



AGENDA

SEQRA Overview

10 2 The Proposed Action

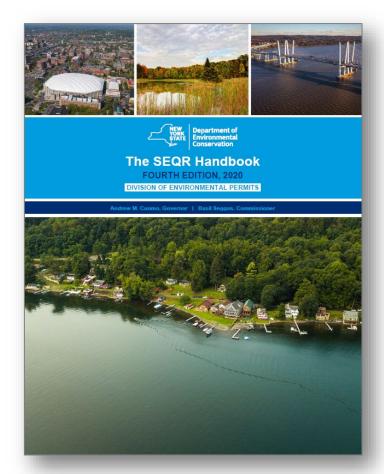
03 Next Steps





SEQRA OVERVIEW

- New York's State Environmental Quality
 Review Act (SEQRA) establishes a process
 to systematically consider environmental
 factors early in the planning stages of actions
 that are directly undertaken, funded, or
 approved by local, regional, and state
 agencies
- As a New York State Authority, LIPA is subject to SEQRA



View the full SEQR handbook here



THE PROPOSED ACTION

PROJECT SCOPE AND NEED

The installation of a new underground 69kV cable from the Bridgehampton Substation to the Buell Substation is approximately 5.2 miles and would:

- Utilize an existing Right of Way
- Include two construction methods
 - Horizontal Directional Drill
 - Open Trench
- Address load growth projection of 2% per year for the next 10 years

An initial review of the project determined the potential for significant adverse environmental impacts.

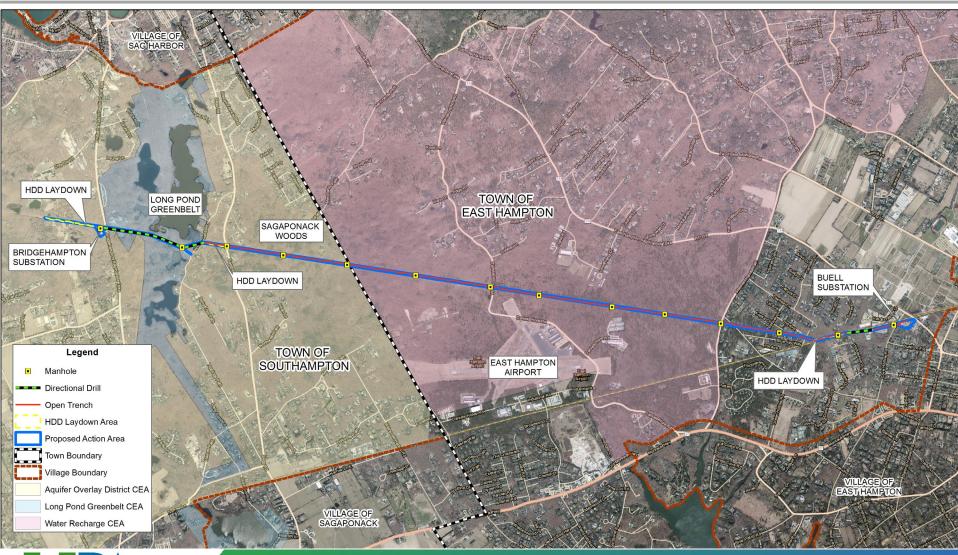




Photo Credit Wikipedia - Carla Isabel Riberio



ROUTE OVERVIEW





SEQRA OVERVIEW

Positive Declaration

Issued April 6, 2021

State Environmental Quality Review
Positive DECLARATION
Notice of Determination of Significance

Project: Bridgehampton to Buell (BTB) New 69kV Underground Cable

Date: April 6, 2021

This notice is issued in accordance with Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law and its implementing regulations at 6 NYCRR Part 617 and 21 NYCRR LXXXI 10052.

The Long Island Power Authority ("LIPA"), having an address at 333 Earle Ovington Blvd, Uniondale, New York, and serving as lead agency pursuant to 6 NYCRR 617.6(b)(3) has determined, based on information provided by and the Full Environmental Assessment Form ("FEAF") prepared by PSEG Long Island that the Proposed Action described below may have a significant adverse effect on the environment and that preparation of a Draft Environmental Impact Statement ("DEIS") will be required.

Name of Action: Bridgehampton to Buell (BTB) New 69kV Underground Cable ("the Proposed

Action")

Location: Below grade within the existing LIPA owned and/or controlled overhead Right-

of-Way ("ROW") in the Town of Southampton, Suffolk County, New York and the

Town of East Hampton, Suffolk County, New York

SEQR Status: Type I

Proposed Project Description:

The Proposed Action is the installation of a new underground 69kV transmission cable from the Bridgehampton Substation located on Bridgehampton-Sag Harbor Turnpike in the Town of Southampton to the Buell Substation located on Cove Hollow Road in the Town of East Hampton (approximately 5.2 miles). The new underground cable is designed to be installed below grade within the existing LIPA owned and/or controlled overhead right-of-way (ROW). Existing overhead circuits are currently located within the ROW and will remain under the Proposed Action. The Proposed Action is intended to address transmission system constraints resulting from increased load demand from customers on the South Fork of Long Island.

In addition to the underground cable, fourteen manholes will be installed along the Proposed Action route. Approximately 4,000 linear feet of the cable extending east from the Bridgehampton Substation to the west side of Widow Gavits Road will be installed via horizontal directional drill (HDD) with a single manhole installed within the previously disturbed area west of Widow Gavits Road. Approximately 100 linear feet of the cable located west of Cove Hollow Road and beneath the LIRR will be installed via jack & bore. The remaining portions of cable installation will be installed via trenching.

To facilitate the temporary use of HDD equipment and pipe laydown during construction, a 0.9 acre portion of the LIPA owned and/or controlled overhead ROW north of the existing Bridgehampton Substation will be cleared; a 0.36 acre portion of the cleared area will also require grading to facilitate construction. A single manhole will be located within this cleared area. Approximately 0.31 acres of clearing and 0.11 acres of grading within the area north of the existing Bridgehampton substation will occur within 535' of a known Tiger Salamander breeding pond. Due to the potential temporary loss of habitat, a Part 182 incidental Take permit will be required. PSEG Long Island is currently discussing with the New York State

Final Scope Issued July 7, 2021

FINAL SCOPE FOR THE
DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

"BRIDGEHAMPTON TO BUELL (BTB) NEW 69 KV UNDERGROUND TRANSMISSION CABLE"

Towns of Southampton and East Hampton Suffolk County, New York June 30, 2021

1.0 Introduction

This document is the Final Scope of the issues and analyses to be included in the Draft Environmental Impact Statement (DEIS) for the proposed Bridgehampton to Buell (BTB) New 69kV Underground Transmission Cable. The Applicant is PSEG Long Island (PSEGLI) as Agent for the Long Island Lighting Company db/a LIPA, a wholly owned subsidiary of the Long Island Power Authority (LIPA) and the DEIS will be prepared by PSEGLI with support from a team of professionals.

2.0 Brief Description of the Proposed Action

The Proposed Action is the installation of a new underground 68kV transmission cable from the Bridgehampton. Substation located on Bridgehampton-Sag Harbor Turnpike in the Town of Southampton to the Buell Substation located on Cove Hollow Road in the Town of East Hampton (approximately 5.2 miles). The new underground cable is designed to be installed below grade within the existing LIPA owned and/or controlled overhead right-of-way (ROW). Existing overhead circuits are currently located within the ROW and will remain under the Proposed Action. The Proposed Action is intended to address transmission system constraints resulting from increased load demand from customers on the South Fork of Long Island.

In addition to the underground cable, fourteen manholes will be installed along the Proposed Action route. Approximately 4,000 linear feet of the cable extending east from the Bridgehampton Substation to the west side of Widow Gavits Road will be installed via horizontal directional drill (HDD) with a single manhole installed within the previously disturbed area west of Widow Gavits Road. Approximately 100 linear feet of the cable located west of Cove Hollow Road and beneath the LIRR will be installed via jack & bore. The remaining portions of cable installation will be installed via jack & bore.

To facilitate the temporary use of HDD equipment and pipe laydown during construction, a 0.9 acre portion of the LIPA owned and/or controlled overhead ROW north of the existing Bridgehampton Substation will be cleared; a 0.36 acre portion of the cleared area will also require grading to facilitate construction. A single manhole will be located within this cleared area. Approximately 0.31 acres of clearing and 0.11 acres of grading within the area north of the existing Bridgehampton substation will occur within 535 of a known tiger salamander breeding pond. Due to the potential temporary loss of habitat, a Part 182 Incidental Take permit will be required. PSEG Long Island is currently discussing with the New York State Department of Environmental Conservation (NYSDEC) appropriate mitigation measures, which will ensure a net conservation benefit to the species is achieved upon completion of the Proposed Action. Potential mitigation

Draft Scope issued May 4, 2021

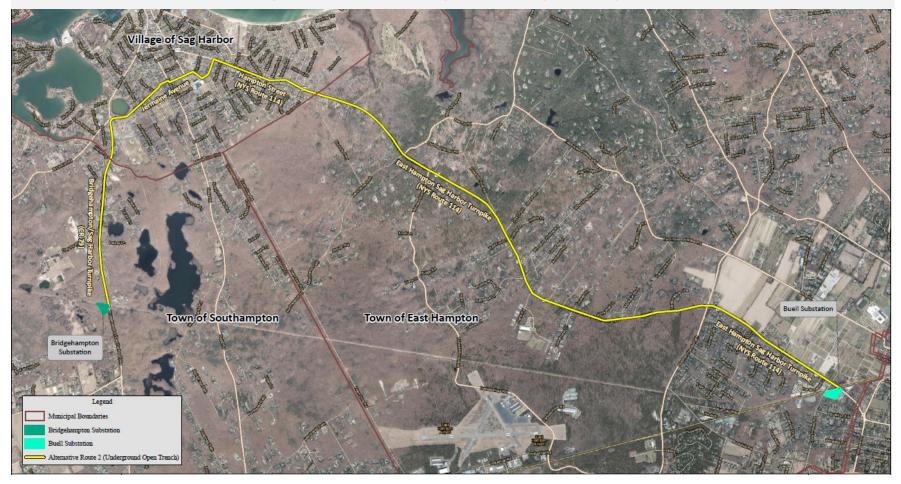


SUMMARY OF DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS)

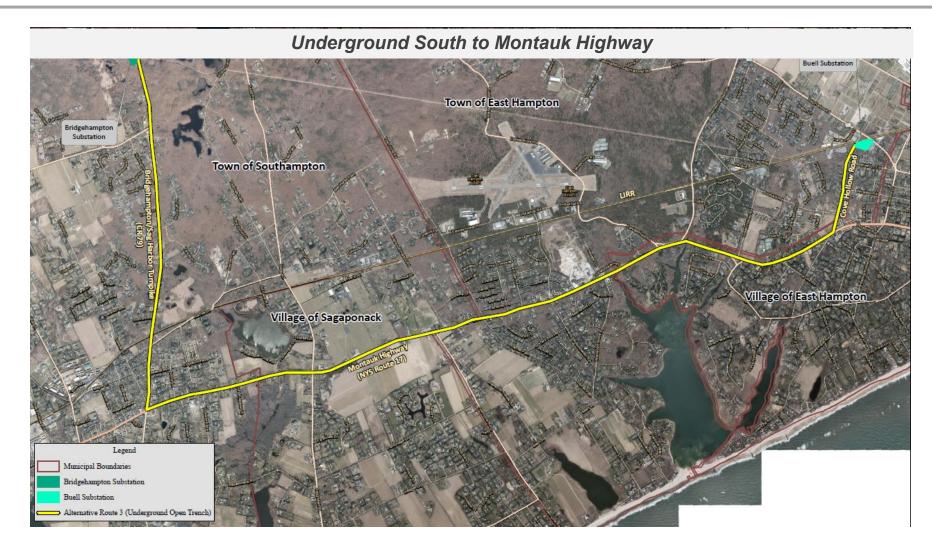
Section 1	Section 2	Section 3	Section 4
Project Description	Natural Resources	Human Resources	Other Impacts / Resources
 Background, Need, Objectives and Benefits Location and Existing Site Conditions 	 Soils, Topography, Water Resources Ecology – Endangered Tiger Salamander 	 Cultural Resources Open Space and Recreation Critical Environmental Areas Long Pond Greenbelt Noise 	 Construction Traffic Impact Evaluation and Assessment Cumulative Impacts



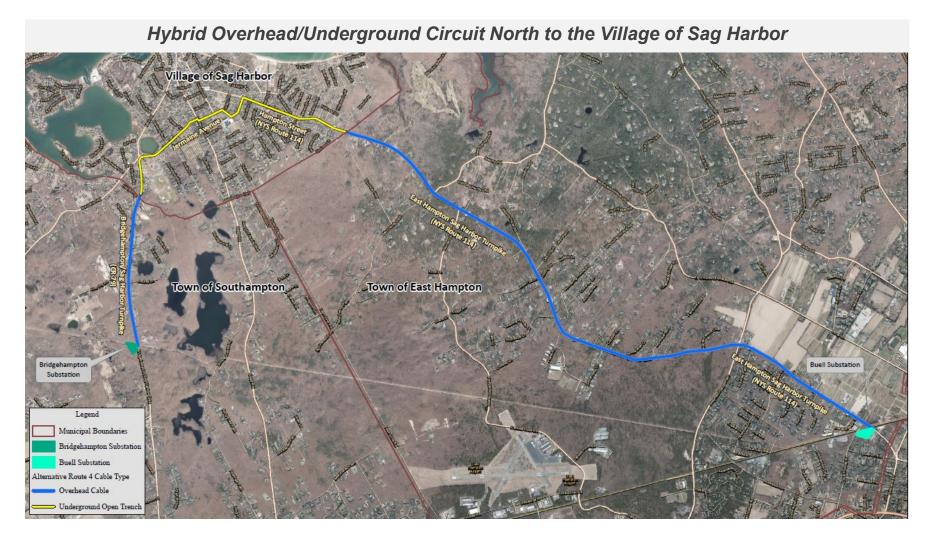
Underground North through the Village of Sag Harbor



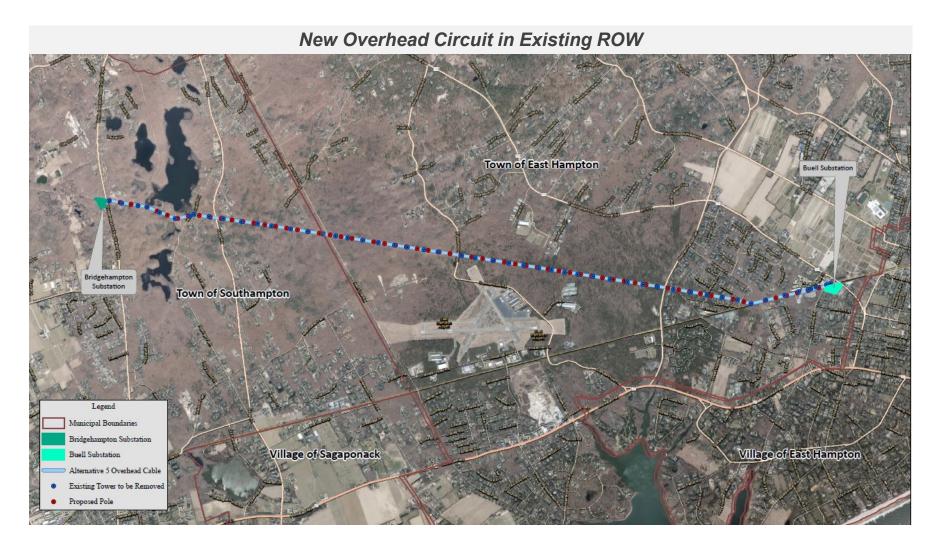














Cost Comparisons

Proposed Action: \$45.5 million

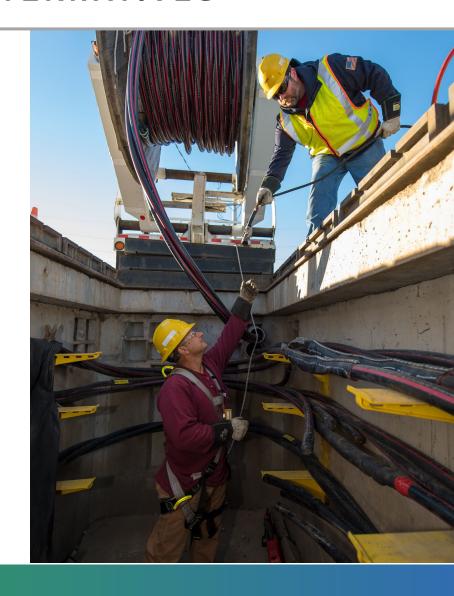
No Action: \$0

North Underground: \$78.6 million

• South Underground: \$84.7 million

• North Hybrid: \$46.2 million

Overhead within Right of Way: \$56.1 million







NEXT STEPS

Positive Declaration
April 2021

Draft Scope & Final Scope May – July 2021

DEIS*
Preparation &
Acceptance
July 2021 Present

DEIS Public Comment Period May 2022 – July 12, 2022

FEIS**
Preparation &
Comment Period
TBD

Findings Statement TBD

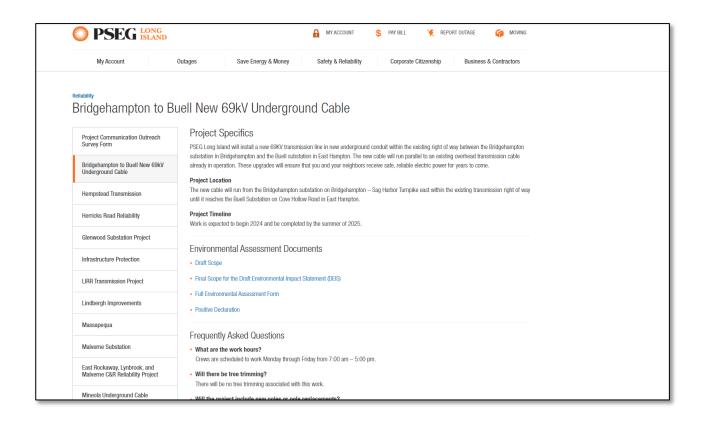
*DEIS: Draft Environmental Impact Statement

**FEIS: Final Environmental Impact Statement



MORE INFORMATION

PSEG Long Island has a project page on their website to provide updates and additional details regarding the project, which can be found at PSEGLINY.COM





Discussion

Questions?



FOR CONSIDERATION

May 18, 2022

TO: The Board of Trustees

FROM: Thomas Falcone

SUBJECT: Draft Environmental Impact Statement for the Bridgehampton to Buell

Underground 69kV Cable Project as Complete and Adequate For Public Review

and Comment

Requested Action

The Board of Trustees (the "Board") of the Long Island Power Authority ("LIPA") is requested to adopt a resolution accepting the Draft Environmental Impact Statement ("DEIS") for the Bridgehampton to Buell Underground 69kV Cable Project (the "Proposed Action") as complete and adequate for public review and comment, in accordance with the State Environmental Quality Review Act ("SEQRA").

Discussion

PSEG Long Island has proposed to install a new underground 69kV transmission cable from the Bridgehampton Substation located on Bridgehampton-Sag Harbor Turnpike in the Town of Southampton to the Buell Substation located on Cove Hollow Road in the Town of East Hampton. The total route is approximately 5.2 miles. The new underground cable is designed to be installed below grade within the existing LIPA right-of-way ("ROW"). Existing overhead circuits are currently located within the ROW and will remain as part of the Proposed Action. In addition to the underground cable, fourteen manholes will be installed along the Proposed Action route. The Proposed Action is intended to address transmission system constraints resulting from increased load demand from customers on the South Fork of Long Island.

Approximately 4,000 linear feet of the cable extending east from the Bridgehampton Substation will be installed via horizontal directional drill ("HDD"). The remaining portions of cable installation, with the exception of the Long Island Rail Road ("LIRR") crossing, will be installed via trench.

Certain clearing and grading within an area north of the existing Bridgehampton Substation will occur within 535' of a known Tiger Salamander breeding pond. The Tiger Salamander is designated as an endangered species in New York State. Due to the potential temporary loss of habitat, a New York State Department of Environmental Conservation ("NYSDEC") Part 182 Incidental Take permit (the "Incidental Take Permit") is required. The DEIS addresses appropriate mitigation measures for the Tiger Salamander habitat to ensure a net conservation benefit to the species is achieved upon completion of the Proposed Action. Additionally, the Proposed Action crosses the Long Pond Greenbelt, which is an undeveloped area of parkland that is regionally

protected and identified as a critical environmental area ("CEA") by the Town of Southampton and the State of New York.

Because of the need for the Incidental Take Permit and based on the evaluation of construction within the Long Pond Greenbelt, on April 6, 2021, LIPA, serving as Lead Agency pursuant to SEQRA, determined the Proposed Action may have significant adverse effects on the environment and issued a Positive Declaration, which required the preparation of the DEIS. In advance of the DEIS, in accordance with SEQRA, LIPA issued a Draft Scope for the Proposed Action, which was published for public comment on May 12, 2021. Thereafter, on June 30, 2021 the Final Scope for the Proposed Action was issued which incorporated all public comments received. The scoping documents act as the table of contents for the impacts and issues studied in the DEIS.

The DEIS has been prepared to identify and analyze the potential impacts of the Proposed Action pursuant to the requirements of SEQRA. The DEIS is broken up into an executive summary and five separate chapters that more specifically identify and analyze each of the potential impacts. Those chapters include: (i) Description of the Proposed Action (i.e. background, need, objectives and benefits, location and existing site conditions); (ii) Natural Environmental Resources (i.e. soil, topography, water, ecology); (iii) Human Environmental Resources (i.e. cultural, open space and recreation, critical environmental areas, noise); (iv) Other Impacts and Resources (i.e. construction, traffic, cumulative impacts); and (v) Alternatives. The Alternatives chapter analyzes the five alternatives, which were included in the Final Scope. Those alternatives are: (i) No Action Alternative; (ii) Northerly Underground Circuit, which traverses through the Village of Sag Harbor; (iii) Southerly Underground Circuit, which follows Bridgehampton/Sag Harbor Turnpike and Montauk Highway; (iv) Northerly Hybrid Overheard/Underground Circuit through the Village of Sag Harbor; and (v) New Overhead Circuit within the existing ROW.

After adoption of the resolution, as set forth in **Exhibit "A"**, SEQRA requires that a notice of completion of the DEIS be published in the Environmental News Bulletin ("ENB"), that copies of the DEIS be filed with the appropriate entities, and that the DEIS be posted on LIPA's website. A copy of the DEIS will also be provided on the PSEG Long Island project page located here. Thereafter, in accordance with SEQRA, a public comment period will commence where PSEG Long Island and LIPA will hold a public comment session. All comments received in writing and at the comment session will be incorporated into a Final EIS, and ultimately, the Board will consider a Findings Statement for the Proposed Action.

Recommendation

Based upon the foregoing, it is recommended that the Trustees adopt the resolution in the form attached hereto as **Exhibit** "A".

<u>Attachments</u>

Exhibit "A" Resolution

Exhibit "B" Draft Environmental Impact Statement Executive Summary

RESOLUTION ACCEPTING THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE BRIDGEHAMPTON TO BUELL UNDERGROUND 69KV CABLE PROJECT AS COMPLETE AND ADEQUATE FOR PUBLIC REVIEW AND COMMENT

WHEREAS, on April 6, 2021, LIPA determined that the proposed installation of an underground 69kV transmission cable between the Bridgehampton and Buell substations (the "Proposed Action") had the potential for significant adverse environmental impacts and issued a Positive Declaration, in accordance with the State Environmental Quality Review Act ("SEQRA") and its implementing regulations at 6 NYCRR Part 617; and

WHEREAS, a Draft Environmental Impact Statement ("DEIS") has been prepared to identify, discuss and evaluate Proposed Action's potential significant adverse environmental impacts and associated proposed mitigation.

NOW, THEREFORE, BE IT RESOLVED, that having reviewed the DEIS, LIPA hereby accepts the DEIS as complete and adequate for public review and comment in terms of its scope and content, pursuant to SEQRA 6 NYCRR 617.9; and

BE IT FURTHER RESOLVED, that the Board of Trustees hereby directs the filing of the notice of completion of the DEIS and distribution of copies of the DEIS in accordance with the requirements of SEQRA, and

BE IT FURTHER RESOLVED, that the Board of Trustees hereby directs LIPA and PSEG Long Island staff to conduct a public comment session on the DEIS.

Dated: May 18, 2022

Executive Summary

This Draft Environmental Impact Statement (DEIS) has been prepared in compliance with the State Environmental Quality Review Act (SEQRA). The DEIS examines the potential impacts of the proposed installation of a new underground 69 kilovolt (kV) transmission cable from the Bridgehampton Substation to the Buell Substation.

As indicated in the SEQRA Handbook¹, the Executive Summary may be a narrative statement that summarizes the main points of the Environmental Impact Statement (EIS). It should contain a brief description of the overall proposed action, and list the following:

- Purpose of and need for the project;
- Description of the environmental setting;
- Significant beneficial and adverse impacts;
- Alternatives considered;
- Mitigation measures proposed; and
- Issues of controversy (if any)

The details provided below include all elements required as per the SEQRA Handbook.

Description Of The Proposed Action and Location

Proposed Action

The Proposed Action is the installation of a new underground 69 kV transmission cable from the Bridgehampton Substation located on Bridgehampton-Sag Harbor Turnpike in the Town of Southampton to the Buell Substation located on Cove Hollow Road in the Town of East Hampton (approximately 5.2 miles). Most of the proposed new underground cable would be installed below grade beneath the existing Long Island Power Authority (LIPA) owned and/or controlled right-of-way which is occupied by overhead transmission infrastructure (ROW), with the exception of approximately 0.4 miles in the area south of the Long Island Railroad (LIRR), north of the National Grid facilities, east to the Buell Substation, where it will be installed below grade in the existing LIRR ROW and will transition to land owned by National Grid. Additionally, due to the layout of the existing LIPA ROW and existing structures within it, the LIPA ROW would be expanded via easement for an additional 1,651 square foot area directly north of the ROW on the west side of Buckskill Road (see **Appendix E**). No other dimensional expansion or additions to the existing ROW are required. In addition to the proposed underground cable, fourteen manholes will be installed along the Proposed Action route. Existing overhead circuits are currently located within the ROW and will remain upon completion of the Proposed Action.

To facilitate installation of the new 5.2 mile cable and the 14 manholes, the Proposed Action Area also includes temporary construction staging and laydown area within the ROW west of the Bridgehampton Substation resulting in a Proposed Action Area which extends a total of 5.54 miles.

¹ 4th Edition – 2020, Division of Environmental Permits New York State Department of Environmental Conservation

Both horizontal directional drill (HDD) and open trench construction methodologies will be used for cable and conduit installation. Approximately 80% of the cable and conduit will be installed via open trench, while the remaining 20% will be installed via HDD. HDD is being used both to protect sensitive natural resources and to install the cable and conduit beneath existing LIRR tracks.

Due to the sensitivity of the habitat within the Long Pond Greenbelt, the Proposed Action was designed to limit disturbance within this area to the maximum extent practicable. Approximately 3,450 linear feet of the cable extending east from the Bridgehampton Substation, passing beneath the Long Pond Greenbelt², to the west side of Widow Gavits Road will be installed via HDD. The HDD installation will be achieved in two segments, with a single manhole to be installed between segments within the Long Pond Greenbelt located in a previously disturbed area. The manhole installation in this location could not be avoided due to engineering constraints. A complete discussion of potential impacts to the habitats of the Long Pond Greenbelt is included in **Section 2.3**.

In addition to the HDD beneath the Long Pond Greenbelt, approximately 845 linear feet of the cable, located west of Cove Hollow Road and beneath the LIRR will also be installed via HDD. The remaining 23,415 linear feet of cable installation will be installed via trenching. Thirteen manholes will be installed along the portion of the cable to be trenched with the distance between manholes varying from approximately 1,600 feet to 2,500 feet.

To facilitate the temporary use of HDD equipment and conduit laydown during construction, a 0.9 acre area within the ROW north of the existing Bridgehampton Substation will be cleared; a 0.36 acre portion of the cleared area will also require grading to facilitate construction. Of the clearing and grading described above, approximately 0.31 acres of clearing and 0.11 acres of grading are within 535 feet of a known tiger salamander breeding pond. **Section 2.3** provides a discussion of potential impacts and associated mitigation identified for rare, threatened and endangered species, which is also summarized below.

Additionally, limited portions of the Proposed Action Area will require stabilization in order to allow machinery access for construction. Stabilization may include grading or excavation of existing soils and temporary placement of Recycled Concrete Aggregate (RCA). The use of timber matting was analyzed as an alternative to the use of RCA for construction access road stabilization. Due to the significant steep slopes and undulating topography in the ROW, use of timber matting was determined to not be feasible for the entire length of the access road. Although use of timber mats cannot be implemented for the entirety of the roadway, timber matting will be utilized in the most sensitive area for the installation of the manhole within the Long Pond Greenbelt. Additionally, timber matting will be utilized to protect a portion of the wetland located west of the Bridgehampton Substation during laydown activities. In total, the stabilized construction access roadway is approximately 3.9 miles in length.

Proposed Action Location and Existing Site Conditions

The 42.73 acre Proposed Action Area encompasses the cable and conduit installation area, the staging and laydown areas, the necessary connections within the substations and all of the required stabilized

² The Long Pond Greenbelt is an undeveloped area of parkland that is regionally protected and identified as a critical environmental area (CEA) by the Town of Southampton and the State of New York. This includes parks, trail, and natural resources that surround the Long Pond wetland complex, located between Bridgehampton Sag Harbor Turnpike and Widow Gavits Road.

construction access roadways. The Proposed Action Area is located predominately in the ROW that extends from the existing Bridgehampton Substation located on Bridgehampton-Sag Harbor Turnpike in the Town of Southampton to the Buell Substation located on Cove Hollow Road in the Town of East Hampton. The Proposed Action Area also includes work within the Bridgehampton Substation and the Buell Substation.

As shown in **Figure 1-1**, the "Proposed Action Area" begins approximately 1,600 feet west of the Bridgehampton Substation, and then continues east along the ROW encompassing the entirety of the Bridgehampton Substation and the area between the substation and the ROW. The Proposed Action Area continues east/southeast, crossing Bridgehampton Sag Harbor Turnpike, Widow Gavits Road, Sagg Road, Wainscott Northwest Road, and Stephen Hands Path, along the entire width of the ROW, and until intersecting with LIRR. The Proposed Action Area then continues east parallel to the LIRR for approximately 1,100 feet where it then crosses to the south side of the LIRR. Finally, the Proposed Action Area continues east, following the route of the paved access road, crosses Cove Hollow Road to the Buell Substation and encompasses the entirety of the substation and portions of the parcel on which the substation is sited.

The portion of the Proposed Action Area from the west to Town Line Road is located within the Critical Environmental Area (CEA) identified as the Suffolk Groundwater Protection Area (see **Figure 1 -1**). The portion of the Proposed Action Area from Town Line Road to Stephen Hands Path also is within the Water Recharge CEA (see Section 3.3 for further details). The portion of the ROW between Town Line Road and Daniels Hole Road is surrounded by largely undeveloped lands that offer passive recreation opportunities.

Currently, a 69 kV overhead transmission double circuit currently connects the Bridgehampton Substation and the Buell Substation in the ROW (see Figure 1-1). This double circuit is located along a single electrical transmission tower line within the ROW. These circuits were originally constructed in the early 1900's and are supported by steel lattice towers, which have a maximum height of approximately 80 feet. Standard maintenance practices (such as replacement and repair of existing equipment, as well as vegetation management along the LIPA ROW) are regularly conducted. The majority of the Proposed Action Area is vegetated with low growing shrubs and herbaceous species. A discussion and analysis of the habitats that are currently present within the ROW is included in **Section 2.3** and summarized below.

A discussion of Open Space and Recreation and Critical Environmental Areas can be found in **Section 3.2** and **Section 3.3**, respectively, and is summarized below.

Public Need

The eastern end of Long Island has been growing in terms of electrical demand at an average rate of 2.4% since 2009. The average annual forecasted net electric load growth for that area for the next 10 years is approximately 2% per year. The anticipated load growth will result in various thermal and voltage constraints on this portion of the T&D System resulting in the need for various transmission improvement projects in order to provide reliable electric service. Improvements, including the Proposed Action, have been selected which meet the anticipated T&D System needs until at least 2030.

The current configuration of existing transmission circuits is such that the loss of the existing double circuit in the ROW would result in a single 69 kV supply to portions of the North Fork and areas east of the Bridgehampton Substation on the South Fork. In 2025, under forecasted electric load conditions, such a

loss would result in the remaining 69 kV supply exceeding its thermal capability and posing an unacceptable risk of damaging T&D System equipment, which could result in significant customer outages. The Proposed Action will provide an additional transmission supply to the area and maintain and mitigate the risk to equipment on the T&D System and to customers.

In addition, in the event that the double circuit becomes inoperable, a Transient Voltage Recovery limitation is created. Transient Voltage Recovery is the ability of the T&D System to return to a set voltage threshold following a system disturbance such as the loss of the double circuit. Implementation of the Proposed Action reinforces the T&D System on the eastern portion of Long Island and will help mitigate potential Transient Voltage Recovery limitations, improving overall system reliability and resiliency.

Description of the Environmental Setting

This section summarizes the environmental setting of the Proposed Action in each of the categories analyzed within the DEIS. Refer to Sections 2, 3, and 4 of this DEIS for a complete discussion of the environmental setting.

Soils

According to the *Soil Survey of Suffolk County, New York*¹ (Soil Survey) soils are classified by soil characteristics, depositional histories and other factors, into soil associations, which in turn are grouped into soil series. The Soil Survey provides complete mapping, classification, and descriptions of soils found in Suffolk County. An understanding of soil characteristics is important in land development and environmental planning, as it aids in determining vegetation type, slope, drainage characteristics, engineering properties, past disturbance, and land use limitations. These descriptions are general, however, and soil characteristics, particularly those of glacial origin, can vary greatly from location to location. The slope classifications noted in this subsection are generalized based upon regional soil types; see **Section 2.1.1.2** for a more detailed description of topographic conditions in the Proposed Action Area.

Approximately 44.2 percent of the soils in the Proposed Action Area are CpC—Carver and Plymouth sands, with 3-15% slopes. Four other soils are relatively common in this area, each ranging between 6 and 14 percent of the total acreage: CpE - Carver and Plymouth sands, 15-35% slopes (13.4± percent); PIA - Plymouth loamy sand, 03% slopes (12.4± percent); RdA - Riverhead sandy loam, 03% slopes (8.6± percent); and CpA-Carver and Plymouth sands, 03% slopes (6.1± percent). The remaining eight soil types comprise a minor portion of the Proposed Action Area, cumulatively comprising 15.4± percent, and with none individually exceeding 4.3 percent of the total acreage.

A site-specific *Subsurface Investigation and Geotechnical Evaluation* (Geotechnical Report), prepared by Power Engineers, Inc., December 22, 2020, was undertaken and included collection of data from nine soil borings within the Proposed Action Area. The descriptions in the Geotechnical Report are based on the subsurface soil and groundwater conditions encountered during field investigations performed in May, September and November 2020. Observations of the soil conditions in the Proposed Action Area found that all nine soil borings were found to encounter generally similar conditions across the length of the Proposed Action Area, consisting of very loose to medium compact sand, with lesser proportions of clayey sane, silt, gravel, and organic material that extended to depths ranging from 4± to 8± feet below ground surface (bgs). The surficial materials were generally underlain by non-plastic, coastal plains soils comprised predominantly of loose to compact sand with lesser proportions of silt, gravel and cobbles. The Geotechnical Report notes that actual subsurface conditions will vary between the borehole locations in both the horizontal and vertical dimensions.

Topography

The Proposed Action Area has been used as an overhead utility ROW and two substations. Therefore, ground elevations have been altered for the installation of utility infrastructure, including the placement of towers containing overhead electrical cables and associated equipment, and the existing unpaved path beneath the towers. However, the overall topography along the 5.2±-mile length will generally follow the natural contours of the land.

Land elevations in the Proposed Action Area generally slope downward in a west-to-east direction. The overall topography of the proposed cable route can be described as having pronounced undulations, particularly in the westerly portion of the route, while the proposed conduit laydown area to the west of the Bridgehampton Substation has less topographic relief. Land elevations in the Proposed Action Area range from a low of 14± feet above mean sea level (amsl) in the wetland area to the south of Long Pond to a high point of more than 130 feet amsl at multiple locations, including the area of the proposed cable route between Sagg Road and Northwest Path and again between Town Line Road and Wainscott Northwest Road within the cable route, as well as the westernmost end of the conduit laydown area.

Both substations are situated on essentially level ground, with the Bridgehampton Substation at an elevation of 102 feet amsl and the Buell Substation at 44 feet amsl. Additionally, both substations include areas of sloping land, situated in the northerly portion of the Bridgehampton Substation and the southeasterly portion of the Buell Substation.

Surface Waters, Wetlands, and Stormwater Drainage

Freshwater wetlands and surface waters associated with Long Pond are present within the segment of the proposed underground transmission cable route immediately to the east of the Bridgehampton Substation and west of Widow Gavits Road. Three freshwater wetlands within the Long Pond Greenbelt directly intersect the Proposed Action Area. The underground cable will be installed beneath these surface waters via HDD. A second area of freshwater wetlands and surface waters associated with the Great Swamp wetland complex is present to the west of the Bridgehampton Substation within the temporary conduit laydown area.

The majority of the Proposed Action Area is maintained utility ROW and does not contain impervious surfaces. Significant stormwater runoff is not generated within the ROW since runoff quickly infiltrates into the sandy soils in these areas. The wetlands and surface waters that intersect and adjoin the Proposed Action Area are locations where overland stormwater drainage from surrounding watersheds accumulates due to topography and the poor infiltrative properties of the underlying soils. Impervious surfaces are present within the substation properties associated with the access driveways and foundations within the substations for various equipment. The substations are stabilized with a granular substrate (dolomite) which allows for stormwater infiltration. The Proposed Action also involves limited trenching across five roadways including Sagg Road, Wainscott Northwest Road, Stephen Hands Path, Buckskill Road and Cove Hollow Road. These roads are all two-lane roadways without formal curbing or existing stormwater infrastructure.

Flood Zones

A small portion of the proposed cable route (approximately 200 feet in length, and located immediately west of Widow Gavits Road, within the Long Pond Greenbelt) lies within the 100-year floodplain, which is designated as Flood Zone "A" (no base flood elevation determined). Except for this limited location, floodplains are not present in the Proposed Action Area.

According to 6 NYCRR Part 490, "Projected Sea Level Rise," based on a starting date of 2004, the Long Island Region could experience as much as 8 to 30 inches of sea level rise by the 2050s, depending on the rate of increase, as follows:

- low rate of rise 8 inches
- low to medium rate of rise 11 inches
- medium rate of rise 16 inches
- high to medium rate of rise 21 inches
- high rate of rise 30 inches

As discussed above, the floodplain portion of the Proposed Action Area is located on the interior of the South Fork of Long Island. The Construction Plans for the Proposed Action indicate that the elevation in this area is approximately 12 feet above mean sea level.

Groundwater Resources

Special Groundwater Protection Area (SGPA) - The Proposed Action Area lies within the South Fork SGPA, which spans between the eastern portion of the Town of Southampton and the western portion of the Town of East Hampton. The South Fork SGPA was designated as a CEA by the Long Island Regional Planning Board on April 18, 1993, in order to protect groundwater.

Groundwater Hydrology/Hydrogeology- Aquifers are underground formations that transmit and yield water in usable quantities (NSWCA, 2022). The major water-bearing units beneath the Proposed Action Area are the Upper Glacial, Magothy and Lloyd aquifers, listed in order from the ground surface downward. The Magothy and Lloyd aquifers are separated by the Raritan Clay layer, which restricts flow between the two geologic units. The primary units from which water is drawn in the vicinity of the Proposed Action Area are the Upper Glacial and Magothy aquifers. In the Proposed Action Area, these unconsolidated water-bearing units comprise what is referred to by the United States Environmental Protection Agency (USEPA) as Long Island's "Sole Source Aquifer," which represents the only currently available source of drinking water in Suffolk and Nassau Counties and, therefore, must be protected to ensure its long-term quality and availability for future generations.

According to the *Suffolk County Comprehensive Water Resources Management Plan* (2015) the Proposed Action Area is also located within Groundwater Management Zone (GMZ) V. GMZ V is considered a deep recharge area, which contributes recharged water to a deep groundwater flow system that replenishes the quantity and preserves the quality of the long-term water supply.

Based on U.S. Geological Survey (USGS) data, the depth to the groundwater table in the Proposed Action Area ranges from the ground surface where wetlands associated with the Long Pond system are present to a maximum of approximately 125 feet bgs in the area of Town Line Road. Other areas of relatively shallow groundwater are in the area of the proposed cable route crossing of Wainscott NW Road and Stephen Hands Path where the depth to the water table is approximately 10 feet bgs. The Geotechnical Report, prepared by Power Engineers, Inc., dated December 22, 2020, recorded subsurface water at depths ranging from approximately 9.7 to 42.4 feet below the ground surface. However, the Geotechnical Report notes that these groundwater level readings "were likely affected by water utilized to advance the boreholes" such that the USGS data summarized above is likely more reflective of the depth to groundwater in the Proposed Action Area.

The westerly portion of Proposed Action Area is in a portion of the aquifer that flows in a generally northward direction, while the easterly portion of Proposed Action Area is in a portion of the aquifer that flows in a generally southward direction.

Groundwater Quality- Groundwater quality is an important factor for the health of area surface waters (which receive continuous inflow from groundwater discharges) and of local residents (who rely on groundwater for potable supply). While a primary issue for local surface water quality has been nutrient loading from fertilizers and septic systems, human health concerns also pertain to the presence or potential presence of certain contaminants in the groundwater supply. The Proposed Action Area is located partially within Suffolk County Water Authority (SCWA) Service Distribution Area #23 and also includes areas that are not served by SCWA. According to SCWA's annual 2021 Drinking Water Quality Report for the 2020 calendar year, of the over 100 different water quality parameters, including various inorganic constituents (IOCs), synthetic organic compounds, volatile organic compounds, disinfectants, disinfectant byproducts (i.e., resulting from chlorination), and pharmaceuticals and personal care products regularly tested that have been assigned a maximum contaminant level (MCL) by the USEPA, only iron, a naturally occurring IOC, was found to exceed its MCL for Distribution Area #23 during the 2020 calendar year. High levels of iron mostly affect aesthetics, relating to discoloration, poor taste and/or staining of household fixtures, and can be readily treated and/or filtered to overcome these issues.

One well in Distribution Area #23 was found to have measurable concentrations of propane during testing in 2020. The propane results for the water in this well ranged from ND to a maximum of 3.80 ppb. At these levels, SCWA indicates that propane poses a minimal risk for health effects.

There are two properties within or adjoining the Proposed Action Area that are listed New York State Superfund sites and where groundwater investigations have been completed; the Village of Sag Harbor Transfer Station (former Landfill) on the east side of Bridgehampton Sag Harbor Turnpike and the East Hampton Airport property.

The property identified as the Village of Sag Harbor Transfer Station site (DEC Site Code 152047) is located on the east side of Bridgehampton-Sag Harbor Turnpike and spans across the ROW to the west of Long Pond; however, the Transfer Station facility itself does not extend into the ROW and is confined to a portion of the Village-owned property located to the north of the ROW.

A Phase I Investigation was completed in 1989 and a State Superfund Preliminary Site Assessment (PSA) was completed in March of 1994 to identify any on-site groundwater contamination migrating from the former landfill on the north side of the ROW and to characterize the nature of any such contamination specifically in connection with the alleged disposal of hazardous substances at the landfill. Pursuant to the 1994 NYSDEC Classification Decision, the results of the investigations conducted at this site found no environmental issues associated with the disposal of hazardous waste. In consideration of these findings, NYSDEC removed the site from the New York State Registry of Inactive Hazardous Waste Disposal Sites in May 1995.

The East Hampton Airport (DEC Site Code 152250) is located adjacent to the south of the ROW in the hamlet of Wainscott. In 2019, the site was added to the New York State Registry of Inactive Hazardous Waste Disposal Sites due to contaminants related to fire-fighting foam used for crash response/training and stored at the airport. Chemicals including perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) have been detected in on-site soil and groundwater and off-site private drinking water wells.

However, the affected area is located entirely to the south of East Hampton Airport, which is south (i.e., down-gradient) of the Proposed Action Area³. Therefore, this groundwater issue does not affect the aquifer beneath the Proposed Action Area.

Vegetation

The Proposed Action Area is predominantly comprised of vegetated utility ROW that is bisected by a dirt path. Areas of natural vegetation exist throughout the majority of the Proposed Action Area. Adjacent contiguous vegetation in the area can generally be found along the western and central portions of the Proposed Action Area, while residential areas abut the ROW in the easterly end of the Proposed Action Area.

PSEG Long Island conducted six ecological investigations on January 8, March 11, May 8, June 24 and August 5 of 2019 and on April 23, 2021. Meander surveys were conducted to determine overall habitat composition and quality. Habitat classifications are defined by the NYSDEC classifications outlined in Ecological Communities of New York State (Edinger, 2014). The habitats encountered within the Proposed Action Area can best be described as successional shrubland, successional old field, coastal plain pond, coastal plain pond shore, red maple-hardwood swamp, coastal oak-heath forest, pitch pine-oak forest, successional southern hardwood forest, coastal oak-hickory forest, brushy cleared lands, mowed roadside/pathway, mowed lawn/mowed lawn with trees, and bare soil. Additional unvegetated areas are defined as developed lands and consist of paved roadways and the existing Bridgehampton and Buell Substations. The majority of the ROW undergoes routine maintenance tree trimming and mowing programs to help maintain the clearances required for the safe operation of the existing overhead transmission cables. Due largely to these maintenance activities, the ROW is comprised predominately of successional shrubland and successional old field.

Two threatened plant species were encountered during the meander surveys; narrow-leaved pinweed (*Lechea tenuifolia*) and primrose-leaved violet (*Viola primulifolia*). Both species are located within the maintained portions of the ROW between Bridgehampton-Sag Harbor Turnpike and Widow Gavits Road.

Wildlife

PSEG Long Island conducted six ecological investigations on January 8, March 11, May 8, June 24 and August 5 of 2019 and on April 23, 2021. Few wildlife species were observed on site, although it is expected that a number of species common to wooded, grassy, and suburban habitats would utilize the habitats on-site. During field investigation PSEG Long Island staff encountered few mammal species. Adult and juvenile raccoons and white tailed deer were observed in the Proposed Action Area. Based on habitats recorded on site the following small mammals would also be anticipated to utilize the site: muskrat, Norway rat, house mouse, meadow vole, Virginia opossum, red fox, Eastern gray squirrel and various species of bats.

A variety of migratory and resident avian species would be expected to utilize the Proposed Action Area for nesting, breeding, feeding, migrating and over-wintering. During ecological investigations conducted by PSEG Long Island staff, the following 18 avian species were encountered: Red-Tailed Hawk, Wild Turkey, Northern Cardinal, Bald Eagle, Blue Jay, Mallard, European Starling, Red-Winged Blackbird, White-

³ See East Hampton Airport Final Site Characterize Report (Nov. 30, ,2018), https://www.dec.ny.gov/data/DecDocs/152250/

Breasted Nuthatch, Tufted Titmouse, Great Blue Heron, Turkey Vulture, Downy Woodpecker, Barn Swallow, American Robin, Gray Catbird, Carolina Wren, and the Eastern Bluebird.

It is anticipated that the diversity of habitats within the Proposed Action Area would support a variety of reptile and amphibian species. Three reptile and amphibian species were noted within the Proposed Action Area during field surveys conducted by PSEG Long Island; eastern box turtle, ribbon snake, and the green frog.

Rare, Threatened or Endangered Species

The New York Natural Heritage Program (NYNHP) maintains records of observations of rare, threatened and endangered species and communities reported within the State. PSEG Long Island contacted NYNHP to determine if any records of rare, threatened or endangered species or communities are present within the Proposed Action Area. NYNHP reported the presence of eight animal species and eight plant species listed as rare, threatened or endangered in New York State as being reported within or in the vicinity of the Proposed Action Area. Additionally, three communities of high quality occurrence, rare, or uncommon communities were noted as being within or within the vicinity of the Proposed Action Area. See **Table S.1** for a complete list of species.

Table S.1: Rare, Threatened, or Endangered Species List

Common Name	Scientific Name	NYS Status
Animals		
Eastern Tiger Salamander	Ambystoma tigrinum	Endangered
Martha's Pennant	Celithemis martha	Unlisted
New England Bluet	Enallagma laterale	Unlisted
Scarlet Bluet	Enallagma pictum	Threatened
Pine Barrens Bluet	Enallagma recurvatum	Threatened
Coastal Barrens Buckmoth	Hemileuca maia spp. 5	Special Concern
Northern Long-eared Bat	Myotis septentrionalis	Threatened
Aureolaria Seed Borer	Pyrrhia aurantiago	Unlisted
Plants		
Small White Snakeroot	Ageratina aromatica	Endangered
Rose Coreopsis	Coreopsis rosea	Rare
Knotted Spike Rush	Eleocharis equisetoides	Threatened
Long-tubercled Spike Rush	Eleocharis tuberculosa	Threatened
Creeping St. John's Wort	Hypericum adpressum	Threatened
Velvety Bush Clover	Lespedeza stuevei	Threatened
Globe-fruited Ludwigia	Ludwigia sphaerocarpa	Threatened
Long-beaked Beak Sedge	Rhynchospora scirpoides	Rare
Communities		
Coastal Oak-Heath Forest	-	Uncommon Community
Coastal Plain Pond Shore	-	Rare Community
Pitch Pine-Oak Forest	-	High Quality Occurrence

Wetlands

Freshwater wetlands are found within the westernmost portions of the Proposed Action Area; specifically, west of Widow Gavits Road in the Town of Southampton. Freshwater wetlands and surface waters associated with Long Pond are present within the 4,000±-foot segment of the proposed underground transmission cable route immediately to the east of the Bridgehampton substation; and a second area of freshwater wetlands and surface waters associated with Great Swamp is present to the west of Bridgehampton Substation within the temporary conduit laydown area.

The Long Pond wetland complex is an interconnected chain of coastal plain ponds that extends from Sagaponack Inlet north to Sag Harbor. The ponds are groundwater fed and feature generally sloping shorelines. As the depth of the ponds fluctuate the variability of the exposed shorelines supports a wide array of species (USFWS Undated). The United States Fish and Wildlife Service (USFWS) recognizes the greenbelt as a "priority wetland" under the federal Emergency Wetland Resources Act. The greenbelt is also recognized as a "Priority Site for Biodiversity" by the NYNHP. Two areas of surface waters and freshwaters wetlands within the Long Pond Greenbelt directly intersect the Proposed Project Area. The underground cable will be installed beneath these surface waters via HDD.

A singular freshwater wetland intersects the HDD conduit laydown area to the west of the Bridgehampton Substation. This wetland is part of the larger Great Swamp wetland complex. Great Swamp features a series of freshwater wetlands that stretch from Bridgehampton-Sag Harbor Turnpike to the east and Brick Kiln Road to the west. The collection of freshwater wetlands comprising the Great Swamp are largely categorized as Red Maple Hardwood swamps and vernal ponds, which are surrounded by a mix of pitch pine-oak forest and coastal oak heath forest.

Cultural Resources

Archeological Resources-According to the New York Cultural Resource Information System (NY CRIS) no State Historic Preservation Office/Office of Parks, Recreation, and Historic Preservation (SHPO/OPRHP) archaeological resources are present in the study area (see Figure 3-3a – e). However, the study area traverses two Archaeological Sensitive Areas and two New York State (NYS) Museum Areas, including NYS Museum Areas 4928 (No Name) and 5531 (Long Pond) (NY CRIS 2021). Archaeologically sensitive areas are buffer areas that are a specified distance around archaeological sites that SHPO/OPRHP has inventoried. Museum areas are archaeological areas that the New York State Museum has inventoried. The NRHP status of the NYS Museum Areas are currently "undetermined".

A Phase IA investigation was performed in April and May 2021. Development has occurred in the area since the late nineteenth century. Most of the ground disturbances associated with the Proposed Action will occur within soils characterized by extensive prior disturbance, with no archaeological potential. However, and in accordance with the SHPO/OPRHP comments, portions of the Proposed Action area fall within soils lacking evidence of extensive prior disturbance and in locations with high archaeological sensitivity. These portions of the study area were recommended for Phase IB testing. The areas recommended for Phase IB testing included the entirety of the study area found within the Archaeological Sensitive Areas, including approximately 2.67-linear miles of the study area, which is described in detail in **Section 3.1**. No cultural materials were encountered during the Phase IB testing and as such, the study area does not appear to contain artifacts or features associated with recorded resources or previously unknown archaeological resources.

Architectural Resources-There are no previously recorded architectural resources located in the study area (NY CRIS 2021; PaleoWest 2021). In addition, no buildings or structures are located in the study area with the exception of the existing transmission towers found within the LIPA owned and/or controlled overhead ROW. A total of 88 known architectural resources are located within one-mile of the study area and the majority of these resources are situated more than 0.50-mile east of the APE. Of the 88 known architectural resources, 11 are located within 0.50-mile of the study area. These resources include one NRHP listed Historic District (Buell Lane Historic District), three resources that are considered eligible for the NRHP, six resources that are not eligible for the NRHP, and one resource that has undetermined eligibility (PaleoWest 2021). The closest resources are situated within approximately 100-feet of the study area and include the National Grid East Hampton Generating Station (10303.000842), the Railroad Bridge over Sag Harbor Turnpike (10303.000861), and the Railroad Bridge over Cove Hollow Road (10303.000862). All of these architectural resources are listed as not eligible for the NRHP in the NY CRIS (NY CRIS 2021; PaleoWest 2021). The closest resources that have undetermined NRHP eligibility, are considered eligible for the NRHP, or are listed in the NRHP are located at least 0.23-mile from the study area.

Open Space and Recreation

Five public and private recreational areas are located adjacent to or within the Proposed Action Area. In addition, a variety of trails are located in the undeveloped open space areas that adjoin the Proposed Action Area. The open space and recreational areas are Great Swamp, Spring Farm, Long Pond Greenbelt, Sagaponack Woods, and Buckskill Preserve.

Critical Environmental Areas

The Proposed Action is located within five CEA's, four of which are recognized as CEAs as defined by 6 NYCRR 617.14(g) of the State Environmental Quality Review regulations and one of which is designated by the Town of Southampton. A list of each CEA and its reason for designation is provided below.

South Fork Special Groundwater Protection Area (SGPA)(located in the Town of Southampton and Town of East Hampton) – This CEA was designated by the Long Island Regional Planning Board on March 19, 1993 in order to protect groundwater.

Aquifer Protection Overlay District (located in the Town of Southampton) – This CEA was designated by the Town of Southampton on June 20, 1983 to preserve the water quality of the area.

Long Pond Greenbelt (located in the Town of Southampton) – This CEA was designated by Suffolk County on February 10, 1988 as it was recognized as a benefit to human health and to protect drinking water.

Water Recharge Overlay District (located in the Town of East Hampton) – This CEA was designated by the Town of East Hampton on February 12, 1988 to protect groundwater and drinking water.

Town of Southampton Freshwater Wetlands (located in the Town of Southampton) – This CEA is designated as per the Town of Southampton Town Code. It includes all freshwater wetlands within the town subject to Article 24 of the Environmental Conservation Law (ECL). The designation was added to Town Code on May 8, 1990.

In general, all of the CEAs in which the Proposed Action intersects are for the protection of groundwater/drinking water or surface waters.

Noise

PS&S Engineering, PC (PS&S) performed a Sound Impact Evaluation and Assessment (the "Assessment") for the construction of the Proposed Action to assess potential sound-level impacts at receptors in the vicinity of the Proposed Action Area

Ambient sound level readings were measured at eleven locations along the Proposed Action Area and existing sound sources potentially influencing the area were noted. The locations were selected to assess the existing sound levels at locations along the Proposed Action Route near sensitive receptors and near specific noise generating activities. For the purposes of this analysis, sensitive receptors are residential and/or commercial/industrial uses. One monitoring location was chosen to assess the potential sound level impact to wildlife in proximity to the Proposed Action Route. Five monitoring locations, Locations 1, 2, 3, 9, and 10 were selected to coincide with the proposed HDD entry and exit pits. All 11 locations were monitored during daytime (7 AM - 10 PM). Locations 1, 2, and 3 were also monitored during nighttime (10 PM-7 AM) periods.

The existing measured total sound levels varied between 47 dBA and 58 dBA during daytime hours, and between 47 dBA and 50 dBA during nighttime hours.

The major sound-level influences along the Proposed Action Route were from wildlife (birds and insects), local vehicular traffic, construction/maintenance work at nearby properties, as well as contributions from non-anthropogenic sources such as wind rustling nearby leaves. Airplane and helicopter traffic from the East Hampton Airport also generated irregular, increases in noise levels (up to 76 dBA) which were excluded from total sound results.

Coastal Zone

Pursuant to the Coastal Zone Management Act of 1972, the State developed and adopted the Waterfront Revitalization of Coastal Areas and Inland Waterways Law (Executive Law, Article 42). Article 42 defines the coastal area boundary, provides a basis for coordinating State actions affecting the coastal area and designates the New York State Department of State (NYSDOS) as the administering agency. The Coastal Management Program (CMP) outlines 44 coastal polices that provide the framework for decision-making to which agencies must adhere. The portion of the Proposed Action located in the Long Pond Greenbelt, and lying between Bridgehampton-Sag Harbor Turnpike and Widow Gavits Road, and the portion of the Proposed Action between Widow Gavits Road and Sagg Road is within the State designated coastal area boundary.

Significant Beneficial and Adverse Environmental Impacts

Soils and Topography

Soils

Excavation and soil disturbance totaling 18.78 acres will be required for the cable installation along the trenched segments of the cable route, for the installation of the manhole vaults and for the construction of a temporary construction access roadway and stabilized work zone areas within the ROW that are necessary to facilitate the movement of heavy construction equipment. Soil disturbance will also occur in a 0.9±-acre area to the north of the Bridgehampton Substation, which will serve as an operating location for HDD equipment to be used for cable installation.

Soil disturbance will be largely avoided along the 3,450±-foot (0.8± mile) section of the cable extending east from the Bridgehampton Substation, passing beneath the Long Pond Greenbelt, to the west side of Widow Gavits Road (split into two segments by the installation of a manhole vault). These two segments of the cable will be installed via HDD resulting in only limited soil disturbance associated with the installation of a single manhole vault between the two segments. An additional 845±-foot segment of the cable will be installed via HDD beneath the LIRR line to the west of the Buell Substation.

Overall, approximately 10,000 cubic yards of on-site soils will be cut and reused on site as part of excavation and grading activities, and 5,125 cubic yards of net fill will be needed to undertake the installation of the approximately 3.9 mile construction access roads and other work zone areas. This additional fill material is proposed to consist of recycled concrete aggregate (RCA), which has desirable properties for the purposes of stabilization to accommodate heavy construction vehicle traffic. RCA used to facilitate temporary vehicle access will be removed from the site upon the completion of construction. The intent at the completion of construction is that the stabilized construction access road will be removed and returned to its pre-existing grades along the ROW to the maximum extent practicable. No permanent stabilized roadway will be maintained within the ROW. Timber matting will be utilized in the most sensitive area for the installation of the manhole within the Long Pond Greenbelt.

Excess material from the installation of the 14 manholes and associated subsurface equipment is also anticipated and will be reused as fill to the extent practicable, depending on the sequencing of construction activities. Any material excavated within the Proposed Action Area that is not retained for on-site reuse would be transported to a suitable, approved disposal location in accordance with all applicable regulations.

Except for the small area to be occupied by the access covers for the 14 manholes to be installed along the proposed cable route, areas containing existing vegetation that have to be cleared and/or graded for the Proposed Action will be stabilized via revegetation as soon as practicable to minimize the potential for erosion and sediment transport.

Overall, the Proposed Action has been designed, through the inclusion of various mitigation measures, including restoration of disturbed areas via revegetation and removal of RCA, to minimize potential impacts to soils. Therefore, implementation of the Proposed Action is not expected to result in significant adverse soil impacts.

Topography

In general, existing topography is expected to be maintained along segments of the access roadway for which construction vehicle movement will be limited to lighter weight equipment needed for trench excavation. Temporary topographic adjustments, in the form of regrading, will be required for the installation of the approximately 3.9 mile temporary construction access road, which must have a maximum 7 percent gradient to allow for access by the HDD drilling equipment, and by the crane and delivery vehicles for the installation of the manhole vaults.

Once construction has been completed, temporary modifications that have been made to the topographic profile of the ROW to facilitate heavy equipment access will be restored to pre-construction conditions as practicable. Adjustments may be made, where appropriate, in areas that originally had very steep slopes, to moderate final gradients in an effort to minimize the potential for erosion upon the completion of site restoration.

Within approximately 0.8 mile of the 5.2±-mile route in the ROW, installation will occur via HDD, which will not alter topography or other aspects of the land surface. Along the majority of the proposed cable route, installation will occur via the excavation of a four-foot-wide trench, with a total length of 4.4± miles. After the cable has been placed, this trench will be backfilled to the original grade to the maximum extent practicable.

The Proposed Action also includes topographic changes in an area of 0.36± acre to the north of the Bridgehampton Substation in order to provide the necessary level construction site of sufficient size to accommodate the operation of the HDD drill and associated equipment. Currently, this area has a gradient of approximately 20 percent sloping downward to the north. The proposed regrading will cut into the northerly portion of this slope to provide an almost flat surface, with an embankment constructed at the southerly end to create the topographic transition to the adjacent elevated area developed with the existing substation facility. Upon completion of construction, topography will be restored to pre-existing conditions to the maximum extent practicable.

Overall, the Proposed Action has been designed, through the inclusion of various mitigation measures, to minimize potential impacts to topography. Therefore, implementation of the Proposed Action is not expected to result in significant adverse topographic impacts.

Water Resources

Surface Waters, Wetlands, and Stormwater Drainage

Proposed Action activities that have the potential to adversely impact water resources include trenching for cable installation, grading, vegetation clearing, road stabilization, manhole installation, and inadvertent release of HDD fluids at HDD entrance and exit locations.

The use of HDD allows the transmission cable to be installed via subsurface drilling without causing any disturbance to the land surface along the cable route. In this way, impacts to surface waters and wetlands within the segment of the Proposed Action Area between the Bridgehampton Substation and Widow Gavits Road will be avoided, thereby effectively mitigating potential impacts that would otherwise be associated with the use of standard trenching methods in sensitive areas containing surface waters and wetlands. While the HDD will avoid nearly all soil disturbance in the Long Pond Greenbelt section of the Proposed Project Area, a single manhole and HDD exit pit will be located within the previously disturbed area of the Long Pond Greenbelt, west of Widow Gavits Road. To facilitate this construction, the existing dirt access path entering the Long Pond Greenbelt from Widow Gavits Road and a 0.34-acre area, inclusive of the existing access pathway, within the previously disturbed area will be temporarily stabilized with timber matting. Silt fencing and perimeter erosion controls will be put in place prior to construction to minimize the transport of soil and debris during the construction period. Complying with the conditions of PSEG Long Island's NYSDEC General Wetlands permit (#1-9901-0011/00032) will minimize potential impacts to wetlands in proximity to the proposed construction activities.

Use of the HDD method creates the potential for an inadvertent release of drilling fluid. Because the drilling fluid consists of an inert bentonite clay-water mixture, there is no potential for the release of hazardous substances to the environment. However, the drilling fluid does contain fine-grained sediment, which potentially could affect surface waters and wetlands if inadvertently released to the environment. To mitigate potential impacts associated with a frac-out event, a Frac-Out Contingency Plan (FCP) will be prepared that establishes specific protocols to minimize the potential for any such release of drilling fluid

and to minimize impacts if a release does occur. To further minimize the potential for impacts to water resources, drilling fluid will be recycled and reused to the degree practicable.

Timber mats will also be utilized in lieu of RCA in the conduit laydown area to the west of the Bridgehampton Substation where they laydown area crosses a wetland within the ROW. The timber mats will be removed upon the completion of construction, and any vegetated areas that have been disturbed will be restored in place with appropriate native shrubs and herbaceous plants.

The Proposed Action will result in a de minimis increase in impervious surfaces within the ROW, comprising 14 manhole covers spaced regularly along the cable route. This will cause a negligible increase in stormwater runoff, which will readily infiltrate into the pervious soils along the ROW.

Potential stormwater runoff impacts associated with the portion of the cable being installed via trenching in upland areas, will be readily and effectively mitigated using standard erosion and sediment control techniques. The Proposed Action will temporarily expose soils during construction, which potentially could cause erosion and sediment transport. However, such impacts will be avoided through implementation of a site-specific Storm Water Pollution Prevention Plan (SWPPP), which has been prepared for the Proposed Action and provides a comprehensive stormwater management strategy including a range of mitigation measures and best management practices.

Given the foregoing revegetation and erosion control measures, and the use of HDD in the most sensitive water resource areas, the Proposed Action will not increase the vulnerability of the area to long-term stormwater erosion during installation or operation of the new underground transmission cable. Proposed mitigation measures will prevent or minimize impacts to surface waters, wetlands, and stormwater drainage. Therefore, implementation of the Proposed Action is not expected to result in significant adverse impacts on these resources.

Flood zones

Approximately 100 feet of the Proposed Action Area is situated within the 100-year floodplain. Specifically, this area is a Flood Zone "A" (no base flood elevation determined), which means that it is subject to flooding of unspecified depth during the "base flood" or "100-year flood." However, the proposed underground transmission cable will be installed using HDD in this area; and the conduit containing the cable will be sealed to prevent water infiltration to ensure proper long-term functioning of the transmission line. Therefore, the Proposed Action will not cause or exacerbate flooding impacts and will not be susceptible to potential impacts due to a short segment of the cable being located in the floodplain.

Groundwater Resources

The Proposed Action will not generate hazardous materials or otherwise entail land use activities that could create a potential for adversely affecting groundwater quality. The drilling fluid and lubricant utilized in the HDD cable installation will not contain hazardous substances that could pose the potential for adversely affecting surface water quality. Similarly, this operation will not result in impacts to groundwater quality. While HDD activity will directly encounter the water table along the HDD route, it will not impact groundwater as no hazardous discharges will occur, and the drilling slurry is comprised of bentonite clay, which is inert and will not impact the quality of groundwater. Within the 4.4±-mile-long area proposed for trenching along the cable route, the water table is expected to be more than five feet below the ground surface, such that dewatering would not be required. The use of HDD in the area with

shallow groundwater depths (including areas of freshwater wetlands and standing waters at the surface associated with Long Pond) provides a means of drilling through saturated ground without having to excavate, thereby obviating the need for dewatering, while also minimizing the disturbance of overlying surface water resources.

During HDD drilling, it is anticipated that water usage/demand will be approximately 15,000 gallons per day. This volume is an anticipated maximum, which will fluctuate based on the ability to recycle some of the water during the drilling process. It is expected that this water supply will be drawn over a period of two to four months from local hydrants or via the installation of a temporary, metered connection that would be removed at the completion of the Proposed Action. As noted above, SCWA water supply will only be needed for the two-to-four-month period of HDD drilling and will not be needed for the long-term operation of the proposed transmission cable

Construction of the HDD-installed segment of the Proposed Action will use SCWA water obtained from local hydrants or a separate metered connection; therefore, this water will comply with state and federal drinking water standards, even though the water will be used to facilitate drilling along the conduit route beneath the surface waters and wetlands in the Long Pond system and beneath the LIRR line and will not be used for consumption. Wastewater generated during drilling activities, which cannot be reused will be collected in frac tanks, transported, and disposed at an approved disposal facility licensed to accept this type of waste. As noted above, after construction has been completed, the Proposed Action will not place a demand on the aquifer or SCWA, as no water supply will be required for the cable operation or for the restored vegetation.

A SWPPP has been prepared in accordance with the requirements of the NYSDEC SPDES General Permit for Discharges from Construction Activities. As a result, there is not a likelihood of flooding or on-site drainage issues during construction, as erosion and sediment controls (including silt fencing and a stabilized construction entrance) will be implemented, which will help to protect water resources while the Proposed Action Area is disturbed by construction.

Portions of the Proposed Action Area containing existing vegetation that will be disturbed during cable installation will be restored with suitable native plantings upon the completion of construction. This replacement vegetation will consist of native species and will not require irrigation or treatment with landscaping chemicals or fertilizers; and, thereby, will not place an ongoing demand on groundwater resources or contribute to the loadings of nutrients and other chemicals to the aquifer.

Soils excavated during the trenching operation will be retained on-site during construction and reused as backfill during site restoration to the degree practicable. Thereby, given the permeable nature of the Upper Glacial deposits and surface soils in the Proposed Action Area, the native soils that will be reused within the disturbed areas will continue to promote groundwater recharge after completion of the Proposed Action.

As discussed above, the Proposed Action has been designed, through the inclusion of various mitigation measures, to minimize potential impacts to groundwater resources. Therefore, implementation of the Proposed Action is not expected to result in significant adverse impacts on these resources.

Ecology

Vegetation

The majority of the Proposed Action Area is maintained as a utility ROW consisting of successional growth vegetation resulting from mowing and tree trimming maintenance activities as well as established dirt paths. The expected changes in habitat quantities of the overall Proposed Action Area are listed in **Table S.2** and would be the direct result of the construction phase of the Proposed Action. At the completion of construction, all but a negligible amount of disturbed areas would be revegetated. The only increase in permanently unvegetated/impervious areas will be from the underground manhole covers. Though the removal of some vegetation within the Proposed Action Area during construction is expected to result in a change in the characteristics of the habitats on site, the underground cable will not result in the permanent loss of vegetated areas. As a result, the site will continue to provide natural habitat for wildlife.

Table S.2: Existing & Proposed Habitat Quantities

	Existing Conditions		Proposed Action		Change
Habitat Type	Coverage		Coverage		Change
	(acres)	Percent	(Acres)	Percent	(Acres)
Successional Shrubland	13.76	31.96	7.68	17.84	-6.08
Successional Old Field	8.44	19.60	15.4	35.76	+6.96
Coastal Plain Pond	0.36	0.84	0.36	0.84	0
Coastal Plain Pond Shore	0.28	0.65	0.28	0.65	0
Red Maple-Hardwood Swamp	0.23	0.53	0.23	0.53	0
Coastal Oak-Heath Forest	3.95	9.17	3.56	8.27	-0.39
Pitch Pine-Oak Forest	0.55	1.28	0.53	1.23	-0.02
Successional Southern Hardwood Forest	0.51	1.18	0.48	1.11	-0.03
Coastal Oak-Hickory Forest	1.67	3.88	1.36	3.16	-0.31
Brushy Cleared Land	0.59	1.37	0.33	0.77	-0.26
Mowed Roadside/Pathway	2.66	6.18	2.66	6.18	0
Mowed Lawn/ Mowed Lawn with Trees	0.29	0.67	0.42	0.98	+0.13
Unvegetated	9.77	22.69	9.77	22.69	0
Bare Soil	6.75	15.68	6.75	15.68	0
Roadway	1.26	2.93	1.26	2.93	0
Substations	1.76	4.09	1.76	4.09	0
TOTAL	43.06	100	43.06	100	0

Wildlife

A total of 20.33 acres of existing natural vegetation are anticipated to remain undisturbed within the Proposed Action Area. Although there will be a temporary reduction of 12.63 acres of natural areas during construction, these areas will be restored upon the completion of construction activities. With the exception of the 154 SF of manhole covers, no permanent changes from vegetated areas to impervious areas will occur and as a result, long term impacts to wildlife are not anticipated.

Most of the species that utilize the Proposed Action Area are those that are somewhat tolerant of human activity. While it is expected that wildlife will be temporarily displaced during the construction phase of the Proposed Action, no permanent displacement of wildlife will result from operation of the underground cable. This may lead to an increase in abundance of wildlife populations in nearby and adjacent lands during the construction phase of the Proposed Action. Wildlife that is mobile is expected to migrate to adjacent suitable habitat during construction but will return to the Proposed Action Area upon the completion of construction.

Competition both within the species and across other species already utilizing the resources of the adjacent suitable habitat may result in a net decrease in population size for some species. While a significant portion of the existing habitat will remain, site-specific populations may decrease from the temporary loss of successional habitat which certain species may prefer. If a population decrease is experienced, it will only be temporary in nature, as populations will likely rebound following the return of the Proposed Action Area to its pre-existing condition. No significant adverse impacts to wildlife populations are anticipated to result from construction or operation of the Proposed Action.

Rare, Threatened, or Endangered Species

Select clearing of 0.31 acres of habitat and grading of 0.11 acres of habitat on the north side of the Bridgehampton Substation will occur within 535 feet of a known Eastern Tiger Salamander breeding pond and therefore may lead to the incidental take of individuals of this species. An incidental Take permit from NYSDEC is therefore required. The NYSDEC has been contacted to provide additional guidance regarding potential impacts to the species, and to discuss appropriate mitigation for those impacts. The mitigations proposed via the NYSDEC consultation process would constitute a net conservation benefit to the Eastern Tiger Salamander, as required under New York State Incidental Take regulations. Upon completion of construction, PSEG Long Island will restore all habitat within the 535-foot buffer of the known breeding pond resulting in no permanent loss of habitat. In addition to restoring the cleared and graded area on the north side of the Bridgehampton Substation, and in order to provide a net conservation benefit to the species, approximately 0.39 acres of sub-optimal habitat on the east side of Bridgehampton-Sag Harbor Turnpike owned by the Village of Sag Harbor will be restored to more suitable native habitat. Currently, the area features a high number of invasive species and large piles of debris, which include concrete blocks and scrap metals that currently make the area unsuitable for Eastern Tiger Salamander burrowing activities. Invasive species will be identified and removed and replaced with native tree, shrub, and herbaceous species including a mix of suitable oak species (red oak, white oak, and/or scarlet oak), dwarf heath species, mountain laurel, and warm season grasses. As a result of this proposed mitigation, these three areas will become more suitable tiger salamander habitat.

PSEG Long Island has contacted the Village of Sag Harbor about the restoration of this area, and will obtain the necessary agreements to conduct the restoration work on Village property upon finalization of the restoration plans.

Given that all disturbed areas within 535 feet of the known breeding pond will be restored and existing unsuitable/degraded habitat on the east side of Bridgehampton Sag Harbor Turnpike will be restored to a more suitable state, the requirement for a net conservation benefit to the species will be satisfied. An application for an Incidental Take permit will be submitted to NYSDEC prior to construction, which will include restoration plans.

Additionally, the construction methodology has been designed to avoid impacts to eastern tiger salamanders to the maximum extent practicable, and that the impacts associated with the temporary loss of habitat will be mitigated through comprehensive habitat restoration. As such, no permanent impacts to the species are anticipated to occur.

The Proposed Action will have no significant impacts to the two insect species or seven of the rare, threatened or endangered plant species identified by the NYNHP as these species utilize coastal plain ponds and coastal plain pond shoreline habitats. HDD will be utilized for installation of the cable in areas where suitable habitat occurs within the Proposed Project Area. No trenching or ground disturbance will occur within the coastal plain ponds or their associated shorelines. A single manhole will be installed within the Long Pond Greenbelt; however disturbance will be confined to previously disturbed dirt paths which occur more than 100 feet from the shoreline of the coastal plain ponds. Therefore, no significant adverse impacts to the rare, threatened or endangered species identified as potentially occurring within this area will occur.

The additional plant species identified by NYNHP, Velvety bushclover, was not identified onsite during the ecological surveys conducted by PSEG Long Island. Disturbance will be limited to the established ROW and will not impact the known occurrence of the species on the neighboring lands. No impacts to this species will occur as a result of the Proposed Action.

The narrow leaved pinweed and primrose-leaved violet were observed within the maintained portions of the ROW between Bridgehampton-Sag Harbor Turnpike and Widow Gavits Road. A single occurrence of each species was noted and no larger populations of these threatened species were observed. As cable will be installed via HDD within previously disturbed areas within the Long Pond Greenbelt and no disturbance to vegetation is anticipated in this area, the Proposed Action will have no impact on these species.

Wetlands

The Proposed Action will be installed directly beneath the two identified freshwater wetlands within the Long Pond Greenbelt via HDD. While uncommon, a "frac-out" event may occur if drilling fluid escapes from the HDD drill hole through fractures in the soil. Significant frac-out events are not common, but they can occur if the downhole pressures exceed the restraining forces of the surrounding formation, particularly during the pilot hole drilling operations when the pressures are the highest. The HDD entry and exit locations are most vulnerable to such effects, but they can occur at any location along the drill path. During all HDD activities, best management practices will be utilized to prevent construction material, including debris and drill cuttings, from entering the waterway. To mitigate potential impacts associated with a frac-out event, a FCP will be prepared that establishes specific protocols to minimize the potential for any such release of drilling fluid and to minimize impacts if a release does occur. As such, there are no anticipated impacts to turbidity or surface conditions of the ponds.

Furthermore, there are no anticipated ground disturbances within 150' of the delineated boundaries of the wetlands. A single manhole will be installed within the previously disturbed dirt path on the east side of Long Pond within the ROW. There will be no change in habitat type or quality surrounding the wetland.

During construction, the temporary HDD conduit laydown area will extend across the vegetated area on the south side of the freshwater wetland within the ROW located west of the Bridgehampton Substation. No ground disturbance is proposed within this area and timber mats will also be utilized where the

laydown area crosses the wetland. The timber mats will be removed upon the completion of construction, and any vegetated areas that have been disturbed will be restored in place with appropriate native shrubs and herbaceous plants.

Given the lack of disturbance to wetlands or regulated adjacent areas as a result of the proposed installation methods for the cable, and the FCP, which will be implemented should a frac out occur during drilling activities, no significant adverse impacts to wetlands will occur as a result of the Proposed Action.

Cultural Resources

Archaeological Resources

No previously recorded SHPO/OPRHP Archaeology Sites are located in the study area and the study area traverses two Archaeological Sensitive Areas and two NYS Museum Areas (NYS Museum Areas 4928 and 5531). A Phase IA investigation was completed for the entirety of the study area and Phase IB testing was completed for those portions of the study area exhibiting high archaeological sensitivity. These areas included the Archaeological Sensitive Areas identified in the NY CRIS, including the locations of NYS Museum Areas 4928 and 5531. No cultural materials were encountered during the Phase IB testing and as such, the study area does not appear to contain artifacts or features associated with recorded resources or previously unknown archaeological resources (PaleoWest 2021). Thus, no NRHP or State Register listed or eligible resources or locally designated archaeological resources will be impacted by the Proposed Action. For these reasons, the Proposed Action will not result in impacts archaeological resources, including any archaeological resources that could be considered historic resources pursuant to SEQRA and Section 14.09 of the New York State Historic Preservation Act.

Architectural Resources

There are no previously recorded architectural resources located in the study area and no buildings or structures are present in the study area. The only structures located in the study area are the existing transmission towers found within the LIPA owned and/or controlled overhead ROW (NY CRIS 2021; PaleoWest 2021). Thus, no NRHP or State Register listed or eligible resources or locally designated architectural resources will be directly impacted by the Proposed Action. The closest known architectural resources that have undetermined NRHP eligibility, are considered eligible for the NRHP, or are listed in the NRHP are located more than 0.23-miles from the study. Additionally, the Proposed Action will not introduce any changes to the existing viewshed or cultural context, as the project is proposed underground. For these reasons, no NRHP or State Register listed or eligible resources or locally designated architectural resources will be indirectly impacted by the Proposed Action. Thus, the Proposed Action will not directly or indirectly impact architectural resources, including any architectural resources that could be considered historic resources pursuant to SEQRA and Section 14.09 of the New York State Historic Preservation Act.

Open Space and Recreation

Temporary impacts to the identified open space and recreational resources along the Proposed Action route are anticipated to be a direct result of construction activities. Impacted recreational activities will include hunting, hiking and kayaking. Upon the completion of construction, all stabilization will be removed and graded areas will be returned to pre-construction conditions to the maximum extent practicable. All trail crossings will be restored to maintain connectivity within the trail systems and disturbed vegetated areas will be restored with appropriate native species. Additionally, no permanent

impacts to these resources will result from operation of the underground cable. No impacts to Great Swamp will occur as this area of open space is located outside of the Proposed Action Area.

Access and use of the ROW within Spring Farm will be restricted during construction activities for approximately 2 to 3 months. If necessary, a temporary bridge will be constructed over the pipes in the laydown area to allow for perpendicular access across the ROW. Conduits will also be placed to the edge of any access paths that are located parallel to the ROW to the maximum extent practicable to allow for continued vehicle access when construction activities are not occurring.

Construction in the Long Pond Greenbelt, including cable drilling activities and manhole construction, will have temporary adverse impacts to the use and enjoyment of that open space resource. Throughout the three to five month construction period, access to the trail and kayak launch on the east side of the Long Pond Greenbelt will be temporarily precluded to ensure public safety. Mitigation of this anticipated impact to the use of the Long Pond Greenbelt will include ensuring construction in this area occurs in the off-season months, November through March, when use of the area is reduced from peak use during the growing season. Upon completion of construction, disturbed areas will be reseeded with native species, and public access to the Long Pond Greenbelt will be fully restored.

Impacts to the remaining open space areas east of Widow Gavits Road along the Proposed Action route are also anticipated as a result of construction activities. Trail areas in and around the ROW may be temporarily restricted during construction activities. It is anticipated that any one section along the ROW will have access restricted for no more than one week during trenching activities, and one additional week during manhole installation activities. Once all construction activities are complete, no restriction to any trails or open space areas will remain along the Proposed Action route.

Critical Environmental Areas

The Proposed Action is not anticipated to significantly impact the resources associated with the CEA designations, as the Proposed Action has been designed to minimize impacts to both groundwater and surface water. The use of HDD to install the cable in proximity to surface waters results in no disturbance to the surface waters or land adjacent to it, thereby protecting the surface waters from sedimentation that would otherwise occur with trenching activities.

The HDD drilling activities utilize a drilling slurry that is inert and non-toxic and will not impact the quality of groundwater. Further, no water will be withdrawn or discharged along the Proposed Action route. Water necessary for drilling operations will be provided through a connection to the existing SCWA system. As discussed, the HDD operation will recycle the water and drilling fluid to the extent practicable. Wastewater generated during drilling activities which cannot be reused will be collected in frac tanks, transported, and disposed of at an approved disposal facility licensed to accept this type of waste. In the event of a frac out during drilling activities, a frac out contingency plan will be in place to ensure that any inadvertent release is appropriately contained in a timely fashion. Given the measures employed to protect both groundwater and surface water, and the mitigation employed in the event a frac out should occur, both groundwater and surface water will be protected to the maximum extent practicable and therefore no significant impacts to the CEA's will result from the Proposed Action.

Noise

No long-term increase in ambient sound levels is anticipated once the Proposed Action is completed and operational, as the Proposed Action does not include sound generating equipment or facilities.

Construction phase activities will cause a temporary, and in some cases, significant, increase in ambient sound levels along the entire route. Sound propagation modelling of construction phase activities was performed, and documented in the Assessment (October 2021), provided as **Appendix C**. Modeling was undertaken to project expected sound levels during the construction phase based on the specific activities that will be undertaken and equipment that will be utilized during construction. Construction activity using open trench installation will generate intermittent and transient noise along the entire segment of open trenching, while HDD activities will cause an increase in sound levels primarily at the entry and exit pits. Locations 1, 2, 3, 9, and 10 are locations where HDD installation methods will be utilized; Location 4 through 8 and Location 11 are locations where open trench installation methods will be utilized. The modeled total sound levels represent the worst-case scenarios anticipated at the nearest sensitive receptor with all construction equipment operating simultaneously. The modeled sound levels at residences near the construction activity will increase from the existing range of 48 to 51 dBA, to 71 to 85 dBA

Typical trenching activities can progress at a rate of approximately 200 feet per day when occurring on paved surfaces and approximately 300-500 feet per day when occurring within the unpaved ROW. As such, portions of the Proposed Action where only trenching occur are expected to experience transient periods of the worst-case modeled noise conditions for a single day before noise conditions will begin to attenuate as trenching activities progress along the ROW. Receptors in proximity to manhole construction may experience up to a week of continuous increased noise during construction between the hours of 7 AM to 7 PM. Noise generation sources from trenching construction are mobile and will operate along the existing linear ROW. As a result, noise barriers are not practicable for implementation during trenching construction.

As described in the Assessment, HDD work can be expected to produce sound levels of 99 dBA at 50 feet from the source and the nearest residence is more than 120 feet from the HDD work location. Overnight work will be required for a maximum of one 24-hour period at each of the HDD locations. Overnight work will be required for the pull through of the conduit through the HDD borehole. Once the pull through activity begins, it must continue until completion; stopping the pull through at nightfall and recommencing the work in the morning would poses a significant risk that jeopardizes the overall success of the HDD. The remainder of the HDD activities would occur during standard construction hours, between 7AM and 7PM.

In order to reduce the noise level generated by HDD activities, flexible 16-foot high noise control mats or acoustic barriers (e.g. EchoBarriers) will be deployed to reduce construction related noise impacts resulting from the HDD. Acoustic barriers will be added to stationary equipment as applicable and affixed to the front of temporary construction fencing surrounding HDD locations to the maximum extent practicable. Use of the barriers ensures the sound levels experienced in the vicinity of the HDD locations are attenuated and minimized to the maximum extent practicable. With the use of the acoustic sound barriers, sound levels at sensitive receptors near the HDD construction activity will increase from the existing range of 48 to 58 dBA, to 68 to 83 dBA. If HDD activities are left unmitigated, modeled sound levels at sensitive receptors range from 70.8 to 89.7 dBA.

Coastal Zone

As a portion of the Proposed Action is located within the coastal area, and requires both state and federal approvals, a Federal Consistency Assessment Form (FCAF) was completed. The purpose of the FCAF is to

assist with ensuring the Proposed Action is consistent with the policies outlined in the CMP. The completed FCAF and associated policy discussion will be sent to the NYSDOS to determine coastal consistency concurrence prior to the commencement of construction of the Proposed Action. The FCAF and accompanying policy analysis is included as **Appendix D** and discussed in **Section 3.5.1**. Per the responses to the FCAF, fourteen of the forty-four CMP policies are potentially applicable to the Proposed Action.

The CMP policies potentially applicable to the Proposed Action fall within the following CMP categories: Fish and Wildlife Policies; Flooding and Hazard Policies; Public Access Point Policies; Historic and Scenic Resource Policies; Emergency Management Policies; Water and Air Resources; Policies Wetlands Policy. The Proposed Action has been designed to be installed primarily below-grade within the existing LIPA ROW, will not result in a change in land-use or habitats, will avoid and/or minimize impacts from exposed soils through implementation of the site-specific SWPPP and further minimized through use of the HDD through approximately 3,300 feet of the coastal zone, implement a "frac-out" contingency plan during HDD operations, and have no permanent impact to access to public water-related recreation resources and facilities within the coastal zone. Therefore, it remains consistent with the policies outlined in the CMP.

Mitigation

Soils and Topography

- Except for a minor increase in impervious surfaces, involving the installation of 14 manhole covers, the Proposed Action will retain existing pervious surface coverage, and areas of disturbed vegetation will be restored with native plant species. This will result in a negligible change in land coverage and associated effect on soils.
- The use of native plant species in landscaping restoration also will avoid the need to use fertilizers, pesticides and other chemical treatments, thereby minimizing the potential for impacts to soils related to landscape maintenance practices.
- Any material excavated within the Proposed Action Area that is not retained for re-use, will be transported to a suitable disposal location in accordance with applicable regulations.
- Upon the completion of construction, the topographic profile of the ROW will be restored to preconstruction conditions, as practicable. Adjustments may be made where appropriate, in areas that originally had very steep slopes, to moderate final gradients in an effort to minimize the potential for erosion upon the completion of site restoration.
- A Sediment & Erosion Control Plan, as required as part of the site specific SWPPP, has been
 prepared to identify a range of measures directed at avoiding or mitigating construction-related
 impacts resulting from stormwater runoff. Section 2.2.3 provides a detailed summary on this topic
 in the context of mitigation measures with respect to water resources (i.e., potential stormwaterinduced impacts), which also encompasses measures that will serve to mitigate potential impacts
 to soils and topography.
- The preparation of a SWPPP is required under the NYSDEC State Pollutant Discharge Elimination System (SPDES) program for the review of stormwater control measures consistent with Phase 2 stormwater permitting for construction sites in excess of one acre (SPDES GP-0-20-002). Under this program, a Notice of Intent (NOI) must be filed with the NYSDEC 60 days prior to

- commencement of construction, and the SWPPP must be maintained on-site. This process, as well as construction and operation of the proposed transmission cable, are discussed in Section 1.4.
- Dust control shall be used during construction activities to mitigate air movement of dust from disturbed soil surfaces that may cause off-site damage, health hazards, and traffic safety problems. Unpaved, high-traffic areas will be covered with suitable aggregate and exposed soils will be wetted as necessary during extended dry periods to minimize dust generation. Only potable water will be used for dust control. Several applications per day may be necessary, depending on the frequency of work and weather conditions. Dust control measures will be utilized until all disturbed areas of the Project are stabilized.
- RCA and timber matting that is placed in the Proposed Action Area to provide temporary ground surface stabilization to support construction equipment will be removed upon the completion of construction.

Water Resources

The following is a summary of measures that are included in the Proposed Action to avoid or minimize adverse environmental impacts to water resources.

- Except for a de minimis increase in impervious surface area due to 14 new manhole covers, the
 Proposed Action will retain existing pervious surface areas, with areas of disturbed vegetation
 being restored with native plant species. This will result in a negligible increase in stormwater
 runoff generated within the ROW, which will continue to be retained on-site, and will readily
 infiltrate into the site's pervious soils.
- The Proposed Action will comply with the SCWA's seasonal constraints, which will limit water supply for the HDD drilling operation to the eight months of the year between October and May. Follow-up coordination will occur with SCWA prior to the commencement of construction to finalize the details of the proposed water use, and to obtain a permit identifying the specific hydrant(s) or separate metered connection(s) to be used and other particulars of the approval. The Proposed Action will also comply with SCWA's requirement that the three HDD drilling operations (i.e., to the east of the Bridgehampton Substation and beneath the LIRR near the east end of the Proposed Action Area) be conducted in sequence and not concurrently, to limit daily water usage.
- The use of native plant species for revegetation in disturbed areas will avoid the need for irrigation, and the completed transmission cable and appurtenances will operate without water consumption. Therefore, operation of the Proposed Action will not place a demand on local potable water supplies.
- Revegetation with native species will also avoid the need to use fertilizers, pesticides and other chemical treatments, thereby protecting the quality of surface water and groundwater resources.
- A SWPPP, including an associated Sediment and Erosion Control Plan, has been prepared for the Proposed Action, which will be implemented during construction to avoid or mitigate potential impacts related to stormwater runoff. (see **Appendix G** for the full SWPPP):
- Coverage under PSEG Long Island's NYSDEC General Wetlands permit (#1-9901-0011/00032),
 which includes authorization for activities under Article 24 jurisdiction, as well as a permit from
 the USACE will be required for the proposed cable routing through the wetlands associated with
 Long Pond along the ROW segment to the east of Bridgehampton-Sag Harbor Turnpike, and for
 cable conduit laydown operations in the wetlands along the ROW to the west of the
 Bridgehampton Substation. This permitting process will ensure that potential impacts to surface
 waters and wetlands are mitigated to the extent practicable.

- Coverage under PSEG Long Island's General Permit also ensures that NYSDEC water quality certification is obtained, thereby assuring compliance with New York State water quality standards.
- To avoid impacts to the freshwater wetlands associated with Long Pond along the ROW segment to the east of Bridgehampton-Sag Harbor Turnpike, the Proposed Action will utilize HDD in this area, which will avoid disturbing the ground surface to install the proposed transmission cable.
- Monitoring the progress of the HDD drill head will occur via walk-over or a wireline, which are
 relatively benign methods that will not significantly impact surface waters and wetlands in the
 area of HDD installation.
- The HDD installation will utilize a drilling fluid consisting of water obtained from the SCWA and
 inert materials (e.g., naturally occurring bentonite clay), while a similarly innocuous lubricant will
 be used to facilitate the pulling of the HDD conduit through the HDD borehole. These methods
 will not pose the potential for releasing hazardous substances into the environment.
- The HDD operation will recycle the water and drilling fluid to the extent practicable. Specialized equipment to perform such recycling is standard for use in HDD installations. Wastewater generated during drilling activities, which cannot be reused, will be collected in frac tanks, transported, and disposed of at an approved disposal facility licensed to accept this type of waste. As noted above, the drilling fluid used in the HDD installation for the Proposed Action will consist of inert, non-hazardous materials (i.e., natural bentonite clay mixed with potable water), which will not pose the potential for hazardous substance impacts on the environment. However, the fine particulate matter suspended in the drilling fluid could potentially adversely affect surface waters and wetlands if there is an inadvertent release from the HDD drilling hole. Therefore, an FCP will be required, which establishes specific protocols to minimize the potential for any such release of drilling fluid and to minimize impacts if a release does occur. A typical FCP is provided in **Appendix K** which will be customized by the selected drilling contractor
- To minimize disturbance of the freshwater wetlands in the conduit laydown area along the ROW
 to the west of the Bridgehampton Substation, equipment operations shall be limited to a small,
 wheeled cart which shall be used to fuse the conduit sections. Any pickup trucks required for
 support in the conduit laydown area shall utilize the existing access roads, which are maintained
 to the east and west of the wetland.
- To mitigate potential impacts to freshwater wetlands in the conduit laydown area along the ROW to the west of the Bridgehampton Substation and for the HDD exit pit/underground manhole installation within the previously disturbed area of the Long Pond Greenbelt west of Widow Gavits Road, timber mats shall temporarily be installed during the construction period. Although the requirements for these mats and/or other suitable mitigation measures ultimately will be determined by NYSDEC, to be specified as conditions of the Incidental Take Permit for the Proposed Action (with any additional conditions as may be identified in the USACE permit), it is intended that the Best Management Practices established by the USACE (March 2016) will be followed (see **Appendix M**). The following protocols shall apply to the temporary HDD Laydown area west of the Bridgehampton Substation for minimal areas of wetland/stream channel crossings:
 - At "dry" crossings where no flow is present or anticipated during construction, the
 mats may be placed directly onto the ground in order to prevent excessive rutting,
 provided stream banks and bottoms are not adversely altered.
 - Construction mats may be used as a temporary bridge over a stream to allow vehicles
 access to the work site. Small sections of mat are placed within and along the stream
 parallel to the flow of water. Mats may then be placed perpendicular to the stream,

- resting on top of the initial construction mat supports. It may be necessary to place additional reinforcement for extra stability and to minimize the amount of sediment that could fall between the spaces of each timber.
- In areas where wildlife passage or migration is a consideration, mats may be installed in accordance with the diagram "Typical Stream Crossing with Swamp Mats" – see Appendix M.
- Mats shall not be placed so that they restrict the natural flow of the stream.
- The number of stream/wetland crossings shall be minimized. Where feasible, the crossing site should be located where stream channel is narrow for the shortest possible clear span and where stream banks are stable and well defined.
- More than one layer of mats may be necessary in areas that are inundated or have deep organic wetland soils.
- The following protocols shall apply to maintenance:
 - Matted wetland crossings shall be monitored to assure correct functioning of the mats
 - Mats shall be inspected after use, looking for any defects or structural problems.
 - Mats that become covered with soils or construction debris shall be cleaned and the materials removed and disposed in an approved, upland location. The material shall not be scraped and shoveled into the resource area.
 - Mats that become imbedded must be reset or layered to prevent mud from covering them or water passing over them.
- The follow protocols shall apply to removal:
 - Matting shall be removed by "backing" out of the site, removing mats one at a time. Any rutting or significant indentations identified during mat removal shall be regraded immediately, taking care not to compact soils.
 - Mats shall be cleaned before transport to another wetland location to remove soil and any invasive plant species seed stock or plant material.
 - Mats shall be cleaned of soil and any invasive plant species seed stock or plant material before installation.
 - Cleaning methods may include, but are not limited to, shaking, or dropping mats in a controlled manner with a piece of machinery to knock off attached soil and debris, spraying with water or air, and sweeping.
 - Crossings shall be inspected following mat removal to determine the level of restoration required.
- Construction materials that pose a potential contamination threat (e.g., petroleum products and hazardous materials) shall be managed to minimize exposure to stormwater. Such materials shall be kept in secure containers and properly labeled. All storage containers (including frac tanks) and motorized/mechanical equipment containing such materials (including generators) shall have secondary containment.
- Hazardous materials shall be used, stored, transported, and disposed in the manner specified by the manufacturer and by applicable regulations. Contractors and subcontractors shall be made aware of this requirement and shall alert site personnel of this requirement.
- Copies of Safety Data Sheets shall be maintained on-site for hazardous materials.
- Solid and liquid wastes shall be managed and disposed properly, and in accordance with applicable State and Federal requirements. Construction and demolition waste shall be separated from soils, and both shall be disposed at an approved disposal facility. All other wastes shall be disposed separately. Waste material shall be collected and stored in secure containers and removed from the site. Waste containers shall be inspected regularly. No solid or liquid wastes

- shall be disposed (e.g., buried or poured) on-site. Excess construction materials, supplies or debris shall be inspected at the end of each work shift and managed or disposed the same day or as soon as reasonably possible.
- Contractor(s) and subcontractor(s) shall comply with applicable regulations regarding portable
 toilets. Each contractor and subcontractor shall provide wastewater collection facilities for its
 crews at the site throughout construction activities. Sanitary facilities shall not be placed near
 drainage courses or in low areas and shall be positioned so they are secure and cannot be tipped
 over. Sanitary facilities shall be serviced regularly.
- To compensate for the potential effects of the Proposed Action on surface waters and wetlands that comprise Eastern Tiger Salamander habitat and buffer areas, mitigation will be provided to enhance this habitat, thereby providing a net conservation benefit to the species. Currently, it is proposed that approximately 0.39 acre of sub-optimal habitat on the east side of Bridgehampton-Sag Harbor Turnpike be restored to more suitable native habitat. This proposal is subject to further review and, ultimately, approval by NYSDEC. PSEG Long Island has committed to the restoration of habitat within the 535-foot buffer of the known Eastern Tiger Salamander breeding pond upon completion of construction, resulting in no permanent loss of habitat. See **Section 2.3** for a more detailed discussion of potential impacts and mitigation with respect to this aspect of Proposed Action Area water resources.

Ecology

- Disturbance will be minimized to the maximum extent practicable as a result of the construction installation methods utilized and the minimization of the access path to the maximum extent practicable.
- Disturbance to wetlands associated with the Long Pond Greenbelt are avoided through the use of the HDD construction methodology.
- With the exception of the minimal area occupied by manhole covers all disturbed areas will be restored with appropriate native plant species.
- All disturbed areas within 535 feet of known Eastern Tiger Salamander breeding ponds will be
 restored with appropriate native species; additional areas on the east side of Bridgehampton-Sag
 Harbor turnpike will be cleared of unsuitable materials and invasive species and restored with
 native species to improve overall habitat suitability.
- No known invasive species will be utilized for restoration activities. Specifically, species listed in 6 NYCRR Part 575 will not be utilized.
- Timber mats will be used along the portion of the HDD conduit laydown area that crosses the freshwater wetland located west of the Bridgehampton Substation.
- A FCP will be implemented by the contractor during drilling operations should a frac-out occur.
- No debris, fill, sand, gravel or other materials will be placed within 150 feet of a wetland.

Cultural Resources

The Proposed Action is not expected to result in impacts to cultural resources. Specifically, the Proposed Action will not impact known historic resources or potential historic resources. As such, no mitigation is proposed for cultural or historic resources.

Open Space and Recreation

• If necessary, provide temporary bridges for existing access road crossings perpendicular to the ROW within Spring Farm to allow for continued vehicle access.

- Place conduit on the edge of any access roadways located parallel to and within the ROW to allow for vehicle access to Spring Farm to the maximum extent practicable.
- Conduct construction activities within the Long Pond Greenbelt during the off-season months, November thru March, when a reduction in typical use of the greenbelt occurs.
- Utilize rolling access restrictions (i.e., only close areas which are actively undergoing construction)
 on areas along the Proposed Action route to ensure that restrictions to trails are minimized to the
 maximum extent practicable.
- Enhanced outreach program to inform residents and other stakeholder groups about the construction schedule.
- Notice of anticipated trail crossing closures will be listed on the Proposed Action website.
- Remove all access restrictions upon the completion of construction activities to ensure no permanent loss of the use of open space or recreational resources occurs.

Critical Environmental Areas

- Use of HDD in the vicinity of wetlands to avoid surface disturbance.
- Use of public water supply for HDD activities to avoid the need for the installation of temporary well points.
- Use of inert materials for the HDD drilling slurry to ensure HDD activities will not affect groundwater quality.
- Employment of a frac out contingency plan to contain any inadvertent release of drill fluids in a timely manner.

Noise

The NYSDEC "Assessing and Mitigating Noise Impacts" guidance document includes techniques to reduce noise frequency and impulse noise at the source, reduce noise duration, and reduce noise sound pressure levels. The following BMP's will be utilized to mitigate the effects of increased noise during the construction phase of the Proposed Action.

- With the exception of HDD conduit pull-through anticipated to require a maximum of 1 x 24-hour work-day, all work activities will occur between 7 AM and 7 PM.
- Flexible noise control covers or acoustic barriers to be installed on 16 foot high fencing will be utilized on stationary HDD machinery to the maximum extent practicable.
- All equipment will be regularly maintained.
- Conduct an enhanced outreach program to coordinate potential scheduling adjustments where
 possible and inform residents about the construction schedule and resultant increase in noise
 levels.

Coastal Zone

- Disturbance to coastal zone associated with the Long Pond Greenbelt is avoided through the use of the HDD construction methodology to limit ground disturbance created by the use of trenching methodologies and the minimization of the disturbance areas to the maximum extent practicable.
- With the exception of the minimal area occupied by manhole covers for the singular manhole and the existing maintained access pathway, no above-ground structures will be sited in the coastal zone.
- All disturbed areas will be restored with appropriate native plant species.
- Timber mats in lieu of RCA will be installed for stabilization within the existing access pathway from Widow Gavits Road and for stabilization of machinery within the Long Pond Greenbelt.

- A frac out plan will be implemented by the contractor during drilling operations should a frac out occur.
- A site specific SWPPP will be implemented to mitigate potential impacts to stormwater resulting from temporarily exposed soils during construction.
- No debris, fill, sand, gravel or other materials will be placed within 150 feet of a wetland.
- Construction will occur during the off-season to mitigate the impact of access to recreation within the coastal zone.

Alternatives

Per the SEQRA requirement for the consideration of alternatives to the Proposed Action, the following alternatives were specified in the Final Scope:

- 1. Alternative 1 No-Action: Under the No-Action scenario where the existing facilities remain in place with no improvements, and the Proposed Action does not proceed. Under the SEQR regulations, at 6 NYCRR §617.9(b)(5)(v), this alternative "should evaluate the adverse or beneficial site changes that are likely to occur in the reasonably foreseeable future, in the absence of the proposed action." "No action" is the only alternative that is explicitly required by SEQRA to be analyzed.
- 2. Alternative 2 Northern Underground Route: This alternative considers a new 69kV Circuit installed underground from the Bridgehampton Substation north along Bridgehampton-Sag Harbor Turnpike, through Sag Harbor, and then south along East Hampton-Sag Harbor Turnpike to the Buell Substation. This new circuit would be installed underground via trenching within the existing road ROW and would follow the route of an existing LIPA circuit (see Figure 5.1).
- 3. Alternative 3 Southern Underground Route: This alternative considers a new 69kV Circuit installed underground from the Bridgehampton Substation south along Bridgehampton-Sag Harbor Turnpike, east along Montauk Highway, and then north to the Buell Substation on East Hampton-Sag Harbor Turnpike. This new circuit would be installed underground via trenching within the existing road ROW and would follow the route of an existing LIPA circuit (see Figure 5.2).
- 4. Alternative 4 Northern Hybrid Route: This alternative considers a new 69kV Circuit installed using overhead installation from the Bridgehampton Substation north to Sag Harbor, then underground installation via trenching within the Village, and then south to the Buell Substation via overhead installation (same route as Alternative 2, see Figure 5.3).
- 5. Alternative 5 Overhead Route within LIPA Easement/ROW: This alternative would replace the existing Bridgehampton to Buell and Bridgehampton to East Hampton 69-kV Double Circuit by removing the 53 existing towers within the ROW (along the same route as the Proposed Action) and installing two new overhead lines on steel poles (approximately 134 steel poles, in two lines of 67 poles, with each pole at a height of approximately 60 feet above grade). See Figure 5.4.

The following provides a summary of the evaluation of each Alternative described above.

Alternative 1 - No Action: Under this scenario, the existing overhead electrical transmission facilities in the LIPA easement between the Bridgehampton and Buell Substations would remain in place and would continue to operate with no improvements, and the Proposed Action would not be undertaken. There is no cost associated with the No Action Alternative.

Under the No Action Alternative, no changes to the existing conditions would occur. Therefore,
no impacts to soils and topography, water resources, ecological resources, cultural resources,
open space and recreation, critical environmental areas, noise levels, visual/aesthetic resources,
or construction related impacts would occur. The No Action Alternative does not meet the
objectives of the Project Sponsor.

Alternative 2 — Northern Underground Route: This alternative involves the installation of a new 69kV circuit along an underground route extending northward from the Bridgehampton Substation, through downtown Sag Harbor Village, and then southward to the Buell Substation. The total length of the above-described cable route is approximately 8.06 miles, which is about 55 percent longer than the 5.2±-mile route for the Proposed Action. See **Figure 5-1** for a map of the general routing for this alternative. The cost estimate for this Alternative is \$78.6 million.

- Soils and Topography: Alternative 2 would result in an approximate 83 percent increase in the length of trenching i.e., 8.06± miles, as compared to 4.4± miles for the Proposed Action (excluding the HDD segments). The net potential effect on soils and topography would be similar for the two scenarios, given the longer route for Alternative 2 and the wider area of disturbance associated with the temporary construction access road required for the Proposed Action.
- Water Resources: Alternative 2 would route the proposed 69kV circuit along public roadways, the
 majority of which do not contain or adjoin surface water resources. However, this route does
 include short sections of trenching within the roadway ROW adjacent to Otter Pond and wetlands
 associated with Ligonee Brook and Rattlesnake Creek in the Village of Sag Harbor and Northwest
 Creek just south of the Village boundary, where there would be a potential for natural resource
 impacts (see Figure 5-5). The Proposed Action will limit disturbance to wetlands through the use
 of HDD construction methodology and timber matting in sensitive areas. The net potential effect
 on water resources would likely be similar for the two scenarios.
- Ecology: Given the disturbed nature of the existing roadway ROWs, the required clearing for Alternative 2 is anticipated to be less than the clearing required under the Proposed Action. In comparison to Alternative 2, HDD will be used to install the cable through the most ecologically sensitive portion of the Proposed Action Area, thereby avoiding land surface disturbance and potential for construction-related impacts in this area. The Proposed Action will implement a site restoration plan using native vegetation species, which will mitigate potential impacts associated with land disturbance during construction. Appropriate site restoration would also occur under Alternative 2, although the affected project area would be located within roadway ROWs which generally are not believed to have important ecological value (except for the wetland areas identified above). Preliminary input received from NYSDEC's Natural Heritage Program indicates that the presence of Eastern Tiger Salamander has been documented in the Bridgehampton-Sag Harbor Turnpike area, but it is not specified whether this includes the segment of the Turnpike along the route for Alternative 2 between the Bridgehampton Substation and the Village of Sag Harbor.

- Cultural Resources: Although Alternative 2 similarly is not expected to contain significant archaeological resources as it comprises a previously disturbed roadway ROW, review of information available on New York State's Cultural Resources Inventory System (CRIS) reveals that much of this route traverses an area of archaeological sensitivity, and there are numerous adjacent National/State-listed historic resources, particularly within the Village of Sag Harbor. As discussed in Section 3.1, the Proposed Action Area does not appear to contain artifacts or features associated with recorded resources or previously unknown archaeological resources, nor are any previously recorded architectural resources are located in the Proposed Action Area. It is likely that Alternative 2 would have a greater impact on Cultural Resources than that of the Proposed Action.
- Open Space and Recreation: Alternative 2 would place the transmission cable underground within
 roadway ROWs, which do not comprise open space/recreation resources. To the degree that
 trenching within this ROW may interrupt access to adjacent areas containing such resources,
 coordination with the respective owners and/or operators would be necessary to minimize
 impacts. It is likely that Alternative 2 would have a lesser impact on Open Space and Recreational
 Resources than that of the Proposed Action.
- Critical Environmental Areas: Alternative 2 would be located in the same CEAs as that of the
 Proposed Action. Alternative 2 would similarly be designed to minimize potential impacts to these
 resources, through the implementation of a SWPPP, thereby providing a comprehensive program
 of measures to minimize impacts related to erosion and sediment transport. Impacts to CEA's
 would be similar under both scenarios.
- Noise: Alternative 2 would involve a greater length of trenching, along roadway ROWs that
 generally lie in closer proximity to residential land uses and other sensitive noise receptors and,
 therefore, will likely pose a greater potential for noise impacts. Both cable routing scenarios
 would include a requirement for the use of Best Management Practices pursuant to NYSDEC
 guidance to minimize noise generation during construction, to the degree practicable, including
 use of flexible noise control covers or acoustic barriers on stationary HDD machinery under the
 Proposed Action. Neither scenario would entail operational noise impacts as there would be no
 permanent sound-generating equipment or facilities.
- Visual/Aesthetic Resources: Upon completion, both Alternative 2 and the Proposed Action would place the new 69kV circuit underground, such that significant long-term visual impacts would not result in either case.
- Construction Impacts: Alternative 2 would involve construction along public roadways. The lands
 along these roadways are occupied by various types of development, containing fairly dense
 mixed-use development in downtown Sag Harbor. Because of this land use setting, Alternative 2
 would entail a greater potential for construction impacts to the community in comparison to the
 placement of the transmission cable within a LIPA easement under the Proposed Action.

Alternative 3 – Southern Underground Route: This alternative involves the installation of a new 69kV circuit along an underground route extending southward from the Bridgehampton Substation, eastward along Montauk Highway, and then northward to the Buell Substation. The total length of the above-described cable route is approximately 7.45 miles, which is about 43 percent longer than the 5.2±-mile route for the Proposed Action. See **Figure 5-2** for a map of the general routing for this alternative. The cost estimate for this Alternative is \$84.7 million.

- Soils and Topography: Alternative 3 would result in an approximate 69 percent increase in the length of trenching i.e., 7.45± miles, as compared to 4.4± miles for the Proposed Action (not counting the HDD segments). The net potential effect on soils and topography when considered together would be similar for the two scenarios, given the longer route for Alternative 3 and the wider area of disturbance associated with the temporary construction access road for the Proposed Action.
- Water Resources: Alternative 3 would route the proposed 69kV circuit along public roadways, which mostly do not contain or adjoin surface water resources. However, this route would include short segments of trenching adjacent to freshwater wetlands located south of the Bridgehampton Substation, Slate Pond (adjacent to the Bridgehampton Children's Museum) and associated wetlands on the east side of Bridgehampton-Sag Harbor Turnpike (adjacent to the South Fork Natural History Museum & Nature Center), and tidal and freshwater wetlands associated with the upper reaches of Georgica Pond, where there would be a potential for natural resource impacts. The Proposed Action will limit disturbance to wetlands through the use of HDD construction methodology and timber matting in sensitive areas. The net potential effect on water resources would likely be similar for the two scenarios.
- Ecology: The exact location of the cable installation under Alternative 3 would need to be determined based on detailed investigation of existing utilities. Therefore, the extent of required clearing within the existing roadway ROW for Alternative 3 is not known. However, given the disturbed nature of the existing roadway ROWs, the required clearing for Alternative 3 is anticipated to be less than the clearing required under the Proposed Action. The underground cable installation area for Alternative 3 adjoins a known breeding pond for Eastern Tiger Salamanders. It would be necessary to undertake a field survey to assess the potential for impacts to these species under Alternative 3 once the specific circuit route has been defined, and to determine the need for mitigation as appropriate in consultation with NYSDEC.
- Cultural Resources: Although the cable route for Alternative 3 is not expected to contain significant archaeological resources as it comprises a previously disturbed roadway ROW, review of information available on CRIS reveals that much of this route traverses an area of archaeological sensitivity, and there are National/State-listed historic resources along Bridgehampton-Sag Harbor Turnpike and Montauk Highway. As discussed in Section 3.1, the Proposed Action Area does not appear to contain artifacts or features associated with recorded resources or previously unknown archaeological resources, nor are any previously recorded architectural resources are located in the Proposed Action Area. It is likely that Alternative 3 would have a greater impact on Cultural Resources than that of the Proposed Action.
- Open Space and Recreation: Alternative 3 would place the transmission cable underground within
 roadway ROWs, which do not comprise open space/recreation resources. To the degree that
 trenching within this ROW may interrupt access to adjacent areas containing such resources,
 coordination with the respective owners and/or operators would be necessary to minimize
 impacts. It is likely that Alternative 3 would have a lesser impact on Open Space and Recreational
 Resources than that of the Proposed Action.
- Critical Environmental Areas: Alternative 3 would be located in the same CEAs as that of the Proposed Action. Alternative 3 would similarly be designed to minimize potential impacts to these resources, through the implementation of a SWPPP, thereby providing a comprehensive program of measures to minimize impacts related to erosion and sediment transport. Impacts to CEA's would be similar under both scenarios.

- Noise: As compared to the Proposed Action, Alternative 3 involves a greater length of trenching, along roadway ROWs that generally lie in closer proximity to residential land uses and other sensitive noise receptors and, therefore, may pose a somewhat greater potential for noise impacts. Both cable routing scenarios would include a requirement for the use of Best Management Practices pursuant to NYSDEC guidance to minimize noise generation during construction, to the degree practicable, including use of flexible noise control covers or acoustic barriers on stationary HDD machinery under the Proposed Action. Neither scenario would entail operational noise impacts as there would be no permanent sound-generating equipment or facilities.
- Visual/Aesthetic Resources: Upon completion, both Alternative 3 and the Proposed Action would place the new 69kV circuit underground, such that significant long-term visual impacts would not result in either case.
- Construction Impacts: Alternative 3 would involve construction along public roadways. The lands along these ROWs are occupied by various types of development, including a relatively high density, mixed-use area in downtown Bridgehampton around the intersection of Montauk Highway and Bridgehampton-Sag Harbor Turnpike and within the Village of East Hampton in the eastern portion of the route. Because of this land use setting, Alternative 3 would entail a greater potential for construction impacts to the community in comparison to the placement of the transmission cable within a LIPA easement under the Proposed Action.

Alternative 4 — Northern Hybrid Route: This alternative would place a combination new underground/overhead 69kV circuit along the same 8.06±-mile route as Alternative 2, extending northward from the Bridgehampton Substation, through downtown Sag Harbor Village, and then southward to the Buell Substation. As depicted in **Figure 5-3**, the circuit in Alternative 4 would begin by exiting the Bridgehampton Substation overhead, go underground upon entering into the southwestern area of the Village, re-emerge overhead upon leaving the southeastern area of the Village and continue overhead to the Buell Substation. Construction of Alterative 4 would entail a cost estimated at \$46.2 million, approximately the same as the estimated cost of the Proposed Action.

- Soils and Topography: Overhead installation would significantly reduce project-related effects on soils and topography along the majority of the Alternative 4 project route, as land disturbance would be limited to the drill holes for individual poles. However, Alternative 4 includes trenching for the 10,000 linear feet segment of the cable route within the Village of Sag Harbor, which would expose soils in that area to potential erosion in the same manner as will occur under the Proposed Action. Overall, impacts to soils and topography are anticipated to be less in Alternative 4 than those anticipated to occur under the Proposed Action.
- Water Resources: Alternative 4 would route the proposed 69kV circuit along public roadways, which mostly do not contain or adjoin surface water resources. However, this route includes a short section of Otter Pond and freshwater wetlands associated with Ligonee Brook and Rattlesnake Creek in the Village of Sag Harbor and Northwest Creek just south of the Village boundary (see Figure 5-13) where trenching (within the Village) or pole installation (outside the Village) would occur within road right of ways; which may include temporary construction disturbances within wetland adjacent areas. The Proposed Action will limit disturbance to wetlands through the use of HDD construction methodology and timber matting in sensitive areas. The net potential effect on water resources would likely be similar for the two scenarios.

- Ecology: The exact location of the cable installation under Alternative 4 would need to be determined based on detailed investigation of existing utilities, spatial constraints requiring separation from the existing cable along the road and similar constraints. Therefore, the extent of required clearing within the existing roadway ROW for Alternative 4 is not known. However, given the disturbed nature of the existing roadway ROWs and limited area of disturbance associated with overhead pole placements/greater flexibility to adjust pole placement to avoid significant vegetated area, the required clearing for Alternative 4 is anticipated to be less than the clearing required under the Proposed Action. Although the actual occurrence of rare, threatened or endangered species along the roadway ROWs that comprise the circuit route for Alternative 4 appears less likely than within the utility easement for the Proposed Action, it would still be necessary to undertake a field survey to assess the potential for impacts to these species under Alternative 4 once the specific circuit route has been defined, and to determine the need for mitigation as appropriate in consultation with NYSDEC.
- Cultural Resources: The northerly circuit route that applies to both Alternative 2 and Alternative 4 is not expected to contain significant archaeological resources as this project area comprises a previously disturbed roadway ROW. However, review of information available on CRIS reveals much of this route traverses an area of archaeological sensitivity, and there are numerous adjacent National/State-listed historic resources, particularly within the Village of Sag Harbor. As discussed in Section 3.1, the Proposed Action Area does not appear to contain artifacts or features associated with recorded resources or previously unknown archaeological resources, nor are any previously recorded architectural resources are located in the Proposed Action Area. It is likely that Alternative 4 would have a greater impact on Cultural Resources than that of the Proposed Action.
- Open Space and Recreation: The use of overhead installation on transmission poles along the northerly circuit route in Alternative 4 would reduce the potential for conflicts with open space and recreation resources during construction as compared to fully underground installation via trenching along this route under Alternative 2 and with trenching in the LIPA ROW under the Proposed Action. However, the replacement of approximately 200 poles of 60-70 feet in height above grade from poles that are currently 30 45 feet in height above grade poses the potential for visual impacts on open space/recreation resources, as well as other land uses, along the Bridgehampton-Sag Harbor Turnpike and East Hampton-Sag Harbor Turnpike legs of the route for Alternative 4. Ultimately, it is anticipated that the Proposed Action would have a greater impact on Open Space and Recreational Resources than those that would occur under Alternative 4.
- Critical Environmental Areas: Alternative 4 would be located in the same CEAs as that of the Proposed Action. Alternative 4 would similarly be designed to minimize potential impacts to these resources, through the implementation of a SWPPP, thereby providing a comprehensive program of measures to minimize impacts related to erosion and sediment transport. Impacts to CEA's would be similar under both scenarios.
- Noise: As compared to the trenching and HDD drilling under the Proposed Action, the more limited land disturbance involved in the use of poles for overhead installation along most of the route for Alternative 4 would be expected to decrease the overall magnitude of noise generation during construction. However, this would be offset by the fact that Alternative 4 would occur along roadway ROWs that generally lie in closer proximity to residential land uses and other sensitive noise receptors. Both Alternative 4 and the Proposed Action would include a requirement for the use of Best Management Practices pursuant to NYSDEC guidance to minimize

- noise generation during construction, to the degree practicable; and neither scenario would entail operational noise impacts as there would be no permanent sound-generating equipment or facilities.
- Visual/Aesthetic Resources: Alternative 4 primarily would involve the installation of an overhead circuit along the same northerly route as for Alternative 2, with a 10,000±-linear foot underground section through the Village of Sag Harbor. Although Alternative 4 would involve the replacement of existing poles at most locations (i.e., 188 of the 200 total poles that would be required), the new poles would be significantly taller (at 70 feet in height above grade) than the ones to be removed to accommodate both transmission and distribution. Given the increases in height and number of poles, a visual impact may occur from the overhead portion of this Alternative. It is expected that in order to -mitigate the visual impact, only wood poles would be utilized for the overhead portion of the route. However, the height increase and density of the poles may result in a noticeable change to the character of the corridor. Therefore, although an overhead installation, in lieu of the proposed underground circuit, would meet the objectives of the sponsor of the Proposed Action, this is not considered to be a -preferred alternative due to the potential perceived visual and community character impacts, which would be greater than what would occur under the Proposed Action.
- Construction Impacts: This alternative would involve the same potential for construction impacts as discussed with respect to Alternative 2 for the 10,000±-linear foot segment of the route that would remain underground through the Village of Sag Harbor, including: potential disruption of adjacent development due to trench excavation and other construction activities; one lane of traffic closures in many areas during active trenching; and full roadway closures, requiring traffic detours, during manhole installation. The remaining 6.17±-mile overhead portion of the 8.06±-mile circuit route under this alternative would see a reduced potential for construction-related impacts as compared to the fully underground version of the northerly route under Alternative 2 due to the limited land disturbance associated with pole installation. Because of this land use setting, Alternative 4 would entail a greater potential for construction impacts to the community in comparison to the placement of the transmission cable within a LIPA easement under the Proposed Action.

Alternative 5 – Overhead Route within LIPA Easement: As illustrated in Figure 5-5, this alternative would install a new overhead 69-kV double circuit to replace the existing overhead 69-kV double circuit within the LIPA easement between the Bridgehampton and Buell Substations. The existing circuits in the LIPA easement are carried by overhead lines on 53 existing steel towers between the Bridgehampton and Buell Substations. Alternative 5 would remove these towers and would separate the two circuits onto two separate lines of new steel poles. A minimum of 134 new steel poles-(67 poles in each line, with a spacing of approximately 400 feet along the 5.12±-mile circuit route) would be required under Alternative 5. The two lines of new poles installed under Alternative 5 would occupy essentially the entire width of the LIPA easement, to provide the required minimum separation distance between the transmission lines to allow for independent circuits and optimal performance. This design consideration would necessitate clearing of essentially the entire width of the easement (approximately 36 acres). Additionally, since the two overhead circuits in Alternative 5 would run along the edges of the existing ROW, trees outside the ROW for a distance of approximately 50 feet would need to be removed in order to provide and maintain the required safety clearances. Construction of Alterative 5 would cost approximately \$56.1 million, which is approximately 22% more than the cost of the Proposed Action.

- Soils and Topography: Alternative 5 would entail limited excavation to create 15-foot-deep drill holes for the estimated 134 individual transmission poles required along the 5.2±-mile circuit route within the LIPA easement. However, as noted above, this design alternative would necessitate the removal of vegetation within essentially the entire width of the easement to create the necessary clearances, thereby entailing a larger area of disturbance and increasing the potential for erosion and sediment transport as compared to the Proposed Action. Impacts to soils and topography would be greater under this Alternative than those that would occur under the Proposed Action.
- Water Resources: Alternative 5 would route a new double 69kV overhead circuit along the LIPA easement between the Bridgehampton and Buell Substations, which includes wetlands associated with Long Pond (see Figure 5-17). As noted above, this alternative would include the installation of approximately 16 poles in a 3,400±-foot segment of the cable route in the area of Long Pond; whereas disturbance within this area (with the exception of the single manhole to be installed) will be avoided under the Proposed Action by using HDD conduit installation. This section of the LIPA easement area includes areas of steep and undulating topography which would require significant fill, clearing and grading to accommodate the movement of construction equipment (including crane access) and materials. Alternative 5 would follow the same route for overhead wire installation that will occur with the underground cable to be installed for the Proposed Action; however, the installation of poles required for the Alternative 5 overhead installation would involve significant land disturbance within regulated Eastern Tiger Salamander habitat and regulated wetland areas, as depicted in Figure 5-17. Impacts to water resources are anticipated to be greater under this Alternative than those anticipated under the Proposed Action due to disturbance that would occur within wetland areas.
- Ecology: This overhead routing alternative would require a significant increase in the extent of disturbance (clearing and grading) within the LIPA easement between the Bridgehampton and Buell Substations than will occur under the Proposed Action, which would magnify the overall impacts to habitat within the easement.— Alternative 5 would entail substantial ground disturbance -in the area of Long Pond for the installation of transmission poles, which would pose the potential for directly impacting the ecological resources in this area. In contrast, the Proposed Action will avoid such impacts with the use of HDD to run a 3,400±-foot segment of the cable underneath the easement in the vicinity of Long Pond, thereby avoiding land surface disturbance and potential for construction-related impacts in this area. The extent of disturbance anticipated for construction of the temporary construction roadway to accommodate the heavy equipment needed to transport and install the poles and remove the existing towers for Alternative 5 would be significantly greater than for the Proposed Action. As compared to the Proposed Action, implementation of Alternative 5 would result in the need for a more extensive site restoration plan to compensate for the greatly increased impacts to ecological resources. Impacts to ecological resources under this Alternative include the permanent loss of habitat resulting from the installation of utility pole foundations and clearing required to maintain transmission line clearances. Impacts to Ecological Resources are anticipated to be greater under this Alternative than those that would occur under the Proposed Action.
- Cultural Resources: As discussed in Section 3.1, Phase IB testing performed as part of the DEIS
 investigation indicates that the Proposed Action Area, which also comprises the project area for
 Alternative 5, does not appear to contain artifacts or features associated with recorded resources
 or previously unknown archaeological resources; and, furthermore, no previously recorded

- architectural resources are located in this area, nor are there any buildings or structures except for the existing transmission towers. Impacts to Cultural Resources would not occur under this Alternative or the Proposed Action.
- Open Space and Recreation: As compared to the Proposed Action, Alternative 5 would involve more extensive site preparation for construction vehicle access, which may increase the potential for impacts to open space and recreation resources. On the other hand, Alternative 5 would not require the use of the conduit laydown area located within the open space associated with Spring Farm, to the west of the Bridgehampton Substation which is needed for the Proposed Action. Similar to the Proposed Action, coordination would be needed with the respective owners and/or operators of the affected open space/recreation lands to minimize impacts under Alternative 5. Impacts to Open Space and Recreational Resources are anticipated to be greater under this Alternative than those that would occur under the Proposed Action.
- Critical Environmental Areas: Alternative 5 would be located in the same CEAs as that of the Proposed Action. Alternative 5 would similarly be designed to minimize potential impacts to these resources, through the implementation of a SWPPP, thereby providing a comprehensive program of measures to minimize impacts related to erosion and sediment transport. Impacts to CEA's would be similar under both scenarios.
- Noise: As compared to the Proposed Action, Alternative 5 would involve more extensive site preparation for construction vehicle access; although once the access road is in-place, the installation of poles under Alternative 5 would be expected to be less intensive than the trenching and HDD drilling under the Proposed Action. Therefore, it is not clear whether either scenario would result in a significantly greater magnitude of noise generation. However, in both cases, impacts would be minimized by the fact that there are few sensitive noise receptors proximate to the LIPA easement, and both would have a requirement for the use of Best Management Practices pursuant to NYSDEC guidance to minimize noise generation during construction, to the degree practicable; and neither scenario would result in operational noise impacts as no permanent sound-generating equipment or facilities would be installed.
- Visual/Aesthetic Resources: Visual impacts associated with Alternative 5 include a noticeable increase in cleared area from publicly accessible areas (including trails and road crossings with the ROW), an increase in density of poles, and a potential increase in the contrast of -steel poles with the existing weathered lattice towers. Overall, Alternative 5 would likely have a greater visual impact to the public than that experienced under the Proposed Action, which will place the transmission circuit entirely underground. The existing towers generally are placed centrally along the ROW, whereas Alternative 5 would place the poles along the edges of the ROW to achieve the necessary separation distance between the circuits. Thus, as compared to the existing lattice towers, the poles in Alternative 5 would be closer to, and more visible from, land uses adjacent to the ROW, including residential neighborhoods to the east of Stephen Hands Path in the easterly portion of the Proposed Action Area. Additionally, as noted previously, the entire width of the LIPA ROW would have to be cleared in addition to a 40 to 50-foot buffer distance on either side of the existing easement, which will also require tree clearing, and land acquisition or land access rights, to accommodate the two lines of transmission poles in Alternative 5. The clearing would remove existing screening vegetation within the ROW and would need to be maintained in perpetuity. Alternative 5 would also involve the installation of 67 pairs of new poles, as compared to the 53 existing towers that would be retained under the Proposed Action. Based on the foregoing, it is expected that the poles that would be installed under Alternative 5

- would be more visible for viewers within the ROW, such as the users of the trails in this area, as well as from the various public roadways that intersect the ROW.
- Construction Impacts: Alternative 5 would occur along the same route as the Proposed Action
 (i.e., along the LIPA easement between the Bridgehampton and Buell Substations). Although
 common mitigation measures in both cases would include implementation of a SWPPP during
 construction, replanting of disturbed vegetated areas, and removal of stabilization for
 construction access and restoration of these areas to pre-construction conditions to the degree
 practicable, differences between the two scenarios indicate an increased potential for
 construction impacts under Alternative 5.

Issues of Controversy

As with any large project, there is public interest with respect to the installation and operation of the Proposed Action. Issues of controversy primarily include: impacts on the Long Pond Greenbelt, impacts to endangered species, and impacts to passive parklands along the Proposed Action route. All potential impacts including issues of controversy are addressed in this Draft EIS, which was prepared to conform to the Final Scope.

Matters to be Decided

Prior to the issuance of any permits or approvals, the SEQRA must be completed. This DEIS is intended to provide LIPA (as lead agency under SEQRA for the Proposed Action) and all involved agencies with the information necessary to render an informed decision on the Proposed Action, and provide the public and other interested parties an opportunity to comment on the Proposed Action. Once accepted, the document will be the subject of public review, followed by the preparation of a Final Environmental Impact Statement (FEIS). Upon completion of the FEIS, LIPA will be responsible for the adoption of a Statement of Findings.

Permits and Approvals Required

Regulatory Authority	Permit or Approval Type		
Long Island Power Authority-Lead Agency	SEQRA		
Village of Sag Harbor	Property Easements		
Town of Southampton	License Agreements		
Town of East Hampton	Property Easements		
Suffolk County	Property Easements		
Long Island Railroad	Crossing Permit		
Long Island Railroad	Longitudinal Permit		
New York State Department of State	Coastal Consistency		
New York State Department of	Incidental Take Permit		
Environmental Conservation	(Part 182)		
New York State Department of	Coverage Under NYSDEC GP# 1-9901-		
Environmental Conservation	0011/00032		
	(Article 24- Freshwater Wetlands)		
New York State Department of	Stormwater Pollution Prevention Plan		
Environmental Conservation	(GP#0-20-001)		
United States Army Corp of Engineers	Nationwide Permit #57		