



Appendix 8-E: Supplemental Cultural Resources Management Plan

CONTAINS REDACTED INFORMATION IN CASE 10-T-0139



Supplemental Cultural Resources Management Plan (CRMP)

Hudson River Marine Segment Cable Installation ("Segment 19B")

Case Number 10-T-0139

(OPRHP# 09PR03910)

Town of Catskill, Green County, NY to
Town of Stony Point, Rockland County, NY
Town of Clarkstown, Rockland County, NY to
Bronx, New York City, Bronx County, NY

April 2024

Champlain Hudson Power Express HVDC Transmission Line Project

Prepared For:

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MANAGEMENT SUMMARY

SHPO Number: 09PR03910

Involved Agencies: U.S. Department of Energy, U.S. Army Corps of Engineers, New York State Historic Preservation Office

Phase of Survey: Supplemental Cultural Resources Management Plan (CRMP)

Location of Project: The Champlain Hudson Power Express (CHPE) project involves the construction of approximately 339 miles of high voltage direct current (HVDC) underground and underwater transmission cable from Montreal, Quebec, to Queens, New York. This Supplemental CRMP covers the Hudson River segments referred to as the Cementon-Stony Point Hudson Marine Segment and the Congers-Harlem Hudson Marine Segment. The Cementon-Stony Point Hudson Marine Segment runs along a 67-statute mile (107 kilometer) path in the Hudson River from the Hamlet of Cementon, Town of Catskill, Greene County, New York to the Town of Stony Point, Rockland County, New York. The Congers-Harlem Hudson Marine Segment is along an approximate 21-statute mile (33 kilometer) path from the Hamlet of Congers, Town of Clarkstown, Rockland County, New York to the entrance of the Harlem River at Spuyten Duyvil, Bronx, New York.

Objective: The purpose of this Supplemental Cultural Resources Management Plan is to update previous versions of the CRMP with additional research applicable to these Segments that has been completed since the original CRMP drafted by TRC in 2015 and finalized in 2021.

Report Author: Karen E. Mack

Date: April 2024



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LIST OF ACRONYMS

| | |
|---------------------|---|
| APE | Area of Potential Effect |
| AWOIS | Automated Wrecks and Obstructions Information System |
| BMP | Best Management Practices |
| CA | Consulting Archaeologist |
| CC | Certificate Conditions |
| Certificate | Certificate of Environmental Compatibility and Public Need Issued |
| Certificate Order | Certificate of Environmental Compatibility and Public Need Order |
| Certificate Holders | CHPE, LLC and CHPE Properties, Inc |
| CHPE, LLC | Champlain Hudson Power Express, LLC |
| CHPE Project | Champlain Hudson Power Express Project |
| CRMP | Cultural Resources Management Plan |
| DOE | Department of Energy |
| DPS | Department of Public Service |
| EM&CP | Environmental Management and Construction Plan |
| GIS | Geographic Information System |
| Hartgen | Hartgen Archeological Associates, Inc. |
| HDD | horizontal directional drilling |
| HVDC | high-voltage direct current |
| LCMM | Lake Champlain Maritime Museum |
| MRS | Marine Route Survey |
| MW | megawatt |
| NOAA | National Oceanic and Atmospheric Administration |
| NRHP | National Register of Historic Places |
| NRE | National Register of Historic Place Eligible |
| NRL | National Register of Historic Place Listed |
| NYAC | New York Archaeological Council |
| NYS CRIS | New York State Cultural Resource Information System |
| NYDEC | New York Department of Environmental Conservation |
| NYSRHP | New York State Register of Historic Places |
| NYSHPO | New York State Historic Preservation Officer |
| NYSM | New York State Museum |
| OPRHP | Office of Parks, Recreation and Historic Preservation |
| OSI | Ocean Surveys, Inc. |
| PPO | Project Preservation Officer |
| PSC or Commission | Public Service Commission |
| PSL | Public Service Law |
| TRC | TRC Environmental Corporation |
| USACE | United States Army Corps of Engineers |



1.0 Introduction and Objectives

The Champlain Hudson Power Express HVDC Transmission Line Project (CHPE) involves the construction of approximately 339 miles of high voltage direct current (HVDC) underground and underwater transmission cable from Montreal, Quebec, Canada to Queens, New York (hereafter referred to as the CHPE Project). It will bring 1,250 megawatts (MW) of renewable energy into New York by the year 2025 to replace the use of fossil fuels and reduce carbon emissions.

1.1 Introduction

TRC Environmental Corporation (TRC) has been retained to create a Supplemental Cultural Resources Management Plan (CRMP) for the Hudson River submarine cable portions of the proposed CHPE project located from Montreal, Quebec, Canada to Queens, New York, United States.

The Project has received approvals by the U.S. Department of Energy (DOE), and the U.S. Army Corps of Engineers (USACE), with consultation from the New York State Historic Preservation Office (NYSHPO). 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 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 CHPE Project (PSC Case 10-T-0139). 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. 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, CHPE Hudson Power Express, Inc. converted from a corporation to a limited liability company and received the PSC's approval to transfer its interest in the Certificate to CHPE, LLC and CHPE Properties, Inc. (collectively CHPE and Certificate Holders). The Certificate was amended nine times (March 20, 2020, August 13, 2020, September 21, 2020, January 26, 2021, May 14, 2021, February 17, 2022, March 16, 2022, December 15, 2022, and October 12, 2023)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 best management practices (BMPs) to minimize impacts to those natural resources which might otherwise result from the construction or operation of the CHPE Project. Certificate Condition 6 permits the Certificate

¹ An additional amendment, filed March 30, 2023 ("Catskill Reroute Petition"), was pending as of the time of this submission. To the extent this amendment is granted, the final EM&CP for this segment will be updated to reflect any revised Certificate Conditions resulting from that Amendment, though the requested amendment pertains primarily to overland routing.



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 Environmental Management and Construction Plan (EM&CP) filed with the Commission for review and approval independent of other EM&CP's.

TRC created a draft comprehensive Cultural Resource Management Plan in 2015, finalized in 2021 to include three additional reports. This management plan is referred to throughout the current document as the original CRMP (Appendix A). In the event of a conflict between the 2023 Supplemental CRMP document and the original CRMP, the original CRMP will prevail, the same holds true for this Supplemental CRMP.

The 2015 plan was enacted to comply with Section 106 of the National Historic Preservation Act and will be reviewed by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) as well as the aforementioned federal agencies. This plan was established according to the *New York Archaeological Council's Standards for Cultural Resource Investigations and the Curation of Archaeological Collections* (1994), which are endorsed by OPRHP. Appendix B presents NYSHPO's Updated Human Remains Discovery Protocol (January 2021).

The *Programmatic Agreement Among The U.S. Department of Energy, And The New York State Historic Preservation Officer for Managing Historic Properties That May Be Affected By Authorizing The Construction, Operation, Connection And Maintenance Of The Champlain Hudson Power Express HVDC Transmission Line Project* (Programmatic Agreement), executed in 2021, stipulates completion of a CRMP to create procedures for the consideration and management of historic properties within the Project area.

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

This Supplemental CRMP has been developed in response to Programmatic Agreement Stipulation IV(B) and Stipulation II(C)(8-11 and 19) and it builds upon the previously completed CRMP and all stipulations of the CRMP (TRC 2021) remain applicable.

1.2 Supplemental CRMP Objectives

This Supplemental CRMP covers the underwater Hudson River Marine Segment ("Segment 19B"), which consists of the Cementon-Stony Point Hudson Marine Segment and the Congers-Harlem Hudson Marine Segment. The Cementon-Stony Point Hudson Marine Segment runs along a 67-statute mile (107 kilometer) path in the Hudson River from the Hamlet of Cementon, Town of Catskill, Greene County, New York and ends in the Town of Stony Point, Rockland County, New York. The Congers-Harlem Hudson Marine Segment (Figure 2) is along an



approximate 21-statute mile (33 kilometer) path from the Hamlet of Congers, Town of Clarkstown, Rockland County, New York to the entrance of the Harlem River at Spuyten Duyvil, Bronx, New York.

The goal of this Supplemental CRMP is to provide a framework in which potential impacts to relevant historical properties and archaeological sites (determined to be eligible for or listed in the National Register of Historic Places [NRHP]) known to exist or may be discovered are to be managed during construction. This management plan will also create a comprehensive framework for identifying and undertaking any additional archaeological work that may be required prior to and during the construction of the Project.

2.0 Project Information

The area of potential effects (APE) includes those portions of the Project that will be directly altered by the proposed undertaking. 36 CFR § 800.16(d) defines the APE as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. Project activities, both temporary and permanent, have the potential to impact cultural resources during the construction and operation phases of the Project.

The overall APE encompasses 339 linear miles of transmission line. Installation of this transmission line will occur primarily beneath the ground within roadway and railroad right of way, as well as the underwater or marine segments located within Lake Champlain and the Hudson River.

Several archaeological reports by TRC and Hartgen examined and detailed the sensitivity and potential of the APE to contain NRHP eligible archaeological resources along the terrestrial portion of the APE. The Lake Champlain Maritime Museum (LCMM) examined and detailed the potential of the underwater portion of the APE to contain NRHP eligible archaeological resources. These resources have been utilized in the creation of the original CRMP and the Supplemental CRMPs, including this one. The following is a list of reports completed and used to create the Supplemental CRMP.

- Hartgen. 2010a. Pre-Phase IA Archaeological Screening: Champlain Hudson Power Express.
- Hartgen. 2010b. Phase IA Literature Review and Archaeological Sensitivity Assessment: Champlain-Hudson Power Express.
- Hartgen. 2012. Phase IB Archaeological Field Reconnaissance and Phase II Archaeological Site Evaluation: Champlain Hudson Power Express, Canadian Pacific Railway Segment.
- Hartgen. 2013a. GIS Analysis: Archaeological Sites within APE Archaeological Sites Intersected by a 50-ft wide Construction Corridor Along the November 2012 CHPE/TDI Centerline.



- Hartgen. 2013b. GIS Analysis NRHP Properties within APE National Register of Historic Places Eligible (NRE) and Listed (NRL) Properties Intersected by a 50-ft wide Construction Corridor along the November 2012 CHPE/TDI Centerline.
- Hartgen. 2013c. GIS Analysis: Underwater Resources within APE Underwater Anomalies and Sites within Lake Champlain and the Hudson River Intersected by a 50-ft wide Construction Corridor along the November 2012 CHPE/TDI Centerline.
- TRC. 2020a. Phase IA Archaeological Assessment of Champlain-Hudson Alternative Routes, New York.
- TRC. 2020b. Phase IA Archaeological Assessment of Champlain Hudson Astoria Converter Station and Astoria Preferred Alternative Route, Boroughs of Queens, New York.
- TRC. 2020c. Phase IA Archaeological Assessment of Champlain-Hudson Power Express Project, Harlem Rail Yard Preferred Alternative, Boroughs of Queens, New York.
- TRC. 2021. Phase IA Archaeological Assessment of the Champlain-Hudson New Scotland Converter Station, New Scotland, Albany County, New York.
- TRC. 2022. Phase IA Archaeological Assessment of the Putnam Station Laydown Area for the Champlain Hudson Power Express Project, Putnam, Washington County, New York.
- TRC. 2022. Updated Information on the Champlain Hudson Power Express (CHPE) Project, Cementon HDD in the Town of Cementon, Greene County, New York.
- TRC. 2022. Updated Information on the Champlain Hudson Power Express (CHPE) Project, Congers HDD in the Town of Congers, Rockland County, New York.
- LCMM. 2023 (revised 2024). Final Report for the Underwater Cultural Resource Review of the Champlain Hudson Power Express, Lake Champlain Segment Investigations.
- LCMM. 2023 (revised 2024). Final Report for the Underwater Cultural Resource Review of the Champlain Hudson Power Express, Hudson River Segment Investigations.

The APE that is relevant to this Supplemental CRMP is the Cementon-Stony Point Hudson Marine Segment and the Congers-Harlem Hudson Marine Segment of the underwater Hudson River Marine Segment (“Segment 19B”).

2.1 Description of the Project

The overall APE includes portions of the Project that will be directly altered by the proposed undertaking. The overall APE encompasses 339 linear miles; the width of the APE varies. For the overall cable route, the Project is divided into 14 Packages with their associated Environmental Management and Construction Plan (EM&CP) submittals. The current Supplemental CRMP focuses on Segment 19B, the Hudson River Marine Segment.

This Supplemental CRMP further considers the currently proposed route and proposed deviations in relation to recommendations for additional archaeological mitigation measures. As such, more fine-grained recommendations relative to specific cultural resource locations are provided below.



Changes in the APE, including those necessary to avoid known historic and archaeological resources, may be required to accommodate project implementation. Changes to the APE will follow methodology outlined in the CRMP (TRC 2021). The CRMP states: *If the corridor is changed or if a construction zone wider than 55 feet (terrestrial) or 50 feet (in-water) is required to build the Project, then the APE will be adjusted accordingly. All additional efforts to identify, assess, and manage cultural resources shall use the same guidance as that stipulated in the CRMP. It shall be the responsibility of the PPO and his/her designee to work with the appropriately trained archaeologist to ensure that survey and assessment of new APE construction areas is completed before construction takes place* (TRC 2021). Changes in the APE and associated survey and reporting will be provided to Signatories of the Programmatic Agreement in conjunction with annual reporting requirements (Section 3.6 Reporting Requirements).

2.2 Hudson River Marine Segment

The Hudson River segments include the Cementon-Stony Point Hudson Marine Segment and the Congers-Harlem Hudson Marine Segment. The Cementon-Stony Point Hudson Marine Segment runs along a 67-statute mile (107 kilometer) path in the Hudson River from the Hamlet of Cementon, Town of Catskill, Greene County, New York and ends in the Town of Stony Point, Rockland County, New York. The Congers-Harlem Hudson Marine Segment (Figure 2) is along an approximate 21-statute mile (33 kilometer) path from the Hamlet of Congers, Town of Clarkstown, Rockland County, New York to the entrance of the Harlem River at Spuyten Duyvil, Bronx, New York.

This segment was addressed in the Final Report for the Underwater Cultural Resource Review of the Champlain Hudson Power Express Hudson River Segment Investigations completed by LCMM with TRC in 2024 (Appendix C). LCMM analyzed all the potential underwater cultural resources identified in the path of the Marine Route Survey (MRS) route for the CHPE submarine cable, those located within the APE of the routes of the MRS, and those located within and outside of the 500 feet (152 meter) buffer of the APE. This analysis included the available internal GIS data from Ocean Surveys, Inc. (OSI), National Oceanic and Atmospheric Administration (NOAA), and the New York State Cultural Resource Information System (NYS CRIS). Each resource was analyzed based on its type. Data for the resources includes wreck designations in letter and numeric form, site numbers assigned by NOAA, OSI, and general geographic locations, longitude and latitude, distances from the UH Sub Route 0+00TV .shp file and LH Sub Route 0+00 TV .shp file for the CHPE submarine power cable transmission line, along with notes from OSI and the NOAA Automated Wrecks and Obstructions Information System (AWOIS) are included as part of the analysis of each underwater cultural resource.

The previous data sets on shipwrecks and anthropogenic features in the Hudson River from the New York State Department of Environmental Conservation (NYSDEC) were reviewed in tandem



with the above data sets. Additionally, magnetometer and sonar data sets from Alpine were reviewed from surveys conducted in the past. These data sets were analyzed and plotted in GIS with those closest to the previous alignment of the planned Hudson River CHPE submarine transmission route in 2010 to 2011. Any shipwreck or anthropogenic feature 328 feet (100 meters) from the 2010 to 2011 corridor centerline were included as part of the analysis with a delineated 164 foot (50 meter) buffer around each feature. The 164 foot (50 meter) buffer was previously determined to be an adequate buffer to prevent potential adverse impact to cultural resources during the transmission line installation and was established by Certificate Conditions.

2.3 Summary and Recommendations

In summary, [REDACTED] underwater cultural resources are present throughout both the Cementon-Stony Point Hudson Marine Segment and the Congers-Harlem Hudson Marine Segment. All these underwater cultural resources are identified as shipwrecks and most of them are within the 500-foot (152 meter) buffer of the Hudson River MRS for both segments. A total of [REDACTED] shipwrecks and cultural resources are located within the 500-foot (152 meter) buffer while [REDACTED] shipwrecks are located outside of the 500-foot (152 meter) buffer. The review and assessment by the archaeologists at LCMM were based on data sets provided by TRC, OSI, NYS CRIS, the NOAA AWOIS, the NYDEC, Alpine, and institutional information gathered by LCMM.

Many of these wrecks are eligible to the NRHP and New York State Register of Historic Places (NYSRHP) and none have yet to be assigned site numbers either by the New York State Museum (NYSM) or by the NYSHPO. Due to river bottom conditions and sonar imagery, some of the eligibility could not be determined. The eligibility of wrecks assessed to be modern vessels to the NRHP and NYSRHP could also not be determined.

Generally, for the underwater cultural resources located within the APE of the Hudson River Segment for the CHPE submarine power cable transmission line, avoidance is recommended. For avoidance, LCMM recommends the Project use an avoidance buffer of 164 feet (50 meters) around the submerged cultural resources identified in this Report for cable routing and during construction activities. Due to other routing or installation constraints, the route will be within the 164 foot (50 m) avoidance buffer for [REDACTED] identified cultural resources. In each of these cases the proposed cable will avoid impacts to the cultural resource although it will pass within less than 164 feet (50 m) of the resource. [REDACTED]

While the proposed installation will pass within less than 164 feet (50 m) of [REDACTED] impacts to the resources will be avoided through methods described below. For [REDACTED] [REDACTED] during installation, this resource will be flagged to receive specific attention so that laying of the cable avoids the cultural resource. The cable burial tool to be used at this location has a total width of 18 feet (5.4 meters) and buries the cable from a central position, which means that



from the cable line, the outer extent of the burial equipment will be [REDACTED] towards the edge of the cultural resource, leaving a gap of [REDACTED]). The requisite distance from the cultural resource will be maintained using the tool's positioning system, and the cameras and sonar mounted on the tool will ensure that the burial tool is well clear of the cultural resource. For [REDACTED]) similar flagging will be used during installation to maintain the planned avoidance distance of [REDACTED] additionally, archaeological oversight is recommended to verify that no impacts occur to the underwater cultural resources for [REDACTED]. Specifics about cultural resource locations are available in LCMM's final report (LCMM 2024) (Appendix C).

3.0 Cultural Resources Management Plan

TRC created a Final CRMP for the permitting process, with an overall permitting CRMP created in 2015, and revised in 2021. Hartgen and TRC have created Supplemental CRMPs since 2021 to address construction activities for various Segments of the CHPE Project. This Supplemental CRMP addresses proposed construction activities in Segment 19B associated with the Hudson River Segment.

3.1 Project Preservation Officer (PPO)

As the original CRMP states, the Permittee will designate a PPO to oversee all cultural resources management issues related to the construction and post-construction of the Project. The PPO will coordinate the implementation of the CRMP and ensure that all requirements and conditions of the CRMP are met. The PPO's responsibilities will include review of Project activities to determine the potential effect to historic properties and consultation with the NYSHPO regarding potential effect to historic properties. Other activities of the PPO will include CRMP updates and notifications, preparation of an annual monitoring report to the NYSHPO, and construction personnel training. As the PPO is not a technical position, it is not required that the PPO be a cultural resource professional; the PPO Coordinator, however, will receive training in the Section 106 process, and will work closely with the archaeologist whom the Permittee employs to assist the PPO in the execution of his/her responsibilities.

TRC will act as the Consulting Archeologists (CA) for the purpose of this effort. The CA will work closely with the PPO, who will be present for all ground disturbing activities, and will have "stop-work" authority. The PPO will be part of the prime construction management team, NKT, Inc.

It is the responsibility of the CA to train this individual as a PPO and to provide a hands-on workshop for construction personnel, as designated by the PPO. The PPO and the construction team should have an understanding of cultural resources present in different areas, as well as understanding the potential for unknown cultural deposits. It is the responsibility of the PPO to implement the CRMP and ensure that all requirements and conditions of the CRMP are met. Table 1 in Section 4.0 includes all the necessary contact information.



The PPO and CA shall follow the procedures outlined in the Unanticipated Underwater Cultural Resource Discovery Plan, attached as Appendix D to this SCRMP. The PPO will have the authority to cease excavation or construction work. In the event of encountering cultural materials or human remains, it is the responsibility of the PPO to halt construction activities and contact and coordinate with the CA to visit the location of the discoveries as quickly as possible. In the case of human remains the PPO and CA will follow the State Historic Preservation Office/New York State Office of Parks, Recreation and Historic Preservation Human Remains Discovery Protocol (January 2021) provided in Appendix B.

The PPO shall in turn notify the Certificate/Permit Holder (TDI/CHPE), who shall notify NYSHPO, the USACE, Department of Public Service (DPS), other stakeholders and Tribal Nations, as appropriate within 24 hours of the initial reporting of the finds, per the Certificate Conditions 110 and 111 and USACE Permit NAN-2009-01089-M7, General Conditions C.

During this time, work in the immediate vicinity of the find must halt and the area of concern fenced or otherwise protected from construction activities. Once the area is secured, activity adjacent to the find may continue during the consultation process. Per 36 CFR Part 800.13(b)(3), NYSHPO, other stakeholders and Tribal Nations will have 48 hours from the time of notification to respond.

In the event of these discoveries, the CA will coordinate the mitigation cultural resources from the APE before the construction continues. The CA, in consultation with the PPO and the NYSHPO, may request additional archaeological field assistance to complete the necessary work in a timely manner. It is the responsibility of the PPO to work with the appropriately trained archeologists to ensure that the survey and assessment of any change in the APE is completed prior to construction taking place.

For additional information regarding unanticipated cultural resource encounters, please refer to the complete Unanticipated Cultural Resource Discovery Plan in Appendix D.

3.2 Project Measures

Flagging during construction is recommended for cultural resources at [REDACTED] locations along this segment ([REDACTED]). The flagging will assist the construction tool's positioning system, and the cameras and sonar mounted on the tool to ensure that the burial tool does not impact the cultural resource. In addition to flagging an archaeologist will be present at installation of the line near [REDACTED] to ensure impacts to the resource are avoided.

3.3 Archaeological Oversight Methodology

Archaeological monitoring is recommended for [REDACTED] to verify that no impacts occur to the underwater cultural resource. Archaeological monitoring is defined by the New York Archaeology Council as "the observation of construction



excavation activities by an archaeologist in order to identify, recover, protect and/or document archaeological information or materials.” The standards from the New York Archaeological Council and the NYS OPRHP Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State address archaeological monitoring may be acceptable under certain circumstances during Phases II and III as a “supplemental” technique. The Standards caution, however, that “due to the complexities often characterizing projects and sites located in urban settings, [the] guidelines apply primarily to projects situated in non-urban environments.”

Based on these standards, the following plan was developed for archaeological monitoring for the Hudson River route corridor for the CHPE submarine power cable transmission line. Archaeological monitoring will consist of a maritime archaeologist to be present on the cable installation vessel during construction activities at [REDACTED]. The maritime archaeologist will be observing the sonar and video feeds of the installation of the CHPE transmission cable from the installation tool, at [REDACTED] wrecks to ensure that no unintended impacts occur to the underwater cultural resources. Unintended impacts may consist of disturbance or destruction to the resources through deviation of the proposed maintained distance of [REDACTED].

If any unintended impacts occur to the underwater cultural resources, then construction activities may potentially need to halt. NKT, TRC, and LCMM will identify authority to be given to the archaeologist(s) to be able to halt construction activities, if necessary, to allow for investigation. This stop-work authority will be clearly communicated to all levels of the contractor’s on-site construction team, including the equipment operator(s). The protocol for consultation and decision making required in order to slow down or halt construction activities (e.g., consultations with construction, engineering, and agency personnel), including identification of specific persons to be contacted, and the amount of halt time needed, will be communicated to all on-site personnel.

The actions to be taken by maritime archaeologist on the impacted remains of the underwater cultural resource will require further study and will include having the construction team in operation of the cable laying tool record the impacted section of the underwater cultural resource with its video and sonar system. Using a notebook and pencil, the maritime archaeologist will work to record what part of the underwater cultural resources was impacted and the extent of impact based on the sonar and video imagery. These notes will be augmented by the sonar and video imagery and will be made available to TRC and LCMM for further study and research.

Based on the New York Archaeological Councils Professional Standards and the nature of the Project, any impacted remains of the underwater cultural resource are to be left in situ (in place) and will not be removed. The impacted remains will be recorded to the best extent by the maritime archaeologist. Analysis and interpretation will be done on the impacted remains while construction is halted. A professional addendum report on the impacted remains of the underwater cultural resource will be prepared by LCMM and TRC afterwards and provided to TRC and NKT for review



before submission to the NYS OPRHP and any other agencies involved on the Project. The purpose of the addendum report is to address the nature of the unintended impact. The addendum report will also describe the procedures followed before, during, and after the unintended impact on the underwater cultural resource. The analysis and interpretation for the unintended impact on the underwater cultural resource will be detailed followed by a conclusion.



4.0 Communication

Table 1 has been created to facilitate efficient contact and communication for the implementation of this Supplemental CRMP.

Table 1. Project Contacts

| Agency/Organization | Role | Contact Name | Contact information |
|---|------------------------------|--------------------------------|--|
| NKT, Inc. | Project Preservation Officer | Jonas Carlson | jonas.carlson@nkt.com |
| TRC Environmental Corp. | Consulting Engineer | Kevin Bodenhamer | kbodenhamer@trccompanies.com |
| U. S. Department of Energy | Stakeholder | Melissa Pauley | melissa.pauley@dhq.doe.gov |
| U.S. Army Corps of Engineers | Stakeholder | Stephan Ryba | Stephan.a.ryba@usace.army.mil |
| New York State Historic Preservation Office | Stakeholder | Nancy Herter | Nancy.heter@parks.ny.gov |
| New York DPS | Stakeholder | Matthew Smith | Matthew.smith@dps.ny.gov |
| TRC Environmental Corp. | Consulting Archaeologist | Karen E Mack | Kemack@trccompanies.com 207-215-2872 |
| Transmission Developers Inc. | Applicant /Owner | Ayokunle "Kunle" Kafi, PE, CEM | Ayokunle.kafi@transmissiondevelopers.com 347-920-6550 |



5.0 Deliverables

5.1 Periodic Updates

The PPO in coordination and under the guidance of the CA will provide periodic updates on the progress of cable installation via email to the stakeholders. The communication will include project progress, discussion of unanticipated cultural resources, and the schedule for future work.

5.2 Annual Report

The PPO will prepare an annual report to the U.S. Department of Energy and the NYSHPO (and any of the other signatory or consulting parties listed in the Programmatic Agreement), which summarizes activities conducted under this CRMP on an annual basis for as long as this CRMP is in effect (i.e. through post-construction monitoring). The report will be completed and submitted on or before January 10 of each year. The CRMP may be updated and/or revised as appropriate to improve its implementation so long as concurrence is reached by the parties involved. The annual report will include a summary of all historic properties and archaeological resources that may have been encountered during construction and how they were treated. Post-construction reports will identify which cultural resources were monitored and provide a summary of resource conditions and whether looting or other forms of ground disturbances were noted.



6.0 References

Lake Champlain Maritime Museum

2024 Final Report for the Underwater Cultural Resource Review of the Champlain Hudson Power Express Hudson River Segment Investigations.

New York Archaeological Council (NYAC)

1994 *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State*. NYAC, n.p.



Appendix A – Cultural Resource Management Plan

**CHAMPLAIN HUDSON POWER EXPRESS HVDC
TRANSMISSION LINE PROJECT**

Cultural Resources Management Plan

Confidential

FINAL

PREPARED BY

TRC

OCTOBER 2015

REVISED FEBRUARY 2021

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CHAMPLAIN HUDSON POWER EXPRESS HVDC TRANSMISSION LINE PROJECT

Cultural Resources Management Plan

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Confidential

Champlain Hudson Power Express HVDC Transmission Line
Cultural Resources Management Plan

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LIST OF ACRONYMS

ACHP – Advisory Council on Historic Preservation
APE – Area of Potential Effect
CA – Consulting Archaeologist
CHPE, LLC – Champlain Hudson Power Express, LLC
CRMP – Cultural Resources Management Plan
DOE – U.S. Department of Energy
GIS – Geographic Information System
Hartgen – Hartgen Archaeological Associates, Inc.
HVAC – high-voltage alternating current
HVDC – high-voltage direct current
MW – megawatt
NHPA – National Historic Preservation Act
NYAC – New York Archaeological Council
NYSHPO – New York State Historic Preservation Officer
NYSM – New York State Museum
PPO – Project Preservation Officer
ROW – Right-of-Way
TRC – TRC Companies, Inc.

CHAMPLAIN HUDSON POWER EXPRESS HVDC TRANSMISSION LINE PROJECT

Cultural Resources Management Plan

1.0 INTRODUCTION

This document is intended to serve as the Cultural Resources Management Plan (CRMP or Plan) for the Champlain Hudson Power Express HVDC Transmission Line Project (Project). The Programmatic Agreement for the Project, which was signed by the New York State Historic Preservation Officer (NYSHPO) and the U.S. Department of Energy (DOE) as signatory parties and the Champlain Hudson Power Express, LLC (CHPE, LLC or Permittee¹) and the U.S. Army Corps of Engineers as concurring parties, sets forth an outline for this Plan. The goal of the CRMP is to provide the framework within which potential impacts to all relevant historic properties (those properties eligible for or listed in the National Register of Historic Places) known to exist or may be discovered to exist within the Project are to be managed. It additionally establishes a framework for identifying and undertaking additional archaeological work that may be required prior to and during construction of the Project.

The development of the CRMP for the Project is authorized under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. The CRMP takes into consideration the Advisory Council on Historic Preservation (ACHP) guidance on conducting archaeology under Section 106 (ACHP 2009); the ACHP's February 23, 2007 *Policy Statement Regarding the Treatment of Burial Sites, Human Remains, and Funerary Objects* (ACHP 2007); NYSHPO's *Human Remains Discovery Protocol* (NYSHPO 2021); the New York Archaeological Council's (NYAC) *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State* (1994, as adopted by the NYSHPO in 1995); the *Secretary of the Interiors Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716-44742, September 29, 1983; as amended and revised); the DOE's *American Indian and Alaska*

¹In August 2020, Champlain Hudson Power Express, Inc. (CHPEI) converted from a corporation to a limited liability company (CHPE, LLC). For the purposes of this filing, "Permittee" represents both past and current holders of federal and state permits and approvals.

Native Tribal Government Policy (DOE 2006); and the DOE's *Policy 141.1: Management of Cultural Resources* (DOE 2011).

The CRMP is organized in the following manner: Section 2 provides general background information regarding the Project, including a description of the Project facilities, its location, and the definition of the Area of Potential Effect (APE). The historic context(s) within which all known historic properties are understood and evaluated are then presented. This is followed by a summary of past cultural resource studies for the Project and their results. Section 2 of the CRMP concludes with a description of known and potential historic properties and details their significance. Section 3 outlines the basic historic preservation standards and the project management goals which will guide the development and implementation of the CRMP. Section 4 outlines the range of Project effects upon historic properties known to fall or suspected of falling within the APE and measures that might be taken to manage those effects over the course of the construction period. It also provides details regarding the process by which consultation with the NYSHPO and Tribal Historic Preservation Officers and other consulting parties will take place; the manner in which any human remains encountered will be treated; and how provision will be made to foster public interpretation. The final section, Section 5, describes the CRMP implementation procedures, including the designation of a CRMP Coordinator and a consulting archaeologist (CA); periodic reporting requirements; periodic review of the CRMP; and dispute resolution procedures, all with a view towards facilitating consultation among the DOE, the NYSHPO, the ACHP, or other concurring parties.



Appendix B - State Historic Preservation Office/New York State Office of Parks, Recreation and Historic Preservation Human Remains Discovery Protocol (January 2021)

**State Historic Preservation Office/
New York State Office of Parks, Recreation and Historic Preservation
Human Remains Discovery Protocol
(January 2021)**

If human remains are encountered during construction or archaeological investigations, the New York State Historic Preservation Office (SHPO) recommends that the following protocol is implemented.

- Human remains shall be treated with dignity and respect. Should human remains or suspected human remains be encountered, work in the general area of the discovery shall stop immediately and the location shall be secured and protected from damage and disturbance.
- If skeletal remains are identified and the archaeologist is not able to conclusively determine if they are human, the remains and any associated materials shall be left in place. A qualified forensic anthropologist, bioarchaeologist or physical anthropologist shall assess the remains in situ to help determine if they are human.
- If the remains are determined to be human, law enforcement, the SHPO, the appropriate Indian Nations, and the involved state and federal agencies shall be notified immediately. If law enforcement determines that the burial site is not a criminal matter, no skeletal remains or associated materials shall be removed until appropriate consultation takes place.
- If human remains are determined to be Native American, they shall be left in place and protected from further disturbance until a plan for their avoidance or removal is developed. Please note that avoidance is the preferred option of the SHPO and the Indian Nations. The involved agency shall consult SHPO and the appropriate Indian Nations to develop a plan of action. Photographs of Native American human remains and associated materials should not be taken without consulting with the involved Indian Nations.
- If human remains are determined to be non-Native American, the remains shall be left in place and protected from further disturbance until a plan for their avoidance or removal is developed. Please note that avoidance is the preferred option of the SHPO. The involved agency shall consult SHPO and other appropriate parties to develop a plan of action.
- The SHPO recommends that burial information is not released to the public to protect burial sites from possible looting.



Appendix C - Final Report for the Underwater Cultural Resource Review of the Champlain Hudson Power Express, Hudson River Segment Investigations

**FINAL REPORT FOR THE UNDERWATER
CULTURAL RESOURCE REVIEW OF THE
CHAMPLAIN HUDSON POWER EXPRESS,
HUDSON RIVER SEGMENT INVESTIGATIONS**

**Prepared for:
TRC Environmental Corporation
404 Wyman Street, Suite 375
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Contract No. 200749

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March 2024

*Final Report For The Underwater Cultural Resource Review of the Champlain – Hudson
Power Express, Hudson River Investigations*

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EXECUTIVE SUMMARY

This Report presents the review, analysis, and results of the underwater cultural resource work carried out in support of the Hudson River segment of the Champlain-Hudson Power Express (CHPE) project as a Phase IA Report. The goal of the work is to identify potential underwater cultural resources within the Marine Route Survey (MRS) of the Hudson River segment. The investigations were carried out at the request of, and under contract order from TRC Environmental Corporation (TRC) (CO 200749). The work discussed in detail below for the Project, utilized underwater archaeologists who meet the *Secretary of the Interior Professional Qualifications Standards* as defined and officially adopted in 1983 (48 FR 44716, September 29) and the *National Historic Preservation Act* (NHPA) Section 112 and the Section 106 regulations, at §800.2(a)(1) for archaeological resources investigations. The investigation was conducted in accordance with the requirement of the New York State Historic Preservation Office (NYSHPO). Assessment of cultural resources and historic properties adhered to the definition in the NHPA, and per regulations issued by the Advisory Council on Historic Preservation (ACHP).

In this Report, an overall evaluation of the underwater cultural resources identified in the CHPE Hudson River MRS characterized the resources identified along with discussion of their archaeological and historic significance. This Report will aid in the clearance of the entire line in the New York state waters of the Hudson River, which includes the Cementon-Stony Point Hudson Marine Segment and the Congers-Harlem Hudson Marine Segment.

Work on this Project began in the winter of 2022 when the Lake Champlain Maritime Museum (LCMM) was contracted by TRC to evaluate several pre-lay utility crossing locations along the Hudson River segment of the CHPE submarine power cable transmission line. This work continues from previous work done by LCMM in 2010 and 2011 for the initial evaluation of the CHPE Project, which includes a desktop review of Global Information Systems (GIS) databases using datasets collected from Lake Champlain and the Hudson River. The current work will assist in preparation of the Environmental Management and Construction Plan (EM&CP) filings required for the CHPE Project.

Underwater cultural resources are in proximity to the Cementon-Stony Point Hudson Marine Segment and the Congers-Harlem Hudson Marine Segment. Generally, for the underwater cultural resources located within the Area of Potential Effect (APE) of the Hudson River route corridor for the CHPE submarine power cable transmission line, avoidance is recommended. The APE of the Hudson River route corridor has an avoidance buffer of 500 feet (152 meters). For avoidance of underwater cultural resources, LCMM recommends the Project use an avoidance buffer of 164 feet (50 meters) around the submerged cultural resources identified in this Report for cable routing and during construction activities. Consultation with the NYSHPO is advised to discuss the planned avoidance measures for any of the wrecks identified in this Report where the cable installation activities would occur within the 164 feet (50 meters) avoidance buffer.



Appendix D - Unanticipated Underwater Cultural Resource Discovery Plan

Champlain Hudson Power Express
Unanticipated Underwater Cultural Resource Discovery Plan

EM&CP Segment 19B

December 2023

INTRODUCTION

This Unanticipated Underwater Cultural Resource Discovery Plan outlines the procedures to be implemented during underwater cable installation in the Hudson River (“EM&CP Segment 19B”) should potential cultural resources be incidentally discovered.

UNANTICIPATED DISCOVERY OF OFFSHORE ARCHAEOLOGICAL OR HISTORIC RESOURCES

This Unanticipated Discovery Plan (UDP) is based on government agency and industry standard UDPs developed for Underwater Cultural Resource Management and offshore projects. The UDP addresses the manner of how the inadvertent discovery of underwater cultural resource(s), unmarked burials, or human remains during pre-installation, installation, and post-installation activities (collectively referred to as installation activities) for the proposed Project will be managed.

Designated project team members have the responsibility to monitor development and post-development procedures for the inadvertent discovery of underwater cultural resource(s), unmarked burials, or human remains. If during any of installation activities, evidence of prehistoric or historic cultural remains is encountered, any bottom disturbing activity in the project area will cease immediately to preclude any further contact or damage to the resources. An avoidance/buffer zone of at least 164 feet (50 meters) or another radius measurement for an avoidance/buffer zone determined by the New York State Historic Preservation Office (NYSHPO) for further work in that area will be established. If the cultural resource is discovered during any installation activities, all work will cease and at no time will the operators of installation equipment be permitted to disturb or pick up any artifacts, features, or components of the site.

The Project Preservation Officer (PPO) must be notified immediately upon discovery of cultural resources and the PPO must notify the consulting archaeologist (CA). Within twenty-four (24) hours of such discovery, the Certificate Holder will notify and seek to consult with Department of Public Service (DPS) Staff and the Office of Parks, Recreation, and Historic Preservation (OPRHP) Field Services Bureau to determine the best course of action. No ground-disturbing activities will be permitted in the vicinity of the archaeological or historic materials until such time as the significance of the resource has been evaluated and the need for and scope of impact mitigation

has been determined. Examples of potential underwater cultural resources may include the following:

- Anomalous and distinct mounds of lithic material, which could represent ballast material from a shipwreck.
- Intact articulated wooden ship timbers or sections of iron, steel, or metal-clad hulls.
- Substantial cargo remains, which may be scattered or closely grouped, and which may include armaments, ammunitions, wooden crates and barrels, ceramics, glass, and other cultural materials, some of which may be heavily concreted and readily identifiable.
- A widely scattered debris field comprised of ship's rigging and other structural components, as well as cargo.
- Anomalous mounds of mollusk shells that may include prehistoric lithic or worked shell material.
- Human skeletal remains.

Any mitigation and avoidance measures will be conducted using methods approved by OPRHP under the direction of the PPO and CA. Such measures will use equipment and techniques deemed necessary to determine the type of underwater cultural resource(s) and confirm unmarked burials or human remains. Additionally, confirmed underwater cultural resource(s) will be subsequently evaluated to determine eligibility for inclusion in the National Register of Historic Places (NHRP). If the underwater cultural resource(s) is determined to be historically significant, additional work that may include formal data recording and analysis may be required and approved by the appropriate agencies. Further work at the location of the discovery will be suspended until clearance to proceed is granted by the appropriate agencies.

Should human remains or evidence of human burials be encountered during the conduct of archaeological data recovery fieldwork or during construction, all work in the vicinity of the find will be halted immediately and the site will be protected from further disturbance. Within twenty-four (24) hours of any such discovery, the Certificate Holder will notify the DPS Staff and NYSHPO/OPRHP Staff. Treatment and disposition of any human remains that may be discovered will be managed in a manner consistent with the Native American Graves Protection and Repatriation Act (NAGPRA); the Advisory Council on Historic Preservation's Policy Statement Regarding Treatment of Burial Sites, Human Remains, any Funerary Objects (February 2007 updated in 2023); and NYSHPO/OPRHP's Human Remains Discovery Protocol (2021). All archaeological or remains-related encounters and their handling will be further

reported in the status reports summarizing construction activities and reviewed in the site-compliance audit inspections. The following measures will be implemented in accordance with the BMP Document (2012 BMPs, Section 17):

- a) Any human remains discovered will be treated with the utmost dignity and respect.
- b) Work in the general area will stop immediately, and the area will be physically secured and a barrier prohibiting vehicles, equipment, and unauthorized persons from accessing the discovery site will be put in place. The site will be protected from damage and disturbance to the fullest extent possible.
- c) Human remains and associated artifacts will be left in-situ and not disturbed. No human remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place.
- d) The Certificate Holder will contact local law enforcement, the county coroner's office, the NYSHPO, and Native tribes, as appropriate. Local law enforcement officials, and the county coroner's office will examine the remains to determine if the remains are forensic or archaeological.
- e) Within twenty-four (24) hours of any such discovery, the Certificate Holder will notify the DPS Staff and NYSHPO/OPRHP Staff. Treatment and disposition of any human remains that may be discovered will be managed in a manner consistent with the NAGPRA; the Council's Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects (February 2007); and NYSHPO/ OPRHP's Human Remains Discovery Protocol. All archaeological or remains-related encounters and their handling will be reported in the status reports summarizing construction activities and reviewed in the site compliance audit inspections.
- f) If the remains are determined to be Native American, the remains will be left in-situ and protected from disturbance until a plan for their protection or removal can be generated. The Certificate Holder will notify the NYSHPO and Native tribes within twenty-four (24) hours (during normal business hours) or as soon as possible after the discovery has been determined to be archaeological rather than forensic. The Certificate Holder will consult with the NYSHPO and Native tribes to develop a plan of action, consistent with the guidance provided in the NAGPRA, the Council's 2007 Policy Statement (updated in 2023), and the NYSHPO/OPRHP's Human Remains Discovery Protocol (2021). Avoiding further disturbance of the remains is the preferred option.

g) If the human remains are determined to be non-Native American, the remains will be left in-situ and protected from disturbance until a plan for their avoidance or removal can be generated. The Certificate Holders will consult with the NYSHPO and other appropriate parties to determine a plan of action.

h) Work will resume only after the completion of the necessary consultation and treatment.

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