Environmental Management and Construction Plan (EM&CP)

Harlem River Marine Segment Bulkhead Penetration and Tie-In ("Segment 20A")

Case Number 10-T-0139

City of New York, Borough of the Bronx, Bronx County, New York

City of New York, Borough of Manhattan, New York County, New York

Champlain Hudson Power Express

TRC Project Number: 490523.0007.0000

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ACRONYM AND ABBREVIATION LIST

2012 BMP	Best Management Practices document dated February 10th, 2012
ACHP	Advisory Council on Historic Preservation
ADZ	Allowed Deviation Zone
Application	Application for a Certificate of Environmental Compatibility and Public Need
BMPs	Best Management Practices
CC	Certificate Condition
Certificate	Certificate of Environmental Compatibility and Public Need
Certificate Holders	CHPE, LLC and CHPE Properties, Inc.
Certificate Order	Order granting the Certificate of Environmental Compatibility and Public Need
CHPE	Champlain Hudson Power Express or CHPE, LLC and CHPE Properties, Inc.
CHPE Project	Champlain Hudson Power Express Project
CI	Co-Located Infrastructure
CNY	City of New York
Commission	New York State Public Service Commission
CRMP	Cultural Resources Management Plan
DOE	United States Department of Energy
DPS	New York State Department of Public Service
ECM	Environmental Compliance Manager
EHS	Environmental Health and Safety
EI	Environmental Inspector
EM&CP	Environmental Management and Construction Plan
EM&CP Guidelines	Guidelines for Environmental Management and Construction Plan(s)
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
HDD	Horizontal directional drilling or drill
HDPE	High-density polyethylene
HVAC	High voltage alternating current
HVDC	High voltage direct current
LNM	Local Notice to Mariners
MPT	Maintenance and protection of traffic
MW	Megawatt
NKT	NKT Inc.
NMFS	National Marine Fisheries Service
NYCRR	New York Codes, Rules and Regulations
NYISO	New York Independent System Operator
NYNHP	New York Natural Heritage Program
NYPA	New York Power Authority
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health

NYSDOT	New York State Department of Transportation
OGS	Office of General Services
OPRHP	New York State Office of Parks, Recreation, and Historic Preservation
OSRO	Oil Spill Removal Organization
PSC	New York State Public Service Commission
PSL	New York Public Service Law
PWS	Public Water Systems or Public Water Supply
ROW	Right of way
SCRMP	Supplemental Cultural Resources Management Plan
SDS	Safety data sheets
SHPO	State Historic Preservation Office
SOE	Support of excavation
SOPEP	Shipboard Oil Pollution Emergency Plan
SPCC	Spill Prevention, Control, and Countermeasure Plan
SPDES	State Pollution Discharge Elimination System
SS	Site Superintendent
SSHASP	Site Specific Health and Safety Plan
SWPPP	Stormwater Pollution Prevention Plan
TOY	Time of Year
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
WQC	Water Quality Certification

1.0 Introduction

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 the US/Canadian Border to Queens, New York (the "CHPE Project" or "Project"). It will bring 1,250 megawatts (MW) of renewable energy into New York by Spring 2026 to replace the use of fossil fuels and reduce carbon emissions. The 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. The CHPE Project includes two, five-inch diameter cables to be installed underwater or underground along the approximately 339-mile-long route, with aboveground facilities to include a voltage source converter station located in Astoria, Queens, New York.

The CHPE Project began the permitting process on March 30, 2010, when 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 or Commission) pursuant to Article VII of the New York Public Service Law (PSL) to construct and operate the electric transmission facility known as the Champlain Hudson Power Express Project (PSC Case 10-T-0139).

An Order granting the Certificate of Environmental Compatibility and Public Need (Certificate Order) was issued by the Commission on April 18, 2013 (the "Certificate"). In August 2020, Champlain Hudson Power Express, Inc. converted from a corporation to a limited liability company and received the PSC's approval to transfer its interest in the Certificate to CHPE, LLC and CHPE Properties, Inc. (collectively "CHPE" and "Certificate Holders"). The Certificate was amended on March 20, 2020, August 13, 2020, September 21, 2020, January 26, 2021, May 14, 2021, February 17, 2022, March 16, 2022, December 15, 2022, October 13, 2023 and April 18, 2024[1] to reflect revisions in the alignment and other Certificate Conditions (CC). The Article VII review and certification process included the development of numerous documents which identified natural resources within the CHPE Project area and outlined best management practices (BMPs) to minimize impacts to those natural resources which might otherwise result from the construction or operation of the CHPE Project.

1.1 Purpose and Intent

This Environmental Management and Construction Plan (EM&CP) covers what is referred to as "Segment 20A" of the CHPE Project, which describes the installation of conduits via bulkhead penetration and duct bank construction at the interface of the Harlem River and on the northern shore of the Harlem River. Construction activities will take place in the Harlem River and on property owned by the New York State Department of Transportation (NYSDOT), which is leased to private owners, in the Port Morris neighborhood of the Borough of the Bronx, Bronx County,

[1] An additional amendment, filed February 9, 2024 ("Navigation Amendment"), was pending as of the time of this submission.

New York. This parcel is part of an Industrial Area with a large food distribution warehouse, trash incinerator, and train storage area. As such, there are no residences in close proximity to the construction described in this EM&CP. The bulkhead penetration and duct bank conduits will be constructed in preparation for later installation and landfall of the submarine cable. This cable landfall location will serve as the transition between submarine cable (Segment 20B) to overland cable (Segment 13).

This EM&CP has been developed to provide the plans and specifications for environmental protections and construction of Segment 20A that demonstrate compliance with applicable laws and regulations, including the Certificate. The EM&CP provides appropriate maps, illustrations, and text associated with bulkhead penetration and duct bank tie-in construction activities. Submission of this EM&CP does not serve as an opportunity to relitigate the Project approval, routing, Certificate or general installation methods, as applicable permits authorizing construction and operation of the Project have previously been obtained.

1.2 Distribution and Notification of the Filing of this EM&CP

Appendix 1-A, EM&CP Filing Notices, includes copies of the notices circulated to various stakeholders via mail, electronically, or through publication in local newspapers serving the areas where the EM&CP Segment 20A work areas are located, in accordance with the Certificate. Proofs of service outlining in detail the distribution of this EM&CP in hard copy and/or electronic file formats, in addition to affidavits of service and publication for notices, will be provided under separate cover as soon as they become available.

1.3 EM&CP Segmentation and Filing Schedule

Certificate Condition 6 permits the Certificate Holders to develop the CHPE Project facilities in segments to facilitate construction sequencing and scheduling. Each segment, or grouping of segments, may be the subject of an EM&CP filed with the Commission for review and approval independent of other EM&CPs. Within the EM&CP for the first segment, submitted April 15, 2022, the Certificate Holders identified the anticipated segmentation of the Project and included a schedule for their construction. Subsequent EM&CPs have included updates to the segment identification and construction schedule provided in the first segment EM&CP. Table 1.1 contains an updated version of the Certificate Holders' current segmentation of the CHPE Project including an anticipated schedule with respect to EM&CP submission, EM&CP approval, and construction commencement. On October 13, 2022, the Commission approved the first CHPE EM&CP for Segments 1 and 2 of Project construction; subsequent approvals have been issued since that time, as outlined in the below table.

This document, the Harlem River Marine Segment Bulkhead Penetration and Tie-In EM&CP (Segment 20A), is the seventh of eight planned marine EM&CPs (see Table 1.1) that will be submitted to the Commission related to the preparation for and installation of submarine cables required for the marine segments of the CHPE Facility. This Segment will link the submarine cable in the Harlem River with the overland cable beginning in the Bronx. The installation and protection of the HVDC cables in the Harlem River will be covered in CHPE's forthcoming "Segment 20B"

EM&CP. A previous EM&CP “Segment 13, 14, and 15,” approved by the Commission on October 13, 2023, detailed the installation of the overland HVDC cables from the Bronx to Astoria, Queens.

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

EM&CP Segment	Design Packages	Location Description	Approximate Segment Length (miles)	Anticipated *(Actual)* EM&CP Submittal	PSC Approval of EM&CP	Anticipated Construction Commencement
OVERLAND SEGMENTS (UPSTATE)						
1, 2	Packages 1A & 1B	Putnam to Dresden/Dresden to Whitehall	17.6	*4/15/2022*	10/13/2022	12/2022
3	Packages 1C & 2	Whitehall to Fort Ann/Fort Ann to Kingsbury	20.8	*12/23/2022*	5/18/2023	6/2023
4, 5	Package 3	Kingsbury to Milton	26.5	*4/24/2023*	8/18/2023	10/2023
6	Package 4A	Milton to Ballston	10.2	*8/4/2023*	9/14/2023	9/2023
7	Package 4B	Ballston to Schenectady/Rotterdam	9.6	*8/4/2023*	9/14/2023	9/2023
8	Package 5A	Rotterdam to Selkirk	16.99	*12/21/2022*	6/26/2023	9/2023
9	Package 5B	Selkirk Bypass	5.31	*12/21/2022*	6/26/2023	1/2024
10	Package 6	Ravena to Catskill	20.9	*9/29/2023*	12/18/23	1/2024
11	Package 7A	Catskill to Germantown	8.6	*3/30/2023*	8/18/2023	1/2024
12	Package 7B	Stony Point to Haverstraw/Clarkstown	7.6	*4/28/2023*	8/18/2023	5/2024
13, 14, 15	Package 8	Bronx to Queens	2.13	*8/11/2023*	10/12/2023	1/2024
Laydown Yards	3, 5B, 6	Fort Edward, Bethlehem, Coxsackie	N/A	*11/11/2022*	2/21/2023	3/2023
MARINE SEGMENTS						
16	Package 9	Transitional HDD (Stony Point)	N/A	*9/29/2022*	3/20/2023	6/2023
17	Package 10	3 Transitional HDDs (Putnam, Catskill, Clarkstown)	N/A	*12/14/2022*	4/20/2023	6/2023
18A	Package 11A	Lake Champlain (Pre-Lay Mattressing)	96	*4/4/2023*	7/20/2023	4/2024
18B	Package 11B	Lake Champlain (Cable Installation)	96	*1/26/2024*	4/18/2024	5/2024
19A	Package 12A	Hudson River (Pre-Lay Mattressing)	89.1	*8/4/2023*	10/12/2023	3/2024
19B	Package 12B	Hudson River (Cable Installation)	89.1	*4/8/2024*	06/20/2024	2024
20A	Package 13A	Harlem River (Bulkhead Penetration and Tie-In)	N/A	6/2024	TBD	2024
20B	Package 13B	Harlem River (Pre-Lay Mattressing and Cable Installation)	~6.3	TBD	TBD	2025

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

EM&CP Segment	Design Packages	Location Description	Approximate Segment Length (miles)	Anticipated *(Actual)* EM&CP Submittal	PSC Approval of EM&CP	Anticipated Construction Commencement
OVERLAND SEGMENTS (NEW YORK CITY)						
21	N/A	Astoria Annex/AC Interconnection	0.3	11/2024	TBD	4/2025
22	TBD	Converter Station, Astoria Complex (Queens)	N/A	*1/31/2023*	5/18/2023	6/2023
23	16	Astoria Rainey Cable High Voltage Alternating Current (HVAC) System (Queens)	~3.5	2/2024	4/18/2024	6/2024

1.4 Applicable Permits

Of all permits applicable to the CHPE Project, the following permits contain conditions relevant and/or applicable to bulkhead penetration and duct bank tie-in construction:

- Presidential Permit No. PP-481-3, United States Department of Energy.
- Order Granting Certificate of Environmental Compatibility and Public Need, PSC (issued in Case 10-T-0139).
- Water Quality Certification (WQC), PSC (issued in Case 10-T-0139).
- Permit NAN-2009-01089-M10, US Army Corps of Engineers (USACE) New York District.

This EM&CP has been developed in accordance with the conditions adopted in the PSC's Certificate Order. Certificate Conditions approved in the Joint Proposal were attached to the Certificate Order as Appendix C and are presented as currently amended in Appendix 1-B to this EM&CP. Certificate Conditions relate to, among other things, the preparation, content, filing, and review of an EM&CP; public health and safety; the handling of complaints; CHPE Project construction, operation, maintenance, and restoration; and environmental supervision.

This EM&CP has also been developed in accordance with the guidance document provided as Appendix E to the Joint Proposal titled Guidelines for Environmental Management and Construction Plan(s) (EM&CP Guidelines) and the document titled Best Management Practices dated February 10, 2012 (2012 BMP Document). Plan and Profile Drawings are provided in this EM&CP as Attachment 2 to Appendix 4-A and have been developed in accordance with Section A of the EM&CP Guidelines. This EM&CP narrative includes the information required in Section B of the EM&CP Guidelines.

1.5 Outreach and Stakeholder Consultations

The Certificate Holders have mobilized stakeholder involvement and consultations for over a decade since the beginning of the Project. Stakeholder considerations have been integrated into the design, siting, and development of the Project, and will continue to be assessed and implemented throughout the construction phase.

In this EM&CP, the following documents provide documentation of stakeholder consultation completed or provide procedures for future consultation:

- Appendix 1-A, EM&CP Filing Notices
- Appendix 1-C, Agency and Stakeholder Consultations
- Appendix 1-D, Public Involvement Plan and Complaint Resolution Plan

- Appendix 5-A, Compliance Assurance Plan

Appendix 1-D, Public Involvement Plan and Complaint Resolution Plan outlines outreach to be completed during the construction process. This plan will complement previous and ongoing outreach efforts by the Certificate Holders and includes a detailed community outreach schedule that continues throughout the progress of the Project. Since this EM&CP geographically overlaps with Segment 13, outreach already conducted and related to that EM&CP also covers this EM&CP.

2.0 EM&CP Segment 20A Overview

The following sections provide an overview of material provided in this Segment 20A EM&CP. Material not provided in this Segment 20A EM&CP, such as activities covered under previous or future EM&CP segments, are outlined for context.

2.1 Activities Covered in this EM&CP

As described in Section 1.1 above, this EM&CP Segment 20A describes the installation of conduits via bulkhead penetration and duct bank construction at the northern shore of the Harlem River. Construction activities will take place in an industrial area in the Port Morris neighborhood of the Borough of the Bronx, Bronx County, New York, with in-water support from the Harlem River. The bulkhead penetration and duct bank conduits will be constructed in preparation for later installation and landfall of the submarine cable. This cable landfall location will serve as the transition between submarine cable to overland cable.

Activities covered by this EM&CP Segment 20A include the following:

- Bulkhead penetration, including use of a temporary cofferdam, installation of high-density polyethylene (HDPE) conduits, and on-water support from the Harlem River (Refer to Section 4.5.1);
- Tie-in of HDPE conduits to the transition vault (Refer to Section 4.5.2); and
- HDPE conduit proving / cleaning (Refer to Section 4.5.3).

2.2 Activities Covered in Previous or Future EM&CPs

As described above in Section 1.3, multiple EM&CPs have been submitted for the CHPE Project. Construction activities approved in previous EM&CPs will not be discussed in this EM&CP Segment 20A. Descriptions of the relevant and related EM&CPs are described below for context.

2.2.1 Overland Cable Installation – EM&CP Segment 13, 14, and 15

Terrestrial EM&CP Segment 13, 14, and 15 describes the installation of overland HVDC cables between Transition Vault 5 in the Bronx, New York and the Astoria Converter Station in Queens, New York. Construction of Transition Vault 5, which serves as the termination for the HDPE conduits proposed in EM&CP Segment 20A, is covered by this EM&CP Segment 13, 14, and 15. The transition vault will be constructed prior to bulkhead penetration and tie-in activities.

As such, activities related to overland construction at and beyond Transition Vault 5 are not described in this EM&CP Segment 20A. This EM&CP Segment was approved by the Commission on October 12, 2023, and construction is currently underway.

2.2.2 Submarine Cable Installation in the Harlem River – EM&CP Segment 20B

EM&CP Segment 20B shall detail the installation of submarine HVDC cables in the Harlem River. This shall include pulling of the cables through the HDPE conduits, which will be constructed under EM&CP Segment 20A, to Transition Vault 5. Installation of cables in the Harlem River and pulling of the cables through the HDPE conduits to the transition vault will be completed following bulkhead penetration and tie-in activities.

As such, activities related to submarine cable installation in the Harlem River are not described in this EM&CP Segment 20A. EM&CP Segment 20B will be submitted to the Commission at a later date.

2.3 Non-EM&CP Activities

Several activities related to the bulkhead penetration and tie-in are not required to be approved under an EM&CP and thus are not addressed herein. These activities include, but are not limited to:

- The manufacture/assembly of installation barges and/or supporting equipment;
- Mobilization and demobilization of vessels and their equipment.

As such, these activities are not described in this EM&CP Segment 20A.

2.4 Anticipated Schedule

Certain construction activities covered by the Segment 20A EM&CP are subject to work windows and time of year (TOY) restrictions as provided by the Order, WQC, and applicable federal permits. In accordance with the USACE permit, in-water work in the Harlem River shall not be conducted from January 15th through May 31st. In accordance with the WQC and the Order, underwater construction in the Harlem River shall not be conducted from December 1st to May 14th; though under the State approvals "underwater construction" does not include mobilization and demobilization of vessels and equipment, cofferdam and steel casing rise pipe construction, nor excavation of cofferdams (provided that the walls of the cofferdam extend above mean high water during excavation), which may be undertaken at any time.

Activities covered in this Segment 20A EM&CP are currently expected to be completed in 2024. Construction activities will span approximately three months. Construction activities, including in-water support, are anticipated to begin in August 2024 and be completed in November 2024.

Refer to Section 4.2 for additional details regarding anticipated schedule, including information on daily work hours.

This Segment will require that CHPE have the ability to work on Sundays and State/Federal during the construction period, given there are multiple seasonal time-of-year restrictions which require

this work be completed on a compressed schedule. This may include, but is not limited to, the following State and Federal holidays:

- Monday, September 2nd, Labor Day
- Monday, October 14th, Columbus Day
- Tuesday, November 5th, Election Day
- Monday, November 11th, Veterans Day
- Thursday, November 28th, Thanksgiving

Operations on holidays and Sundays are necessary to avoid impacts to other businesses on this parcel and ensure timely completion of the Project within the regulatory work windows. Where possible, steps will be taken to minimize impacts from work during these periods to the maximum extent practicable. Importantly, this work will be conducted within an industrial area of the Bronx where numerous other noise-generating activities routinely occur and, as such, work under this EM&CP will not be substantially different from existing activities (see discussion in Section 7.6 below on noise). However, timely completion of this Segment, especially given other seasonal time restrictions, is critical to ensuring the reliability of the New York State electric grid and necessitates allowing work on this Segment as requested.

An after-hours work authorization under Section 24-223 of the CNY City Administrative Code will be requested from CNY authorities as required for work on Saturdays and Sundays.

2.5 Notification and Reporting

Several CCs impose timing requirements for Project notifications and reports. The below table summarizes these CCs based on whether the notification is required before, during, or after construction, or at any point during those periods. Not all notices are required, and some notices may be required after the entire Project has been constructed. Refer to Section 4.1 for information regarding communications prior to commencement of the bulkhead penetration and tie-in phases of construction.

Table 2.1 – Reporting and Notification Requirements and Schedule

Description	Submitted to	Approximate Due Date
BEFORE OR CONCURRENT WITH EM&CP FILING		
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.	Relevant jurisdictional agencies.	Upon filing the applicable Segment EM&CP.
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	Relevant parties specified in CC 152.	Upon filing the applicable Segment EM&CP.

Description	Submitted to	Approximate Due Date
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.		
The Certificate Holders will provide 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 horizontal directional drill (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.	Relevant parties specified in CC 154.	Upon filing the applicable Segment EM&CP, if any.
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 easement holders as specified in CC 143 upon filing the applicable segment EM&CP.	Relevant parties specified in CC 143.	Upon filing the applicable Segment EM&CP, if any.
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.	Owners and operators of all co-located infrastructure.	At least 180 days prior to the filing of the Segment EM&CP.
The Certificate Holders will provide written notice and newspaper notices of the filing of the applicable Segment EM&CP. (CC 152). The notice will contain the information outlined in CC 155a.	Local media within the vicinity of the segments to which the segment EM&CP relates.	Concurrent with the filing of the applicable Segment EM&CP.
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 right-of-way (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.	Chief executive officer of each affected municipality. Residences, Businesses, and Building/structure/ facility owners/ operators.	Concurrent with the filing of the Segment EM&CP.

Description	Submitted to	Approximate Due Date
A certificate of service indicating upon whom all EM&CP notices and documents were served and a copy of the written notice will be filed by the Certificate Holders (CC 155b).	Secretary to the Commission.	Following each applicable Segment EM&CP filing.
BEFORE CONSTRUCTION		
All necessary permits and consents referred to in CC 16 that pertain to Segment 10 (CC 9).	Secretary to the Commission	Before commencing site preparation and any construction activities.
The Certificate Holders shall not commence work on any Segment until they shall have obtained all required interests in real estate, including interests in real estate to be used for access roads (whether obtained through a conveyance, consent, permit, or other approval) as are necessary and applicable for such Segment. Evidence of the obtaining of such interests shall be provided to the Secretary prior to commencement of the work. (CC 10)	Secretary to the Commission	Before commencement of construction.
The Certificate Holders will inform the Secretary and the New York State Department of Environmental Conservation (NYSDEC) at least five days before commencing site preparation for the Project. (CC 46).	Secretary to the Commission and NYSDEC.	At least 5 days before commencing site preparation.
The Certificate Holders will consult with each transportation department or agency having jurisdiction over any roads, related structures, and components that will be crossed by the Facility or used for direct access to the Construction Zone. If the access road takes direct access from, or lies within the limits of, such roads, the Certificate Holders will notify each relevant transportation department or agency of the approximate date when work will begin (CC 69a).	Transportation Department or Agency crossed by project.	When work begins.
The names and qualifications of the Environmental Inspector and Construction Inspector will be submitted to New York State Department of Public Service (DPS) Staff and NYSDEC (CC 53g).	DPS Staff and NYSDEC.	At least 2 weeks prior to the start of construction.
The Certificate Holders shall confine construction to the Construction Zone and approved additional work areas as detailed in the approved EM&CP. A detailed construction schedule and location timeline shall be provided to DPS Staff prior to construction (CC 59).	DPS Staff	Prior to construction.
The Certificate Holders will keep required parties apprised of on-site chemicals and waste stored within one hundred (100) feet of their Co-Located Infrastructure (CI) or service area. In the case of CI located within the City of New York (CNY), the Certificate Holders will advise CI owners and operators of on-site chemicals and waste stored within 300 feet of such facilities. (CC 34).	Local Fire Departments, Emergency Management Teams, Owners and Operators of Co-	Prior to storage of chemicals.

Description	Submitted to	Approximate Due Date
	Located Infrastructure.	
The Certificate Holders will provide notice to local officials and emergency personnel in the area where they will be working on the Project. The notice will meet the conditions outlined in CC 42.	Local officials and Emergency Personnel.	Two weeks prior to the commencement of site preparation in area of applicable jurisdiction.
The Certificate Holders will provide notice to local media for dissemination and display in public places (such as general stores, post offices, community centers, etc.). The notice will meet the conditions outlined in CC 42.	Media for public display.	Two weeks prior to the commencement of site preparation in area of applicable jurisdiction.
The Certificate Holders will notify the adjacent landowners and their tenants of construction work within 100 feet of their property at least two 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 CC 42. (CC 33, 42).	Adjacent landowners & Tenants with copies to DPS Staff, if applicable.	Two weeks prior to commencement of site preparation in area of landowner or tenant, if any.
DURING CONSTRUCTION		
The Certificate Holders will make available to the public a toll-free or local phone number of an agent or employee who will receive complaints, if any, during the construction of the Project. In addition, the phone number of the Secretary and the phone number of the Commission's Environmental Compliance Section will be provided. A log will be maintained that lists at least the date of any complaint, identity and contact information for the complaining party, the date of the Certificate Holders' response, and a description of the outcome. Phone logs will be made available to DPS Staff upon request. The Certificate Holders will report to DPS Staff every complaint that cannot be resolved after reasonable attempts to do so. Any such report will be made within three business days after receipt of the complaint (CC 41).	DPS Staff as needed.	Upon commencement of construction. See Appendix 1-D Public Involvement Plan and Complaint Resolution Plan.
The Certificate Holders will provide status reports summarizing construction and indicating construction activities and locations scheduled for the next month (CC 47).	DPS Staff, NYSDOT, and NYSDEC.	Bi-weekly.
Should archaeological materials be encountered during construction, the Certificate Holders will notify and seek to consult with to determine the best course of action (CC 11).	DPS Staff and New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) Field Services Bureau.	Within 24-hours of discovery.

Description	Submitted to	Approximate Due Date
The Certificate Holders will promptly notify if a New York State listed species of special concern is observed to be present in the Project Area (CC 51).	DPS Staff and NYSDEC.	As soon as possible upon discovery.
The Certificate Holders will promptly notify if any threatened or endangered wildlife species under 6 New York Codes, Rules and Regulations (NYCRR) Part 182 ("TE species") or any rare, threatened, or endangered plant species under 6 NYCRR 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 (CC 52).	DPS Staff, NYDEC, United States Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS).	As soon as possible upon discovery.
Immediate notification of any petroleum product spills (CC 35).	DPS, NYSDEC, owners and operators of any CI within 100 feet (or 300 feet in CNY).	Immediately upon discovery of a spill of petroleum products.
POST-CONSTRUCTION		
Notification that all restoration has been completed in compliance with this Certificate and the Order(s) approving the EM&CP (CC 48).	Secretary of the Commission.	Within 10 days of the completion of final restoration activities.
Following final completion of construction of a particular Segment, the Certificate Holders shall prepare and provide to the DPS the as-built design drawings, which shall include a detailed map or maps containing all of the information specified in CC 139.	DPS	Within 90 days following the completion of construction.
The Certificate Holders shall provide a copy of their emergency procedures and contacts. If modifications are made an updated copy will be provided (CC 136).	Bulk Electric System Section of DPS Staff, Con Edison, and New York Power Authority (NYPA)	Upon commencement of operation.
The Certificate Holders shall notify NYSDOT, NYSDEC, and the Secretary to the Commission of the date of commencement of commercial operation (CC 50).	NYSDOT, NYSDEC, and the Secretary to the Commission.	No later than three days after commercial operation.
The Certificate Holders will promptly provide to DPS Staff, NYPA, and Con Edison copies of all notices, filings, and other substantive written communications with the New York Independent System Operator (NYISO) as to such	DPS Staff, NYPA, Con Edison.	Within 5 business days of any failure of equipment causing a reduction of more than 10 percent in the

Description	Submitted to	Approximate Due Date
reduction, any plans for making repairs to remedy the reduction, and a proposed schedule for any such repairs.		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.
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 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 9 months and 2 weeks after equipment failure.
The Certificate Holders will report any failure of the Project's cables. The report will contain the information specified in CC 135.	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 (CC 136).	Bulk Electric System Section of DPS Staff, Con Edison, and NYPA	Upon commencement of operation.
The Certificate Holders will notify DPS Staff of any system trips incidents.	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 (CC 134).	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 CC 134. The Certificate Holders will work cooperatively with Con Edison, NYPA, NYISO, NPCC, NYSRC, NERC, and DPS Staff to prevent any future occurrences (CC 134).	Call Bulk Electric System Section of DPS Staff. Submit report to Bulk Electric System Section of DPS Staff, Con Edison, and NYPA	Call within 6 hours of any incident. Submission of report within seven days of the incident.
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	OGS	Within 60 days of completing construction.

Description	Submitted to	Approximate Due Date
submerged portions of the HVDC Transmission System in conformance with the requirements of the OGS Bureau and 9 NYCRR Part 271. Within 60 days of that consultation, the Certificate Holders shall provide to the OGS as-built information and mapping complying with its specifications (including shapefile information compatible with ArcView® GIS software) and shall file with the Secretary copies of the as-built information and mapping and proof of filing with the OGS (CC 49)		
ANY PERIOD DURING PROJECT (PRIOR TO CONSTRUCTION, DURING CONSTRUCTION, POST-CONSTRUCTION)		
The Certificate Holders will provide copies of all necessary permits from applicable state agencies for the delivery of oversized construction materials and equipment (CC 40).	Secretary to the Commission	As needed.
The Certificate Holders shall make modifications to the Project if it is found by the NYISO or the Commission to cause reliability problems to the New York State Transmission System. If NYPA, Con Edison, or the NYISO bring concerns to the Commission, the Certificate Holders shall be obligated to respond to those concerns. The Certificate Holders shall prepare a report within 45 days of notification by DPS Staff that DPS Staff has determined that a reliability problem exists (CC 131).	DPS Staff	As needed within 45 days of notification by DPS Staff.
The Certificate Holders will report any theft of materials related to the Facility with a value in excess of $10,000 to the DPS Representative. The notice will contain the information specified in CC 137.	DPS Staff	As needed within 1 business day of the time when the theft comes to the attention of the Certificate Holders.
All proposed modifications to any of the Segment EM&CPs and subsequent notices and filings will follow applicable procedures.	DPS Staff	As needed.
The Certificate Holders will notify the owners or operators of co-located infrastructure that is impacted by the Project or has the potential to be impacted by the Project of any situation involving imminent risk to health, safety, property, or the environment that requires the Certificate Holders to cross any infrastructure or to use any associated property to address the emergency (CC 28g).	Owners and Operators of co-located infrastructure.	In the event of the emergency
The Certificate Holders will advise the owners or operators of co-located infrastructure of all construction activities that take place within the vicinity of co-located infrastructure. The vicinity will be defined as described in CC 28e.	Owners and Operators of co-located infrastructure.	At least 30 days prior to commencing any construction activities

Description	Submitted to	Approximate Due Date
The Certificate Holders will notify the owners or operators of co-located infrastructure if any damage to or adverse effects to the co-located infrastructure resulting from any studies, surveys, testing, sampling, preliminary engineering, pre-construction activities, and construction (CC 28f).	Owners and Operators of co-located infrastructure.	Immediately upon knowledge or discovery of damage.
The Certificate Holders shall coordinate with NYPA and Con Edison system planning and system protection engineers to evaluate the characteristics of the transmission system before purchasing any system protection and control equipment related to the electrical interconnection of the Project to NYPA's and Con Edison's transmission facilities. This discussion is designed to ensure that the equipment purchased will be able to withstand most system abnormalities (CC 128).	NYPA and Con Edison system planning and system protection engineers.	Before purchasing any system protection and control equipment related to the electrical interconnection of the Project to NYPA's and Con Edison's transmission facilities
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 the NYPA's or Con Edison's transmission system, as applicable, and provide the opportunity for Staff to attend those meetings. The Certificate Holders shall provide a copy of the testing protocol to Staff of the Bulk Electric Systems Section of DPS (CC 130).	NYISO, Con Edison, NYPA, DPS Staff, Bulk Electric Systems Section of DPS	During the testing and energizing phase of the Project.

3.0 Facility Location and Description

The following sections provide a description of the permanent facilities to be installed associated with the Segment 20A EM&CP.

3.1 Certificated Route

A Certificated Route for cable landfall at the shore of the Harlem River, with an Allowed Deviation Zone (ADZ) set forth in CC 3 and CC 156, was approved by the PSC Order in April 2013. This route was subsequently modified in January 2021, as amended by Certificate Amendment 3. Based on further design considerations and at the request of the landowner, the current route proposed to be installed varies from the Certificated Route centerline; however, the current route does not deviate beyond the bounds of the ADZ, and therefore does not necessitate further approval of a route deviation in this EM&CP. The route to be installed is discussed below in Section 3.2.

3.2 Route to be Installed

The route proposed for installation is shown in the Plan and Profile Drawings in Attachment 2 to Appendix 4-A, with an overview of the Project Area provided in Figure 1 below. Conduits will be installed at the shore of the Harlem River, traversing north and east to Transition Vault 5. All permanent infrastructure will be located on a single parcel owned by NYSDOT, currently utilized by Waste Management, Inc. as a transfer facility. Temporary infrastructure will be located on both the aforementioned parcel and in the Harlem River.

3.2.1 Permanent Facilities

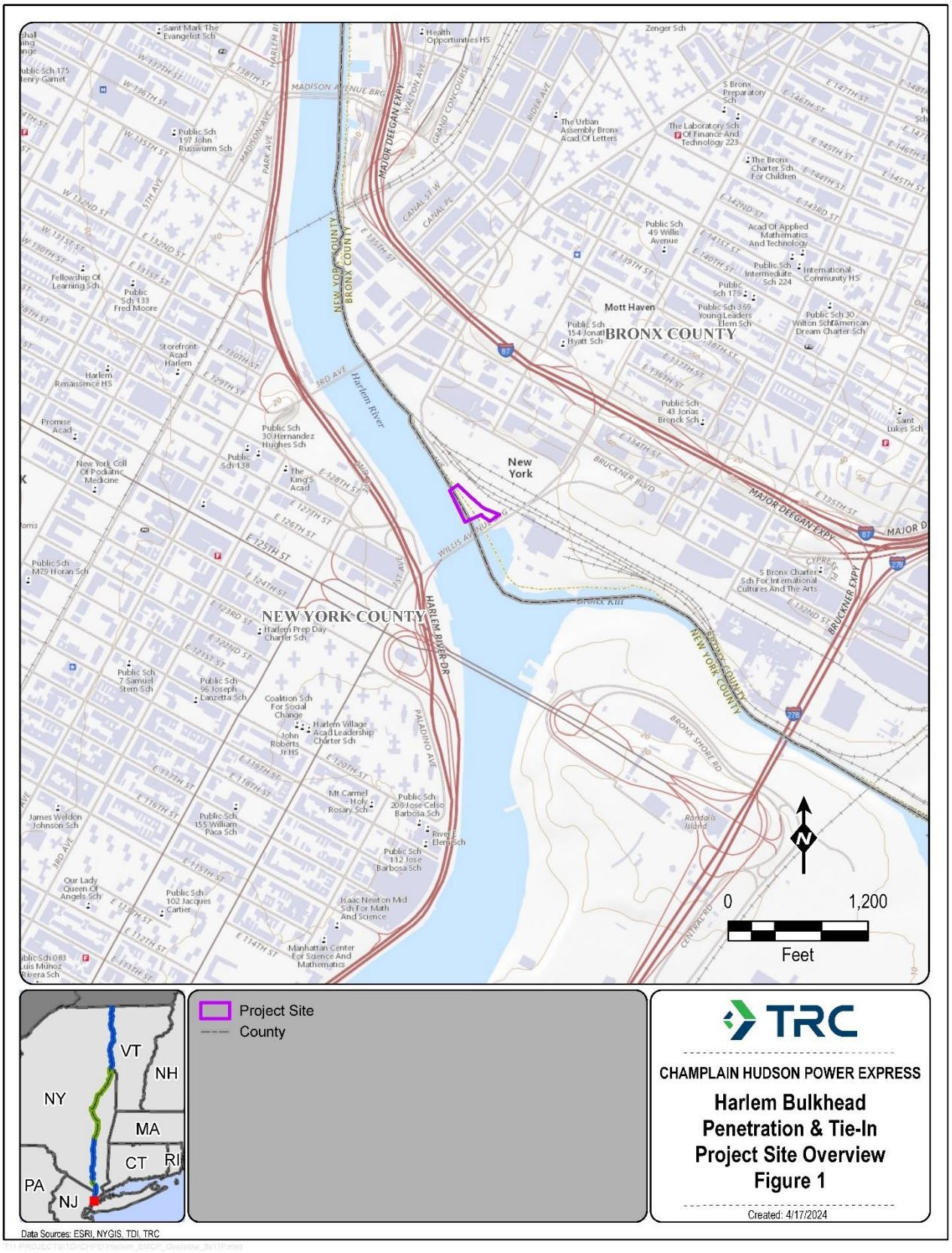
Permanent facilities associated with Segment 20A consist of two, 12-inch diameter high-density polyethylene (HDPE) conduits and associated infrastructure.

3.2.2 Property Rights

All permanent infrastructure and most temporary infrastructure will be located on a single parcel owned by NYSDOT and subleased to various private parties. The Certificate Holders have secured property rights necessary to construct the Facility.

The Certificate Holders have obtained a construction permit from the New York State Office of General Services (OGS), which enables work to be completed in the Harlem River. Once work is completed, the Certificate Holders will obtain a permanent easement from the OGS.

Figure 1. Project Area Overview.



3.2.3 Co-Located Infrastructure

CC 27 defines CI as “electric, gas, telecommunication, water, wastewater, sewer, and steam infrastructure and appurtenant facilities and associated equipment, whether above ground, below ground, or submerged.” The route has been altered where feasible to avoid known CI assets.

3.2.3.1 Survey of Co-Located Infrastructure

In accordance with CC 148, the Certificate Holders have performed surveys to identify CI assets along the proposed cable route and have initiated communication with these CI owners. Two local site stormwater drains and low voltage lighting power supply, owned by the site owners and/or lessees, are located within the limits of disturbance for the Segment 20A construction. Beyond these two local site utilities, no CI assets are known to be located within the limits of disturbance for Segment 20A.

3.2.3.2 Protection of Co-Located Infrastructure

As described in Section 3.2.3.1 above, no CI are known to be located within the Segment 20A Project Area. Crossing or work near local site utilities will be completed consistent with site-specific design measures. Refer to the Plan and Profile Drawings in Appendix 4-A (Attachment 2) for crossing design.

The Certificate Holders will register Project activities with “UDig NY,” and the construction Contractor will coordinate with “UDig NY” for locating underground utilities prior to any underground construction work. The Certificate Holders or their construction Contractor will coordinate with any utility owner(s) prior to any construction work. The Certificate Holders will comply with procedures identified by the CI owners and representatives including but not limited to obtaining relevant rights and permissions where applicable.

4.0 Construction Activities

The following sections describe activities to be performed during construction, including bulkhead penetration, installation of the associated HDPE conduits, and tie-in to the Transition Vault. Refer to Appendix 4-A (Methodology Statement for Bulkhead Penetration and Transition Vault Tie-In) for additional information on construction methodology.

4.1 Communications and Notifications

Specific points of contact have been established for stakeholders and affected parties including, but not limited to:

- Private landowners;
- Mariners;
- Private companies; and,
- the City of New York and the Bronx Borough.

Electronic notification will be made to designated contacts before construction, on a schedule to be provided to stakeholders or as otherwise individually agreed with certain parties. For additional information regarding public communications, please see Appendix 1-D (Public Involvement Plan and Complaint Resolution Plan).

Local Notices to Mariners (LNM) will be submitted to the United States Coast Guard (USCG) for issuance a minimum of 30 days prior to the start of the marine field operations. Daily work location, minimum passing clearance request and other relevant information will be broadcast via marine VHF radio when required by the USCG. Courtesy notifications will be provided to emergency services and law enforcement that are local to project operational sites (if any).

The Certificate Holders shall inform the Secretary and NYSDEC at least five (5) days before commencing site preparation, in accordance with CC 46.

4.2 Schedule

As stated in Section 2.4 above, construction activities are anticipated to start in August 2024 and span three months, concluding in November 2024. Work hours shall be between 7am and 6pm, seven days a week. Extended work hour requests will be submitted and approved prior to working beyond allowable work hours. An after-hours work authorization under Section 24-223 of the CNY City Administrative Code may be requested from CNY authorities as required and in accordance with CC 31 for work outside of the City's allowable hours. These hours may be modified and adjusted in coordination with Waste Management, Inc. requirements. As described in Section 2.4 above, construction may take place on State or Federal holidays including Labor Day, Columbus Day, Election Day, Veterans Day, and Thanksgiving.

4.3 Temporary Facilities

To facilitate construction activities, temporary facilities will be utilized as described below.

4.3.1 Material and Equipment Staging

The Harlem River Yard site is currently occupied by Waste Management, Inc. under a lease with the NYSDOT. The area of the bulkhead penetration and duct bank tie-in is an unoccupied area of the property, allowing for the setup of a temporary area for work. A temporary fencing area of approximately 150' x 100' will be established around the proposed excavation area. Equipment such as excavators, cranes, loader, generators, tool containers, and temporary offices will be mobilized to the site to install and excavate the trench. A dewatering filtration system will be installed on-site, if required. Stockpile areas will be installed for temporary storage of excavated materials. Refer to Attachment 1 of Appendix 4-A for an overview of the site, including material equipment staging locations.

The Caldwell Marine International Yard located in Staten Island, NY, will be used as an operational base. Equipment will be mobilized to this location in the early phases of the CHPE Project.

Refer to Appendix 4-A (Methodology Statement for Bulkhead Penetration and Transition Vault Tie-In) for additional detail regarding material and equipment staging.

4.3.2 Construction Access

Access to the Project Area is provided via an existing entry to the Waste Management, Inc. transfer facility on Lincoln Avenue. No temporary or permanent access road is required. Parking will be available on-site. A stone-stabilized access area will be established. Refer to Attachment 1 of Appendix 4-A for an overview of the site, including parking areas. Access to the Waste Management, Inc. transfer facility shall not be blocked by construction vehicles at any time.

During on-water support operations, crew boats will be utilized to facilitate access to the bulkhead installation support barge(s). Marinas identified as proposed locations for crew and equipment transfer are listed in Section 5.1.3 of Appendix 4-A. Parking will be available on-site at the marinas.

4.4 Vessels

Completion of the bulkhead penetration will require on-water support. The following vessels will be utilized to support and facilitate bulkhead penetration activities from the Harlem River:

- Bulkhead Installation Support Barge(s) - for support of bulkhead penetration activities, including installation of the bulkhead sheeting and temporary cofferdam.
- Crew Boat(s) – for transit of personnel and equipment.

- Tugboat(s), Truckable Work Vessel(s), and/or Additional Support Vessel(s) – to be available for general support of operations.

In accordance with CC 99(d), the barges to be utilized will be of solid hull construction and/or sealed. In accordance with CC 99(c), barge overflow is prohibited.

Refer to Appendix 4-A (Methodology Statement for Bulkhead Penetration and Transition Vault Tie-In) for additional detail regarding vessels.

4.5 Work to be Performed

In order to avoid impacts to near-shore sediments, the CHPE project has been designed with land-to-water transitions installed using either an HDD or a dredging installation method. The Project's four other Transitional HDDs (Segments 16 and 17) have used the HDD option; this Harlem Bulkhead Penetration uses the dredging option. This work scope adheres to the requirements of CC 98 and 99 (where applicable to dredging work which does not involve removal of soils through the water column), though the Certificate Holders note that CC 99 is largely inapplicable to the Harlem Bulkhead Penetration scope because that dredging work will involve closing off the area to be disturbed with a cofferdam before disturbing the soils, consistent with the Certificate's objective of avoiding impacts to near-shore sediments and minimizing suspension of sediments into the water column which might otherwise occur from dredging through an open water environment.

The walls of the temporary cofferdam to be used will extend at least two feet above mean high water, as shown in the Plan and Profile Drawings and in compliance with CC98, to contain sediments and avoid dispersion of suspended sediments. Further, based upon the minimal quantity of sediment involved (<50CY), excavation within temporary cofferdam will be completed by excavator or non-environmental clamshell bucket on crane (consistent with CC 99a). Excavation methods will follow 99(b), as applicable (the cofferdam will contain the excavated sediments such that suspension of sediments would not be a concern). Work will conform to the requirements of CC 99(c), (d), (e), (f), (h), (i), (j), (k), (l) and (m). As to CC 99(g), the Certificate Holder does not anticipate any decanting of barges will be needed for this work scope however, if any decanting occurs, it will comply with CC 99(g).

4.5.1 Bulkhead Penetration

Once the Harlem River site is mobilized, site preparation will begin, and bulkhead penetration operations will proceed. Temporary fencing will be installed around the work zone, and soil erosion and sediment control measures will be installed. When the bulkhead penetration operations begin, any existing riprap will be removed and stockpiled on-site. A crane will install the bulkhead sheeting and temporary cofferdam via vibratory hammer. Vibratory hammer operations will be performed with a soft start before ramping up. The temporary cofferdam will be excavated to the required elevation.

For installation of the trench shoring, the excavator may pre-excavate the area to remove any existing obstruction that would inhibit the proper installation of the proposed shoring method. The crane will vibrate the steel sheets to required depth as shown on engineered drawings. The trench will then be excavated, and support steel will be installed per the Support of Excavation (SOE) plans install procedure. Trench boxes or slide rail may be used for shallower excavation. The trench will be excavated, and trench shoring lowered sequentially until required elevation is reached.

Two 12" HDPE conduits will be fused to ~60 fit lengths, de-beaded, proofed and end caps installed. Prior to installing the conduits into the trench, the marine side end of the sheeting will have an opening cut in the sheets to allow the conduit to penetrate through and transition to rest on the river bottom. The pipes are then installed into position within the sheeted trench and secured from movement or floatation via concrete collars, ballasts or similar. The pipe ends will be sealed so soil and debris will not infill prior to power cable installation. The HDPE conduits will be installed in one piece from bulkhead into the transition vault.

Within the temporary cofferdam, the location, elevation, and alignment of the two HDPE pipes will be recorded for field records. The trench will then be backfilled and compacted with clean fill. The sheets will be cut to below grade and/or removed as required. The precast retaining wall will be installed and site final graded. The existing riprap will be restored.

Refer to Appendix 4-A (Methodology Statement for Bulkhead Penetration and Transition Vault Tie-In) for additional detail regarding the bulkhead penetration and duct bank construction. Plan and profile drawings are provided in Appendix 4-A, Attachment 2.

4.5.2 Tie-In of HDPE Conduit to Transition Vault

There is a short distance between the end of the bulkhead penetration and the transition vault which is referred to as the tie-in. During construction, this section will be excavated down to required burial depth. A pair of HDPE pipes will be installed in a duct bank between the end of the bulkhead penetration conduits and the transition vault. The HDPE conduits will be installed in one piece from bulkhead into the transition vault. After placing the conduits, backfilling and compaction will commence. Afterwards the ground at the site will be reinstated and ready for the cable pull-in preparation.

Refer to Appendix 4-A (Methodology Statement for Bulkhead Penetration and Transition Vault Tie-In) for additional detail regarding tie-in construction activities. Plan and profile drawings are provided in Appendix 4-A, Attachment 2.

4.5.3 HDPE Conduit Proving / Cleaning

Following installation, the HDPE conduits will be proofed and cleaned. The duct proofing and cleaning will utilize marine support vessels and land-based equipment to pull mandrel(s), cleaning and proofing pigs, and messenger wire. On completion of cleaning / proving, the ducts will be left

with end-to-end messenger wire and temporary caps. Refer to Appendix 4-A (Methodology Statement for Bulkhead Penetration and Transition Vault Tie-In) Section 5.3 for additional detail.

4.6 Cleanup and Restoration

Prompt cleanup and restoration of all areas disturbed by construction activity is a priority of the construction schedule and sequencing. Timely cleanup and restoration will assist in minimizing potential environmental impacts associated with the Facility.

The final stage of construction will consist of restoring all work areas to their original condition and character as much as possible, compatible with the operation and maintenance of the Facility. Upon completion of construction, all disturbed land within the Project Area will be graded to mimic existing topographic contours to the extent possible, to be compatible with surrounding drainage patterns. Trenches/pits will be backfilled as described in Appendix 4-A, and the disturbed ground surface will be similarly graded. Refer to Appendix 4-A (Methodology Statement for Bulkhead Penetration and Transition Vault Tie-In) for additional information regarding cleanup and restoration.

In accordance with Certificate Condition 48, within ten (10) days of the completion of final restoration activities, the Certificate Holders will notify the PSC Secretary that all restoration has been completed.

4.7 Environmental Monitoring

Environmental monitoring will be conducted during construction activities, including monitoring of dredging activities required under CC 99 (where applicable), as outlined in Section 5.0 below. Refer to Section 5.0 for information regarding environmental monitoring.

5.0 Monitoring and Compliance

The following sections describe procedures for monitoring and compliance before, during, and following construction of the bulkhead penetration and tie-in. Facility inspections and maintenance procedures are also discussed. Refer to the Compliance Assurance Plan in Appendix 5-A for additional information.

5.1 Environmental Supervision and Construction Oversight

During construction of the Project, the Certificate Holders will employ construction oversight staff as required by the Certificate and to ensure that regulatory requirements, plans, and specifications are appropriately met. The construction oversight staff will perform a variety of functions. The duties of each are described below.

Inspector(s) and monitor(s) may perform multiple inspection roles if each is qualified to serve in these roles.

The Certificate Holders will submit the name and qualifications of the Construction Inspectors(s) and/or Environmental Inspector(s) to New York State Department of Public Service (DPS) Staff at least two weeks before construction starts.

5.1.1 On-board Representatives

For offshore operations executed by a subcontractor, two NKT Inc. (NKT) representatives will be present onboard to supervise the works. These personnel will usually be Site Managers or Project Engineers but may be other positions with suitable offshore experience.

The NKT representatives will perform the following tasks on board the vessels:

- Supervise the operation;
- Give instructions to the subcontractor;
- Work as the main contact for communication with the subcontractor's on-board personnel;
- Communicate with the on-board CHPE representatives;
- Ensure that the works is carried out in a safe manner;
- Write daily progress reports and communicate with the land-based Project organization;
- Ensure that Environmental Health and Safety (EHS) standards and regulations are followed on the vessel; and

- Report incidents to land-based Project organization and on-board CHPE representatives.

5.1.2 Site Manager

There will be a full-time Site Manager during construction. The Site Manager will be responsible for managing the construction Contractor's performance for the successful completion of construction activities. The Site Manager will provide proactive leadership and direction to the Contractors for safety, security, schedule, and environmental compliance; confirm that assigned personnel are properly directed, trained, licensed, and evaluated within the Certificate Holders' guidelines and procedures; and maintain a thorough understanding of emergency response procedures to help arrange and provide resource support as needed.

5.1.3 Construction Manager(s)

There will be full-time Construction Manager(s), who will report to the Site Manager, during construction activities for this Segment. The Construction Manager(s) will support the Site Manager by overseeing the Contractors' performance of construction work; reinforcing that contractors must maintain safety, security, schedule, and environmental compliance at all times; verifying that construction field work complies with the criteria per the Certificate Holder's construction specifications; writing and publishing reports detailing results of field construction audits; issuing and tracking non-conformances for items found not meeting the required specification; and requiring submission of corrective and preventive action for non-conformances found.

5.1.3.1 Construction Inspector

The number of Construction Inspector(s) will be commensurate with the level of overland construction activity at any given time; CIs are required by CC 35(a)(ii) for the overland work included in this scope. It is the Construction Inspector's job to monitor compliance with regulatory and permit requirements for construction activities. The Construction Inspector(s) will be properly equipped to effectively monitor each Contractor's compliance with the provisions of the Certificate and the approved EM&CP for each segment of the Project. If construction and installation appear to be in violation of the Certificate, the Construction Inspector(s) may direct the field crews to stop the specific potentially harmful activity immediately and attempt to assist in preventive or remedial action. Further discussion of CI responsibilities can be found in the Compliance Assurance Plan (Appendix 5-A). In addition, the Construction Inspector(s) will be responsible for understanding the requirements of the Certificate, EM&CP, and other permits and approvals. They will complete daily site inspection reports, participate in pre-job briefings and tailboards as part of the construction team to help develop and maintain the Project-wide culture of compliance and to help contractors understand compliance requirements, and address potential areas of non-compliant conditions. Any items identified to be non-compliant or with the potential to be non-compliant will be communicated to the site superintendent or foreman. The Construction Inspector(s) shall have stop work authority over aspects of the Project that could create an

adverse impact to the project or the environment. The Construction Inspector(s) will be responsible for completing daily inspections and submitting bi-weekly and monthly status reports; refer to Section 5.2 for a discussion of compliance reporting requirements.

5.1.4 Environmental Compliance Manager

The Environmental Compliance Manager (ECM) will serve as the Certificate Holders' point of contact for information related to the environmental compliance status of the work. The ECM will be responsible for coordinating with the Site Manager, Construction Manager(s), the Certificate Holder's environmental staff, and the environmental inspecting team regarding compliance matters. This position will coordinate monitoring and staffing needs to ensure appropriate monitors are present during construction. The ECM, with assistance from Environmental Inspector(s), will be responsible for environmental oversight throughout the construction, and restoration phases, and for monitoring compliance with environmental protection provisions of the Certificate and the EM&CP. Additionally, the ECM will be responsible for performing quality assurance/quality control of the daily reports and compiling a weekly summary report for the Certificate Holders. The ECM will provide guidance to the Environmental Inspector(s) on interpretation of requirements of the Certificate, EM&CP, and other permits and approvals.

5.1.5 Environmental Inspector(s)

The number of Environmental Inspector(s) (EI) will be commensurate with the level of Project activity at any given time. The Environmental Inspector(s) will monitor environmental compliance with environmental requirements of the Project during construction activities by working directly with the construction crews daily to reinforce and encourage a team approach, and to develop a compliance culture that is understood and executed by Contractor staff and personnel. Environmental Inspector(s) will meet the requirements of a "Qualified Inspector" as defined by GP-0-20-001. In addition, the Environmental Inspector(s) will be responsible for understanding the requirements of the Certificate, EM&CP, and other permits and approvals. They will assist and report to the ECM, complete daily site inspection reports, participate in pre-job briefings and tailboards as part of the construction team to help develop and maintain the Project-wide culture of environmental compliance and to help contractors understand compliance requirements, and address potential areas of non-compliant conditions. Any items identified to be non-compliant or with the potential to be non-compliant if not addressed immediately will be communicated to the site superintendent or foreman prior to leaving the site. The Environmental Inspector(s) shall have stop work authority over aspects of the Project that could create an adverse impact to the environment. The EI(s) will be responsible for completing daily inspections and submitting weekly status reports; refer to Section 5.2 for a discussion of compliance reporting requirements.

5.1.5.1 Aquatic Inspector

At least one Aquatic Inspector will be available during on-water activities. It is the Aquatic Inspector's job to monitor compliance with regulatory and permit requirements for the underwater portions of the cable installation. The Aquatic Inspector will monitor construction activities on,

above, or below the State's waters. If construction and installation appear to be in violation of the Certificate of Environmental Compatibility and Public Need, the Aquatic Inspector may direct the field crews to stop the specific potentially harmful activity immediately and attempt to assist in preventive or remedial action. 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 and ensure compliance with applicable portions of CC 99. 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.

5.1.6 Safety Inspector

At least one Safety Inspector will be responsible for providing professional safety and health oversight, conducting work area inspections, and confirming compliance with the Certificate Holders' safety requirements. The Safety Inspector will be on site when any higher-risk activities are being conducted and will inspect construction activities for hazards that could be eliminated. Any incidents that may occur will be reported to and analyzed by the Safety Inspector. The Safety Inspector will conduct Project specific on-site safety training.

5.1.7 Quality Assurance Inspector

At least one part-time Quality Assurance Inspector will perform quality audits on the Project facilities and components purchased for the Project to make sure the material is consistent with the specifications described in the EM&CP and Plan and Profile Drawings (Appendix 4-A [Attachment 2]). If materials fail to meet the criteria outlined in the Quality Control Plan, the Quality Assurance Inspector will be responsible for issuing and tracking non-conformances for the Project facilities and components as well as requiring submission of corrective and preventive action for the identified non-conformances. The Quality Assurance Inspector will work closely with the Construction Manager(s) to verify project personnel are adhering to the quality control procedures.

5.2 Reporting Requirements

The Certificate Holders will conduct the compliance inspections and reporting, detailed below, for the Project. In addition, the Certificate Holders will organize and conduct site-compliance audit inspections and reporting for DPS as needed, but not less frequently than once per month during the pre-installation, installation, and post-installation phases. Additionally, the Environmental Inspector(s) is responsible for completing daily inspections and submitting weekly status reports.

5.2.1 Monthly Status Reports

A monthly EHS Report will be completed for each month the Project has ongoing construction related activities at the Project Area. The report will include a review of project performance, safety performance, incident rate, lost time incident rate, safety inspections and action items completed, and safety training and meetings completed. The Certificate Holders will provide a written record of the results of the monthly review, including resolution of issues and additional measures to be

taken, to agencies involved in the inspection audit and as part of its scheduled construction update reports. Scheduled construction activities and locations for the following month will be included in the status report.

5.2.2 Environmental Inspection Reports

Following each environmental inspection, an environmental inspection report will be completed by the Environmental Inspector(s) performing the inspection, detailing compliance of the inspection location with all applicable environmental requirements. Deficiencies will be noted and reported to the Construction Manager(s) responsible for the noted project location. Deficiencies should be corrected prior to the inspector leaving the site if feasible. Any deficiency not immediately corrected will be listed in an "Open Items" log and its status will be confirmed during the next site inspection. This process will be repeated until the deficiency is appropriately addressed. The Construction Manager(s) will be notified of deficiencies prior to the environmental compliance personnel leaving the site. The contractor must initiate correction of the deficiency within one business day and the correction must be completed in a reasonable and expeditious timeframe. The Environmental Inspector(s) will submit their reports to the ECM daily. The ECM will be responsible for reviewing and archiving the inspection reports.

5.3 Worksite Health and Safety

Measures will be taken by the Certificate Holder and Project personnel to protect the health and safety of all parties throughout the duration of the Project. Detailed worksite health and safety procedures are described in the sections below. A full-time Safety Inspector will be on site during cable installation to provide safety and health oversight and confirm compliance with the Certificate Holder's safety requirements (see Appendix 5-A, Compliance Assurance Plan).

5.3.1 Safety Training & Education

Training, instruction, and periodic briefings will be provided by the Certificate Holders and their contractors to all Project-related personnel, as appropriate, to verify that environmental, health, and safety precautions and measures are followed during construction. Training will be provided before employees or subcontractors are assigned to new or different work activities and periodically to reinforce their awareness. Where required, annual refresher training will also be provided. Each party's management is responsible for ensuring that safety training is made available to its employees or subcontractors as required by their specific work activities. The Site Superintendent (SS) will be responsible for assuring that employees or subcontractors have the required training to perform their work safely. This training will include specific information on how work is conducted as well as the hazards the workers may be exposed to in relation to their own specific craft and work procedures. Daily tailboard meetings will be held at the start of each construction day to refresh awareness of general safety topics.

5.3.2 Stop Work Procedures

Any Project personnel can stop work for health and safety reasons by notifying the Project Superintendent or Captain of the Vessel. All Project personnel will also be encouraged to notify any of these individuals if they observe conditions that could potentially be in non-compliance so appropriate corrective action(s) can be taken. Any stop work notice will be reported to the Site Manager who will report it to the Certificate Holders management in a timely manner noting the incident specific information, such as time, date, location, details of the incident, person observing the incident, and response taken. DPS representatives may issue a stop-work order where permitted by the Certificate for any construction or maintenance activities that violate or may violate the terms of the Certificate or any other valid order.

5.4 Existing Structure Inspections

If applicable, in areas where trenching activity will occur within 100 feet of any building, facility, or structure foundation, the Certificate Holders will offer to inspect such foundation structure before, during, and after construction. This inspection will document conditions at each significant stage of construction, including measurements of foundation crack lengths, and will provide photographs of any existing and/or post-construction damage. A report detailing foundation condition findings will be provided to the building, facility, and/or structure owner/operator and to DPS Staff within 30 days of completion.

6.0 Environmental and Cultural Resource Protection

The following sections describe procedures for environmental and cultural resource protection to be implemented before, during, and following construction activities.

6.1 Pollution Prevention

The following plans discuss pollution prevention, spill response, waste management, and safety for EM&CP Segment 20A construction activities:

- Spill Prevention, Control, and Countermeasure (SPCC) Plan, Appendix 6-A
- Shipboard Oil Pollution Emergency Plan (SOPEP), Attachment 8 to Appendix 4-A
- Stormwater Pollution Prevention Plan (SWPPP), Appendix 6-B
- Soil and Materials Management Plan, Appendix 6-C
- Site Specific Health and Safety Plan (SSHASP), Attachment 7 to Appendix 4-A

The procedures to be implemented to avoid the release of pollution during project construction are summarized in the sections below. For additional detail regarding any specific prevention or response procedure, please refer to the appropriate plan listed above.

6.1.1 Potential Pollutant Sources

At the activity sites for the Harlem River bulkhead penetration and tie-in, potential pollution or hazardous material can be generated by worksite activities. Some of the common types include carbon monoxide from vehicle and generator exhaust, different types of fuels and lubricants, and miscellaneous hazardous materials.

The Certificate Holders will inform local fire department and emergency management teams of on-site chemicals and waste and will also advise owners and operators of CI as to on-site chemicals and waste stored within one hundred (100) feet of their CI.

6.1.2 Material Handling, Storage, and Use

The following procedures provide a process for waste management planning and promote the development of coherent and appropriate waste management. It is the responsibility of each individual on site to follow policies and procedures for managing waste.

- The Contractor will estimate the waste that will be generated prior to work being performed so that the need for containers and waste removal can be properly determined.
- Any waste materials will be properly stored and handled to minimize the potential for a spill or impact to the environment.

- The Contractor will properly segregate waste materials to ensure opportunities for reuse or recycling.
- All site personnel will be instructed on the proper disposal method for waste. This training will be conducted during the site orientation and conducted by the Site Manager, Construction Manager, or their designee.
- Waste management planning will be continuously reviewed and revised to ensure site safety and to meet regulatory requirements.

6.1.3 Waste Disposal

Waste handling and disposal procedures will be conducted in conformance with the Methodology Statement for Bulkhead Penetration and Transition Vault Tie-In (Appendix 4-A), the SSHASP (Attachment 7 to Appendix 4-A), and the Soil and Materials Management Plan (Appendix 6-C).

6.1.3.1 Sanitary Waste

Portable sanitary facilities will be present on-site. Sanitary waste from portable sanitary facilities will be collected by a licensed sanitary waste management contractor, as required by NYSDEC regulations.

6.1.3.2 Solid Waste

The Project Area will be equipped with temporary storage for waste materials. Scrap will be periodically offloaded for onward transportation to, and proper disposal at, an approved environmental waste handling facility. To further reduce environmental risks associated with construction materials, the following procedures will be implemented:

- Construction waste material will be stored in a manner that minimizes exposure to precipitation and runoff.
- Construction waste material will be stored in an orderly manner in appropriate containers with appropriate labels.
- Construction waste material and rubbish from the work area will be removed and disposed of at properly licensed facilities.

Additional information regarding waste disposal, including a list of approved disposal facilities, is provided in Appendix 6-C, Soils and Materials Management Plan.

6.1.3.3 Hazardous Waste

The Project Area will be equipped with temporary storage for any hazardous waste materials that may be produced during bulkhead penetration and tie-in activities. Small amounts of hazardous waste are anticipated during bulkhead penetration and tie-in events. Hazardous waste will be collected, labeled appropriately, stored and disposed of in accordance with all applicable regulations.

To reduce the risks associated with generating hazardous wastes, contractors will be in conformance with the NYSDEC Hazardous Waste Rules and Regulations, and the following procedures will be followed:

- Train and instruct employees and other handlers of hazardous waste on the proper reporting, storage, inspection and handling requirements.
- Separate hazardous waste from normal waste through the segregation of storage areas and proper labeling of containers.
- Use appropriate storage and, when necessary, use NYSDOT-approved transportation containers, along with secondary containment measures.
- Prior to shipping hazardous wastes, verify that the hazardous waste transporters servicing the Project have required licenses, registrations and/or US Environmental Protection Agency (EPA) identification number that the waste is disposed at an approved/licensed facility.
- Transport hazardous waste under a properly completed manifest.
- Follow accurate record keeping requirements as to the quantity and nature of hazardous wastes generated onsite.

6.1.4 Hazardous Vapors Releases

Equipment, vehicles, and vessels that will be used to facilitate bulkhead penetration and tie-in construction have the potential to release hazardous vapors, such as fuel vapor. In the event of a hazardous vapor release, the appropriate emergency procedures should be followed in accordance with the Contractor's emergency response plans and policies. If the vapors released do not pose an immediate risk to crew members, the vessel should be safely moved to a suitable shore location or anchorage location prior to further action.

6.1.5 Petroleum Pollution Prevention

To prevent potential releases of petroleum in the Harlem River, the Certificate Holders and their contractors will adhere to the SPCC Plan (Appendix 6-A) during construction. The SPCC Plan details appropriate measures to be taken to avoid such releases and details notification requirements, to ensure that proper authorities are informed of any incident giving rise to pollution, or threat of pollution, of the aquatic environment, as well as the need for assistance and salvage measures, so that the appropriate action may be taken. Petroleum pollution prevention measures are also summarized in the SOPEP, provided as Attachment 8 to Appendix 4-A. Petroleum pollution prevention measures implemented by the contractor include, but are not limited to:

- Readily available emergency 'spill kit(s)'.
- Fuel stocks will be kept to a practical minimum.
- Equipment and storage tanks will be designed to minimize discharge or release potential and will be equipped with secondary containment.

- Petroleum products and chemicals will be stored in original, properly labeled, containers.
- Safety data sheets (SDS) for petroleum products and chemicals will be maintained.
- Employees and other handlers of petroleum products and chemicals will be trained on proper reporting and handling requirements.
- Equipment and vessels will be monitored and maintained to reduce the risk of potential leakage.
- Any vessels or equipment that are leaking oil, fuel, or hydraulic fluids will be removed or immediately repaired.
- Washing active vessels of any oils or chemicals into the surrounding waterbody will not be allowed.

As an emergency contingency measure, the Contractor has pre-arranged that Clean Harbors Environmental Services, Inc., a US based Oil Spill Removal Organization (OSRO) will be available on 'call-out' basis to provide professional clean up support during bulkhead penetration operations.

6.1.6 Operational Spills

An "operational spill" is any potential spill of petroleum, hazardous material, or other reportable waste directly released by the Construction Contractor or their subcontractors during construction activities. Immediately following an operational spill, the Site Manager and crew members will initiate action to protect the crew, secure the area, stop the flow, control or contain the spill, and notify as per contact instructions. The Contractor's emergency response team will provide practical support required to assist the vessel team in dealing effectively with the incident. Emergency spill response is outlined in the SPCC (Appendix 6-A), and SOPEP (Attachment 8 of Appendix 4-A) and summarized in Section 6.1.7 below.

6.1.7 Spill Response and Cleanup Procedures

In the event of a spill release, the appropriate spill response and cleanup procedures should be followed in accordance with the Contractor's emergency response plans and policies. The NYSDEC Spill Hotline (1-800-457-7362), the EPA National Response Center (1-800-424-8802), and DPS Staff (Daniel Connor; Daniel.Connor@dps.ny.gov), as appropriate, will be called as soon as possible following identification of a spill. In the event of a spill, the following general procedures shall be followed:

- Ensure safety;
- Stop the flow;
- Secure the area;
- Contain the spill;
- Notify and report;
- Clean-up.

Petroleum spills must be reported to the NYSDEC unless they meet all of the following criteria:

- The spill is known to be less than 5 gallons; and
- The spill is contained and under the control of the spiller; and
- The spill has not and will not reach the State's water or any land; and
- The spill is cleaned up within 2 hours of discovery.

All reportable petroleum spills and most hazardous materials spills must be reported to NYSDEC hotline (1-800-457-7362) within New York State.

Refer to the SPCC (Appendix 6-A), and SOPEP (Attachment 8 of Appendix 4-A) for additional spill response procedures.

6.1.8 Unanticipated Hazardous Material Discovery

During construction activities, incidental discovery of hazardous material not directly released by the Construction Contractor may occur. If evidence of unanticipated hazardous materials is found during construction, construction activities will be stopped immediately in that immediate area, and the Environmental Inspector will be notified. The Environmental Inspector will report the unanticipated encounter of contaminants to CHPE personnel, who will notify the NYSDEC, DPS staff, the landowner (if applicable), and the EPA National Response Center (1-800-424-8802), as appropriate. All reportable petroleum spills and most hazardous materials spills must be reported to the NYSDEC Spill Hotline (1-800-457-7362) within New York State. Construction will not resume until the appropriate authorities have issued an approval to continue construction activities in that area. Any future construction activities at the referenced site will be conducted in accordance with all conditions specified by NYSDEC.

6.1.9 Notification and Reporting

In the event of a spill, the appropriate project contacts and regulatory agencies must be notified. Notification and reporting of the spill will be completed in accordance with the Contractor's emergency response plans and policies, as well as applicable laws and regulations and the Certificate. Refer to the SPCC Plan (Appendix 6-A), and SOPEP (Attachment 8 of Appendix 4-A) for additional notification and reporting procedures.

6.2 Stormwater Pollution Prevention, Soil Erosion and Sediment Control

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the bulkhead penetration and tie-in construction activities (Appendix 6-B). This SWPPP was written in accordance with the criteria presented in the State Pollution 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), as well as the Article VII Certificate and applicable Appendices. Updates to the SWPPP will occur with subsequent project phases. A copy of the SWPPP and the SPDES general permit will be available on-site at all times during construction. Refer to the SWPPP in Appendix 6-B for additional information regarding stormwater pollution prevention, soil erosion control, and sediment control.

6.3 Cultural Resource Impact Mitigation

There are no known cultural resources present within or immediately surrounding the Project Area. A request for determination of no impact to cultural resources was submitted to the New York State Historic Preservation Office (SHPO) on May 3, 2024. On May 10, 2024, the SHPO concurred that no further archaeological studies are needed for the Project Area. A copy of this correspondence is provided in Appendix 1-C (Agency and Stakeholder Consultations). At the recommendation of the SHPO, a Supplemental Cultural Resources Management Plan (Supplemental CRMP or SCRMP) has been developed for Segment 20A, attached as Appendix 6-D to this EM&CP. Construction activities will follow the procedures outlined in the SCRMP. Should an unanticipated cultural resource discovery be encountered during Project construction, the procedures outlined below will be implemented.

6.3.1 Unanticipated Cultural Resource Discovery

The Unanticipated Cultural Resource Discovery Plan, included as an attachment to the SCRMP in Appendix 6-D, outlines the procedures to be implemented should potential cultural resources be incidentally discovered. The specific procedures for the unanticipated discovery of archaeological resources and human remains during the Project's construction were developed in accordance with federal and state guidelines, as outlined in the SCRMP (Appendix 6-D). The Certificate Holder will respond promptly to any complaints of negative archaeological impacts during the Project's construction and will consult with the SHPO, the Advisory Council on Historic Preservation (ACHP), Native nations, and other appropriate parties identified in the SCRMP to resolve adverse effects on historic properties and determine the appropriate avoidance, treatment, or mitigation measure.

6.4 Wetlands and Waterbodies

No wetlands will be impacted by the activities proposed in this Segment 20A EM&CP. The only waterbody that will be impacted by the activities proposed in this Segment 20A EM&CP is the Harlem River. Delineations of wetland and waterbody resources within and surrounding the Project Area were completed in 2024. No wetlands were delineated onsite. No state or federally regulated wetlands or adjacent areas occur within the Project Area. The only waterbody delineated onsite is the Harlem River. Refer to Appendix 6-E for the Wetlands & Waterbodies Technical Memorandum.

The Certificate Holders will continue to coordinate with Federal and State agencies to ensure that CHPE Project construction will minimize waterbody impacts and will be compliant with the requirements of permits and applicable regulations.

6.5 Vegetation Removal and Disposal

Tree removal is not currently proposed for this Segment of Project construction, as the Project Area exists as cleared, minimally vegetated land in its existing state. However, should a need for vegetation removal, trimming, or pruning be identified during construction, the following best management practices will be implemented:

a. Trees, shrubs, and other vegetation located outside of the Limit of Disturbance will not be removed.

b. Minor roots and branches of trees overlapping the Limit of Disturbance will be cut in a clean and careful manner where such roots and branches interfere with construction.

c. Woody vegetation will either be chipped and spread on-site at a depth of no more than three (3) inches cover or appropriately disposed of at an approved off-site location.

d. Burning of debris onsite is not permitted.

e. All vegetation removal will comply with all NYSDEC regulations regarding invasive species and will comply with all invasive species best management practices, as described in Section 6.6 below and Appendix 6-F (Invasive Species Control Plan).

f. As described in Section 6.6 below and Appendix 6-F (Invasive Species Control Plan), all vegetation will be inspected for invasive species infestations prior to cutting, pruning, or removal. If any invasive insect infestation is observed or suspected, the NYSDEC Regional Forester will be contacted, and appropriate control measures will be implemented. The Regional Forester does not need to be informed of spotted lanternfly encounters. All ash trees, elmwood, and other hardwood capable of harboring invasive insects will be disposed of within four (4) days of cutting by a disposal method approved by the NYSDEC and in alignment with New York State firewood regulations to prevent the spread of the Emerald ash borer and Asian longhorned beetle.

g. No logs or other woody material will be left on-site or in any flood hazard area after construction is complete.

h. Woody material will not enter waterways, as such activity may impact water quality and be considered fill.

i. Cleared vegetation will not be disposed of in wetlands.

Additional information regarding waste disposal, including a list of approved disposal facilities, is provided in Appendix 6-C, Soils and Materials Management Plan.

6.6 Invasive Species Management

Invasive aquatic plant and animal species have been observed within or in the vicinity of the Harlem River bulkhead penetration and tie-in Project Area. Invasive species that may be present within or surrounding the Project Area is listed below:

Harlem River Invasive Species:

- Animal: Zebra mussel (*Dreissena polymorpha*), Atlantic rangia *(Rangia cuneata),* Asian shore crab (*Hemigrapsus sanguineus*), European green crab (*Carcinus maenus)*, and Chinese mitten crab (*Eriocheir sinensis*)
- Insect: Spotted lanternfly (*Lycorma delicatula*)

Numerous invasive aquatic plant and insect species, both terrestrial and aquatic, may occur at the Harlem River bulkhead penetration and tie-in Project Area, beyond those listed above. The Certificate Holders have developed an Invasive Species Management Plan, included as Appendix 6-F of this EM&CP, which identifies invasive species monitoring and control measures to be implemented along this portion of the CHPE Project. Refer to Appendix 6-F for invasive species management procedures.

6.7 Rare, Threatened, and Endangered Species

Previous consultations between the United States Department of Energy (DOE) and National Marine Fisheries Service (NMFS) conducted in 2014 and updated in 2021 concluded that the effects of the proposed Project will be insignificant or discountable and that the CHPE Project is not likely to adversely affect any Endangered Species Act (ESA)-listed species or critical habitat. This review included the expectation that cofferdams would be installed for land-water transitions and that the dimensions of each cofferdam would be approximately 16 feet by 30 feet. Sheet piles used to construct the cofferdams would be installed with a vibratory hammer. Vibratory hammer operations will be performed with a soft start before ramping up. The Biological Opinion developed by NMFS considered multiple issues, including impacts to habitat, underwater noise, and suspended sediments. It was expected that cofferdam installation would occur during set construction windows, which for the Harlem River were May 31 to November 30th, to avoid impacts to ESA species, which windows are consistent with the requirements of the WQC and the Order.

The potential presence of aquatic threatened or endangered species along the cable route was identified as part of the Article VII proceeding. For the Harlem River, no specific listed species were identified or discussed. If any rare, threatened, or endangered species are identified during the Project, all appropriate avoidance and mitigation actions recommended by NYSDEC will be undertaken by the Certificate Holders to protect the identified species.

On April 26, 2024, the Certificate Holders submitted a project screening request to the New York Natural Heritage Program (NYNHP) for information on State-listed rare, threatened, or endangered species that may occur along or near the Harlem River bulkhead penetration and tie-in Project Area. A response was received on June 14, 2024, confirming that the NYNHP has “no records of rare or state-listed animals or plants, or significant natural communities at the project site.” A copy of this correspondence is provided in Appendix 1-C (Agency and Stakeholder Consultations). The NYNHP noted that peregrine falcon (*Falco peregrinus*, State-listed Endangered) nesting has been documented within 0.5 miles of the Project Area. Due to the

distance between the observation and the Project Area, and the existing urban and industrial nature of the surrounding area, impacts to the peregrine falcon are not anticipated.

Based on the nature of the bulkhead penetration and tie-in activities, impacts to Significant Natural Communities, rare species, and listed species are not anticipated. Bulkhead penetration and tie-in activities will take place on an area of previously disturbed land, with minimal habitat available for habitation of listed species. Should any concerns arise during project construction, appropriate avoidance and mitigation actions will be taken to protect these identified species as recommended by the NYSDEC.

Consistent with CC 52, the Certificate Holders will promptly notify DPS Staff, NYSDEC, and the United States Fish and Wildlife Service (USFWS) or NMFS, if applicable, if any threatened or endangered wildlife species under 6 N.Y.C.R.R. Part 182 or any rare, threatened or endangered plant species under 6 N.Y.C.R.R. Part 193 are observed to be present in the Facility. The agencies notified will 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.

Further, the Certificate Holders will 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, in accordance with CC 51.

Protection measures, as generally described below, will be implemented to ensure minimization and mitigation of impacts to environmentally sensitive aquatic species and their habitats. These measures were taken from the 2012 BMP Document and Certificate Conditions.

- The Certificate Holders have worked closely with federal and state agencies to establish measures prior to construction to minimize impacts to aquatic species.
- All in-water work will be conducted within the applicable time window where applicable and weather permitting (or as amended and approved by the applicable regulatory agencies, as noted above).
- Environmental training for contractors and construction crews will be required.
- Spill response and mitigation procedures will be implemented in the case of any accidental spills of chemical, fuel, or other toxic materials, as discussed in Section 6.1 through 6.1.9 above.
- The Environmental/Aquatic Inspector will have the authority to modify or suspend construction if any threatened or endangered species are impacted in any way by construction activities.
- Construction machinery and equipment will be well maintained and checked daily for leaks.

7.0 Public Health and Safety

The following sections describe procedures for the protection of public health and safety to be implemented before, during, and following bulkhead penetration and tie-in construction activities.

7.1 Protection of Marine Navigation

In-water support from the Harlem River will be undertaken in a manner that minimizes the potential for interference with navigation. To protect navigation on the Harlem River, the following measures will be implemented:

- LNM will be submitted to the USCG for issuance a minimum of 30 days prior to the start of the marine field operations.
- Daily work location, minimum passing clearance request and all other relevant information will be broadcast via marine VHF radio as required by the USCG.
- Courtesy notifications will be provided to emergency services and law enforcement that are local to project operational sites (if any). Construction vessels will monitor VHF channels 13, 16, and the project work channel during project-related activities.
- Vessels will post standard day shapes and lighting in accordance with USCG regulations.

The Certificate Holders will continue to work with the USCG to deconflict the waterway near Project activities.

7.2 Maintenance and Protection of Traffic

The bulkhead penetration and tie-in construction activities do not involve construction across or within a road, street, highway, or public thoroughfare and, therefore, are not required to implement a maintenance and protection of traffic (MPT) plan.

During Project construction, daily traffic volumes are expected to increase slightly and temporarily within the vicinity of the Project Area. The daily increase in vehicle traffic due to construction will be temporary and most disturbances will be for a brief period, primarily at the start and end of the construction workday. Traffic congestion, delays, and/or closures are not anticipated as a result of the construction activities described herein. Traffic volumes will return to preexisting conditions following completion of construction.

To the extent that oversized or overweight vehicles are needed to deliver equipment or components necessary for construction of this Segment, CHPE will obtain required permits from the NYSDOT and/or local jurisdictions, as needed, and will file those permits with the Secretary consistent with CC 40 and 159(nn).

7.3 Bridge Crossings

The construction area is located north of the Willis Avenue Bridge. No impacts to the Willis Avenue Bridge are anticipated. No construction is proposed on, under, or immediately adjacent to the bridge. The bulkhead penetration crane barge and support vessels will remain clear of the bridge's starlings/fenders.

7.4 Public Water Supply Intakes

No impacts to Public Water Systems (PWS) are anticipated. In accordance with CC 102 and 150, the New York State Department of Health (NYSDOH) was contacted to identify PWS within the vicinity of the bulkhead penetration and tie-in construction area. No PWS have been identified in the Harlem River within one mile of the construction area.

7.5 Dewatering and Discharge to Local Sewers

The construction of the duct bank tie-in to the transition vault will result in the need for a dewatering system to maintain safe working conditions in the trench. The details of the dewatering system are included in Appendix 10 of Appendix 4-A (Methodology Statement). Prior to starting work on the duct bank tie-in portion of the project, the Contractor will obtain permit approval from NYCDEP for the temporary discharge of groundwater to the city sewer system, which is authorized by the Certificate at CC 18(a). The treatment system for groundwater removal, as outlined in the methodology statement, is designed to meet the water quality requirements for discharges to the sanitary sewer system. The methods used for groundwater removal from the site will depend on the volume of water encountered during excavation and could be limited to storage in a settlement/frac tank and disposal at an approved site via tanker trucks if the volume is low.

7.6 Noise

During construction, there will be a temporary increase in noise levels; however, there will be no permanent increase to noise levels once construction is complete. Noise due to construction of the bulkhead penetration and tie-in will be temporary in nature and primarily will occur at and surrounding the Project Area. Construction is taking place within an industrial area, which has active rail lines, the Willis Avenue Bridge passing overhead, and other transportation corridors that generate noise all hours of the day. Temporary noise impacts will vary due to the type of equipment in use at any given time, and due to the existing ambient noise at any given working hour and location. Table 9.1 below summarizes the types of equipment that may be used during construction and their standard noise level.

Table 9.1 – Noise Impact Summary

Type of Equipment	Equipment Noise Level at 50 feet, dBA
Crane	81
Compressor	67
Generator	78
Winch	78
Bulldozer	86
Loader	78
Excavator	80
Dump Truck	84
Vibratory Drum Compactor	73
Data is compiled from the Federal Highway Administration 2006 Handbook. Note: Data is provided for illustrative purposes only and may not be representative of final equipment used during project construction.	

No blasting is required, and noise from construction equipment will likely be attenuated by the surrounding existing infrastructure. All noise generated by the construction of the Project will be temporary and, therefore, impacts on any noise receptors will also be temporary. Residents and businesses may be temporarily affected by noise from construction activities, but such impacts will be temporary and minimized to the extent practicable for the type of work involved, as confirmed in the Article VII Certificate Order.

Sensitive noise receptors typically include, but are not limited to, residences, schools, hospitals, and libraries. There are no sensitive receptors which directly abut the bulkhead penetration and tie-in Project Area. Sensitive receptors that are near (within 1,000 feet of) the bulkhead penetration and tie-in Project Area are all located across railroad tracks or the Harlem River and include the following:

- Crack is Wack Playground and Basketball Courts;
- Pulaski Park;
- Harlem African Burial Grounds;
- DREAM Charter High School; and
- Residences (the nearest residence is approximately 600 feet northeast of the Project Area).

As noted above, construction is taking place within an industrial area, which has active rail lines, the Willis Avenue Bridge, and other transportation corridors that generate noise all hours of the day. Existing operations on the property generally operate 24 hours a day, six days per week. Construction activities associated with this Segment of the CHPE Project will not materially change the acoustic environment within or adjacent to the Project Area.

During construction, if elevated noise volumes generated by the Project necessitate mitigation, appropriate noise suppression measures will be employed. The following noise control measures may be employed during construction to minimize noise related impacts to nearby noise sensitive receptors, when necessary:

- Installing improved mufflers on heavy construction equipment when used in close proximity to noise sensitive areas;
- Utilizing low-noise generators and equipment/tools;
- Positioning barrier(s) between noise generating equipment and receptors;
- Installing enclosures around equipment; and
- Increasing the sound absorption ability of barrier materials.

Noise mitigation procedures shall align with the CNY Construction Noise Mitigation Procedures, as required by CC 31. The Contractor will be responsible for ensuring that all construction tools and equipment have been maintained such that they operate at normal manufacturer's operating specifications, including at peak loading. The Certificate Holder with input from the Contractor will also be responsible for identifying the schedule of activities that will take place during Project construction, noting any dates/times of noise-intense activity.

Construction operations are expected to be completed during daytime hours only, seven days a week. Should nighttime operations be required due to scheduling, safety, and/or operational purposes, the Certificate Holders will inform the DPS and local municipalities in advance of the nighttime operations. Appropriate mitigation and noise suppression measures, as outlined in the bulleted list above, will be employed to minimize impacts to nearby sensitive receptors if combined noise levels and proximity to sensitive receptors necessitate mitigation.

During review and approval of the CHPE Project, the PSC and the parties to the Joint Proposal acknowledged that construction of the Facility will result in temporary noise impacts, and that reasonable noise mitigation measures will be employed to minimize these impacts to the maximum extent practicable, such as by limiting noise-producing activities to daytime hours where practicable. Those minimization measures are reflected in this section of the EM&CP and are consistent with the BMPs developed for the Project during the Article VII process (see 2012 BMPs Section 25 and Joint Proposal Paragraph 89). Certificate Condition 159(ll)'s requirement of a noise mitigation plan refers to developing such a plan to address noise sensitive sites along the Facility right of way (ROW) to address noise impacts during clearing, construction, and operation. The Certificate Holders submit that the scope of this EM&CP does not warrant further development of a noise mitigation plan beyond the measures already identified within the EM&CP (installing improved mufflers on equipment, utilizing low noise technologies as appropriate, etc.), and that the measures proposed are consistent with the Certificate, Joint Proposal, and BMPs as written.

7.7 Lighting

Construction operations are expected to be completed during daylight hours only. Thus, temporary lighting is not anticipated to be needed during construction. For marine support operations, deck lighting may be used to illuminate the decks of support barges and vessels, as necessary to ensure safety and security of the crew onboard the vessel. Lighting will be positioned and oriented inward and downward to avoid and minimize impacts to nearby sensitive receptors to the greatest extent feasible (e.g., light towers, if necessary, will be set up to illuminate the work area but not shine light directly in the direction of sensitive receptors adjacent to the vessel). Additionally, lighting will be positioned to minimize shining light directly onto the water and in the water column. The vessel will be equipped with all required navigation lights for safe operation which are not anticipated to impact sensitive receptors.

Should nighttime operations be required due to scheduling, safety, and/or operational purposes, the Certificate Holders will inform the DPS and local municipalities in advance.

8.0 Decommissioning

The permanent Project components involved in the Segment 20A EM&CP are below-ground and below-water water infrastructure, including HDPE conduits. As such, the Certificate Holders will not remove these below-ground components in the event that the Project is deenergized at some future date (CC 162k), particularly given that removal of these components may have a greater adverse impact on the environment than leaving these components in place. Given the size and scale of the proposed HVDC facility at this location, the continued presence of below-ground infrastructure is not anticipated to pose a concern to the environment, future land use, and/or future utility uses following de-energizing of the Project. Therefore, the decommissioning plan for the HVDC facility at this location will be to leave all components in place (CC 162k).