

these portions of the Hudson River, potential conflict with water related commercial navigation using the federally maintained navigation channel can be avoided.

Several conditions are imposed to ensure consistency with State Policy 7. The applicant must amend its pending federal applications to display a new route which avoids these northern Hudson River habitats. The transmission cable must not occupy any segment within the Hudson River north of the southerly boundary of the Inbocht Bay and Duck Cove Significant Coastal Fish and Wildlife Habitats. Additionally, all transitions from upland to submarine configurations within the coastal area must be accomplished by horizontal directional drilling. Thus, where the transmission cables transition from land to water south of this habitat, the applicant must utilize horizontal directional drilling methods to install the cable to minimize disturbance to shoreline and nearshore coastal fish and wildlife habitats. The horizontal directional drilling entry/exit point will be designed to enter/exit the water at a depth sufficient to avoid impacts to shoreline, intertidal and nearshore areas.

The transmission cable must entirely avoid entering Haverstraw Bay. As proposed, the transmission cable would traverse the State designated Haverstraw Bay SCFWH. The habitat documentation for Haverstraw Bay states that "...the Bay possesses a combination of physical and biological characteristics that make it one of the most important fish and wildlife habitat in the Hudson River estuary. The regular occurrence of brackish water over extensive shallow bottom creates highly favorable conditions for biological productivity within the estuary, including submerged vegetation, phytoplankton and zooplankton, aquatic invertebrates, and many fish species." (Emphasis added).¹⁶

The habitat documentation indicates that in terms of ecosystem rarity, "[the bay is] the most extensive area of shallow estuarine habitat in the lower Hudson River."¹⁷ The documentation also indicates that: Shortnose sturgeon, an endangered species, regularly occur in the bay; the habitat contributes to recreational and commercial fisheries throughout the northeastern United States; the bay is a major spawning, nursery, and wintering area for various estuarine fish species (e.g. striped bass, American shad, white perch, Atlantic sturgeon, blue claw crab) and that their population levels are unusual in the northeastern United States; and the habitat is irreplaceable. Haverstraw Bay also serves as a foraging area for the threatened bald eagle. The documentation further indicates that "Haverstraw Bay is a critical habitat for most estuarine-dependent fisheries originating from the Hudson River and contributes directly to the production of in-river and ocean populations of food, game, and forage fish species. Consequently, commercial and recreational fisheries throughout the North Atlantic, therefore, depend on or benefit from these biological inputs from the [bay]."¹⁸

The narrative describing the Haverstraw Bay SCFWH specifically states "[A]ny physical modification of the habitat or adjacent wetlands, through dredging, filling, or bulkheading, would result in a direct loss of valuable habitat area."¹⁹ Hence, in the past, DOS has carefully guarded the resources of the Bay from all projects that would cause impacts. The physical presence of the transmission system within Haverstraw Bay and the proposed installation methodology would result in a direct loss of habitat within the SCFWH. There are no conditions that can be developed that would avoid habitat loss within Haverstraw Bay except for avoidance of the habitat. For that reason, the bi-pole will be in an upland, buried configuration around the Haverstraw Bay SCFWH. This concurrence is conditioned on a requirement that work within identified SCFWHs will be conducted during the timeframes provided in the narrative describing the SCFWH.

¹⁶ http://www.nyswaterfronts.com/downloads/pdfs/sig_hab/hudsonriver/Haverstraw_Bay.pdf

¹⁷ Id.

¹⁸ Id.

¹⁹ Id.

State Policy 8 – Protect fish and wildlife resources in the coastal area from the introduction of hazardous wastes and other pollutants which bio-accumulate in the food chain or which cause significant sub lethal effects on those resources.

The project installation will mechanically disturb over 95 linear miles of estuarine sediments and benthic habitat and will result in the temporary re-suspension of these sediments and any adsorbed contaminants into the water column. Potentially, contaminants may then be released to the surrounding water body, causing direct harm to resident species and/ or bio-accumulating in the food chain.

The installation and operation of the transmission cables can directly displace benthic (i.e., bottom-dwelling) plants and animals or change their habitats by altering water flows, sediment wave structures, or substrate composition. During installation, bottom disturbances will result from the temporary anchoring of construction vessels; trenching using water jetting techniques and dredging for cable installation; and installation of concrete mattresses in certain locations where bedrock and utility infrastructure crossings preclude the burial of the cable at the optimal depth. The jet-plow technology to be used is anticipated to be relatively efficient in minimizing disturbance. In any case, motile organisms will be displaced and sessile organisms will be destroyed in limited areas affected by these activities. Displaced organisms may be able to relocate assuming the availability of suitable habitat nearby. Species with benthic-associated spawning or whose offspring settle into and inhabit benthic habitats are likely to be most vulnerable to disruption during project installation. When construction is completed, disturbed areas are likely to be re-colonized by these same organisms, because the substrate will, in most places, be restored to a similar state.²⁰ It should be noted that juvenile sturgeon may be particularly impacted by disturbance of benthic communities if similar foraging habitat is not immediately available to them in the vicinity.

Water jetting and cable installation activities in the Hudson, Harlem and East Rivers and Lake Champlain will disturb and suspend bottom sediments and may release any contaminants attached to such sediments. As this occurs, there is also a risk of bioaccumulation in the tissues of animal species up the food chain. Avoidance of known areas of contamination is the most effective method to minimize re-suspension of contaminants and known contaminant areas should be avoided in routing the project. In addition, an assessment of contaminated soils in the lower Hudson River estuary will likely be conducted during subsequent regulatory approval phases of this project (such as the PSC's Environmental Management and Construction Plan) and compared to the precise cable route.

State Policy 9 – Expand recreational use of fish and wildlife resources in coastal areas by increasing access to existing resources, supplementing existing stocks, and developing new resources.

State Policy 10 – Further Develop commercial finfish, shellfish, and crustacean resources in the coastal area by encouraging the construction of new, or improvement of existing on-shore commercial fishing facilities, increasing marketing of the state's seafood products, maintain adequate stocks, and expanding aquaculture facilities.

The project installation, operation and maintenance has the potential to affect recreational and commercial fish and wildlife resources by exposing said resources to magnetic fields in excess of the normal range, disturbing habitat, increasing turbidity and allowing temporary re-suspension of hazardous wastes, pollutants, or materials, hence increasing the risk to resources and uses of the Hudson River.

²⁰ U.S. Department of Energy, Report to Congress on the Potential Environmental Effects of Marine and Hydrokinetic Energy Technologies. December 2009.

Electric current traveling through HVDC cables induce magnetic fields in the immediate vicinity. Certain aquatic species may be particularly sensitive to magnetic fields generated by the transmission cables including cartilaginous fishes (elasmobranches) and sturgeons. Electro-magnetic fields may change animals' foraging and feeding behaviors, alter migration patterns or cues, reproduction, and may increase susceptibility to predation. Impacts on other species, if any, are unknown at this time due to a lack of published research.

Modeling has indicated that when both poles of the HVDC cables are located within close proximity of each other, the opposing magnetic fields substantially cancel each other out, resulting in a diminished magnetic deviation from the ambient magnetic field. This deviation's potential effects on marine resources can be further minimized by providing as much physical distance as possible between the cables and the coastal resources that may be affected by it.

Given the existing state of marine cable burial technology, the specific configuration of HVDC cable currently available and the underlying geology of the Hudson, Harlem and East Rivers, a full six (6) feet or more of separation can be maintained for the majority of the sub aquatic route within the coastal area. The six (6) feet of separation and co-location of each cable within the same trench, will result in diminished magnetic field deviations within the water columns of these water bodies, thus minimizing the potential effects of magnetic fields on marine resources. Additional monitoring and reporting is expected to occur following cable installation which will supplement the existing knowledge base and guide future siting decisions for similar projects that may be proposed in the future.

The commercial and recreation fishery resources within the Hudson, Harlem and East Rivers are extremely valuable to the State and the nation. Various fish species, during various life stages, may be significantly present or absent from various locations within these water bodies. The SCFWH narratives provide time frames when habitat disturbance would be less detrimental to the SCFWH and subsequently, less injurious to the commercial and recreational fish populations that utilize them. Additionally, the ongoing PSC Article VII process may develop work windows and siting provisions describing when and where in-water work would be least detrimental to commercial and recreational fisheries outside of SCFWHs. These work windows and siting provisions, when combined with the work windows discussed in the applicable SCFWH narratives, will minimize habitat disturbance in the SCFWHs and minimize risks to commercial and recreational fisheries.

This concurrence is therefore conditioned on a requirement that when work is conducted in identified SCFWHs, it will be conducted during the timeframes provided in the narrative describing the SCFWH. Outside of SCFWHs all in-water work will be conducted in accordance with the provisions developed during the Article VII proceedings.

State Policy 19 - Protect, maintain, and increase the level and types of access to public water related recreation resources and facilities.

The project will utilize resources held in the public trust, which are traditionally used by the public for water related recreation activities including recreational fishing and boating. Substantial use of public resources will be required for the project to be installed as proposed; the use of said resources must serve a public need and alienate the least amount of public resources as possible. Generally, the project should minimize alienating public trust resources by utilizing a buried cable configuration and by sharing waterways with existing user groups during installation.

The cables will be buried at a depth within the Hudson, Harlem, and East Rivers that is not anticipated to affect current or future recreational navigation. The proposed project's impacts on

recreational fisheries are anticipated to be minimal and temporary given the analysis of policy 9 and 10 above. Temporary impacts to the public's use of existing water resources will be limited to short-term exclusion from areas temporarily occupied by installation equipment. As conditioned, the project would be consistent with this policy.

State Policy 27 - Decisions on the siting and construction of major energy facilities in the coastal area will be based on public energy needs, compatibility of such facilities with the environment, and the facility's need for a shorefront location.

The CHPE project has the potential to be incompatible with the environment and will utilize shorefront locations. The need for the electricity that the project would transmit will be evaluated and considered by the PSC. The PSC's decision regarding public energy need should be entirely consistent with this policy and will be further analyzed pursuant to a complete state coastal consistency review of the state action. The potential impacts on coastal uses and resources have already been discussed in connection with other policy assessments. All of the conditions imposed with this determination are necessary to allow the project to be consistent with this policy.

State Policy 37 - Best Management Practices will be utilized to minimize the non-point discharge of excess nutrients, organics, and eroded soils into coastal waters.

The CHPE project will require excavation of soils within the coastal area as well as the re-suspension of marine sediments which may affect coastal resources. The applicant has developed a substantial best management practices (BMP) in conjunction with its Article VII process and the document outlines various BMPs that will be utilized during the installation of the proposed cable including the development of a stormwater pollution prevention plan as per the terms of the general permit for construction stormwater discharges. When finalized through the Article VII process, consistent implementation of proposed BMPs can be expected to minimize non-point discharge of nutrients, organics, and soils by first controlling erosion in disturbed areas and then containing sediment on site.

State Policy 44 - Preserve and protect tidal and freshwater wetland and preserve the benefits derived from these areas.

As originally proposed, the project will occupy existing wetlands. However, the upland portions of the proposed route have been sited within previously disturbed railroad and highway corridors and will largely avoid adjacent wetlands. For those portions of the proposed route that would traverse tidal or freshwater wetlands, the impacts will be temporary in nature and will be minimized by the use of best management practices that have been developed in support of the project.

VI. Summary of Conditions

As described in the applicant's U.S. Department of Energy Delegated Presidential permit application and the Corps CWA § 404/Rivers and Harbors § 10 Permit application, the project would not be consistent with the enforceable policies contained within the CMP. DOS has developed conditions, that if adopted by the applicant, pursuant to 15 CFR Part 930.4, that would allow the project to be found consistent if adopted. These conditions are summarized below.

- 1.) The transmission cables will be buried at the maximum depth achievable that would allow each pole of the bi-pole to be buried in a single trench using a jet-plow. Given the state of the available information, this is expected to be at least six (6) feet below the sediment water interface. Should the bi-pole occupy any federally maintained navigation channels it will be

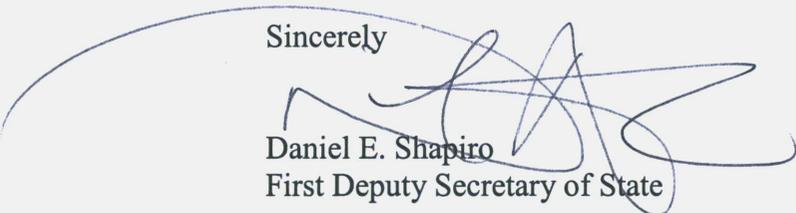
buried at least 15 feet below the authorized depth in a single trench within those channels. The cable will be maintained at these depths and depth of burial will be verified on a periodic basis so as to not become a hazard to navigation or marine resources.

- 2.) All transitions from upland to submarine configurations within the coastal area will be accomplished by horizontal directional drilling and will be at a depth sufficient so as to not interfere with any current or future water dependant uses.
- 3.) The transmission cable will not occupy any area within the Hudson River north of the southerly boundary of the Inbocht Bay and Duck Cove SCFWH.
- 4.) The transmission cable will be in an upland, buried configuration around the Haverstraw Bay SCFWH.
- 5.) When work will be conducted in identified SCFWHs, it will be conducted during the timeframes provided in the narrative describing the SCFWH. Outside of SCFWHs all in water work will be conducted in accordance with the recommendations developed during the Article VII proceedings.

CONCLUSION

The project is found consistent with the enforceable policies contained within the New York State Coastal Management Plan subject to the five conditions presented in this document. Should the presented conditions not be acceptable, this conditional concurrence shall be treated as an objection as the proposed activity would not be consistent with State Policies 2, 3, 7, 9, 10, 19, 27, 37 and 44 of the New York State Coastal Management Program.

Sincerely



Daniel E. Shapiro
First Deputy Secretary of State

cc: U.S. DOE: Dr. Jerry Pell, Principal NEPA Document Manager
Corps NY: Naomi Handell, Project Manager
OCRM: Joelle Gore, Acting Chief for Coastal Programs
David Kaiser, Senior Policy Analyst
Kerry Kehoe, Federal Consistency Specialist
HDR/DTA: Dr. Sean Murphy,
CHPE Inc.: William Helmer Esq.
Hiscock & Barclay, LLP:
George Pond, Esq.
Frank Bifera, Esq.
PSC: Jeffrey Cohen, Deputy for Policy and Legal Affairs
Steve Blow Esq.
DEC: Steve Russo, Esq. General Counsel
William Little Esq.
Patricia Desnoyers Esq.

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July 7, 2011

Mr. Anthony J. Como
Director, Permitting and Siting
Office of Electricity Delivery and
Energy Reliability (OE-20)
U.S. Department of Energy
1000 Independence Avenue SW, Room 8G-024
Washington, D.C. 20585

**Subject: Champlain Hudson Power Express Project
U.S. Department of Energy Presidential Permit Application PP-362**

Dear Mr. Como:

On January 25, 2010, Transmission Developers, Inc. ("TDI" or "Applicants") submitted on behalf of Champlain Hudson Power Express, Inc. ("CHPEI") an application to the U.S. Department of Energy ("DOE") for a Presidential Permit and an amendment on August 5, 2010 (collectively, the "Application") in connection with the Champlain Hudson Power Express project ("Project"). On December 6, 2010, in connection with their submission of an application to the U.S. Army Corps of Engineers to obtain construction permits pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899, a coastal zone consistency certification assessment and accompanying forms were submitted to the New York State Department of State ("NYSDOS"). NYSDOS received this submission on December 8, 2010.

On June 8, 2011, NYSDOS issued its conditional concurrence for the Project which contained five conditions. To demonstrate their acceptance of these conditions, the Applicants are amending their Application as follows:

- 1) The transmission cables will be buried at the maximum depth achievable that would allow each pole of the bi-pole to be buried in a single trench using a jet-plow. Given the state of the available information, this is expected to be at least six (6) feet below the sediment water interface. Should the bi-pole occupy any federally maintained navigation channels it will be buried at least 15 feet below the authorized depth in a single trench within those channels. The cable will be maintained at these depths and depth of burial will be verified on a periodic basis so as to not become a hazard to navigation or marine resources.**

The original Application stated that the submarine cable generally would be buried to a depth of approximately three (3) to four (4) feet beneath the bed surface and separated by a distance of three (3) feet. The Applicants will now install the underwater cables in the State's coastal waters, which for this project would be the Hudson, Harlem and East Rivers, to the maximum depth achievable that allows each pole of the bi-pole to be buried side-by-side in a single trench

using the jet plow installation technology. Based on available information, the Applicants believe the burial depth in such situations will be six (6) feet below the sediment-water interface and that the trench will be approximately 2 feet wide. Where the bi-pole occupies any federally maintained navigation channel in the State's coastal waters, the cables will be buried at least fifteen (15) feet below the U.S. Army Corp of Engineer's authorized navigation channel depth in a single trench. The Applicants will maintain the cables at these depths and depth of burial will be verified on a periodic basis, in accordance with the Applicant's New York State Public Service Commission Article VII Certificate, so as to not become a hazard to navigation or marine resources.

- 2) All transitions from upland to submarine configurations within the coastal area will be accomplished by horizontal directional drilling and will be at a depth sufficient so as to not interfere with any current or future water dependent uses.**

The original Application stated that, in intertidal and shoreline areas, horizontal directional drilling ("HDD") is preferred to open trenching because it does not expose the surface to wave action. The Applicants have agreed to complete all transitions from upland to submarine configurations by HDD. The HDD installations will be at a depth sufficient so as to not interfere with any known current or foreseeable future water dependent uses.

- 3) The transmission cable will not occupy any area within the Hudson River north of the southerly boundary of the Inbocht Bay and Duck Cove SCFWH.**

The original Application stated that the cables would enter the Hudson River in the town of Coeymans, New York. The Applicants will now route the cables so they enter the Hudson River further south in the Town of Catskill, New York. This placement would locate the cables south of both the Inbocht Bay and the Duck Cove Significant Coastal Fish and Wildlife Habitat ("SCFWH").

- 4) The transmission cable will be in an upland, buried configuration around the Haverstraw Bay SCFWH.**

The original Application stated that, once in the Hudson, the underwater cables would be buried in the bed of the River south to the New York City metropolitan area. The Applicants will now route the cables so they will be buried in a western-shore upland bypass configuration that would avoid the Haverstraw Bay SCFWH.

- 5) When work will be conducted in identified SCFWHs, it will be conducted during the timeframes provided in the narrative describing the SCFWH. Outside of SCFWHs all in water work will be conducted in accordance with the recommendations developed during the Article VII proceedings.**

The Applicants will adhere to all SCFWH narrative timeframes when conducting work in an identified SCFWH. Outside of SCFWHs, the Applicants have, in consultation with state regulatory agencies, developed a schedule of construction windows (see Table 1) which the Applicants anticipate will be included in its Article VII certificate.

Table 1: Proposed Construction Windows

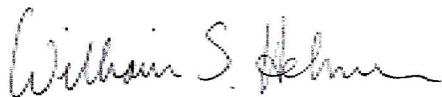
River Mile	Project Route Mile	Location	Construction Windows
Lake Champlain			
	0 to 73	U.S./Canada Border to Crown Point	May 1 - August 31
	73 to 103	Crown Point to Dresden	September 1 - December 31
Hudson River, Harlem River, East River			
107-103	230 to 234	Cementon - Malden	August 1 - October 15
103-97	234 to 239	Malden - Turkey Point	August 1 - October 15
97-91	239 to 246	Turkey Point - Kingston Point	August 1 - October 15
91-87	246 to 250	Kingston Point - Esopus Meadows	August 1 - October 15
87-80	250 to 257	Esopus Meadows - Crum Elbow	August 1 - October 15
80-76	257 to 261	Crum Elbow - Poughkeepsie	August 1 - October 15
76-68	261 to 269	Poughkeepsie - New Hamburg	August 1 - October 15
68-56	269 to 280	New Hamurg - Pollepel Island	September 15 - November 30
56-41	280 to 296	Pollepel Island - Verplanck	September 15 - November 30
41-33	296 to 305	Verplanck - Croton Point	OVERLAND
33-18	305 to 320	Croton point - Yonkers	July 1 - October 31
18-14	320 to 324	Yonkers - Harlem River	July 1 - October 31
all		Harlem River - East River	May 15 - November 30

The Applicants note that confidential settlement discussions regarding its application to the New York State Public Service Commission (“NYSPSC”) for siting approval are still on-going. These negotiations have covered a wide variety of topics that may be relevant to the DOE’s review of the Project and may affect the preferred routing. Therefore, the Applicants are proposing to submit revised sections of the Application after July 8, 2011 that will incorporate or reflect the five DOS conditional concurrence requirements as well as any conditions that come out of the Article VII process. The June 24th, 2011 report to the Administrative Law Judges called for settlement talks to be concluded by August 12, 2011. The Applicants believe and the NYSDOS has agreed this is the most efficient approach, as it would avoid having to submit and potentially resubmit sections of the Application in a relatively short period of time.

Please feel free to contact me at (518) 465-0710 or by e-mail at bill.helmer@transmissiondevelopers.com with any questions or concerns. We look forward to continuing to work with your office on this Project.

Sincerely,

TRANSMISSION DEVELOPERS INC.



William S. Helmer
Senior Vice President and General Counsel

cc: Donald Jessome, TDI
Sean Murphy, HDR|DTA
Jay Ryan, Van Ness Feldman
Kari Gathen, DOS
Jeffrey Zappieri, DOS

Murphy, Sean (Portland)

From: Maraglio, Matthew (DOS) [Matthew.Maraglio@dos.ny.gov]
Sent: Tuesday, May 29, 2012 1:47 PM
To: Murphy, Sean (Portland)
Cc: Zappieri, Jeffrey (DOS)
Subject: RE: Champlain Hudson Power Express
Attachments: COASTAL-#18447-v1-07-07-11_CHPE_USACE_Amendment_Ltr_pdf.pdf; COASTAL-#18449-v1-07-07-11_CHPE_USDOE_Amendment_Ltr_pdf.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Sean

You are required to resubmit to us if changes have occurred since DOS completed its review that would result in substantially different coastal effects or if there is new and substantial information. An applicant would generally make that determination on their own or DOS could notify an applicant if substantially different coastal effects were anticipated. Many applicants submit project modifications as a matter of caution.

In this case, it does not appear that there have been modifications to the project, (beyond the modifications described in the attached letters which reflect DOS's conditions), that would result in substantially different coastal effects than what DOS originally reviewed or conditioned. As such, at this time, it does not appear that you would need to resubmit to us. If, during the ongoing NEPA or other processes, modifications to the project occur that would result in substantially different coastal effects than what DOS reviewed or conditioned, DOS may need to review those modifications. Please feel free to have staff completing the NEPA EIS analysis contact me if needed.

-Matt

Matthew P. Maraglio, CPESC
Coastal Review Specialist
NYS Department of State
Division of Coastal Resources
One Commerce Plaza
99 Washington Avenue
Albany, NY 12231-0001

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F: (518) 473-2464
Email: Matthew.Maraglio@dos.ny.gov
Website: <http://www.dos.ny.gov>

From: Murphy, Sean (Portland) [<mailto:Sean.F.Murphy@hdrinc.com>]
Sent: Tuesday, May 29, 2012 10:21 AM
To: Maraglio, Matthew (DOS); Gathen, Kari (DOS)
Subject: Champlain Hudson Power Express

Good morning,

I hope this email finds you well. We recently received the following question from the staff completing the NEPA EIS analysis:

“JP Exhibit 121 (Environmental Impact Assessment) has a CZMA consistency evaluation for the JP route. Has a revised evaluation and request for consistency been sent to NYSDOS?”

We would be happy to submit a revised request for consistency if needed, but had been under the assumption that the project as proposed in the Joint Proposal for Settlement was consistent with the Conditional Concurrence issued by the NYSDOS in June of 2011 as the NYSDOS had signed onto the Joint Proposal. Could I ask you to confirm that there is no need to file a revised request for consistency?

Please let me know if you need any additional information. Thank you in advance for your consideration.

Regards,

SEAN MURPHY
Ph.D

HDR Engineering, Inc.
Manager, Regulatory Services - Renewable Energy

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APPENDIX F.2 – LAND USE TABLES

Appendix F.2 Land Use Tables

Appendix F.2 was prepared to support the EIS analysis and identifies the approximate area of various land uses and land cover types within the proposed CHPE Project region of influence (ROI) for the Land Use resource area. The ROI for land use is defined as the land and water 50 feet on either side of the centerline of the transmission cables and within the deviation areas, when present.

Appendix F.2 contains the following tables:

- **Table F.2-1.** Land Use/Land Cover Within the Proposed CHPE Project ROI
- **Table F.2-2.** Land Use Within the Overland Segment of the Proposed CHPE Project
- **Table F.2-3.** Land Use Within the Hudson River Segment of the Proposed CHPE Project
- **Table F.2-4.** Land Use Within the New York City Metropolitan Area Segment of the Proposed CHPE Project
- **Table F.2-5.** Local Waterfront Revitalization Programs/Plans Relevant to the Proposed CHPE Project
- **Table F.2-6.** Local Municipal Land Use Plans Relevant to the Proposed CHPE Project

Table F.2-1. Land Use/Land Cover Within the Proposed CHPE Project ROI

Land Use/Land Cover	Approximate Acres	Percent
Lake Champlain Segment	1,231	100.0
Open Water	1,231	100.0
Overland Segment	2,536	100.0
Commercial/Industrial/Transportation	1,049	41.4
Forested	810	31.9
Open Land/Pasture/Hay/Scrub/Shrub	476	18.8
Residential	79	3.1
Agriculture	46	1.8
Open Water	45	1.8
N/A *	25	1.0
Parks/Open Space/Recreation	6	0.2
Hudson River Segment	1,244	100.0
Open Water	1,089	87.5
Commercial/Industrial/Transportation	61	4.9
Forested	44	3.5
Open Land/Pasture/Hay/Scrub/Shrub	28	2.3
Residential	21	1.7
Parks/Open Space/Recreation	1	0.1
New York City Metropolitan Area Segment	196	100.0
Commercial/Industrial/Transportation	96	49.0
Open Water	71	36.2
Residential	16	8.2
Forested	6	3.1
Open Land/Pasture/Hay/Scrub/Shrub	4	2.0
Parks/Open Space/Recreation	3	1.5

Source: CHPEI 2012i. General land use categories, or land cover, have been classified along the proposed CHPE Project route based on review of aerial photographs, site visits to selected locations along the transmission line route, and resource data from the New York State Geographic Information System (GIS) Clearinghouse.

Note: * N/A = Not Available. Land use GIS data were available for 600 feet on either side of the centerline of the transmission cables for all but 1 percent of the proposed CHPE Project transmission line route.

Table F.2-2. Land Use Within the Overland Segment of the Proposed CHPE Project

Jurisdiction ^a	MP Range	General Land Use/Land Cover (Within/Adjacent to ROI)	Specific Land Use (Within/Adjacent to ROI)	Zoning District	Agricultural District	Deviation Area (Land Use in Deviation Area)
Washington County						
Dresden	101–110	A, C/I/T, F, OL, R	State Bicycle Route 9, South Bay State Boat Launch and South Bay Pier, Adirondack Park and Forest Preserve (Lake George Wild Forest)	Rural Use, Resource Management, Moderate Intensity ^b	No	Yes (undeveloped/residential, railroad, road, South Bay Boat Launch and pier, South Bay)
Whitehall	110	C/I/T, OW	County Route 7A pier	N/A	No	Yes (South Bay)
Village of Whitehall	110–113	A, C/I/T, F, OL, R	State Bicycle Route 9, unnamed park, Trinity Episcopal Church, Whitehall Amtrak Station, residences	Viewshed, Residential B, Commercial, Planned Residential, Light Industrial	No	Yes (undeveloped, roads)
Whitehall	113–118	A, F, OL, R	Champlain Canal, commercial (Adirondack Natural Stone)	N/A	Yes	Yes (undeveloped)
Fort Ann	118–123	C/I/T, F, OL	North Old Route 4, Dewey’s Bridge Quarry, Champlain Canal and Lock C11	Industrial Mixed Use, Town Commercial Mixed Use, Rural ^c	No	Yes (streets, undeveloped)
Village of Fort Ann	123	C/I/T, F	Fort Ann wastewater treatment facility, Champlain Canal	Downtown, Village Residential ^c	No	Yes (roads)
Fort Ann	123–124	A, F	None	Town Commercial Mixed Use ^c	Yes	No
Hartford	124	A, F, OL	None	N/A	Yes	No
Fort Ann	124	A, F, OL	None	Town Commercial Mixed Use ^c	No	No
Kingsbury	124–132	A, C/I/T, F, OL, R	New York State Thruway Authority building, Champlain Canal/Towpath Road	N/A	Yes	Yes (roads)
Fort Edward	132–134	A, C/I/T, OL	Hudson River Dredging Project processing/treatment facility	Light Industrial (including Prime Farmland soils) ^d	Yes	No

Jurisdiction ^a	MP Range	General Land Use/Land Cover (Within/Adjacent to ROI)	Specific Land Use (Within/Adjacent to ROI)	Zoning District	Agricultural District	Deviation Area (Land Use in Deviation Area)
Washington County (continued)						
Village of Fort Edward	134–135	C/I/T, P/O/R, R	Fort Edward/Glens Falls Amtrak Station, Rodgers Island Visitors Center, Hudson River Dredging Project processing/treatment facility, residences, railroad maintenance, and commercial business	Industrial (I), Commercial (C-1 and New C-3), Residential (R-1) ^e	No	Yes (undeveloped, industrial, residential, roads, bridges)
Saratoga County						
Moreau	135–140	A, F, OL, R	Agricultural	Manufacturing 1, Agricultural and Residential (R-5)	Yes	Yes (bridge, undeveloped/residential)
Northumberland (including Hamlet of Gansevoort)	140–143	C/I/T, F, OL, R	Gansevoort Town Park, Bertha E. Smith Park	Hamlet, Residential 1-Acre, Agricultural Protection District, Industrial, Residential 3-Acre	Yes	No
Wilton	143–150	A, C/I/T, F, OL, R	Wilton Wildlife Preserve and Park, Smith subdivision, Paddocks of Saratoga, Gavin Park, light industrial storage yard, Exits 15 and 16 Study Areas (Wilton economic development plan)	Business/Light Industrial, Residential 1 and 2, Commercial/Residential 1, Residential Business 1 and 2, New York State Lands	Yes	Yes (industrial, undeveloped, residential, street)
Greenfield	150–152	F, OL, R	Maple Avenue Middle School (athletic fields), residences, City of Saratoga Springs (including residential areas of Skidmore College)	Office Residential, Agricultural/Residential 4	No	Yes (streets)

Jurisdiction ^a	MP Range	General Land Use/Land Cover (Within/Adjacent to ROI)	Specific Land Use (Within/Adjacent to ROI)	Zoning District	Agricultural District	Deviation Area (Land Use in Deviation Area)
Saratoga County (continued)						
City of Saratoga Springs	152–158	C/I/T, F, OL, R	Saratoga Golf and Polo Club, commercial (Sunnyside Gardens), Care Lane commercial development (including Orthopedic Associates-Saratoga and North Country Academy), Saratoga Springs Amtrak Station, U-Stor-It Self Storage, Saratoga Nursery, Saratoga Spa State Park, W.J. Grande Industrial Park, railroad yard, residences	Institutional Parkland/Recreation, Transect Zone 4 Urban Neighborhood, Transect Zone 5 Neighborhood Center, Rural Residential-1, Urban Residential-2, General Industrial,	No	Yes (roads, undeveloped)
Milton	158–159	F, P/O/R, R	Ballston Spa Abner Doubleday Baseball Fields, residences, business, Kayaderosseras Creek	Residential District	No	Yes (undeveloped, creek, roads, residential, commercial)
Ballston (including Hamlet of Ballston Lake)	159–166	C/I/T, F, OL, R	Oak Street, Zim Smith County Trail, Curtis Industrial Park, Ballston Veterans Bicycle Path, residences, industrial, businesses	Rural, Industrial, Mixed Use Centers, Hamlet Residential, Planned Unit Development District, Watershed Protection Overlay District	Yes	Yes (roads)
Clifton Park	166–168	C/I/T, F, OL	Trail/unimproved road, residences	Conservation Residential, Hamlet Mixed Use, Planned Unit Development, Business Non Retail, Neighborhood Business, Light Industrial 1 and 2, Land Conservation Zone and Adult Use Business Overlay Districts	No	Yes (road)

Jurisdiction ^a	MP Range	General Land Use/Land Cover (Within/Adjacent to ROI)	Specific Land Use (Within/Adjacent to ROI)	Zoning District	Agricultural District	Deviation Area (Land Use in Deviation Area)
Schenectady County						
Glenville	168–172	C/I/T, F, OL, R	Mohawk River, St John's Lutheran Church, residences, businesses	Suburban Residential, Land Conservation	No	Yes (road, railroad, undeveloped/residential, bridge)
City of Schenectady	172–176	C/I/T, F, OL, R	Mohawk River, various commercial/industrial businesses, residences, Erie Canalway Trail (Union Street), TA Predel & Company (scrap yard and recycling)	Light Manufacturing/Warehousing, Manufacturing/Warehousing, Downtown	No	Yes (Mohawk River bridge, streets, railroad, Erie Boulevard, parking lot, industrial use, trail)
Rotterdam	176–181	C/I/T, F, OL, R	Von Roll Isola USA Inc./GE facility, Tri City BMX, industrial, Rotterdam Industrial Park	Light Industrial, Heavy Industrial, Retail Business, General Business, Multiple Family Residential, One- and Two Family Residential, Planned Residential Development, Rural	No	Yes (roads, commercial/industrial businesses, railroad)
Albany County						
Guilderland	181–187	A, C/I/T, F, OL	Residences, 84 Lumber, Watervilet Reservoir, Roger Keenholts Park, Northeastern Industrial Park	Rural, Industrial	No	Yes (undeveloped, roads, residential, railroad)
New Scotland	187–188	F	None	Medium-Density Residential	No	No
Village of Voorheesville	188–189	A, C/I/T, F, OL, R	Residences, commercial/industrial businesses, Jim Nichols Park, retail development	Residential B and C-1, Business A and B	No	Yes (roads)
New Scotland	189–194	A, C/I/T, F, OL, R	Five Rivers Environmental Education center	Commercial, Industrial, Residential Hamlet	Yes	Yes (undeveloped, road)

Jurisdiction ^a	MP Range	General Land Use/Land Cover (Within/Adjacent to ROI)	Specific Land Use (Within/Adjacent to ROI)	Zoning District	Agricultural District	Deviation Area (Land Use in Deviation Area)
Albany County (continued)						
Bethlehem (including Hamlet of Selkirk)	194–200	C/I/T, F, OL	Owens Corning facility, commercial/industrial businesses, Bethlehem Energy Center, CSX Selkirk railroad yard and buildings	Rural Light Industrial, Industrial	No	Yes (road, railroad)
Coeymans	200–203	C/I/T, F, OL, R	Residences, industrial facilities, Lafarge Cement Plant	Planned Industrial, Planned Commercial, Planned Residential	No	No
Village of Ravena	203–204	C/I/T, F, OL, R	Residences, Mosher Park	N/A	No	Yes (roadway)
Coeymans	204	R, OL	None	Industrial	No	No
Greene County						
New Baltimore	204–210	A, C/I/T, F, OL, R	Residences	ROW not zoned; Developmental Multi-Family, Rural Residential/ Agricultural, Developmental	No	Yes (roadways, undeveloped, residential)
Coxsackie	210–211	F, OL	None	Unknown ^f	No	Yes (undeveloped)
Village of Coxsackie	211–212	C/I/T, F, OL, R	Residences, Firemen's Memorial Park	Medium-Density Residential 2, Neighborhood, Commercial, Community Commercial, Industrial	No	Yes (undeveloped/ residential, roadway)
Coxsackie	212–215	A, C/I/T, F, OL, R	Greene Correctional Facility	Unknown ^f	No	Yes (undeveloped, agriculture)
Athens	215–220	A, C/I/T, F, OL	Railroad yard/industrial, aboveground transmission lines	Rural Residential, Light Industrial	No	Yes (undeveloped)

Jurisdiction ^a	MP Range	General Land Use/Land Cover (Within/Adjacent to ROI)	Specific Land Use (Within/Adjacent to ROI)	Zoning District	Agricultural District	Deviation Area (Land Use in Deviation Area)
Greene County (continued)						
Catskill	220–221	F, C/I/T, OL	Industrial businesses	Industrial, Highway Commercial	No	Yes (roadway, commercial)
Village of Catskill	221–223	C/I/T, OL, R	Residences, industrial businesses, Catskill Creek	Waterfront, General Commercial, Commercial Residence, One Family Residence, CH	No	Yes (residences, roadways, parking lot)
Catskill (including Hamlet of Cementon)	223–228	A, C/I/T, OL	Industrial businesses, Holcim Fields (Catskill Soccer Club), Alpha Road	General Commercial, Rural Residential/Agriculture, Industrial	No	Yes (undeveloped, industrial [cement plant], roadways, railroad)

Sources: CHPEI 2012i, CHPEI 2012yy, CHPEI 2012zz, NYSDOT 2012c

Notes:

- a. Jurisdictions are towns unless otherwise noted.
- b. The Town of Dresden has not adopted a Comprehensive Plan or zoning ordinance; therefore, Adirondack Park Agency private land use classifications from the Adirondack Park Land Use and Development Plan are applicable.
- c. The zoning districts for the Town and Village of Fort Ann planning are draft planning area recommendations (CHPEI 2012zz).
- d. The zoning district for the Town of Fort Edward is a draft zoning district (CHPEI 2012zz).
- e. The zoning districts for the Village of Fort Edward are proposed zoning districts (CHPEI 2012zz).
- f. The zoning districts for the Town of Coxsackie were not able to be identified due to the poor quality of zoning maps.

Key:

N/A = Not applicable.

A = Agriculture

C/I/T = Commercial/Industrial/Transportation

F = Forested

OL = Open Land/Pasture/Hay/Scrub/Shrub

OW = Open Water

P/O/R = Parks/Open Space/Recreation

R = Residential

Table F.2-3. Land Use Within the Hudson River Segment of the Proposed CHPE Project

Jurisdiction ^a	MP Range	General Land Use/Land Cover (Within/Adjacent to ROI)	Specific Land Use (Within/Adjacent to ROI)	Zoning District	Agricultural District	Deviation Area (Land Use in Deviation Area)
Rockland County						
Stony Point	295–298	C/I/T, OL, R	Stony Point Battlefield State Historic Site, marinas, residences, electrical utility substation, Stony Point Industrial Park, Stony Point Marsh	Unknown ^b	No	Yes (undeveloped/residential, State Historic Site, commercial [marinas], roadways, residences, undeveloped, water)
Haverstraw	298	C/I/T, OL	Residences, former Haverstraw Landfill	Unknown ^b	No	No
Village of West Haverstraw	298–299	C/I/T, OL, R	Commercial/industrial businesses (including West Haverstraw Business Park), residences	Unknown ^b	No	Yes (commercial, roadways, undeveloped)
Village of Haverstraw	299–301	C/I/T, OL, P/O/R, R	Haverstraw Beach State Park, residences, Haverstraw little league baseball fields, Mt. Repose Cemetery, commercial/industrial businesses, industrial facility, Hook Mountain/Nyack Beach Bikeway	Unknown ^b	No	Yes (recreation, residential, roadways, commercial, undeveloped)
Clarkstown	301–303	C/I/T, F, P/O/R, R	Hook Mountain State Park, Rockland Lake State Park, residences, commercial businesses, State Bicycle Route 9	Unknown ^b	No	Yes (roadways, state parks, undeveloped, residential)

Sources: CHPEI 2012i, CHPEI 2012yy, CHPEI 2012zz, NYSDOT 2012c

Note:

^a Jurisdictions are towns unless otherwise noted.

^b The zoning districts were not able to be identified due to the poor quality of zoning maps.

Key:

C/I/T = Commercial/Industrial/Transportation

F = Forested

OL = Open Land/Pasture/Hay/Scrub/Shrub

P/O/R = Parks/Open Space/Recreation

R = Residential

Table F.2-4. Land Use Within the New York City Metropolitan Area Segment of the Proposed CHPE Project

Jurisdiction	MP Range	General Land Use/Land Cover (Within/Adjacent to ROI)	Specific Land Use (Within/Adjacent to ROI)	Zoning District	Agricultural District	Deviation Area (Land Use in Deviation Area)
Bronx County						
New York City (Borough of The Bronx)	330–332	C/I/T, OL	Railroad, BFI of New York	Manufacturing Districts (M3-1 and M2-1)	No	Yes (industrial areas, railroad yard, parking lot)
Queens County						
New York City (Borough of Queens)	333–336	C/I/T, F (at Luyster Creek HVDC Converter Station site), OL, R	Ravenswood Houses, other residences, designated Class I and II bicycle routes, land uses in Table 3.4.1-1 in the EIS	Manufacturing Districts (M1-1, M3-1) and Residential Districts (4, R-5, R5B, R5D, R6A, R6B, R7A, R7B)	No	Yes (water, roads, utility facility)

Sources: CHPEI 2012i, CHPEI 2012yy, CHPEI 2012zz, NYC 2012a, NYCDP 2011b

Key:

C/I/T = Commercial/Industrial/Transportation

F = Forested

OL = Open Land/Pasture/Hay/Scrub/Shrub

R = Residential

**Table F.2-5. Local Waterfront Revitalization Programs/
Plans Relevant to the Proposed CHPE Project**

Lake Champlain Segment
<ul style="list-style-type: none"> • Town of Essex LWRP (includes a Harbor Management Plan)
Overland Segment
<ul style="list-style-type: none"> • Village of Whitehall LWRP
Hudson River Segment
<ul style="list-style-type: none"> • Village of Tivoli LWRP • Village of Saugerties LWRP • Town of Redhook LWRP • City of Kingston LWRP • Town of Rhinebeck LWRP • Town of Esopus LWRP • Town of Poughkeepsie LWRP • Town of Lloyd LWRP • City of Beacon LWRP • City of Newburgh LWRP • City of Peekskill LWRP • Town of Stony Point LWRP • Village of Haverstraw LWRP • Village of Croton-on-Hudson LWRP • Village of Ossining LWRP • Village of Nyack LWRP • Village of Sleepy Hollow LWRP (includes Harbor Management Plan) • Village of Piermont LWRP (includes Harbor Management Needs section) • Village of Dobbs Ferry LWRP (includes Harbor Management Plan)
New York City Metropolitan Area Segment
<ul style="list-style-type: none"> • New York City Waterfront Revitalization Program (i.e., New York City LWRP)

Source: CHPEI 2012i

Table F.2-6. Local Municipal Land Use Plans Relevant to the Proposed CHPE Project

Lake Champlain Segment
None
Overland Segment
<ul style="list-style-type: none"> • Washington County, New York Economic Development Strategic Plan • Fort Ann: A Beautiful Place at the Crossroads of a Beautiful Region (Town and Village of Fort Ann, New York Joint Community Plan) (Public Hearing Draft) • The Fort Ann Streetscape and Waterfront Revitalization Plan (Draft Master Plan Report) • Hartford, New York Comprehensive Plan • Town of Fort Edward Master Plan • Village of Fort Edward Master Plan • Green Infrastructure Plan for Saratoga County • Town of Moreau Comprehensive Land Use Plan • Town of Northumberland 2003 Comprehensive Land Use Plan (Final Draft) • Town of Wilton Comprehensive Plan • Town of Wilton Open Space, Recreation and Pathways Plan • Town of Greenfield Comprehensive Plan • The Saratoga Springs Comprehensive Plan • Town of Milton Comprehensive Plan 2001 • Town of Ballston Final Draft Comprehensive Plan • Town of Clifton Park Comprehensive Plan • Town of Clifton Park Open Space Plan • Schenectady County Agricultural and Farmland Protection Plan • The Town of Glenville Open Space Plan • City of Schenectady Comprehensive Plan 2020 • The Town of Rotterdam Comprehensive Plan and Final Generic EIS • Albany County Agricultural and Farmland Protection Plan • Town of Guilderland Comprehensive Plan 2000 • The Rural Guilderland: Open Space and Farmland Protection Plan • Route 20 Land Use and Transportation Study-Towns of Guilderland and Princeton, New York • Town of New Scotland Comprehensive Land Use Plan and Generic EIS • Town of Bethlehem Comprehensive Plan and Generic EIS • Greene County Plans: Open Space and Recreation Plan, Agricultural Development and Farmland Protection Plan, Comprehensive Economic Development Plan, and Hudson River Corridor Study • Town of New Baltimore Comprehensive Plan • Town of Coeymans Comprehensive Plan • Town and Village of Coxsackie Joint Community Plan • Town and Village of Athens Comprehensive Plan • Town and Village of Catskill Joint Comprehensive Plan • Village of Catskill Downtown and Waterfront Revitalization Strategy
Hudson River Segment
<ul style="list-style-type: none"> • Rockland Tomorrow: Rockland County Comprehensive Plan • Village of Haverstraw Master Plan and Zoning Plan • Town of Clarkstown Comprehensive Plan
New York City Metropolitan Area Segment
<ul style="list-style-type: none"> • Vision 2020: New York City Comprehensive Waterfront Plan

Source: CHPEI 2012i