route 4	C-116 & C-214	15241+00
3/1C	86.-1-2.1	West of CP Railroad east of Route 4	C-118 to C-119	15264+00 to 15273+50
3/1C	86.-1-6	West of CP Railroad east of Route 4	C-119	15273+50 to 15281+00
3/1C	86.-1-7	West of CP Railroad east of Route 4	C-120	15285+50 to 15293+00
3/1C	86.-1-14.2	West of CP Railroad east of Route 4	C-120	15293+00 to 15300+00
3/2	104.-01-1.1	West of CP Railroad east of Route 4	C-113	20186+00 to 20190+00
3/2	121.00-1-17	CP Railroad within/ adjacent (west) to agricultural land– cable west of tracks east of Route 149	C-128 to C-129	20407+00 to 20428+00
3/2	130.-3-1	CP Railroad within/adjacent (west) of agricultural land - cable west of tracks east of Route 149	C-129 to C-130	20428+00 to 20447+50
3/2	130.-3-7.3 130.-3-7.4 130.-3-7.1 130-3-7.5 130-3-7.12 139.-1-13 139.-1-3 139.-1-3.1 138.-1-21.2	West of CP-Railroad	C-130 to C-137	20447+50 to 20549+00
3/2	139.-1-3	Access Road as described in Table 4.6, West of CP-Railroad	C-135 & C-210	20512+00
3/2	130.-3-7.4	Access Road as described in Table 4.6, West of CP-Railroad	C-132 & C-209	20466+00

Segment/ Package	Parcel ID	Description	Sheet Number	Location (Approximate – see Drawings for Details)
3/2	130.-3-7.3	Access Road as described in Table 4.6, West of CP-Railroad	C-130 & C-208	20447+00
3/2	138-1-20 138-1-21.1	Access Road as described in Table 4.6, West of CP-Railroad	C-137 & C-211	20549+00 to 20580+00
3/2	138.-1-21.1	Access Road as described in Table 4.6, West of CP-Railroad	C-139 & C-211	20576+00
3/2	147.-1-8	West of CP Railroad and north of New Swamp Road	C-140 to C-141	20599+50 to 20614+00
3/2	147.-1-17	West of CP Railroad east of Towpath Road – cable west of tracks	C-144 to C-145	20650 +00 to 20670+00
3/2	155.-1-2.1	Access Road as described in Table 4.6, West of CP-Railroad	C-148 & C-213	20706+00 to 20711+00
3/2	155.-1-6 155.-1-9 155.-1-11 155.-1-13	West of CP-Railroad	C-148 to C-150	20711+00 to 20740+00
3/2	154.-1-15 154.-1-16	Northeast of CP Railroad and south of NY Route 196	C-150 to C-151	20740+00 to 20756+00
3/2	TBD	Impacts associated with the construction of HDD#21 and HDD#21A are still being determined as the design is still in progress.	TBD	TBD

14.5.1 Restoration of Agricultural Lands: Access Roads and Laydown Areas

Once construction activities are completed, gravel will be removed from along the access roads, work areas, and/or staging areas that disturbed agricultural areas, subsoil will be de-compacted 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 13.6.5. If subsequent construction or clean-up activities result in additional compaction, additional deep tillage will be performed to alleviate such compaction (BMP Document Section 20.5).

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 (BMP Document Section 20.5).

During the various stages of construction of the Facility, all affected farm operators will 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 will continue to respond to the requests of the farmland owner/operators to correct adverse impacts to agricultural resources caused by construction of the Project (CC78).

14.5.2 Restoration of Drainage Features

In the event that farm drainage or road underdrain 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 to identify proper alignment, grade, and excessive deflection.

14.5.3 Fertilizer Application

Fertilizer will be applied as described in Section 14.2.1.3. 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" in agricultural areas.

14.5.4 Aeration and Raking

Aeration and raking will follow procedures outlined in Section 14.2.1.4.

14.5.5 Revegetation of Agricultural Lands

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 Right-of-Way Restoration in Farmlands* (revised 4-27-2011) or as specified by the landowner. Seeding will be monitored for two years after completion at least three times per growing season (BMP Document Section 20.6.1).

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. Lime will be applied following the procedures outlined in Section 13.2.1.2.

Mulch will consist of clean straw or hay from the affected agricultural property. The mulch will be spread uniformly in a continuous blanket of sufficient thickness to hold the soil in place (BMP Document Section 20.6.3).

As applicable, the Certificate Holders and their Agricultural Inspector will continue to work with farm operators 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 (CC79) (see Section 7.1.1 for agricultural identified within this segment). The Certificate Holders will be responsible for maintaining temporary fencing around restored work areas, access roads, or staging areas until the Agricultural Inspector determine that the vegetation is established and able to accommodate grazing. At such time, the Certificate Holders will be responsible for removal of the fences.

14.5.6 Remediation and Monitoring of Agricultural Lands

The Certificate Holders will provide for a monitoring and remediation period of 2 years after the completion of the initial restoration (CC78). 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 need mitigation and to implement the follow-up restoration (BMP Document, 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, NYSDAM, and if needed and referred by NYSDAM, the County Soil and Water Conservation Districts (BMP Document Section 20.7).

Topsoil deficiency will be mitigated with topsoil brought in from off-site that is consistent with the quality of topsoil on the affected site. Excessive amounts of rock and oversized stone material will be determined by a visual inspection of the right-of-way and periodic probes of the trench area. Results will be compared to other portions of the same field. All excess rocks and large stones will be removed and disposed of by the Certificate Holders (BMP Document Section 20.7).

On-site monitoring will include a comparison of growth and yield for crops on and off 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 duration by the Agricultural Inspector (BMP Document Section 20.7).

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