

**ENVIRONMENTAL MANAGEMENT AND
CONSTRUCTION PLAN**

STATE OF NEW YORK PUBLIC SERVICE COMMISSION
CASE NO. 08-T-1388

**Long Island Power Authority – Certificate of Environmental Compatibility and Public
Need to Install a Second 138kV Cable in the Certified Underground Conduit from the
Riverhead Substation to the Canal Substation**

*Prepared by PSEG Long Island LLC on behalf of and as agent for the Long Island Lighting
Company d/b/a LIPA*

March 2020

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1.0 SITE AND PROJECT DESCRIPTION

On November 24, 2008, the Long Island Power Authority (LIPA) filed an Article VII Application (the Application) with the New York State Public Service Commission (PSC) for a Certificate of Environmental Compatibility and Public Need (the Certificate) pursuant to Article VII of the Public Service Law seeking authorization for the installation of a new underground 138 kilovolt (kV) alternating current transmission facility (the Second Cable), in an existing second conduit, between LIPA's existing Riverhead Substation (located south of the Peconic River in the Hamlet of Riverside) and Canal Substation (located east of the Shinnecock Canal) all within the Town of Southampton, Suffolk County, New York (the Project or Riverhead to Canal Project). The Second Cable will be installed within an existing underground conduit for an approximate distance of 16 miles. The existing underground conduit was constructed as part of the installation of the first 138kV cable¹ (the Original Facility) between LIPA's Riverhead and Southampton Substations.²

On October 1, 2009, LIPA submitted a Joint Proposal (Joint Proposal) reflecting the terms of settlement of outstanding issues in this proceeding by LIPA and other settling parties. On December 21, 2009, the PSC issued the Certificate in an *Order Adopting the Terms of a Joint Proposal and Granting a Certificate of Environmental Compatibility and Public Need* (Order) in this proceeding.

On February 25, 2011, LIPA submitted its proposed Environmental Management and Construction Plan (EM&CP) for the Project. However, the EM&CP was never approved and the Project was delayed to explore non-wires alternatives. LIPA explored non-transmission wires alternatives (including distributed generation and demand-side energy efficiency measures) to the installation of the Second Cable, but those efforts have been exhausted. While the EM&CP was never approved, the Project is still necessary to enable LIPA to meet its customers' current and future electrical requirements, and is vital to maintaining the integrity of the electric transmission system within the East End of Long Island. The need for the Project is specific to the East End of Long Island because the South Fork and the North Fork are served by radial lines and load growth rate annually is at an approximate rate of 2.5%. Supply or transmission reinforcements and demand side management programs implemented will not solve the East End's capacity problems. Furthermore, as the Project is part of the first link in the South Fork chain of supply, it is critical to meeting the entire electric system requirements of the South Fork.

Therefore, PSEG Long Island LLC on behalf of Long Island Lighting Company d/b/a LIPA, a wholly-owned subsidiary of the Long Island Power Authority (PSEG Long Island or the

¹ The cable was installed in 2000 at which time it operated at 69kV. In 2005 the cable between Riverhead and the Canal Substation was converted to 138kV.

² Case 99-T-1423, Order Granting Certificate of Environmental Compatibility and Public Need, February 29, 2000.

Certificate Holder)³ respectfully submits this revised EM&CP for the construction, operation, and maintenance of the Project. In recognition that a lot of time has passed since the proposed EM&CP was filed, PSEG Long Island is filing a revised EM&CP that will completely replace and supersede the version submitted in 2011. As described in the Design Criteria section below, installation of the Second Cable will require placement of 39 new splice manholes adjacent to the existing splice manholes to meet industry requirements.

1.1 Certified Route

The Project, which consists of an underground electric three-phase transmission line of approximately 16 miles in length, will be installed from LIPA's Riverhead Substation located south of the Peconic River to LIPA's Canal Substation located on NYS Route 27, which is approximately 0.4 miles east of Canal Road. Both substations are located in the Town of Southampton.

Specifically, an underground transition terminal will be built for the Project at LIPA's Riverhead Substation, located in the Town of Southampton, south of the Peconic River, southeast of the intersection of NYS Route 25 and Mill Road. From this point the 16-mile installation route migrates east and south along LIPA-owned Right-of-Way (ROW) for approximately 1.6 miles, crossing NYS Road 94 (Nugent Drive) to County Road 51 (Riverhead-Moriches Road). The route crosses under the westbound lanes of County Road 51 and heads southwest along the northern segment of the median for approximately 0.8 miles to Speonk Riverhead Road. The transmission line then turns south along the western shoulder of Speonk Riverhead Road to NYS Route 27 for 2.4 miles. At the intersection of Speonk Riverhead Road and NYS Route 27 the conduits were directionally drilled under Route 27 to its south side, where they travel east along the southern side of the roadway. The conduits were installed approximately 30 feet south of the edge of the eastbound lanes for 11.2 miles to the Shinnecock Canal. Stainless steel conduits were attached for both the existing cable circuit and the second circuit to the underside of the Shinnecock Canal Route 27 bridge, crossing the canal. In addition, cable transition structures and cable trays were installed on either side of the bridge for the existing cable circuit. The conduits, cable transition structures, and cable trays were installed pursuant to a New York State Department of Transportation (NYSDOT) Highway Work Permit in 2000. As part of this project, two additional cable transition structures and cable trays, similar to the ones installed in 2000, will be installed on either side of the bridge for the Second Cable.

The route continues approximately 0.4 miles along Canal Road and onto the shoulder of the NYS Route 27 entrance ramp and enters the Canal Substation on the west side. An underground transition terminal will be constructed at the Canal Substation. The Second Cable

³ Long Island Lighting Company (LILCO) was the predecessor to LIPA. LIPA took over LILCO's operations in 1998. Pursuant to a December 31, 2013 Operating Services Agreement, PSEG Long Island is the LIPA service provider that operates and manages the LIPA system. Previously, National Grid provided that service under a management services agreement that expired on December 31, 2013

will tie into the circuit breaker, power and grounding transformer and bus work near the western fence line of the substation.

The Project will include modifications at both the Riverhead and Canal substations. These modifications are needed to support the Project and to prevent overload conditions that could occur with the potential loss of the existing Riverhead – Canal 138-910 cable.

1.1.1 Riverhead Substation

The modifications at the Riverhead Substation include the construction of a new terminal to connect the Second Cable to the spare terminal location. This will require the installation of three (3) – 138kV Gas Circuit Breaker (GCB) and a 27MVAR Shunt Reactor to compensate for the reactive power of the long underground cable run. A new control enclosure will also be required to house the additional system protection equipment associated with the Project.

The following is a list of the major equipment to be installed at the substation:

- One (1) 138kV cable incoming termination support structure with associated foundation
- One (1) Grounding Switch 138kV with associated foundation and structure
- One (1) Motor Operated Air Break Switch (MABS) 138kV, 3000A, 63KA with associated foundation and structure
- Three (3) Gas Circuit Breakers (GCB) 138kV, 3000A, 63KA with associated foundations
- Three (3) Potential Transformers (PT) 138kV with associated foundations and structures
- Three (3) Gang Operated Switches 138kV with associated foundations and structures
- One (1) Set of Shunt Reactors 138kV with associated foundation and structure
- One (1) “V” Disconnect Switch 138kV with associated foundation and structure
- One (1) 20’ x 30’ control enclosure with relay panels and associated foundation
- Bus work, grounding, conduit, control cables, spline ball, and arresters

1.1.2 Canal Substation

Modifications at the Canal Substation include the construction of a new terminal to connect the Second Cable to the expansion of the 138kV Canal bus design. The Project will require the installation of a 2nd 138/69kV – 224MVA Transformer (Bank #5) and associated grounding bank. The Second Cable will be connected to the new transformer through the installation of a new 138kV Gas Circuit Breaker (GCB) and the new transformer will be connected to the Canal bus through a new 69kV Gas Circuit Breaker (GCB).

The following is a list of the major equipment to be installed at the substation:

- One (1) 138kV cable incoming termination support structure with associated foundation
- One (1) Transformer Bank 138/69kV – 224MVA with associated foundation

- One (1) Grounding Transformer 69kV-155MVA with associated foundation
- One (1) Gas Circuit Breaker (GCB) 138kV, 3000A, 63KA with associated foundation
- One (1) Gang Operated Disconnect (GOD) Switch 138kV with associated foundation and structure
- Four (4) Potential Transformers (PT) 138kV with associated foundations and structures
- One (1) Gang Operated 3 Phase Grounding Switch 138kV with associated foundation and structure
- One (1) Motor Operated Air Break Switch (MABS) 69kV, 2000A with associated foundation and structure
- One (1) Gas Circuit Breaker (GCB) 69kV, 2000A, 43KA with associated foundation
- Three (3) Potential Transformers (PT) 69kV with associated foundations and structures
- One (1) Gang Operated Disconnect (GOD) Switch 69kV with associated foundation and structure
- Bus work, grounding grid, conduit, control cables, spline ball, and arresters

1.2 Access Points

Access to the Project route for cable installation and periodic maintenance was approved at certain locations, including new access points and existing areas of the NYS Route 27 ROW.

1.2.1 New Access Points

In accordance with the provisions of the Order, the locations and conceptual alignments of four points that will create new access to NYS Route 27 for the Project construction and maintenance while minimizing the movement of construction equipment and maintenance vehicles within the Controlled Access limits of NYS Route 27 have been identified:

1. Access to NYS Route 27 at the recharge basin east of Speonk Riverhead Road and south of NYS Route 27;
2. Egress from NYS Route 27 from the former roadbed of Riverhead Road (Old Riverhead Road) south of NYS Route 27 and west of Squiretown Road;
3. Access to NYS Route 27 from the terminus of Daniels Road; and
4. Egress from NYS Route 27 at an existing path south of NYS Route 27, north of Newtown Court and west of Newtown Road (County Road 62).

1.2.2 Access from Existing Ramps and Roads

Proposed access and egress points within the controlled access limits of NYS Route 27 are:

- ROW of the exit ramp to southbound NYS Route 31 (Old Riverhead Road) from eastbound NYS Route 27 at the NYS Route 27/NYS Route 31 interchange;
- ROW of the entrance ramp to eastbound NYS Route 27 from northbound NYS Route 31 at the NYS Route 27/NYS Route 31 interchange;
- ROW of the exit ramp to southbound NYS Route 104 (Quogue - Riverhead Road) from eastbound NYS Route 27 at the NYS Route 27/NYS Route 104 interchange;

- ROW of the entrance ramp to eastbound NYS Route 27 from northbound NYS Route 104 at the NYS Route 27/NYS Route 104 interchange;
- ROW of the exit ramp to southbound NYS Route 24 (Riverhead - Hampton Bays Road) from eastbound NYS Route 27 at the NYS Route 27/NYS Route 24 interchange; and
- ROW of the entrance ramp to eastbound NYS Route 27 from northbound NYS Route 24 at the NYS Route 27/NYS Route 24 interchange.

1.3 Property Rights and Additional Permits

The Certificate Holder currently has statutory and municipal franchise rights which allow it to install permanent electric facilities along the general alignment of the Certified Route.

The Certificate Holder has secured or will, prior to construction, secure the necessary easements and license agreements to utilize the private and governmental properties in which the Project will be constructed. The necessary easements and license agreements for construction of the Project are listed in Table 1.3-1.

Table 1.3-1 Property Rights Necessary for Construction

Permanent Easement	Location	Municipality	Need	Current Use
Town of Southampton	Exit 66 Sunrise Highway East Entrance Ramp (10 Larboard Road)	Town of Southampton	Install new Manhole 38A.5	Recreation & Open Space
Shinnecock Nation	Route 27, Hampton Bays	Town of Southampton	Operate First and Second cables	Highway
Marshalling Yard (Temporary)	Location	Municipality	Need	Current Use
Suffolk County Community College	Parking Field 6 & 7 Ring Road, Riverhead, NY 11901	Suffolk County	EM&CP marshalling yard.	Parking lot college
William Ringhoff	Farmer grass area by the Southwest corner of CR 51 and CR 101	Town of Brookhaven	EM&CP marshalling yard.	Empty grass (non-harvested) field.
Gabreski Airport	South Perimeter Road; east of Village of Westhampton Beach property	Suffolk County	EM&CP marshalling yard.	Unpaved space (Transportation)
Suffolk County	2369 CR 104 (Quogue Riverhead Road)	Suffolk County	EM&CP marshalling yard.	Recreation & Open Space

The Certificate Holder has secured or will, prior to construction, secure the necessary permits for the Project. Required permits and approvals are listed in Table 1.3-2 below.

Table 1.3-2 Additional Permits and Approvals

Agency	Permit or Approval	Status	Notes
U.S. Army Corps of Engineers (USACE)	“Non Jurisdiction” Concurrence	Pending	Per communication with USACE, they have no jurisdiction over the Project. The Certificate Holder will file information on the Project to receive concurrence from USACE.
U.S. Coast Guard (USCG)	“Non Jurisdiction” concurrence	Pending	Per communication with USCG, they have no jurisdiction over the Project. The Certificate Holder will file information on use of Shinnecock Canal bridge attachment.
Central Pine Barrens Joint Planning and Policy Commission	Hardship Exemption	Received	An amendment resolution, approving a Hardship Exemption for the Project, was issued on November 20, 2019.
New York State Department of State (NYSDOS)	Coastal Consistency Certification	Pending	A Federal Consistency Assessment Form and supporting documentation will be completed and sent to NYSDOS for review. NYSDOS will need to review project components for consistency with the New York State Coastal Management Program (CMP).
NYSDOT	New York State Highway Work Permit for Utility Work	Pending	NYSDOT review of final construction plans and final MPT plan is required once submitted.
NYSDOT	Use and Occupancy Permit	Pending	NYSDOT review of final construction plans and final MPT plan is required once submitted.
NYSDOT	Accommodation Plan for Longitudinal Use of Freeway ROW	Pending	NEPA Assessment Checklist and Alternative Analysis for 2000 project submitted. NEPA Assessment Checklist and Alternative Analysis for current 2019 project submitted. NYSDOT review of final construction plans and final MPT plan is required once submitted.
Office of Parks, Recreation and Historic Preservation (OPRHP)	Finding of No Impact letter	Received	See Attachment 6 – Agency Consultation for a copy of the letter from OPRHP

1.4 Design Criteria

The Second Cable will be an underground AC three-phase transmission line consisting of three cables, each constructed of a copper conductor. A corrugated metallic sheath will surround the insulation to provide mechanical protection and prevent water migration into the cable. The overall diameter of each cable is approximately five inches. The Second Cable will be operated nominally at 138kV voltage and 60 Hertz frequency.

The detailed design of the Second Cable installation is shown on the Plan and Profile drawings provided as Attachment 1. The baseline (i.e., centerline) of the installed conduits, the rerouted conduits, the locations of existing splice manholes, the locations of splice manholes being installed, other existing utilities, and associated roadway features such as curbs, medians, and driveways are shown on the Plan and Profile drawings. The installed depth of the conduit is indicated in the profile portion of the Plan and Profile drawings with a minimum depth of 3'-6" to top of conduits.

It was originally planned that the existing set of splice manholes that were installed in 2000 for the Original Facility would be used for the installation of the Second Cable. However, for worker safety, current work methods do not allow workers to enter and work inside a splice manhole with energized 138kV equipment. It is now required that each transmission circuit go through its own set of splice manholes. This policy protects workers and improves system reliability by preventing a serious defect in one line from rendering the other line inoperative. Finally, the new set of splice manholes will allow repairs and maintenance to be undertaken on one of the cables without having to de-energize the other cable. De-energizing both circuits at the same time would cause significant stress to LIPA's transmission system and create potential for unserved load.

New splice manholes will be installed adjacent to or in close proximity to the existing splice manholes to contain the cable splices and bonding cable accessories. Each splice manhole's outside dimension is 18 ft. long by 10 ft. wide by 10 ft. deep. Each splice manhole will be fabricated from precast concrete and will be transported in sections as determined by the manufacturer for appropriate lifting and transportation constraints. Each splice manhole will have two sets of lids and frames for personnel access. Cable racking will be installed in each splice manhole to support the cable and splices. Additionally, link boxes will be installed for bonding purposes. The splice manholes and cable systems are designed to operate while inundated with fresh or salt water and are compatible with siting within flood zones.

The three existing 8-inch HDPE conduits designated from the original project will be cut, rerouted, and fused into the new splice manholes creating a continuous pathway for the Second Cable. The conduit leaving each splice manhole will connect from the new splice manholes back to the previously installed conduit. End caps or plugs will be installed in the abandoned conduit that feeds the existing splice manholes. Native soil or approved clean fill will be used to backfill the new rerouted conduit.

The Second Cable circuit will be pulled into the new splice manholes and spliced together. Cable pulling lubrication (e.g. Polywater NN or similar) will be used to install the 138kV cable and reduce friction.

The Second Cable will be cross bonded to match the Original Facility where minor sections' lengths will be within 10 percent of each other.

Each 138kV cable will be spliced at each splice manhole. Splices will be suited to match the cable and system requirements. Splices will be suitable for long term operation underwater in accordance with industry standards.

Within each substation, for a short distance to the terminations, the 138kV cable will be direct-buried. Terminations for each 138kV cable will be installed at the Riverhead and Canal Substations.

Known underground utilities and facilities along the route that were encountered during the installation of the certified conduits are identified on the Plan and Profile drawings. It is not currently anticipated that existing utilities will need to be relocated, however site-specific conditions may require ability to coordinate with utility owners to adjust utilities as required to eliminate potential conflicts. No buildings or structures are to be acquired, demolished, relocated, or removed for the Project.

The cable design and performance will meet the following standards:

- American National Standards Institute (ANSI)
 - Standard C2, National Electric Safety Code (NEC)
- Association of Edison Illuminating Companies (AEIC)
 - CS9, Specification for Extruded Insulation Power Cables and Their Accessories Rated above 46kV Through 345kV.
 - CG4, Guide for Installation of Extruded Dielectric Insulated Power Cable Systems Rated 69 KV Through 138 KV.
 - CG5, Underground Extruded Power Cable Pulling Guide
- Institute of Electrical and Electronics Engineers (IEEE)
 - Standard 48, IEEE Standard Test Procedures and Requirements for Alternating-Current Cable Terminations 2.5kV Through 765kV.
 - Standard 404, IEEE Standard for Extruded and Laminated Dielectric Shielded Cable Joints Rated 2,500V to 500,000V.
 - DRAFT Standard 575, IEEE Guide for the Application of Sheath-Bonding Methods for Single-Conductor Cables and the Calculation of Induced Voltages and Currents in Cable Sheaths.
 - C62.92.5-Neutral Grounding – Transmission Systems.
- Insulated Cable Engineers Association (ICEA)
 - P-45-482, Short Circuit Performance of Metallic Shields and Sheaths on Insulated Cables.
 - S-66-524 (NEMA WC7-1988), Cross-Linked Thermosetting Polyethylene Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.
 - S-108-720, Standard for Extruded Insulation Power Cables Rated Above 46kV Through 345kV.
- International Electrotechnical Commission (IEC)
 - 60840, Power Cables with Extruded Insulation and their Accessories for Voltages Above 30kV ($U_m = 36kV$) up to 150kV ($U_m = 170kV$)
- National Electric Manufacturer's Association (NEMA)

- WC-26 – Wire and Cable Packaging
- American Society for Testing and Materials (ASTM)
 - B3 – Soft or Annealed Copper Wire
 - B8 – Concentric-Lay-Stranded Copper Conductors
 - B33 – Tinned Soft or Annealed Copper

The Project does not require the use of cathodic protection on the Second Cable. Moreover, the Project is not aware of any existing, adjacent utilities utilizing cathodic protection on third-party facilities. Although it is not anticipated, if construction impacts the cathodic protection system of nearby facilities and structures, the Certificate Holder will coordinate with the utility owner about cathodic protection impacts and mitigation, if required.

1.5 Fulfillment of Certificate Conditions

Each Condition of the Certificate is provided verbatim below, followed by PSEG Long Island’s corresponding response.

1. Subject to the conditions set forth in this Opinion and Order, Long Island Power Authority (LIPA) is granted a Certificate of Environmental Compatibility and Public Need (“Certificate”) authorizing construction and operation of the Second Cable in the certified underground conduit from the Riverhead Substation to the Canal Substation , to be located within the town of Southampton, Suffolk County, along the route detailed in the Application. The Second Cable will be operated at 138kV.

Response 1: No response required.

2. LIPA shall, within 30 days after the issuance of the Certificate, submit to the Commissioner either a petition for rehearing or a verified statement that it accepts and will comply with the Certificate. Failure to comply with this condition shall invalidate the Certificate.

Response 2: Completed.

3. LIPA shall promptly notify the Commission in writing should it decide not to complete construction of all or any portion of this Project and shall serve a copy of such notice upon all parties.

Response 3: PSEG Long Island will comply.

4. LIPA shall integrate and coordinate maintenance of the certified Project with that of adjacent facilities.

Response 4: PSEG Long Island will comply.

5. Construction shall not commence on any segment of the Facility until LIPA has obtained such right-of-way or off-right-of-way access (whether obtained through a conveyance, consent, permit or other approval) as are necessary and applicable for such construction for such segment. Evidence of such approval should be provided to Staff prior to construction of such segment.

Response 5: PSEG Long Island will comply.

1.5.1 Description of Route

6. The proposed location of the Project is approved as set forth in the body of this Joint Proposal.

Response 6: No response required.

1.5.2 Laws and Regulations

7. Consistent with the discussion, supra, concerning state and local laws:
 - a. Each substantive federal, state, and local law, regulation, code and ordinance applicable to the Facility authorized by the Certificate shall apply, except any substantive local law or regulation which the Commission has refused to apply as being unreasonably restrictive as discussed herein.
 - b. The Commission has refused to apply the operation of noise prohibitions of Chapter 235 of the Code of the Town of Southampton to the degree that such prohibitions would prohibit LIPA from conducting manhole splicing operations on a 24 hour basis and certain vehicle and traffic law provisions of Chapter 312 of the Code of the Town of Southampton to the extent that those provisions would prohibit LIPA from operating necessary construction machinery along a controlled access highway. No other applicable provisions of the Codes of the Town of Southampton or Suffolk County have been found by the Commission to be unreasonably restrictive.
 - c. No state or local legal provision purporting to require any approval, consent, permit, certificate or other condition for the construction or operation of the Project authorized by the Certificate shall apply, except (i) those of the Public Service Law and regulations and orders adopted thereunder; (ii) those provided by otherwise applicable state law for the protection of employees engaged in the construction and operation of the facilities; (iii) those permits issued under a federally delegated environmental permitting program; and (iv) those referenced in this paragraph.
 - d. LIPA shall construct the Facility in a manner that conforms to all standards of the American National Standards Institute (“ANSI”) including, without limitation, the National Electric Safety Code (“NESC”) [including Institute of Electrical Engineers (“IEEE” Standard IEEE C2 latest version] and any stricter standards adopted by LIPA.

- e. LIPA shall construct the facility in a manner that conforms to all applicable requirements of the New York State Uniform Fire Prevention and Building Code.
- f. LIPA shall operate the Facility in conformance with Federal Energy Regulatory Commission (“FERC”) approved tariffs, market rules, and operating procedures of the respective independent system operators (“ISO’s”).

Response 7: PSEG Long Island will comply.

- 8. Nothing herein shall preclude LIPA from voluntarily subjecting itself to any State or local approval, consent, permit, certificate or other condition for the construction or operation of the Project, subject to the Commission’s ongoing jurisdiction.
 - a. To the extent required in connection with the delivery of oversized components, LIPA or its suppliers shall obtain any necessary permits from state agencies, subject to the Commission’s ongoing jurisdiction.
 - b. As stated in the Joint Proposal, LIPA shall subject itself to highway work permit and use and occupancy permit review and obtain a highway work permit and use and occupancy permit from New York State Department of Transportation (NYSDOT) pursuant to 17 NYCRR Part 131, for the construction, operation, and maintenance of the Project in the right-of-way of Route 27, subject to the Commission’s ongoing jurisdiction. Said use and occupancy permit shall include payment of a fair market value fee for the use of State property, which shall be consistent with other use and occupancy permits that have been issued to LIPA. Pursuant to the terms of this Joint Proposal, NYSDOT will provide the appropriate easements, consents or permits to LIPA, provided that LIPA meets the requirements for the same, to construct the four access roads on NYSDOT property and to use them to install the Project and to maintain the cables and conduits along Route 27. If NYSDOT cannot convey to LIPA the necessary approvals for LIPA to use NYSDOT’s property for creation of the access roads and/or maintenance of the underground facilities along Route 27, then the parties agree to work together to assess the feasibility of lane closures on Route 27. Based upon accident analysis data to be provided by NYSDOT, LIPA will prepare a traffic impact study for NYSDOT’s review and approval. Pending the results of that study, NYSDOT will include its contents in its exception request to FHWA to support necessary Route 27 lane closures. LIPA shall coordinate with Department of Public Service (DPS) Staff (Staff) and NYSDOT for all work to be performed in the right-of-way of State highways subject to the Commission’s ongoing jurisdiction. Prior to submitting its construction plan for the Sunrise Highway segment, LIPA will provide to DPS and NYSDOT a preliminary design marked to avoid conflict with potential future transportation projects that NYSDOT may seek to undertake in the future and shall offer to consult with NYSDOT concerning any comments it may offer and will use reasonable efforts to accommodate any NYSDOT concerns, subject to the Commission’s ongoing jurisdiction.

- c. All work within state highway rights-of-way shall be designed and performed according to the traffic and safety standards and other substantive requirements contained in 17 NYCRR Part 131, entitled Accommodation of Utilities Within State Highway and applicable design standards of the American Association of State Highway Transportation Officials (“AASHTO”), the Manual of Uniform Traffic Control Devices (“MUTCD”), the Highway Design Manual, the Policy and Standards for Entrances to State Highways, the Requirements for the Design and Construction of Underground Utility Installations within the State Highway ROW, the Accommodation Plan, and the NYSDOT 2008 Standard Specifications, subject to the Commission’s ongoing jurisdiction.
- d. LIPA shall coordinate all work performed in the right-of-way of city, town and county highways with the respective highway departments for such highways, subject to the Commission’s ongoing jurisdiction.
- e. LIPA shall comply with the requirements for the protection of underground facilities set forth in 16 NYCRR Part 753 “Duties of Excavators”.
- f. A copy of each permit or approval received from the issuing agencies, if any shall be provided to Staff by LIPA promptly after receipt by LIPA of such permit or approval and before commencement of construction across the affected area.
- g. If LIPA believes that any action taken, or determination made, by a State or local agency in furtherance of such agency’s review of the permits or approvals referenced herein, is unreasonable or unreasonably delayed, LIPA may petition the Commission, upon reasonable notice to that agency, to seek a determination of any such unreasonable or unreasonably delayed requirement. The permitting agency may respond to the petition, within three business days, to address the reasonableness of any requirement or delay.
- h. LIPA is relying upon NYSDOT to prepare and file expeditiously with the FHWA a request for an exception to the Accommodation Plan, which NYSDOT has advised is required to issue a highway work permit and use and occupancy permit. LIPA and NYSDOT shall work cooperatively to facilitate the filing of said request and to obtain the subject exception in sufficient time so installation may begin to meet the in-service date of the Project.
- i. In preparation of the exception request to Accommodate Plan, to be filed by NYSDOT with the FHWA, with respect to the portion of Sunrise Highway where the Second Cable will be installed, LIPA will prepare and submit to NYSDOT a traffic impact study and accident analysis, no later than 30 days after execution of this JP by all parties, which demonstrates a non-significant impact on the free and safe flow of traffic for all areas in which highway pavement, shoulder or clear zone areas will be encroached by LIPA’s construction and maintenance operations.

Response 8: PSEG Long Island will comply.

1.5.3 Environmental Management and Construction Plan

9. LIPA shall not begin site preparation or construction with respect to a specific portion of the Project (except surveying, soils testing and such other related activities as are necessary to prepare the final design plans) before it has submitted to the Commission and the parties, and the Commission has approved, the Environmental Management and Construction Plan (“EM&CP”) for the relevant portion of the Project.

Response 9: PSEG Long Island will comply.

10. The EM&CP shall be prepared in accordance with the EM&CP guidelines attached as Appendix 4 to the Joint Proposal. All construction plans shall be certified by a Professional Engineer that is licensed and currently registered in New York State.

Response 10: PSEG Long Island has complied.

11. Except where this Certificate requires otherwise, the terms of the Joint Proposal (to the extent not superseded in this Certificate) and the environmental protection measures contained in the Application shall be incorporated into the EM&CP. These measures shall be applied during construction, operation and maintenance of the certified Facility.

Response 11: PSEG Long Island will comply.

12. Deviation from the design height and location of structures shall be allowed for appropriate environmental or engineering reasons, except where a conflict with a provision of the Joint Proposal or the Order would be created.

Response 12: No response required.

1.5.4 EM&CP Contents

13. LIPA shall provide as part of the EM&CP:
 - a. A final design plan that reflects conformance of the Facility design with the Certificate, applicable federal and state requirements, and local substantive requirements (including, but not limited to, applicable regulations, including those of: The Bureau of Alcohol, Tobacco and Firearms, Occupational Safety and Health Administration, NYS Department of Labor, the Uniform New York State Fire Prevention and Building Code (chemical and waste-storage use and handling regulations)).
 - b. An explanation for any proposed deviation from the location of structures, with supporting documentation.
 - c. Details of nearby electric, gas, telecommunication, water, sewer, and related facilities and measures to protect the integrity, operation, and maintenance of those facilities.

- d. A plan indicating the details and design measures to protect the cathodic protection system and physical conditions of nearby facilities and structures, including any underground facilities. The plan shall include appropriate mitigation measures such as grounding and upgrade of existing protection devices or other facilities as appropriate for and identified in cooperation with owners or operators of adjacent or nearby structures, pipelines, tanks, fences, etc.
- e. A detailed construction schedule as part of each segment of the EM&CP, indicating limitations on access, construction, wire pulling, and restoration within any distinct areas such as parklands, residential areas, highway right of way, etc.
- f. The specification of noise mitigation procedures.
- g. The delineation of certified right-of-way and additional work areas to which LIPA shall confine construction and subsequent maintenance activities, depicting property rights, clearing rights, access rights, and such other matters as appropriate to address the site and environmental conditions and property interests of affected landowners and relevant conditions and requirements of the EM&CP. The delineation shall include the specific location and acreage of all needed real property or real property rights.
- h. Details of street work, including provisions for minimizing the duration and extent of open excavation, traffic disruptions, and work within and adjoining public streets and rights-of-way.
- i. Drawings delineating the locations of existing and proposed access roads. Proposed access road improvements shall be indicated, including measures for environmental impact minimization and access control.
- j. A traffic control plan for all the roadways directly affected by construction activities prepared in conformance with the Manual of Uniform Traffic Control Devices (“MUTCD”), including a separate traffic control plan for activities on Route 27.
- k. A plan for access to construct the Facility on Route 27 clearly defining all access locations and rights, including the construction standards and measures necessary to respond to the construction-related requirements of 17 NYCRR Part 131, entitled Accommodation of Utilities Within State Highway Right-of-Way, applicable design standards of AASHTO, the Highway Design Manual, the Policy and Standards for Entrances to State Highways, the Requirements for the Design and Construction of Underground Utility Installations within the State Highway ROW and the Accommodation Plan, including the provisions of NYSDOT Standard Details and Standard Item Numbers. Specifications shall be provided for construction and operation of access roads, including gates to be installed.
- l. A plan for access to the Facility on Route 27 for operation and maintenance including a traffic control plan in conformance with the MUTCD in conformance with the proposal made by LIPA in the Response to the Department of Public Service Informal Information Request No. 1 dated July 31, 2009. The plan will detail the construction measures designed to minimize,

to the extent practicable, the extent of trees removed at each access point, and any resulting incremental noise and visual impacts on adjacent homes. In addition, a restoration plan will be submitted, detailing the replantings to be done at the four off-highway access points designed to provide, where practicable, an improved level of visual screening compared to the current vegetation screenings.

- m. Fuel and chemical handling procedures and a spill response and route emergency plan. This plan shall provide proposed methods of handling spills of petroleum products and any hazardous or controlled substance which may be stored or utilized during construction, operation or maintenance of the facility.
- n. The designation of Facility construction worker parking areas.
- o. A plan for removal and reuse, recycling or disposal of equipment.
- p. Detailed soil handling and erosion control plans including details on the installation of sedimentation/erosion control devices around areas to be distributed and any stockpiled soils, temporary seeding, and re-vegetation to prevent erosion during construction.
- q. Clearing and vegetation treatment plans.
- r. Best management practices and measures for monitoring construction and protecting water quality at or near groundwater recharge basins.
- s. Appropriate controls and protocols for weekend and/or night-time work if otherwise allowed, including but not limited to noise controls and lighting controls.

Response 13: PSEG Long Island has complied.

1.5.5 EM&CP Process

- 14. LIPA shall submit five hard copies and one electronic copy of the EM&CP to the Commission, one copy to the Commissioner of the New York State Office of Parks, Recreation and Historic Preservation (“OPRHP”); one copy to any other New York State agency (and its relevant regional offices) which requests the document; twelve copies to the NYSDOT Region 10 office in Hauppauge; and one copy to active parties on the service list who request the document. LIPA shall also place copies for inspection by the public in at least one public library or other convenient location in each municipality in which construction will take place. Contemporaneously with the submission and service of the EM&CP, LIPA shall provide notice, in the manner specified below, that the EM&CP has been filed.

Response 14: PSEG Long Island will comply.

- 15.
 - a. LIPA shall serve written notice(s) of filing the EM&CP on all active parties to this proceeding, on each person on the Commission’s service list considered potentially affected by the subject matter in the EM&CP, and on all statutory parties to this proceeding, and shall attach a copy of the notice to each copy of

the EM&CP. Further, LIPA shall publish the notice(s) in a newspaper or newspapers of general circulation in the vicinity of the Project.

- b. For all permanent right-of-way or off-right-of-way access to be acquired for the Project, LIPA shall cause an examination of title (title search) to be conducted in the same manner as would be conducted by a reputable title insurance company to identify all—of record—owners, mortgagees, lien holders, leaseholders or others with an interest in such property rights to be acquired. LIPA shall serve written notice(s) of filing the EM&CP on each such person identified, on each person owning the underlying land right to an existing easement being used and on each person currently leasing a portion of any right-of-way to be used for the Project.

Response 15: PSEG Long Island will comply.

16.

- a. The written notice(s) and the newspaper notice(s) shall contain, at a minimum, the following:
 - i. a statement that the EM&CP has been filed;
 - ii. a general description of the Project, the need for the Project, the alternatives considered, and of the EM&CP;
 - iii. only for the written notice(s) for identified persons with a record interest in property to be acquired, a specific description of the permanent right-of-way or off-right-of-way access to be acquired for the Project;
 - iv. a listing of the locations where the EM&CP is available for public inspection;
 - v. a statement that any person desiring additional information about a specific geographical location or specific subject may request it from LIPA;
 - vi. the name, address, and telephone numbers of LIPA's representative;
 - vii. the address of the Commission; and
 - viii. a statement that any person may be heard by the Commission on any matter or objection regarding the EM&CP by filing written comments with the Commission and LIPA within 30 days of the filing date with the Commission of the EM&CP (or within 30 days of the date of the newspaper notice, whichever is later).
- b. A certificate of service indicating upon whom all EM&CP notices and documents were served and a copy of the written notice shall be submitted to the Commission at the time the EM&CP is filed, and shall be a condition precedent to approval of the EM&CP.

Response 16: PSEG Long Island will comply.

17.

- a. LIPA shall report any proposed changes to the EM&CP to Staff; Staff will refer to the Secretary of the Commission (or a designee) reports of any proposed

changes that do not cause substantial change in environmental impact or are not related to contested issues decided during the proceeding. Staff will refer all other proposed changes in the EM&CP to the Commission for approval. Any proposed change affecting state highways will be referred to the Commission.

- b. Upon being advised that Staff will refer a proposed change to the Commission, LIPA shall notify all active parties that have requested (before the approval of the EM&CP) to be so notified, as well as property owners or lessees whose property is affected by the proposed change. The notice shall: (1) describe the original conditions and the requested change; (2) state that documents supporting the request are available for inspection at specified locations; and (3) state that persons may comment by writing or calling (followed by written confirmation) to the Secretary of the Commission within 15 days of the notification date and (4) provide the Secretary's electronic mail address, phone number and mailing address. Any delay in receipt of written confirmation will not delay Commission action on the proposed change.
- c. LIPA shall not execute any proposed change until it receives oral or written approval, except in emergency situations threatening personal injury, property damage or severe adverse environmental impact, or as specified in the EM&CP.

Response 17: PSEG Long Island will comply.

1.5.6 Notices, Reports and Consultations

18. Applicable provisions of the Certificate, EM&CP, and orders approving the EM&CP shall be accommodated in any design, construction, ownership or maintenance contracts associated with the Facility. LIPA shall provide construction contractors with complete copies of the Certificate, approved EM&CP, updated construction drawings, and any site specific plans. To the extent that the listed documents are available before contracts for construction services are executed, such copies shall be provided to the contractors prior to execution of such contracts.

Response 18: PSEG Long Island will comply.

19. LIPA shall notify all construction contractors that the Commission may seek to recover penalties for violation of the Certificate, not only from LIPA, but also from its construction contractors, and that construction contractors may also be liable for other fines, penalties and environmental damage.

Response 19: PSEG Long Island will comply.

20.
 - a. LIPA shall make available to the public a toll free or local phone number of an agent or employee where complaints may be received during the construction of the certified facilities. In addition, the phone number of the Secretary and the

phone number of the Commission's Environmental Compliance Section shall be provided.

- b. LIPA shall report to Staff every complaint that cannot be resolved after reasonable attempts to do so, or within 30 days after receipt of the complaint (whichever comes first).

Response 20: PSEG Long Island will comply.

21.

- a. No less than two weeks before commencing site preparation, LIPA shall:
 - i. provide notice to local officials and emergency personnel;
 - ii. provide such notice for dissemination to local media and display in public places (such as general stores, post offices, community centers and conspicuous community bulletin boards); and
 - iii. provide notice to NYSDOT.
- b. The notice shall contain:
 - i. a map and a description of the Facility in the local area;
 - ii. the anticipated date for start of construction;
 - iii. the name, address and local or toll-free telephone number of an employee or agent of LIPA;
 - iv. a statement that the Project is under the jurisdiction of the New York State Public Service Commission, which is responsible for enforcing compliance with environmental and construction conditions, and which may be contacted at an address and telephone number to be provided in the notice; and
 - v. the notice will be written in language reasonably understandable to the average person.
- c. Upon distribution, a copy shall be submitted to the Secretary of the Commission.

Response 21: PSEG Long Island will comply.

22. Neither LIPA nor any contractors in its employ shall construct, improve or use any access roads not described in the EM&CP. Should the need arise for additional off-right-of-way access, LIPA shall submit a request to Staff; the request will be considered consistent with the provisions listed above and if the change may involve a site listed or eligible for listing on the State or National Register of Historic Places, Staff will consult with OPRHP.

Response 22: PSEG Long Island will comply.

23.

- a. At least two weeks prior to the start of construction, LIPA shall hold a preconstruction meeting. An agenda, location and attendee list shall be agreed upon between Staff and LIPA. NYSDOT shall be invited.

- b. LIPA shall supply draft minutes from this meeting to all attendees, the attendees may offer corrections or comments and LIPA shall issue the finalized meeting minutes to all attendees.
- c. If, for any reason, the construction contractor cannot finish the construction of this Project, and a new construction contractor is needed, there will be another preconstruction meeting with the same format as outlined above.

Response 23: PSEG Long Island will comply.

24.

- a. LIPA shall inform the Commission and Staff (and NYSDOT when state highways are affected) at least five days before commencing construction or clearing.
- b. Affected and nearby homeowners will be notified of planned construction activities and schedules before construction commences.
- c. Affected and nearby homeowners shall be notified of construction activities planned in their areas in writing no more than three weeks before commencement of construction in those areas.

Response 24: PSEG Long Island will comply.

25. Before Facility construction begins, and after considering the nature of the particular right-of-way segment with respect to issues such as highway and traffic safety, one or two edges of the Facility right-of-way shall be delineated and marked as specified in the EM&CP for that segment. Also, LIPA shall stake and flag all off-right-of-way access roads and extra workroom areas.

Response 25: PSEG Long Island will comply.

26. During construction LIPA shall provide Staff (and NYSDOT when state highways are affected) with weekly status reports summarizing construction, and indicating construction activities and locations scheduled for the next two weeks.

Response 26: PSEG Long Island will comply.

27. Within ten days after the Project is in service, LIPA shall notify the Commission and NYSDOT of that fact.

Response 27: PSEG Long Island will comply.

28. Within ten days of the completion of final restoration, LIPA shall notify the Commission and NYSDOT that all restoration has been completed in compliance with this Certificate and the EM&CP.

Response 28: PSEG Long Island will comply.

29. During construction, LIPA shall periodically consult with state and local highway transportation agencies about traffic conditions near the Project site and shall notify each such transportation agency of the approximate date work will begin using access points that take direct access from the highways under their respective jurisdictions. LIPA shall regularly consult with NYSDOT about traffic conditions near work in the right-of-way of Route 27.

Response 29: PSEG Long Island will comply.

30. LIPA shall keep local fire department and emergency management teams apprised of chemicals and waste on site.

Response 30: PSEG Long Island will comply.

31. LIPA shall immediately notify DEC of any fuel or chemical spills.

Response 31: PSEG Long Island will comply.

1.5.7 Environmental Supervision

32. LIPA shall designate a full-time supervisor, inspector and environmental monitor with stop work authority over all aspects of this Project; the supervisor shall be on site during all phases of construction and restoration. The environmental monitor(s) and construction inspector(s) shall be equipped with sufficient documentation, transportation and communication equipment to effectively monitor contractor compliance with the provisions of this Certificate, applicable sections of the Public Service Law, and the EM&CP. The name and qualifications of the supervisor, inspector(s) and environmental monitor(s) shall be submitted to Staff at least two weeks prior to the start of construction. NYSDOT shall have authority to place inspectors on site to monitor and observe LIPA's activities on State highways, and/or to request the presence of state or local police to assure the safety of freeway travelers, at such times and for such periods as NYSDOT deems appropriate. All costs thereof shall be borne by LIPA.

Response 32: PSEG Long Island will comply.

33. The authority granted in the Certificate and any subsequent order(s) in this proceeding is subject to the following conditions necessary to ensure compliance with such order(s):

- a. LIPA shall regard Staff representatives (certified pursuant to Public Service Law Section 8) as the Commission's designated representatives in the field. In the event of any emergency resulting from the specific construction or maintenance activities that violate or may violate the terms of the Certificate or any other order in this

- proceeding, such Staff representatives may issue a stop-work order for that location or activity.
- b. A stop-work order shall expire in 24 hours unless confirmed by a single Commissioner. If a stop-work order is confirmed, LIPA may seek reconsideration from the confirming Commissioner or the whole Commission. If the emergency prompting the issuance of a stop-work order is resolved to the satisfaction of the Commissioner or the Commission, the stop-work order will be lifted. If the emergency has not been satisfactorily resolved, the stopwork order will remain in effect.
 - c. Stop-work authority shall be exercised sparingly and with due regard to the potential economic costs involved and possible impact on construction activities. Before exercising such authority, Staff representatives shall consult (wherever practicable) with LIPA representatives possessing comparable authority. Within reasonable time constraints, all attempts shall be made to address any issue and resolve any dispute in the field. In the event the dispute cannot be resolved, the matter shall be immediately brought to the attention of LIPA, the Project Manager and the Department of Public Service, Chief, Office of Energy Efficiency and the Environment. In the event that a Staff representative issue a stop-work order, neither LIPA nor the contractor will be prevented from undertaking any such safety-related activities as they deem necessary and appropriate under the circumstances. Stop-work or implementation of measures, as described below, may be directed at the sole discretion of the Staff representative during these discussions.
 - d. If a Staff representative discovers that a specific activity is a significant environmental threat that is, or may immediately become, a violation of the Certificate or any other Order in this proceeding, the Staff representative may—in the absence of responsible LIPA supervisory personnel or the presence of such personnel who, after consultation with the Staff representative, refuse to take appropriate action—direct the field crews to stop the specific environmentally harmful activity immediately. If responsible LIPA personnel are not on site the Staff representative shall immediately thereafter inform the Construction Supervisor and/or Environmental Coordinator of the action taken. The stop-work directive may be lifted by the Staff representative if the situation prompting its issuance is resolved.
 - e. If the Staff representative determines that a significant threat exists such that protection of the public or the environment at a particular location requires the immediate implementation of specific measures, the Staff representative may, in the absence of responsible LIPA supervisory personnel, or in the presence of such personnel who, after consultation with the Staff representative, refuse to take appropriate action, direct LIPA or its contractors to implement the corrective measures identified in the EM&CP. The field crews shall comply with the Staff representative directive immediately. The Staff representative shall immediately thereafter inform LIPA’s construction supervisor and/or environmental monitor of the action taken.

Response 33: PSEG Long Island will comply.

34. LIPA shall organize and conduct site compliance audit inspections for Staff as needed, but not less frequently than once per month during the site preparation, construction, and restoration phases of the Project, and at least annually for two years after the Project is operational.
- a. The monthly inspection shall include a review of the status of compliance with all certification conditions, requirements, and commitments, as well as a field review of the Project site, if necessary. The inspection report shall also include:
 - i. review of all complaints received, and their proposed or actual resolutions;
 - ii. review of any significant comments, concerns or suggestions made by the public, local governments, or other agencies;
 - iii. review of the status of the Project in relation to the overall schedule established prior to the commencement of construction; and
 - iv. other items LIPA or Staff consider appropriate.
 - b. LIPA shall provide a written record of the results of the inspection, including resolution of issues and additional measures to be taken, to agencies involved in the inspection audit.

Response 34: PSEG Long Island will comply.

1.5.8 Cultural Resources

35. Should archeological materials be encountered during construction, LIPA shall stabilize the area and cease construction activities in the immediate vicinity of the find and protect the same from further damage. Within twenty-four hours of such discovery, LIPA shall notify Staff and OPRHP Field Services Bureau to determine the best course of action. No construction activities shall be permitted in the vicinity of the find until such time as the significance of the resource has been evaluated and the need for and scope of impact mitigation has been determined.

Response 35: PSEG Long Island will comply.

36. Should human remains or evidence of human burials be encountered during the conduct of archeological data recovery fieldwork or during construction, all work in the vicinity of the find shall be immediately halted and the remains shall be protected from further damage. Within twenty-four hours of any such discovery, LIPA shall notify Staff and OPRHP Field Services bureau. All archaeological or burial encounters and their handling shall be reported in the status reports summarizing construction activities and reviewed in the site compliance audit inspections.

Response 36: PSEG Long Island will comply.

1.5.9 Public Health and Safety

37. All chemicals and waste shall be secured in a locked and controlled area.

Response 37: PSEG Long Island will comply.

38. LIPA shall engineer and construct the Project to be fully compatible with the operation and maintenance of nearby electric, gas, telecommunication, water, sewer, and related facilities.

Response 38: PSEG Long Island will comply.

39. The Project shall be designed and constructed to avoid adverse effect on the cathodic protection system and physical conditions of existing structures and facilities, including any underground facilities.

Response 39: PSEG Long Island will comply.

1.5.10 Electric and Magnetic Fields

40. LIPA shall design, engineer and construct the Project such that its operation shall comply with the electromagnetic field (“EMF”) standards established by the Commission in *Opinion No. 78-13* (issued on June 19, 1978) and the *Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities* (issued September 11, 1990), respectively.

Response 40: PSEG Long Island will comply.

1.5.11 Construction

41. Equipment and component delivery, trenching, backfilling, and transformer and cable installation shall only take place between 7:00 a.m. - 7:00 p.m. on weekdays, except that for State highways which NYSDOT may require night-time operations if warranted by high traffic volumes during the day. Notwithstanding the 7 a.m. - 7 p.m. restriction, splicing operations are permitted on a 24-hour basis. In addition, extended work hours beyond 7 p.m. to complete work at a particular site along the route or extended work hours beyond 7 p.m. in the event unforeseen circumstances occur, will be permitted upon LIPA’s request to NYSDOT for permission and NYSDOT’s approval to conduct construction activities during the extended hours requested. DPS will be notified upon receipt of NYSDOT’s permission. No lane closures will be permitted between 5 a.m. – 9 a.m. and between 3 p.m. - 7 p.m. Safety and avoidance of peak travel may warrant nighttime construction between 7 p.m. - 5 a.m. Nothing therein shall preclude LIPA from making the necessary arrangements for the extension of work hours with appropriate local agencies in compliance with local ordinances. Staff shall be notified at

least 48 hours in advance if planned weekend, evening or holiday construction should become necessary.

Response 41: PSEG Long Island will comply.

42. The construction schedule shall be coordinated so as to minimize outages of the existing circuits adjacent to the Project, outages of the substations and interconnected transmission facilities, and the full or temporary closure of roads, travel lanes and access driveways, and to minimize simultaneous closures of north/south routes.

Response 42: PSEG Long Island will comply.

43. Existing transmission facility components replaced as part of construction of this Project shall be removed from the right-of-way to appropriate destinations and handled appropriately for re-use as available based on conditions (transformers, wood poles, conductors, etc.). Staff shall be notified if any major equipment is removed and/or replaced.

Response 43: PSEG Long Island will comply.

44. Appropriate measures shall be taken to minimize fugitive dust and airborne debris from construction activity.

Response 44: PSEG Long Island will comply.

45. Disturbed areas, ruts, and rills will be restored to original grades and conditions with permanent re-vegetation and erosion controls appropriate for those locations. Disturbed pavement, curbs and sidewalks shall be restored to their original preconstruction condition or improved.

Response 45: PSEG Long Island will comply.

46. Sedimentation/erosion control devices shall be installed around areas to be disturbed and any stockpiled soils to prevent soil erosion during construction. These erosion control devices shall be installed prior to construction and shall be maintained in place until the right-of-way has been re-vegetated and/or stabilized in accordance with pre-existing conditions.

Response 46: PSEG Long Island will comply.

47. The clearing and vegetation treatment plans shall minimize the clearing of vegetation to that necessary to allow construction and operation of the Project.

Response 47: PSEG Long Island will comply.

48. All merchantable logs resulting from creating roads to access the right-of-way or other authorized operations shall be removed from the road, unless otherwise noted on the construction drawings and approved by Staff. All non-merchantable weedy debris resulting from clearing the right-of-way shall be chipped, unless noted on the EM&CP, and approved by Staff, or removed from the point of origin. No chips shall be stored in park lands, wetlands, active agriculture fields, or within 50 feet of streams or drainages.

Response 48: PSEG Long Island will comply.

49. Neither LIPA nor any contractors in its employ shall clear or alter any areas outside the boundaries of the certified Project, except off right-of-way access roads designated in the EM&CP.

Response 49: PSEG Long Island will comply.

50. All trees over two inches diameter breast height (“DBH”) or shrubs over four feet in height damaged or destroyed by activities during construction, operation, or maintenance, regardless of where located, shall be replaced within the following year by LIPA with the equivalent type trees or shrubs, except if:
- a. permitted by the approved EM&CP;
 - b. equivalent-type replacement trees or shrubs would interfere with the proper clearing, construction, operations, or maintenance of the certified Transmission Facility;
 - c. replacement would be contrary to sound right-of-way management practices, or to any approved long-range right-of-way management plan applicable to the Transmission Facility or adjoining transmission facilities; or
 - d. the owner of land where the damaged or destroyed trees or shrubs were located (other than LIPA) declines replacement (or other recorded easement or license holder with the right to control replacement declines replacement).

Response 50: PSEG Long Island will comply.

51. LIPA shall, upon completion of the Project:
- a. provide an assessment of the need for landscape improvements, including vegetation planting, earthwork or installed features to screen or landscape the Project;
 - b. consult with Staff (and with NYSDOT for the Route 27 Expressway segment) on the content and execution of its assessment, resultant landscaping plan specifications and materials list; details shall include measures for maintenance and for controlling third party or wildlife damage to any landscape and vegetation plantings;
 - c. such assessments and plans shall be presented for Staff review within one year of the date the Project is placed in service and shall be implemented as soon thereafter as practicable; and

- d. LIPA shall provide to Staff (and for Project segments on Route 27 highways, to NYSDOT) as-built drawings of the Project certified by a Professional Engineer that is licensed and currently registered in New York State.

Response 51: PSEG Long Island will comply.

1.5.12 Transportation

52. LIPA shall minimize the impact of the construction of the Project on traffic circulation. Traffic control personnel and safety signage will be employed to ensure safe and adequate traffic flow when secondary roadways are affected by construction. LIPA shall submit, as part of the EM&CP, the revised MPT plans for access to the existing conduits off Sunrise Highway from the four off - ROW access points discussed in this Joint Proposal and identified in the LIPA's Response to Staff's Informal Information Request No. 1, dated July 31, 2009. Said plans provide for LIPA's use of the border area along Sunrise Highway for the movement of construction vehicles. No access to the Project ROW will be permitted directly from the Sunrise Highway main roadway other than at Bellows Pond Road, as provided in LIPA's Response No. 3 to NYSDOT's Information Request. Construction vehicles shall not move in the opposite direction of the traffic flow unless concrete barriers with curtain panels are used, which shall be described in the EM&CP. LIPA shall use appropriate traffic channelization and safety devices where it is impractical to maintain a distance of 30 feet or more from the centerline of the Second Cable to the white edge of the pavement line. Attenuation vehicles will also be used during installation operations. Concrete barriers will not be required along the entire route, but may be required by NYSDOT at selected locations, as will be discussed in the EM&CP. The plans shall also provide that LIPA shall perform routine maintenance operations within the LIPA Highway Work Project limits in which NYSDOT is scheduled to perform such operations, but is prevented by LIPA's operations from performing them, until NYSDOT's final acceptance of the Project and the Highway Work permit is closed. The EM&CP shall provide that NYSDOT shall be responsible for the Route 27 main line snow plowing and carcass removal outside the LIPA Work Permit Project limits. NYSDOT agrees to perform final inspections in three segments at LIPA's request as LIPA's restoration is completed for each segment. Upon NYSDOT's final acceptance of each segment, which acceptance shall not be unreasonably withheld or delayed, LIPA shall be relieved of maintenance obligations for said segment. For LIPA's preparation of the revised MPT plans, NYSDOT shall provide LIPA with the criteria NYSDOT ordinarily would use to maintain the subject area and special notes used by contractors and permittees to develop a Maintenance Jurisdiction Table acceptable to NYSDOT. The extent of the project area to be maintained by LIPA will be determined by NYSDOT, based on the accepted MPT and project plans. In addition, any swales damaged by LIPA will be repaired to their original functionality in a manner acceptable to the NYSDOT Engineer in Charge and approved by the NYSDOT Resident Engineer for the Eastern Suffolk Residency.

Response 52: PSEG Long Island will comply.

53. Facility construction worker parking shall be in designated areas off of Route 27 which do not interfere with normal traffic, cause a safety hazard or interfere with existing land uses and specified in the project specific EM&CP.

Response 53: PSEG Long Island will comply.

54. Direct disturbance to properties shall be avoided by accessing the right-of-way from existing roadways or approved off-right-of-way access roads, except as provided herein and in the Joint Proposal with respect to Bellows Pond Road. Construction access to the ROW of Route 27 will be provided from off-highway locations.

Response 54: PSEG Long Island will comply.

1.5.13 Maintenance

55. LIPA shall submit to the Commission for approval prior to operation of the Project, and provide a copy to NYSDOT and any party so requesting, a long-term right-of-way management plan for the Project. The plan shall:
- a. contain a list of residential areas and environmentally significant features (including as a minimum any stream-crossings, wetlands, vegetation planning areas, important wildlife habitats, parks, officially-designated trails and visual screens) and provisions to minimize maintenance impacts on those areas and features;
 - b. contain a vegetation and land-use inventory for the first and each subsequent treatment (the vegetation inventory shall include the right-of-way location, vegetation type, height, density and treatment technique);
 - c. contain a list of potential undesirable right-of-way uses (e.g., trash dumping, trespass or encroachment) and policy to remedy or control such uses;
 - d. describe the treatment techniques and chemicals proposed for use, and limit chemical use to approved usages and dosages;
 - e. describe a LIPA policy on surveillance, posting and installation of deterrents to adverse access;
 - f. describe Project management including Project monitoring, patrols, marking and maintenance of facilities, coordination of activities with underlying landowners or land managers, and maintenance of erosion control features, access roads, landscape plantings and vegetation;
 - g. describe how the Project maintenance and management is integrated into applicable LIPA system-wide management plans; and
 - h. provide that NYSDOT shall maintain the right-of-way of the segment of the Project on Route 27, including the management of encroachments, pursuant to paragraph 52 of this section.

Response 55: PSEG Long Island will comply.

2.0 PROJECT PERSONNEL AND PROCEDURES

In accordance with the Certificate, personnel and procedures are identified herein to assign responsibilities for minimization of environmental impact and compliance with the environmental protection provisions specified by the Certificate.

2.1 Personnel

The following personnel will have assigned duties during the Project. Each supervisor is expected to work full-time on the Project.

2.1.1 Project Manager

The Project Manager will have overall responsibility for the Project including engineering, design, construction, and coordination of the various construction-related activities. The Project Manager will be responsible for verifying that construction is in conformance with Certificate Conditions, the Project schedule, the authorized budget, the design and contract documents and the EM&CP. The Project Manager will have stop-work authority in the event of a violation of Certificate provisions. The Project Manager will be assisted in the implementation of the EM&CP by the Environmental Supervisor, Construction Inspector and Environmental Monitor(s).

2.1.2 Environmental Supervisor

The Environmental Supervisor will be responsible for ensuring minimization of environmental impact, compliance with the environmental protection provisions specified by the Certificate, compliance with traffic safety measures and adherence to health and safety plans. The Environmental Supervisor will communicate the environmental protection criteria of the Certificate and the EM&CP to Project Management and Contractor personnel, and will be available throughout the period of construction to provide guidance and interpretation related to those criteria.

The Environmental Supervisor will direct environmental inspection, coordinating inspections as well as non-routine monitoring (such as stormwater inspections in response to heavy rainfall). The Environmental Supervisor will coordinate preconstruction walkdowns with the Contractor to verify a comprehensive understanding of site regulations and required compliance.

The Environmental Supervisor will report to the Project Manager and will have stop-work authority.

2.1.3 Safety Manager

The Safety Manager will oversee Contractor safety in accordance with PSEG Long Island's safety requirements. Other typical duties include auditing work areas to confirm compliance with PSEG Long Island's safety requirements, conducting work area inspections, and

reviewing submittals. The Safety Manager will also lead safety meetings and conduct safety orientation training sessions.

2.1.4 Construction Inspector

The Construction Inspector will be available throughout all construction phases of the Project to assist the Environmental Supervisor in ensuring implementation of environmental protection provisions specified by the Certificate for cut-vegetation management, construction and site-restoration activities. The Construction Inspector will be on-site daily to provide oversight for the Project and will have stop-work authority.

2.1.5 Environmental Monitor(s)

Environmental Monitor(s) will be tasked with day-to-day observation of the Project site with respect to minimization of environmental impact, compliance with the provisions specified by the Certificate, applicable sections of the Public Service Law, traffic safety measures, the EM&CP, and adherence to the health and safety plan(s).

The Environmental Monitor(s) will satisfy the qualifications of a “Qualified Inspector” pursuant to the SPDES General Stormwater Permit for Construction Activity (GP-0-15-002). This person must also satisfy the requirements of New York State Department of Environmental Conservation (NYSDEC) Technical Guidance for Site Investigation and Remediation (DER-10). The Environmental Monitor(s) will closely monitor work conducted in the vicinity of environmentally sensitive areas where there exists the potential to encounter contaminated soils.

The Environmental Monitor(s) will complete environmental monitoring reports on a regular basis and will verify compliance with permit conditions for permits issued for the Project. The Environmental Monitor(s) will assist in the preparation of monthly inspections and reports for submittal to the DPS. The Environmental Monitor(s) will report to the Environmental Supervisor and will have stop-work authority. Environmental Monitor(s) will be present during construction of the Project and site restoration.

2.1.6 Contractor Project Manager

The Contractor will provide a Project Manager, the Contractor Project Manager, who will assist the PSEG Long Island Project Manager with verifying that construction is in conformance with Certificate Conditions, the Project schedule, the authorized budget, the design and contract documents and the EM&CP. The Contractor Project Manager will communicate upcoming work activities and the Project schedule to Contractors and report any unsatisfactory performance of the Contractors to the PSEG Long Island Project Manager. The Contractor Project Manager will have stop-work authority in the event of a violation of Certificate provisions or for any health and safety reason.

2.1.7 Contractor Safety Supervisor

The Project will have a Safety Supervisor, provided by the Contractor, who will be responsible for monitoring compliance with PSEG Long Island and Project safety requirements. The Contractor Safety Supervisor will assist the Project Manager in verifying that all appropriate Project personnel have completed the Site Specific Safety Orientation discussed below in Section 2.2.2.1.

2.2 Procedures

The following construction site safety and environmental impact minimization procedures are applicable to the Project.

2.2.1 Worksite Health and Safety

Measures will be taken by the Certificate Holder and Contractor to protect the health and safety of all site personnel and the traveling public within the Project limits throughout the duration of the Project. Training, instruction and periodic briefings as appropriate will be provided to all construction personnel to ensure that health and safety precautions and measures are followed during the clearing, construction and site restoration. The Contractor will not commence work until a health and safety plan (HASP) has been accepted by the Certificate Holder. Detailed worksite health and safety procedures are described in Section 5.5 of this EM&CP.

2.2.2 Required Orientations

Training, instruction, and periodic briefings will be provided to all Project personnel, as appropriate, to verify that health and safety precautions and measures are followed during construction. Project personnel are required to complete the following orientations and safety training prior to commencing work on the Project. In addition, the Contractor must provide documentation to the Project Manager indicating this training has been successfully completed.

2.2.2.1 *Site Specific Safety Orientation*

All Contractors, sub-contractors and related site personnel must be provided with safety training prior to work on the Project or be escorted by personnel that have been trained. The Project Manager will verify the orientation was given, prior to an employee working on the jobsite. This training will include all hazards the workers may be exposed to in relation to their own specific craft and work procedures. A review of the submitted Activity Hazard Analysis and emergency and non-emergency medical procedures will also be part of this contractor specific training.

2.2.2.2 *Project Orientation*

All personnel employed on the Project site must attend a Project orientation conducted by the Certificate Holder, prior to working on the jobsite. This includes company management

personnel who frequently visit the site. The training will review general site policies and procedures contained in the EM&CP. It is not intended to be specific to the worker's craft or to replace the Contractor provided training listed above.

2.2.2.3 *Stop Work Procedures*

On-site Project personnel with stop-work authority include the Project Manager, Environmental Supervisor, Environmental Monitor, and Construction Supervisor. These Project personnel may stop work during construction if the environmental terms of the Certificate, approved EM&CP or applicable law are being violated. Any Project personnel can stop work for health and safety reasons.

2.2.3 **Traffic Safety**

Although most of the construction work will take place at distances greater than 20 feet from the edge of traveled roadways, in certain locations the Project will require temporary modification of existing typical traffic movements and the use of traffic-related measures protective of the traveling public, construction personnel and cable installation equipment.

Maintenance and protection of traffic for all construction activities will comply with rules and regulations included in the National Manual of Uniform Traffic Control Devices (MUTCD) and 17 NYCRR Chapter V (New York Supplement). Maintenance and Protection of Traffic Plans (MPT) include plan drawings and general notes and will be used to manage and minimize the traffic impacts of the Project. The MPT indicates temporary signage and barriers expected during the construction activity. As such, safety signage and traffic control personnel (i.e. flagmen) will be employed to verify safe and adequate traffic flow, as necessary, when roadways are affected by construction. Appropriate safety practices, including temporary barricades to prevent pedestrians from entering the construction area or the active roadway, will be implemented as identified in the MPT.

Traffic monitoring will be a joint effort between PSEG Long Island and the Contractor. Detailed traffic safety procedures are described in Section 6.0 of this EM&CP, and the MPT are provided as Attachment 2 of this EM&CP.

2.2.4 **Vegetation Maintenance**

Care will be taken throughout the Project to minimize adverse impacts to vegetation. Detailed vegetation management procedures are described in Section 3.1 and Attachment 4 of this EM&CP.

The creation of access points to NYS Route 27 in multiple locations both for short-term movements of construction equipment and personnel (25-foot clear width), and also for long-term maintenance operations (15-foot clear width) will require removal of trees and other vegetation. Clearing of vegetation will be conducted in accordance with the Vegetation Management Plan included as Attachment 4 of this EM&CP.

Splice manhole installation will result in the removal of trees and other vegetation in several locations. Splice manhole work areas were engineered to the greatest extent practicable to avoid tree impacts, but trees greater than two inches in dbh and shrubs will still be removed within specific areas along the route. Clearing and restoration of vegetation will be conducted in accordance with Attachment 4 – Vegetation Management Plan.

In certain locations trees and shrubs may need to be tied back, pruned or removed to allow passage and operation of construction equipment. With respect to the provisions of the Joint Proposal, such branch tying or pruning will not require replacement of the trees involved. Care will be taken during cable installation to keep damage to tree branches and other vegetation to the minimum practicable amount.

2.2.5 Spill Prevention, Control and Countermeasures

The transmission cables and the existing certified underground conduits are inert materials and have no liquid or leachable constituents. The cable pulling lubricant will be a non-toxic, water-based gel harmless to humans and environmentally safe. Suitable absorbent materials will be kept available at the site of cable-pulling activities in sufficient quantities for containment and clean-up purposes.

The focus of spill prevention and response measures will therefore be on the minimization of potential impacts related to release of fuels, lubricants, and/or coolants from construction equipment. Such equipment will be positioned proximate to sensitive environmental resources for the least practicable amount of time necessary to install the Project.

Vehicles and construction equipment will be monitored to check that fluids (oil, hydraulic, lubricants, or brake fluid) are not leaking and that fuels and fluids are stored in proper, labeled containers. While no drilling is anticipated, if necessary all drilling equipment will have diapers or similar leak containment measures under the equipment overnight to contain spills. Any observation of spills, leaking fluid, or improperly stored fluids may trigger the issuance of a stop-work notice until the situation is resolved, and the appropriate field measures are implemented to avoid future spills.

Additionally, such materials must be covered and contained within waste fluid containers in leak proof condition and with secondary containment. Storage containers will be regularly inspected for leaks, corrosion, support or foundation failure, or any signs of deterioration and tested for soundness.

Prior to construction, the Contractor must identify licensed spill response contractor(s) who will be on-call during construction. Construction personnel will be trained in spill response protocols, and spill containment materials will be available near construction equipment and construction vehicles throughout the duration of the Project. The Certificate Holder shall notify DPS and NYSDEC of any fuel or chemical spill it is required to report in accordance with NYSDEC regulations and guidance.

All petroleum spills that occur within New York State must be reported to the New York State Spill Hotline (1-800-457-7362) and PSEG Long Island Spill Hotline (516-824-2485) within two hours of discovery, except spills which meet the following criteria:

1. The quantity is known to be less than 5 gallons; and
2. The spill is contained and under the control of the spiller; and
3. The spill has not and will not reach New York water or land (soil); and
4. The spill is cleaned up within two hours of discovery.

A spill is considered to have not impacted land if it occurs on an impervious surface such as asphalt or concrete. A spill in a dirt or gravel parking lot is considered to have impacted land and is reportable. More details on notification and reporting requirements can be found in Section 11 of the NYSDEC Spill Guidance Manual.

Prior to the start of construction, the Contractor shall provide a list of the petroleum products and hazardous substances to be used in the performance of Project work, along with a Safety Data Sheet (SDS) for each such material. The SDSs will be kept on-site, alongside the health and safety plan, for the duration of the construction. If, during the course of construction, a contractor proposes to use a product not on the original list, the list must be modified and the appropriate SDS provided to the Certificate Holder prior to the use of the material on the Project. PSEG Long Island will keep local fire department and emergency management teams apprised of chemicals and waste materials on the construction site. Such notifications will be provided at least 48 hours prior to the commencement of construction activities within the jurisdictions of the various fire departments and emergency management entities. Due to the different types of regulated materials typically used during construction, different handling and storage procedures may be required.

The Certificate Holder will require Project personnel to adhere to all directions and warnings for products used on the Project. Employees will be trained in the use, storage, handling, spill control, and first aid measures required for these chemicals in accordance with OSHA's Construction Hazardous Communication Standard (29 CFR § 1926.59) (NYSDOT Standard Specifications § 107-05). The on-site Safety Manager will verify that any non-hazardous material encountered during any activity is properly handled.

The on-site storage of hazardous chemicals and waste in above and/or below ground tanks is not anticipated during construction of the Project. In the event of a hazardous substance release, the following spill release reporting procedure will be implemented:

1. Notify the Safety Manager, Project Manager and Environmental Supervisor
2. Contact local police department having jurisdiction in the spill area
3. Contact local fire department having jurisdiction in the spill area
4. Contact local emergency officials having jurisdiction in the spill area

5. Contact DPS and NYSDEC Spill Hotline
6. Contact PSEG Long Island Spill Hotline

The Environmental Supervisor will be responsible for contacting DPS and NYSDEC or other agencies with regard to reportable spills or releases. The Environmental Monitor(s) will also verify that any hazardous materials encountered on-site will be managed and handled in accordance with the applicable regulations found in 6 NYCRR Parts 370-374 and NYSDOT Standard Specifications § 107-10F.

No containers used for dispensing fuels, oils, lubricants, chemicals, or other potentially harmful substances that may be required during construction, will be stored overnight in the work areas during splice vault excavation, cable installation or site restoration. Fuel will be stored within marshalling yards. While construction activities are in progress, chemicals and potentially harmful wastes will be secured in locked and controlled areas. Storage of these materials will not occur within 100 feet of the Shinnecock Canal or the freshwater wetlands located along the PSEG Long Island easement. Additionally, these materials will not be stored on or near sensitive land uses. Construction vehicles will be parked at least 100 feet from environmentally sensitive areas whenever practicable.

Fueling of construction vehicles and equipment will be conducted within the marshalling yards at Suffolk County Community College and Gabreski Airport or onsite through the use of a mobile fuel truck. If equipment is fueled onsite, secondary containment will be utilized at the point of fueling.

Personnel responsible for fueling of vehicles will be fully trained in spill prevention and containment. The construction crews will also be fully briefed on the potential environmental impacts of their actions during the Project orientation. Designated fuel-dispensing vehicles will be returned after each work day to a designated staging site away from the construction areas.

2.2.5.1 *Other Materials*

Construction materials and equipment that are required to be temporarily stored on the Project site will be stored in designated areas only. Such materials will include machinery for construction activities, granular fill material, stockpiled soil, and temporary storage of materials as necessary. Silt fence and/or anchored tarps are recommended to completely enclose areas prior to the close of daily operations on the construction site (and during rain/snow events) to prevent the travel of materials of the designed stockpile areas.

Covered dumpsters will be utilized for waste materials. Sanitary waste will be collected from portable units as necessary.

3.0 ENVIRONMENTAL PROTECTION AND MITIGATION

The Environmental Supervisor and Environmental Monitor(s), in conjunction with the Project Manager and Construction Inspector, will be responsible for verifying that the requirements of this EM&CP are adhered to during construction of the Project. Environmental protection measures have been developed for the Project as discussed below.

3.1 Vegetation and Animal Management

3.1.1 Vegetation Management

A principal objective of the Project is to install the Second Cable with a minimum amount of vegetation disturbance. Except for above-ground connections at the two substations and the crossing of the Shinnecock Canal, the Second Cable will be installed entirely underground within the existing certified underground conduits on LIPA and public right-of-way. The installation involves installation of 39 new splice manholes, conducting conventional cable pulling and splicing at each of the new splice manholes along the certified route. Access points will be created in multiple locations to bring equipment to the route of the certified underground conduit.

The part of the route from its western terminus at the Riverhead Substation to the intersection of Bellows Pond Road and NYS Route 27 in Hampton Bays is located within the Central Pine Barrens Core Preservation Area (From Splice Manhole 1.5 to approximately Splice Manhole 29.5). The vegetation there is dominated by Pitch Pine–Oak Forest that can be found from the Riverhead Substation to NYS Route 27. In addition, there are patches of transitional Pitch Pine-Oak-Heath Woodland, Pitch Pine-Heath Barrens, and Pitch Pine-Scrub Oak Barrens along the proposed route.

From the intersection of Bellows Pond Road with NYS Route 27 to the NYS Route 24/NYS Route 27 interchange (Exit 65), the Project route is within the Central Pine Barrens Compatible Growth Area (From Splice Manhole 30.5 to approximately Splice Manhole 31.5). Between Exit 65 and the Canal Substation, the Project route is outside the boundaries of the Central Pine Barrens.

This section describes mitigation measures to be implemented to minimize potential adverse impacts to existing vegetation from the Project along the various right-of-way from the Riverhead Substation to the Canal Substation. The width of the construction area will be approximately 25 feet and will consist primarily of vegetated right-of-way. At specific splice manhole locations the width of the proposed construction work area may be greater than 25 feet. The vegetation protection measures that will be utilized for the Project are described in the subsections below and in greater detail in Attachment 4 – Vegetation Management Plan.

Proper tying back of tree branches, branch pruning and removal procedures will be followed for protecting vegetation from damage due to construction activities. Cleared vegetation will not be burned or buried and will be disposed of in accordance with applicable regulations.

3.1.2 Delineation of Existing Vegetation

The extent of existing tree canopy area is shown on the attached Plan and Profile drawings for the Project. Prior to construction, trees that require tying back of branches or branch pruning and all trees greater than two inches diameter breast height (dbh) to be removed will be recorded by the Environmental Monitor(s).

Figures that show the extent of vegetation removal required to create new access points to the NYS Route 27 ROW are included in the Vegetation Management Plan provided as Attachment 4 of this EM&CP.

3.1.3 Vegetation Protection

The Plan and Profile drawings provided as Attachment 1 of this EM&CP identify the Limit of Disturbance (LOD) for the Project. The LOD defines the authorized limit of all construction activity, soil disturbance, and alteration to vegetation. Trees will be removed within the LOD. Trees greater than 2 inches dbh will be replaced by PSEG Long Island with equivalent-type tree species except where as specified in the Certificate Conditions. In accordance with the provisions of the Joint Proposal, NYSDOT may decline the tree replacement.

Trees and shrubs will be protected from damage. In areas where construction is immediately adjacent to trees and shrubs and there is potential for damage to the vegetation, tying back of tree branches and branch pruning will be employed. Specifically, the distance between the edge of pavement and the tree line along the western shoulder of Speonk Riverhead Road is such that some trees branches may need to be tied back, pruned or removed to accommodate construction equipment. Pursuant to the Order, all trees greater than two inches dbh or shrubs greater than four feet in height damaged or destroyed by activities during construction, operation, or maintenance, will be replaced within the following year by equivalent type trees or shrubs (with the exceptions noted in Ordering Condition No. 51). Geographical limits of tree branch protection measures are shown on the attached Plan and Profile drawings.

Construction activity will be under the observation of the Environmental Monitor(s) as a primary means of avoiding unnecessary impact to trees. All tree work, including the handling of feeder tree roots, will be performed in accordance with PSEG Long Island's Specification for Line Clearance - Distribution Circuit Trim (as well as applicable ANSI A300 Standards and ISA Best Management Practices). Signs, barricades or other construction materials will not be secured to trees or shrubs. No pesticides or herbicides will be used during the installation of the Project.

At the multiple locations approved for creation of access points to the NYS Route 27 ROW, vegetation will be cleared from 25-foot-wide paths. The limits of the cleared areas will be identified with highly visible temporary fencing.

3.1.4 Plant Root Protection and Excavation Methods

Excavation for installation of the splice manholes may be within the dripline of trees. Assessing impacts to root systems is complex because roots are not visible and root geometry is often somewhat irregular and opportunistic.

Potential indirect impacts to trees can also occur as a result of altering hydrology, soil chemistry, and soil structure. These effects are difficult to predict and normally become evident post-construction and are visible as a slow decline in tree vigor and health.

Trenching for the Project will be limited to a short distance surrounding each new splice manhole and in the immediate vicinity of the Shinnecock Canal where the Second Cable will leave the underground conduit and enter a vertical cable tray transition structure on either side of the Shinnecock Canal, as shown on the Plan and Profile drawings.

The nature of the cable-pulling process, which will move continuously along the installation route, is such that the period of time during which equipment will be parked above, and potentially compact the soil around, any particular plant roots will be limited to the duration of one construction season.

Existing topography in the locations of the approved access points will allow access to the NYS Route 27 ROW with limited excavation. The compaction of tree roots beneath the access points by construction equipment traffic will be limited to the duration of one construction season.

3.1.5 Ground Cover Protection

To the extent practicable, the Project will avoid damage to existing turf grass and other ground covers. Construction activities will be confined to the smallest practicable area required for safe and efficient installation of the cable.

Stockpiling of debris and construction materials or storing of equipment on unpaved areas will be permitted only in pre-designated areas at the direction and/or with the approval of the Environmental Supervisor. Pre-designated work areas for staging of the construction equipment are shown on the attached Plan and Profile drawings.

3.1.6 Rare, Threatened and Endangered Species

The Certificate Holder contacted the NYS Natural Heritage Program (NYNHP) and the United States Fish and Wildlife Service (USFWS) to check for updates or changes with regard to the potential presence of rare, threatened, or endangered plant or animal species (collectively, RTE species) in the Project area. Additionally, the Certificate Holder consulted with NYSDEC Region 1 Staff regarding potential RTE species within the Project area. Although no occurrence records currently exist, NYSDEC staff identified potential host plants of the persius duskywing (*Erynnis persius*) and frosted elfin (*Callophrys irus*) as potentially occurring within the Project

area. The 34 RTE species identified in the NYNHP, USFWS, and NYSDEC correspondence are included in Table 3.1-1 below.

The NYNHP request also sought updates regarding special concern species listed in New York and Significant Natural Communities in the Project area. Significant natural communities reported by NYNHP were: Pitch Pine-Oak Forest, Coastal Plain Atlantic White Cedar Swamp, Pitch Pine-Oak-heath Woodland, Coastal Plain Pond Shore, Highbush Blueberry Bog Thicket and Pine Barrens Shrub Swamp.

Table 3.1-1 RTE Species Reported to Occur Within or in the Vicinity of the Project Area

Common Name	Scientific Name	Status	NYS Heritage Conservation Status
<i>Mammals</i>			
Northern Long-Eared Bat	<i>Myotis septentrionalis</i>	F & S – Threatened	Critically Imperiled
<i>Amphibians</i>			
Tiger Salamander	<i>Ambystoma tigrinum</i>	S – Endangered	Critically Imperiled
<i>Fish</i>			
Banded Sunfish	<i>Enneacanthus obesus</i>	S - Threatened	Critically Imperiled
<i>Birds</i>			
Piping Plover	<i>Charadrius melodus</i>	F – Threatened, S – Endangered	Rare or Uncommon, Breeding Populations
Red Knot	<i>Calidris canutus rufa</i>	F – Threatened	N/A
Roseate Tern	<i>Sterna dougallii dougallii</i>	F – Endangered	N/A
Northern Harrier	<i>Circus hudsonius</i>	S – Threatened	Rare or Uncommon, Breeding Populations, Wintering Populations
Least Tern	<i>Sternula antillarum</i>	S – Threatened	Rare or Uncommon, Breeding Populations
<i>Butterflies</i>			
Hessel’s Hairstreak	<i>Callophrys hesseli</i>	S – Endangered	Critically Imperiled
Persius Duskywing	<i>Erynnis persius</i>	S - Endangered	Critically Imperiled
Frosted Elfin	<i>Callophrys irus</i>	S - Threatened	Critically Imperiled or Imperiled
<i>Dragonflies & Damselflies</i>			
Scarlet Bluet	<i>Enallagma pictum</i>	S – Threatened	Imperiled
Little Bluet	<i>Enallagma minusculum</i>	S – Threatened	Critically Imperiled
Pine Barrens Bluet	<i>Enallagma recurvatum</i>	S – Threatened	Critically Imperiled
Southern Sprite	<i>Nehalennia integricollis</i>	Special Concern	Critically Imperiled

Table 3.1-1 RTE Species Reported to Occur Within or in the Vicinity of the Project Area

Common Name	Scientific Name	Status	NYS Heritage Conservation Status
<i>Moths</i>			
Coastal Barrens Buckmoth	<i>Hemileuca maia ssp. 5</i>	S – Special Concern	Imperiled and Globally Uncommon
Pine Barrens Underwing	<i>Catocala herodias gerhardi</i>	S – Special Concern	Critically Imperiled
Jersey Jair Underwing	<i>Catocala jair ssp. 2</i>	S – Special Concern	Critically Imperiled
Prominent Moth	<i>Heterocampa varia</i>	S – Special Concern	Critically Imperiled
<i>Plants</i>			
Sandplain Gerardia	<i>Agalinis acuta</i>	F & S – Endangered	Critically Imperiled and Globally Rare
Seabeach Amaranth	<i>Amaranthus pumilus</i>	F – Threatened	N/A
Small White Snakeroot	<i>Ageratina aromatica</i>	S – Endangered	Critically Imperiled
Atlantic White Cedar	<i>Chamaecyparis thyoides</i>	S – Threatened	Imperiled
Rush Bladderwort	<i>Utricularia juncea</i>	S – Endangered	Critically Imperiled
Trinerved White Boneset	<i>Eupatorium subvenosum</i>	S – Threatened	Imperiled and Rare or Uncommon
Showy Aster	<i>Eurybia spectabilis</i>	S – Threatened	Imperiled
Northern Blazing Star	<i>Liatris scariosa var. novae-angliae</i>	S – Threatened	Imperiled
Sandplain Wild Flax	<i>Linum intercursum</i>	S – Threatened	Imperiled
Large Grass-leaved Rush	<i>Juncus biflorus</i>	S – Endangered	Critically Imperiled
Northern Dwarf Huckleberry	<i>Gaylussacia bigelovianna</i>	S – Endangered	Critically Imperiled
Long-beaked Beak Sedge	<i>Rhynchospora scirpoides</i>	S – Rare	Imperiled
Seabeach Knotweed	<i>Polygonum glaucum</i>	S – Rare	Rare or Uncommon
Few-flowered Nutrush/Sedge	<i>Scleria pauciflora var. caroliniana</i>	S – Endangered	Critically Imperiled
Flax-leaf Whitetop	<i>Sericocarpus linifolius</i>	S – Threatened	Imperiled
Stargrass	<i>Aletris farinosa</i>	S – Threatened	Imperiled

Sources: Official NYNHP Report dated 10/7/2019; Official IPaC Report dated 12/10/2019, Correspondence with NYSDEC 10/31/2019

Notes: F – Federal; S – State

Based on the responses from NYNHP, USFWS, and NYSDEC, the Certificate Holder conducted a field habitat assessment in October and November 2019. This assessment evaluated the areas surrounding each splice manhole location and the access points. A survey of potential Northern long-eared bat habitat along the Shinnecock Canal bridge was also conducted. The surveys focused on characterizing the habitats present as well as establishing whether RTE or species of concern may be present within the study areas. No targeted species presence/absence surveys were conducted during the surveys.

The habitat assessment concluded that there was habitat generally present along the Project route for several of the identified species. Protection measures are detailed below.

3.1.6.1 Habitat Suitability

Of the 34 species listed in the above Table 3.1-1, nine species' habitats were determined to be potentially present within the Project Study Area. These species are identified in the below Table 3.1-2

Table 3.1-2 RTE Species Habitat Potentially Present within the Project Area

Common Name	Scientific Name	Status	NYS Heritage Conservation Status
<i>Mammals</i>			
Northern Long-Eared Bat	<i>Myotis septentrionalis</i>	F & S – Threatened	Critically Imperiled
<i>Amphibians</i>			
Tiger Salamander	<i>Ambystoma tigrinum</i>	S – Endangered	Critically Imperiled
<i>Birds</i>			
Roseate Tern	<i>Sterna dougallii dougallii</i>	F – Endangered	N/A
Least Tern	<i>Sternula antillarum</i>	S – Threatened	Rare or Uncommon, Breeding Populations
<i>Plants</i>			
Flax-leaf Whitetop	<i>Sericocarpus linifolius</i>	S – Threatened	Imperiled
Small White Snakeroot	<i>Ageratina aromatica</i>	S – Endangered	Critically Imperiled
Trinerved White Boneset	<i>Eupatorium subvenosum</i>	S – Threatened	Imperiled and Rare or Uncommon
Sandplain Gerardia	<i>Agalinis acuta</i>	F & S – Endangered	Critically Imperiled, and Globally Rare
Northern Blazing Star	<i>Liatris scariosa var. novae-angliae</i>	S – Threatened	Imperiled

No suitable habitat for the following species were encountered during the habitat assessment: banded sunfish, scarlet bluet, Southern sprite, Hessel's hairstreak, little bluet, Northern harrier, prominent moth, piping plover, red knot, pine barrens bluet, coastal barrens buckmoth, pine barrens underwing, jersey jair underwing, rush bladderwort, Atlantic white cedar, large grass-

leaved rush, Northern dwarf huckleberry, long beaked sedge, seabeach amaranth, sand plain wild flax, and star grass.

The RTE Bird species, the Roseate Tern and Least Tern were identified as having potential open water foraging habitat adjacent to the Project area. However, no roost or shoreline habitat was identified for these species. The operation of heavy equipment and the presence of construction may result in a disturbance to the terns using this water way for foraging or traveling. However, construction disturbances are expected to be temporary with the terns resuming use of the canal waters once construction has been completed. Additionally, because heavy vessel traffic regularly occurs within the waterway, the terns are likely habituated to certain levels of human disturbance. As such, it is expected that the construction of the project will have a temporary impact on terns. Additionally, given the tern species are highly migratory and the canal is immediately adjacent to abundant foraging waters, a minor displacement from the canal is not likely to cause impact to the Roseate and Least Tern. No mitigation is necessary.

The RTE plant species potentially present within the study area include the the Flax-leaf Whitetop, small white snakeroot, trinerved white boneset, sandplain Gerardia, and northern blazing star. To complete the habitat survey a defined construction lay-down space was assumed as 200 by 25 feet for all splice manholes, and 30 feet wide by various distances for the access roadways. These survey areas are conservative and are larger than necessary to complete the proposed activities. Upon mobilization, construction areas will be staked out to avoid disturbances to the natural flora at the sites. Effects on vegetation will be temporary disturbances. Per the proposed planting plan, herbaceous areas will be restored by seeding and planting of replacement tree species. If practicable, additional plant surveys will be completed in localized areas inspecting for the presence of these five plant species. If the species are identified, NYNHP will be notified and under their guidance the plant will either be transplanted out of the construction work space, or their locations will be protected using construction fencing by the Environmental Monitor(s) on site.

Protective measures for ensuring de minimis construction impacts to the Northern Long-eared bat and the Tiger Salamander are described below.

3.1.6.2 *Northern long-eared bat (NLEB)*

An inspection of the Shinnecock Bridge for bats was conducted using the New Jersey Department of Transportation (NJDOT) bat survey protocol. The NJ bat survey protocol was utilized because it not only includes all USFWS NY requirements for bridge inspections forms, but because they are more comprehensive than standard Federal Transit Administration bat bridge forms. The surveyors checked all structures on the bridge for bats or signs of bats, including urine stains or excrement. No evidence of bats was observed on the bridge and roosting opportunities on the bridge were limited to vertical spaces which were relatively large and not preferable for roosting.

The Habitat Assessment determined potential presence of suitable habitat in large tree snags at VR1, VR2, VR3, and at MH 38A.5. NYNHP reported records of NLEB within the general vicinity of splice manhole work areas, however, the Region 1 NYSDEC confirmed there are no records of NLEB occurrences within 150 feet of the proposed tree clearing areas and concurred that the Project will not result in a change of land use. Given habitat losses aren't a concern for this RTE Species, NLEB specific clearing restrictions are not mandatory for the Project.

As a conservative best management practice, the design of the splice manhole work areas incorporates tree protection and minimizes tree removal to the greatest extent practicable. Care will be taken during construction of the Project to further limit tree removal to the greatest extent practicable. Should NLEB be encountered in work areas during tree clearing activities, the Environmental Monitor(s) will issue a stop-work order and notify the NYSDEC.

3.1.6.3 *Tiger Salamander*

The NYSDEC demarcated zone where the Tiger Salamander may migrate is approximately 4,300 feet long. Splice Manholes 2.5 and 3.5 are located within this zone to the north and to the south of a wetland complex. To limit disturbance within this area, construction equipment will not be permitted to travel between splice Manholes 2.5 and 3.5. Splice Manhole 2.5 will be accessed from the northern entrance to the ROW from Nugent Drive and Splice Manhole 3.5 will be accessed from the southern entrance located on Center Drive South. As requested by the NYSDEC, protective fencing will be installed around the excavated areas associated with the installation of the Splice Manholes 2.5 and 3.5 to prevent tiger salamanders from falling into the excavated areas. The protective fencing will be Drift fencing and will be buried a minimum of 8 inches into the surrounding soils to ensure stability. These specific work areas will be adequately covered/protected at night and during rain events. Environmental Monitor(s) will periodically inspect work sites to verify compliance.

3.1.6.4 *RTE Best Management Practices*

Best Management Practices are designed to prevent impacts to the RTE species for which suitable habitat has been identified within in the Project area in addition to potential RTE species not listed in Section 3.6.1. If RTE species are encountered during the construction of the Project, the Environmental Monitor(s) will identify the extent of the area of concern, clearly mark it in the field, and GPS its location. The Certificate Holder shall promptly notify Staff and the NYSDEC Regional Natural Resources Supervisor of Region 1 – and, if appropriate, USFWS - in order to determine the appropriate measures to be taken to avoid and minimize direct impacts and protect such species and species' habitat. If discovery of an unanticipated RTE species is made during construction, all construction activities in the immediate area will cease, to protect the species or their habitat from immediate harm. The Certificate Holder shall stabilize the area and cease construction or ground-disturbing activities in the area until the appropriate officials are notified, and protective measures are implemented. The Environmental Monitor(s) will work with the Construction Inspector to implement necessary protective measures and best management practices identified below:

- Plans will be updated to reflect the new RTE species area of concern and the site will be clearly marked in the field.
- Crews will be updated on the new sensitive area location and species identification.
- Any documents or information which identify the location or habitat of any known RTE species shall be labeled CONFIDENTIAL and access shall be restricted to only those persons who need to know this information. The Certificate Holder will provide appropriate training to employees and contractors as to the confidential nature of this information.

3.2 Water Resources

The protection of water bodies, wetlands and groundwater resources is a primary objective of this EM&CP. Specific protection measures are discussed in the following subsections.

3.2.1 Surface Water Resources

The Project includes the installation of a vertical cable tray transition structure and cable tray on each side of the Shinnecock Canal for the Second Cable, to complement the transition structures and cable trays for the certified existing cable that were installed by LIPA in 2000. The vertical cable tray transition structures will be near and parallel to NYS Route 27 bridge piers on each side of the Shinnecock Canal. The new cable will run through the stainless steel conduits installed in 2000, which are placed between the steel superstructure girders of the NYS Route 27 bridge over the Shinnecock Canal. The conduits are already in place; there is no potential for debris to fall into the Shinnecock Canal during cable installation.

Shinnecock Canal is classified as SC (marine waters) in 6 NYCRR Part 924.6. The SC classification indicates best usage of the surface water for fishing. SC waters shall be suitable for fish, shellfish, and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

As shown on the Plan and Profile drawings, the transition structures will be fabricated of steel mounted on concrete foundations. Inside each transition structure, steel supports with clamps will be installed to secure the Second Cable as it transitions from under the bridge deck, down the interior of the transition structure, to its underground position inside the certified conduit that extends east and west of the Shinnecock Canal.

The conventional cable pulling equipment used elsewhere along the Project alignment will also be used to pull cable across the Shinnecock Canal. Vehicle or equipment refueling will not take place in proximity to the Canal, and rinsing or washing out of equipment will not occur in areas that drain to the Canal.

Limited amounts of trenching or other excavation will take place in the vicinity of the Shinnecock Canal. Spoils will not be stockpiled or deposited where there is a possibility that sediment may be washed to the Canal during rain events.

The excavation and regrading during the Project will be performed in such a manner that the site will be effectively drained. It is not anticipated that any water diversion devices will be required on the Project. Existing drainage patterns will not be altered.

All storm drains within 100 feet of the Shinnecock Canal will be protected as necessary during construction activities by use of one or more of the following measures: hay bales, sediment control fencing, filter fabric and/or solid barriers placed over storm drain inlets. These measures are further discussed in Section 4.0 – Soil Erosion and Sediment Control.

3.2.2 Freshwater Wetlands

There are two wetlands located along the proposed Second Cable route. A small wetland exists about 100 feet west of the cleared LIPA-owned ROW immediately south of Nugent Drive. Another wetland exists on LIPA-owned ROW farther south of Nugent Drive, north of County Route 51. There will be no impacts to these two wetlands, as the Project will be installed beneath the wetlands through certified conduits installed in 2000 by conventional cable pulling and splicing techniques at existing splice manholes upland of the wetlands. No personnel or equipment will enter the wetlands. The Environmental Monitor(s) will ensure that the Project activities do not encroach upon the freshwater wetlands.

3.2.3 Groundwater and Dewatering

The Project may encounter groundwater during splice manhole excavations. If dewatering is required, the Environmental Supervisor will be notified prior to any dewatering, which would be performed by use of submersible pumps.

The Environmental Monitor(s) will be responsible for assessing the water for obvious signs of contamination, such as separate-phase product, odors or sheens, before dewatering can begin. If the assessment shows no evidence of contamination, best management practices still need to be followed in order to avoid erosion and sediment migration concerns.

Dewatering is expected at limited locations (e.g. adjacent to the Shinnecock Canal and in the vicinity of Splice Manhole 5.5). Dewatering will follow the PSEG Long Island SOP EG-706, included as Attachment 7, and will likely be performed by use of portable pumps drawing through a suction line and discharging through a flexible hose. Water will be pumped from the excavation and filtered through sediment filter bags before discharge into storm drains or sewer inlets. Per EG-706, filter fabric must be used over storm drains and sewer inlets prior to discharging any water to them. If no storm drains or other drainage systems are available, water may be discharged to the ground, provided the discharge location is down gradient from the excavation area and the affected property can accommodate the infiltration of the discharged water. In no such situations shall the water be discharged in private properties, wetlands, wetland adjacent areas or allowed to flow onto private properties, wetlands and wetland adjacent areas.

In the event that contamination is suspected based on observed soil conditions or observed free product on ground water, the Environmental Monitor(s) and Environmental Supervisor must be notified. Contaminated groundwater will be pumped directly from the excavation to a holding tank for later treatment and/or disposal.

3.3 Sensitive Land Uses

Sensitive land uses include schools, hospitals and emergency (police, fire and ambulance) facilities. Such facilities are considered sensitive land uses because construction activities have the potential for disrupting customary emergency vehicle routes. Schools are considered sensitive land uses due to the potential for disruption of normal school bus access and pedestrian traffic and the necessity for providing site security. When construction takes place in the vicinity of an identified sensitive land use, all emergency vehicle access roads and ramps will be maintained to ensure public health and safety. Non-emergency vehicle access roads and ramps will be managed in a manner that will have no adverse impacts to the identified sensitive land use areas.

Recreation areas traversed by the proposed route are also considered sensitive land uses. The land immediately adjacent to either side of the Shinnecock Canal is considered a recreational area, as saltwater fishing is popular along both sides of the canal. As such, precautions will be taken so as not to impede vehicular and pedestrian access to the edge of the canal. This may include closing pedestrian access to the Canal for brief periods of time. There also will be a full closure on the entrance ramp to Route 27 from North Shore Road along with necessary detours to direct traffic around work, as detailed in the MPT (Attachment 2). Impacts will be minimized by working in this area during weekdays only to the extent practicable, when recreational use is lighter than it is on weekends. During times when recreational access is restricted, appropriate signage will be installed to notify pedestrians of the closure.

3.4 Noise-Sensitive Areas

United Methodist Church and Saint Rosalie Roman Catholic Church, which are located approximately 1,350 feet and 2,450 feet, respectively, south of NYS Route 27 in Hampton Bays, are too distant from the Project route to potentially be affected by construction noise. Similarly, classroom buildings and the library within the Suffolk County Community College campus, located west of Speonk Riverhead Road, are sufficiently distant from the area of construction to be affected by noise. No noise mitigation measures are proposed for the churches or the college campus.

Residential areas immediately adjacent to the Project route are generally considered noise-sensitive, although ambient noise levels may vary by neighborhood depending on location and proximity to routes with high levels of vehicular traffic. Anticipated noise impacts due to trenching and splice manhole installation activities are directly related to the type of equipment required (magnitude) and the average length of construction time (duration). If the Certificate Holder receives noise complaints during construction, noise monitoring protocols and necessary noise mitigation measures will be implemented.

It is currently planned that work will take place between the hours of 7:00 AM and 7:00 PM in those areas considered to be noise-sensitive, although work may extend beyond 7:00 PM in order to safely complete an activity, such as completing a cable splice.

3.4.1 Noise Monitoring

Noise associated with construction activities will be generated primarily by equipment used for trenching and splice manhole installation or trucks that deliver materials and equipment. Noise from cable pulling and splicing equipment is expected to be minimal

Noise monitoring will be performed during the installation of the new cable for a period of two to three days during initial construction activities. This noise monitoring will establish a noise “baseline” for the remainder of construction, and the baseline will be used as a metric to be compared to future noise levels (in the event of a complaint) and to assess noise levels.

If a noise complaint is received during construction of the Project, and authenticated by the Environmental Monitor(s), the following protocol will be implemented: an assessment will be performed of the location of construction and the location of complaint in relation to construction, construction techniques, equipment used during construction activities when the complaint was received, and identification of other noise sources in the area. Noise monitoring may be performed if other noise sources have been discounted and construction activities will continue in the same manner with no modifications to the construction activities/procedures.

Noise monitoring will follow appropriate methodology and comply with American National Standards Institute (ANSI) S-1.13-2005, Measurement of Sound Pressure Levels in Air. Observations will be made, during measurement, such as with regard to temperature, wind, relative humidity, cloud cover, and wind induced noises (i.e., leaves rustling, etc.). Atmospheric conditions such as rainfall (precipitation), high humidity (greater than 90 percent), and high wind (greater than around 12 to 15 miles per hour) are avoided during field measurement because of their potential influence to have an adverse effect on noise measurements and potential to damage equipment. A microphone windscreen is utilized (as appropriate) during measurements to minimize potential wind effects.

If noise monitoring is performed, A-weighted noise measurements will be obtained at various locations in the vicinity of the equipment/location of concern. Noise monitoring may be performed at a number of different locations; near the construction noise source; along the perimeter of the work area; and along adjoining residential property boundaries. The closest residence to the construction noise source and/or the property of the complainant will be identified and will be a candidate location for performing sound-level measurements.

If noise monitoring results, compared to the noise baseline, indicate that noise mitigation measures are advised, one or more of the following remedial measures may be implemented where practical:

- Operate stationary noise generating construction equipment (i.e. air conditioners and portable generators) along with winches, backhoes, loaders, and trucks as far away from noise-sensitive receptors as possible;
- Limit nighttime construction near residences to splicing activities that cannot be stopped once begun;
- Equip construction vehicles or equipment with appropriate low noise engine exhaust mufflers;
- Install temporary noise barriers (where practical) to minimize noise impacts on nearby sensitive uses and/or utilize walled enclosures around clusters of noisy equipment.

3.5 Cultural Resources

The New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) has confirmed that no historic sites will be impacted by the Project. Correspondence with OPRHP can be found in Attachment 6 – Agency Consultations.

Should archaeological materials, human remains, or evidence of human burials be encountered during construction, PSEG Long Island will stabilize the area and cease construction activities in the immediate vicinity of the find and protect the same from further damage. Within 24 hours of such discovery, PSEG Long Island will notify DPS Staff and OPRHP Field Services Bureau to determine the best course of action. No construction activities will occur in the vicinity of the find until such time as the significance of the resource has been evaluated and the need for and scope of impact mitigation has been determined. Archaeological or burial encounters and their handling will be reported in the status reports summarizing construction activities and reviewed in the site compliance audit inspections.

3.6 Soil Handling and Disposal

Soil will be exposed during splice vault excavations as necessary for cable and splice vault installations. The Certificate Holder will backfill all excavations either with clean fill material, which was removed, or with clean washed building sand or suitable thermal fill. The backfill material will comply with applicable code requirements and minimize heat retention of the newly installed cables. Excavated soils which have the intention of being reused as backfill, will be temporarily stockpiled onsite or within the Marshalling yards, as necessary. The Certificate Holder will dispose of any excess spoils, debris, soils or fill, whether or not contaminated, in accordance with code requirements applicable to such substance.

Section 4.0 - Soil and Erosion Control, and the Storm Water Pollution Protection Plan (SWPPP) contain more information regarding soil management. The SWPPP is provided as Attachment 5.

3.7 Recreational Areas

Existing recreational areas will not be impacted by this construction project. As noted in Section 3.3 of this EM&CP, saltwater fishing is popular along both sides of the Shinnecock

Canal. Therefore, care will be taken to maintain vehicular and pedestrian access to the edge of the canal, and work in the area of the canal will occur on weekdays only as practicable. The construction Contractor will oversee maintaining vehicular and pedestrian access to all recreational areas along the Project corridor.

3.8 Agricultural Areas

The route for the Project is located in existing utility and roadway right-of-way and will make use of the existing conduit installed in 2000. Agricultural areas will not be affected along the Project route, nor at the proposed NYS Route 27 access points. One potential marshalling yard has been identified which is currently of general agricultural use (equipment storage). The proposed marshalling yard use should not affect, either short- or long-term, the agricultural use or nature of the property, or impact soils associated with farming.

3.9 Hydrologic Zones for Aquifer Recharge

The potential for environmental impacts to the aquifer that underlies most of the Project route and to surface waters to which groundwater discharges along certain parts of the route will be minimized. The transmission cables and the existing certified underground conduits are inert materials and have no leachable constituents.

Potential impacts to the aquifer and to surface waters to which groundwater discharges related to spills of fuel and lubricants from construction equipment will be minimized and mitigated through management procedures. Construction personnel will be trained in spill response protocols at the Project orientation, and spill containment materials will be available near cable-pulling equipment and construction vehicles throughout the duration of the Second Cable installation. Detailed spill prevention and response measures are described in Section 2.2.5 of this EM&CP.

3.10 Critical Environmental Areas

The Critical Environmental Areas (CEA) along the route for the Project are the Central Pine Barrens Core Preservation Area and Compatible Growth Area and the Central Suffolk Special Groundwater Protection Area. The Project route transects the NYSDEC recognized Dwarf Pine Forest CEA for a segment of the route on NYS 27. Splice Manhole 13.5 to 17.5 are located within the Dwarf Pine Forest CEA.

3.10.1 Central Pine Barrens Core Preservation Area

The part of the Project route from the Riverhead Substation to the intersection of Bellows Pond Road and NYS Route 27 in Hampton Bays (Splice Manholes 1.5 through 29.5), approximately 13.5 miles, is located within the Central Pine Barrens Core Preservation Area.

3.10.2 Central Pine Barrens Compatible Growth Area

The Project route traverses approximately 0.8 miles through the Compatible Growth Area of the Central Pine Barrens. Splice Manholes 30.5 and 31.5, located approximately 2,250 feet apart, will be constructed within this CEA along the Project corridor.

3.10.3 Special Groundwater Protection Area

The part of the Project route between the Riverhead Substation and Exit 65 of NYS Route 27 in Hampton Bays (Splice Manholes 1.5 through 31.5) is within the Central Suffolk Special Groundwater Protection Area. As noted in Section 3.9 above, the potential for environmental impacts to groundwater in the aquifer that underlies most of the Second Cable route will be minimized due to the characteristics of the construction materials to be used and by the spill response measures that are identified in this EM&CP.

4.0 SOIL EROSION AND SEDIMENT CONTROL

Soil excavation for the Project will consist of excavation of 39 splice manholes, trenching for approximately 150 feet along Canal Road east of the Shinnecock Canal where the Second Cable will leave the underground conduit and enter a vertical cable tray transition structure, and grading to create access points at four areas adjoining the NYS Route 27 ROW. Soil erosion and sediment control are determined by soil characteristics, slope, rainfall intensity and construction methods.

Erosion and sedimentation control devices will be installed prior to initial disturbance of the soil and maintained in place in accordance with NYSDOT and/or NYSDEC standard specifications (including the NYSDEC “Blue Book”), where applicable. All erosion and sedimentation control devices will be monitored by on-site personnel and will be inspected by the Environmental Monitor(s) at least once every seven days. All erosion and sedimentation control devices will be maintained in place until restoration or permanent stabilization of the work area is completed, or the former work location is demonstrably stable due to its pre-existing characteristics.

Erosion and sedimentation will be controlled by applying the following practices:

- Limiting the exposure time of stockpiled material;
- Reducing runoff velocity;
- Directing the flow of runoff;
- Installing silt fence or hay bale sedimentation barriers;
- Detaining runoff to trap sediment; and
- Releasing runoff safely to existing stormwater facilities.

Excavation will occur immediately before splice manhole and cable placement to minimize potential runoff. To minimize wind erosion and dispersion of dust, soil stockpiles will be sprayed with water or covered with tarps as necessary.

Disturbed areas, including areas where the ground surface has been rutted by the movement of construction equipment, will be protected with mulch where necessary. Mulch reduces runoff by allowing more water to infiltrate the soil, and minimizes the loss of soil moisture from evaporation. Mulch also helps to hold seed in place and reduces seedling damage from soil heaving caused by freezing and thawing.

Any disturbed areas along the Project route, including areas within the Central Pine Barrens limits, will be reseeded with the Long Island Meadow Restoration mix, and details are provided in Attachment 4. Areas outside the Central Pine Barren limits will be temporarily stabilized with broadcasted annual rye grass. A temporary grass cover or jute netting will be used in areas where re-vegetation may take longer. Jute netting, a coarse, open-mesh, web-like material, may be applied directly on the soil to protect exposed soils and newly seeded areas, and to hold down mulch material.

4.1 Stormwater Pollution Prevention Plan

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared for this EM&CP and as required for coverage under the NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity. The SWPPP is provided as Attachment 5. The SWPPP further details erosion control measures and reporting requirements.

5.0 STANDARD CONSTRUCTION PRACTICES

5.1 Construction Equipment and Methods

Construction activities will primarily consist of installation of new splice manholes and installing the Second Cable within existing certified underground conduits. The conduits were installed in 2000 along the corridor of the previously certified transmission line. The Second Cable will be installed using conventional pulling and splicing techniques at 39 new splice manholes along the Project ROW from the Riverhead Substation to the Canal Substation.

5.2 Pre Construction

PSEG Long Island will inform the PSC, DPS Staff, and NYSDOT two weeks before commencing construction or clearing. Affected and nearby homeowners will be notified of planned construction activities and schedules before construction commences and shall be notified in writing no more than two weeks before commencement of construction in their areas.

Before construction begins in each segment, and in consideration of the nature of each cable installation segment with respect to issues such as highway and traffic safety, the limits of proposed access points and extra workroom areas will be staked and flagged. One edge of the electric cable transmission installation path will be delineated and marked with white, water-soluble, VOC-free turf-marking paint or dry marking powder as follows:

- LIPA ROW between Riverhead Substation and East Moriches – Riverhead Road (County Road 51): marking of the intersection of LIPA ROW and County Road 51 ROW only;
- East Moriches – Riverhead Road (County Road 51): edge of cable installation path nearest the westbound travel lanes;
- Speonk Riverhead Road: edge of cable installation path along the southbound travel lane;
- NYS Route 27: edge of cable installation path nearest the eastbound travel lanes;
- Newtown Road: both roadway ROW lines;
- Gate Street: both roadway ROW lines;
- Shinnecock Canal: Gate Street and Canal Road ROW lines at trenching areas only;
- Canal Road: roadway ROW line in eastbound travel lane; and
- NYS Route 27 eastbound access ramp between Canal Road and Canal Substation: southern ramp ROW line only.

Additionally, prior to any ground disturbance, utility markouts will be requested by calling 811: Call Before you Dig. After the markout ticket clears, the Contractor will lay out the exact location of each splicing manhole and start excavating.

5.3 During Construction

After mobilizing onsite, the Contractor will install the access points along NYS 27 Sunrise Highway and the access roads between the splice manholes. The Contractor will clear all vegetation in accordance with Attachment 4 – Vegetation Management Plan. Once vegetation is cleared, the Contractor will grade the soil as necessary and install the recycled concrete aggregate (RCA) road base. Typical access points and access road installation equipment will include a dozer, loader, dump trucks and vibratory rollers.

During the excavation process, the Contractor will install shoring to properly support the excavation. Once fully excavated, the pre-cast concrete splice manhole will be installed within the excavation with the use of a crane. After the splice manhole is set, the shoring will be removed and the excavation will be backfilled. Typical splice manhole installation equipment will include a crane, excavator, loader, shoring equipment, tractor trailer low-boy, assemblies, fittings and accessories.

After the splice manhole is set, the Contractor will tie-in the conduit into the splice manhole. The Contractor will excavate and shore around the existing conduit to expose it. Once the existing conduit is exposed, new conduit will be installed from the tie-in point of the existing conduit into the new splice manhole. After the conduit has been installed, the shoring will be removed, and the trench will be backfilled. Typical conduit installation equipment will include an excavator, loader, shoring equipment, assemblies, fittings and accessories.

After sections of the splice manholes and conduit are installed, cable pulling operations will begin. To ensure the conduit is clean and there are no obstructions, the conduit between each splice manhole will be swabbed and mandreled. After that is completed, a winch truck will be set up above the splice manhole on one side and on the other side, the cable reel will be placed. The winch line will be pulled through the conduit and attached to the cable. The cable will be lubricated, fed into the conduit and pulled from one splice manhole to the other. After the cable is pulled, it will be trimmed as necessary and secured inside the splice manhole. Typical cable pulling equipment will include a cable reel, trailer with back tensioning capability, rollers, bull wheel and cable winch. The maximum pulling tension of a single cable will not exceed cable manufacturer limits. The cable pulling lubricant will be a non-toxic, water based gel harmless to humans and environmentally safe.

Once the cable is pulled, cable splices will be installed at the splice manhole locations. Sheath cross bonding equipment and techniques will also be employed in the splice manholes to minimize circulating currents and sheath voltage levels, and to maximize cable power capacity. Typical splicing equipment will include a step van equipped with portable power tools to cut, crimp, solder and seal cable ends together. This equipment will be stationed at the splice manholes for easy access.

In addition to the electric cable, a fiber optic communication cable will be installed between the Riverhead Substation and Canal Substation. The fiber optic communication cable will be pulled through the existing conduits and handholes. Similarly to the electric cable, a winch truck will

be utilized to pull the fiber optic communication cable through the conduit. The fiber optic communication cable will be lubricated as it is fed into the conduit and pulled from one handhole to the other. As necessary, the fiber optic communication cable will be spliced inside the handholes.

The Project includes the installation of a vertical cable tray transition structure on either side of the Shinnecock Canal for the Second Cable, to complement the cable tray transition structures for the certified existing cable that were previously installed by LIPA in 2000. The new cable will run through the NYSDOT-approved stainless steel conduits installed in 2000, which are placed between the steel superstructure girders of the NYS Route 27 bridge over the Shinnecock Canal.

As shown on the Plan and Profile drawings, the vertical cable tray transition structures will be steel mounted on pile foundations. Inside each transition structure, steel supports with clamps will be installed to secure the Second Cable as it transitions from under the bridge deck, down the interior of the transition structure, to its underground position direct buried to the adjacent splice manholes east and west of the Shinnecock Canal.

The conventional cable pulling equipment used elsewhere along the Second Cable alignment will also be used to pull cable across the Shinnecock Canal. Construction details describing the Second Cable installation near the Shinnecock Canal are included on the Plan and Profile drawings.

During construction, PSEG Long Island will provide DPS Staff (and NYSDOT when state highways are affected) with weekly status reports summarizing construction undertaken in the previous week and identifying construction activities and locations scheduled for the next two weeks.

PSEG Long Island will also periodically consult with state and local highway transportation agencies about traffic conditions near the Project corridor and will notify each such transportation agency of the approximate date work will begin using access points from highways and roads under their respective jurisdictions. PSEG Long Island will regularly consult with NYSDOT about traffic conditions near work in the NYS Route 27 ROW.

5.3.1 Marshalling Yards

Staging of construction equipment and materials on unpaved areas will occur only in pre-designated areas described in Table 1.3-1 and specified on the EM&CP Plan and Profile drawings. Preliminary marshalling yard layouts and improvements are included in the Plan and Profile drawings. Pre-designated staging areas for cable pulling construction equipment are shown on the attached Plan and Profile drawings. Per PSEG Long Island SOP EG-303, upon completion of all work, all material storage yards, and staging areas should be completely cleared of all waste and debris. Material storage yards and staging areas will be restored as near as practical to original conditions.

5.4 Construction Time Restrictions

Construction time restrictions will follow what is outlined in Section 1.5.11.

5.5 Worksite Safety

All construction work areas will be maintained in an orderly manner, free from hazards that could cause accidents and annoyances. The Contractor will be responsible for properly fastening or protecting all equipment that could, under conditions of storm and/or darkness, be the cause of accidents, service interruptions, and conflict with the operation of existing utilities, or which could endanger persons or property. The Contractor will provide and maintain all worksite security including signs, lights, barricades, and warning devices to minimize hazards to the general public and to maintain the movement of vehicular and pedestrian traffic.

Measures will be taken by the Contractor to assure the health and safety of all construction workers for the Project. This includes the required Project safety orientation. Additionally, OSHA-approved fire and first aid equipment will be provided by the Contractor's Site Health and Safety Officer for the project. Emergency police, fire and hospital phone numbers and locations will be posted at all field locations.

Training, instruction and periodic briefings will be provided to all construction workers to ensure that worksite safety measures are followed during the clearing, construction and site restoration. Construction Contractors will participate in daily tailboard meetings at the start of each day.

If work is to be conducted after dusk and/or during evening hours, auxiliary lighting will be made available so that work may continue in a safe manner. All traffic signs related to the project will be sufficiently lit during evening work hours to maintain adequate traffic safety for the public.

5.6 Construction Worker Parking Areas

Construction worker parking areas will be within the marshalling yards and are designated on the Plan and Profile drawings provided as Attachment 1. The designated parking areas will be at locations outside of the NYS Route 27 ROW which do not interfere with the normal flow of traffic, cause safety hazards, or interfere with existing land uses.

6.0 ACCESS POINTS AND TRAFFIC CONTROL PLAN

All work within New York State highway right-of-way will be performed according to the official compilation of codes, rules and regulations of the State of New York (NYCRR), Title 17, Vol. B and the traffic and safety standards required by NYSDOT specifications, Section 619. Work within Suffolk County and the Town of Southampton ROW will be performed in accordance with the respective local agency's substantive requirements. Maintenance and protection of traffic for all construction will comply with rules and regulations included in the National MUTCD and New York supplementals and the NYSDOT Standard Specifications and Standard Details. The MPT prepared by KAG Engineering, PLLC, include plan drawings and general notes specific to the Second Cable installation, as described below, and will be used to mitigate the impacts of this construction project.

When two-way traffic is alternately placed in one lane, the traffic flow will be maintained by flag persons. Flag persons will be employed, as necessary, to direct traffic through work zones protecting motorists and pedestrians from injury and construction workers from oncoming motor vehicles. Construction signage in accordance with the MUTCD will be used to supplement flag persons. Speonk Riverhead Road will be closed from the intersection of NYS 27 Sunrise Highway to the intersection Moriches-Riverhead Road during installation of Splice Manholes 6.5 to 11.5. Construction in this area will be performed at night to minimize traffic disruption. A detour to bypass Speonk Riverhead Road during nighttime construction is detailed in the MPT, which is included as Attachment 2 of this EM&CP.

As stated below, in those areas where lane or road closures are required, and a traffic impact could result from such closure, work-week construction will be scheduled for off-peak periods (e.g., between 9:00 AM and 3:00 PM or overnight) in order to reduce congestion during the morning and evening peak traffic hours.

Points of access to NYS Route 27 have been selected to allow all construction equipment to move parallel to traffic in the NYS Route 27 travel lanes. If movement of construction equipment in a direction opposite to that of NYS Route 27 is necessary, such movement will occur only after concrete barriers with curtain panels have been positioned, as described in the MPT.

Once the Project is complete, PSEG Long Island will utilize the Periodic Maintenance and Inspection MPT Plans to access the manholes along NYS Route 27 (Sunrise Highway). These plans are provided as Attachment 3.

6.1 Road Closures

It is currently anticipated that full road closures will be along Speonk Riverhead Road and roads adjacent to the NYS Route 27 bridge over the Shinnecock Canal. West of the Canal, this would include Gate Street and Canal Road West; east of the Canal, this would include Canal Road and the entry/exit ramps at Exit 66 of eastbound NYS Route 27. The roadway configuration in that area is such that while Second Cable installation takes place under and

approaching the NYS Route 27 bridge over the Shinnecock Canal, there will not be sufficient room to provide for a single lane of traffic. Signage will be provided west of the Canal (at Newtown Road and Holzman Lane) and east of the Canal (at NYS Route 27 and County Road 39) informing motorists of the closure. Residents of the area proximate to the Canal and emergency services will be given notice of the road closure two weeks in advance. Access for emergency vehicles will be maintained at all times, by closing the open splice manhole(s) immediately in the event of an emergency.

In accordance with the provisions of the Joint Proposal, no lane closures will be permitted between 5:00 AM and 9:00 AM or between 3:00 PM and 7:00 PM. Safety and avoidance of peak travel periods may warrant nighttime construction between 7:00 PM and 5:00 AM. PSEG Long Island will make the necessary arrangement for the extension of work hours with appropriate local agencies in compliance with local ordinances. DPS Staff will be notified at least 48 hours in advance if planned weekend, evening or holiday construction should become necessary.

All construction signs will be covered or removed when the work they pertain to is not in progress. Visibility will be maintained throughout the construction activities. Temporary signs will not be placed at any location where they would be obscured by temporary or permanent objects. If work is to be conducted after dusk and/or during evening hours, auxiliary lighting will be used so that work may continue in a safe manner. All traffic signs related to the project will be sufficiently lit during evening work hours to provide adequate traffic safety for the public.

As part of the MPT, the Contractor will be required to perform maintenance and cleaning of the affected pavements within the contract limits when directed by the Construction Inspector. Maintenance cleaning means the removal of debris from any source which, in the opinion of the Construction Inspector or the Environmental Monitor(s), impedes the flow of traffic or storm water or poses a potential health and safety hazard. In the event the Contractor's construction vehicles track dirt or other debris outside the construction area and into the ROW, they will be directed by the Construction Inspector to perform maintenance cleaning. Any travel lane closed for construction will be swept clean by the Contractor before the lane is re-opened to traffic. This may require the use of mechanized street sweepers.

6.2 NYS DOT Requirements

The Project will follow additional requirements for lane closures and work hours along NYS Route 27.

- Pick plans shall be submitted for specific equipment at each manhole location for review by NYS DOT at least 30 days prior to scheduled work. Plans are to include footprint of work area, proposed equipment, and oversize material access as all work is proposed in the confines of NY27 grass shoulders.
- When it has been demonstrated that access roads are not suitable for specific equipment and/or oversize material(s), then site-specific access plans, with Work Zone Traffic Control (WZTC) plans and nighttime lighting plans shall be submitted for review and

approval by NYSDOT at least 60 days prior to scheduled work as additional FHWA review and approval may be required.

- Temporary concrete barrier placement and lane shifts will require nighttime right and shoulder lane closures. Attachment 2 – Maintenance and Protection of Traffic Plans provide details of the temporary concrete barrier placement and double eastbound lane shift located at the Bellows Pond Road overpass.
- Currently, the plans do not anticipate any daytime lane closures. If in the future it is determined that daytime lane closure is required, it will not be permitted between May 1st to September 30th. All daytime travel lane closures must be approved by a NYSDOT engineer.
- The proposed temporarily closure of Rest Area as detailed in Attachment 2 – Maintenance and Protection of Traffic Plans will not be permitted between May 1st to September 30th. Furthermore, no work will be performed on manhole 34.5, manhole 35.5, and manhole 36.5, during this time restriction.
- All work performed on manhole 38A.5 and manhole 39, which will require closure of the on-ramp, must occur after October 1st.
- With the exception to the plans already detailed/approved in Attachment 2 – Maintenance and Protection of Traffic Plan (Bellows Pond Road WZTC plan), no future lane shifts along NYS Route 27 will be allowed on weekends and the following days:
 - From noon on the Friday before Memorial Day through Labor Day;
 - Veterans Day;
 - From noon the day before Thanksgiving Day through the Sunday following;
 - Thanksgiving Day;
 - The day before Christmas and Christmas Day;
 - The day before New Years and New Years Day.
- If any equipment or vehicles were to be left overnight within 30-ft from the closest travel lane, temporary concrete barriers will be required to be installed along the shoulder as additional protection.

7.0 CLEAN-UP AND RESTORATION

Clean-up and restoration of the Second Cable construction corridor will take place as each stage of the installation is completed, with the possible exception of certain planting or seeding of vegetation, which may be delayed until a season with more favorable weather conditions. For example, once disturbed grassy areas are approved for seeding, the seeding will be conducted during optimal time periods which are approximately between March to May for spring seeding and approximately September to November for fall seeding. Seeding will not be conducted during high winds or when the ground surface is too wet or too dry to achieve proper coverage of the seed.

7.1 Removal of Construction Materials

No equipment, tools, sheathing, signs, lights, barriers or debris will be left at a completed section of the proposed cable installation route. Existing transmission facility components replaced as part of the Project will be removed from the ROW to appropriate destinations and handled appropriately for re-use as available.

7.2 Removal of Vegetation

All cleared vegetation will be chipped or removed from the point of origin. No chips will be deposited in Pine Barrens territory, park lands, wetlands, active agricultural fields, or within 50 feet of streams or drainages.

7.3 Restoration of Vegetation & Landscaping Plan

Restoration plantings of trees, shrubs, ground cover plants and turf grass seeding will take place in accordance with the Vegetation Management Plan provided as Attachment 4 of this EM&CP and the provisions of the Joint Proposal, as modified herein. Trees over two inches diameter breast height or shrubs over four feet in height that are destroyed or damaged to the extent that one quarter or more of the vegetative mass is lost will be replaced within one year by PSEG Long Island with equivalent type trees or shrubs, unless such replacement would:

- Interfere with the proper clearing, construction, operations, or maintenance of the certified electric transmission facilities;
- Replacement would be contrary to sound ROW management practices or to any applicable approved long-range ROW management plan; and
- The owner or easement holder of the land where the damaged or destroyed trees or shrubs were located (other than PSEG Long Island) declines replacement.

Construction access points that will be restored to 15-foot width and remain as access points for periodic maintenance will be revegetated in accordance with the Vegetation Management Plan provided as Attachment 4 of this EM&CP and will be fitted with gates and locks.

7.4 Plant Inspection and Maintenance

The Environmental Supervisor will conduct an inspection after completion of vegetation restoration. Tree and shrub areas will be observed to confirm proper depth of planting. Turf grass areas will be surveyed to determine degree of coverage. Unsuccessful, thin and bare patches will be replanted with topsoil and seed of the same species mix and quality. Final restoration of grass shall include grading, if necessary.

7.5 Paving Replacement

Restoration includes the replacement of any pavement that is removed or damaged as a result of construction activities. Limits of the pavement restoration have been coordinated and agreed upon with the County and municipalities and are noted in the Plan and Profile drawings.

Specific paving replacement requirements for Suffolk County owned roads include:

- 1) Asphalt will be cut back at least two feet beyond the area of disturbance. All areas of disturbance will be squared and at the full depth of roadway.
- 2) Nuclear density test for compaction will be performed and must meet a threshold of at least 98%.
- 3) Pavement replacement will have a six-inch base, four inch binder and a two inch top coarse.
- 4) Pavement markings must be replaced with thermal plastic markings.

Speonk Riverhead Road will be paved curb to curb according to the following requirements from the Town of Southampton.

- 1) All structures to be placed on a minimum bedding of six inches of RCA after compaction. Road base to be 6 inches of RCA after compaction and three and a half inches of Hot Asphalt dense binder Type 3RA.
- 2) The splice manhole structure area will be milled out to a depth of one and a half inches as well as 20 feet before the starting point and 20 feet past the termination point for the entire width of the roadway. This is to be followed by one and a half inches of Type 6 FRA Hot Asphalt top mix to meet existing pavement, flush after compaction for the length of each project. These areas will be tack coated and all joints to be Liquid AC. Line striping to be supplied if pre-existing. Work Zone Safety shall be a priority and signage and traffic control will be utilized
- 3) The pre-existing splice manhole structures in the road are to milled out to a depth of one and a half inches by eight feet wide and 20 feet before the pre-existing splice manhole structures and 20 feet past the termination point. This is to be followed by one and a half inches of Type 6 FRA Hot Asphalt top mix to meet existing pavement flush after compaction for the length of each, splice manhole structure. These areas are to be tack coated and all joints to be Liquid AC. Line striping to be supplied if pre-existing. Work Zone Safety shall be a priority and signage and traffic control will be utilized.

Paving specifications for NYSDOT Route 27 (Sunrise Highway) entrance ramp 66 shoulder will be identified prior to the start of construction.

7.6 Routine Highway Maintenance

In accordance with the provisions of the Order, PSEG Long Island will perform routine maintenance operations within the Project work limits of NYS Route 27 when NYSDOT is scheduled to perform such operations, but is prevented by PSEG Long Island's operations from performing them. PSEG Long Island's responsibility to perform these routine highway maintenance operations will extend until NYSDOT's final acceptance of the Project and the Highway Work Permit is closed.

General maintenance of highway signs and highway drainage will be the Certificate Holder's responsibility within the active work zone. In addition to general cleanup along NYS Route 27 every Friday and Monday throughout the year, mowing along the highway corridor will be required once a month during the mowing season. During emergency or storm events, the Certificate Holder will have maintenance crews secure WZTC devices and address any erosion and sediment control issues.

The extent of the Project area to be maintained by PSEG Long Island during Second Cable installation will be determined by NYSDOT based upon the accepted MPT and project design plans.

NYSDOT will be responsible for NYS Route 27 main line snow plowing and carcass removal outside the PSEG Long Island Work Permit limits.

8.0 COMMUNITY RELATIONS

To minimize and mitigate adverse impacts to the community in the vicinity of the Second Cable installation, the Project will be conducted in accordance with established notification and complaint resolution procedures.

8.1 Public Notification

PSEG Long Island, throughout the permitting and construction phases of the Project, will employ various communications tools and processes in order to keep the major stakeholders and general public informed of the Project's status. Proactive communications between all parties will assist with mitigating questions or complaints which may arise particularly during construction.

Throughout the permitting and construction phases of the Project, PSEG Long Island will maintain the following communications tools to allow for the public to have direct discourse with the utility, as well as the DPS.

8.1.1 Project Website

A website specific to the Project has been established (www.riverhead2canal.com) and will be maintained throughout the construction time period. The website contains information regarding the Article VII process and Certification, general information about construction practices, and will contain weekly construction news updates to keep the general population informed of the work, including road closures, delays and detours. A map of the Project area is present on the website.

8.1.2 Email Portal

An email portal through the website (info@riverhead2canal.com) has been established to allow for the public to seek information about the Project, as well as register any complaint due to the work. The email will be recorded in the project data registry and an answer returned within 48 hours, or the next two business days.

8.1.3 Hotline

A local hotline has been established for the Project (1-631-315-3132) and will be maintained until the completion of construction. The hotline receives either voicemail or texts, and all questions and complaints registered will be returned within 48 hours or within two business days. The hotline will contain, within its message, the telephone number and contact information for the Secretary of the Commission. Also, the hotline message will contain information about the Environmental Compliance reporting line.

8.1.4 Fact Sheet

A Fact Sheet for the Project, containing details about the Project (including its total miles, affected areas and roads, mapping, and contact information {hotline, website and email}) and the Article VII process has been created and will be used for disseminating information. The Fact Sheet will also serve as the public advertisement of the Project to be posted in public places, such as libraries, post offices and municipal buildings.

8.2 Consultation and Public Notice

Throughout the finalization of the EM&CP, and during construction, consultations with major stakeholders and the general public will continue through construction. PSEG Long Island will document those discussions with the Town of Southampton and other parties through meeting minutes, which are available upon request by the DPS.

8.2.1 Public Notices

Upon approval of the EM&CP, and the completion of the Pre-Construction Briefing, notification to the public of the commencement of construction will occur in the following formats.

1. A newspaper advertisement will be placed in the Southampton Press and the Riverhead News Review using the information included in the Certificate Conditions, and the Fact Sheet. The advertisement will be placed approximately two weeks prior to the commencement of construction;
2. A construction commencement letter will be sent to the adjacent abutting landowners to the impacted roads and corridors of the Project approximately two weeks prior to the start of work, detailing the work and the timeframe for construction. The letter will also contain a description of the authority of the DPS in the process, and ways the public can communicate with the Project (hotline, email, website), and the DPS. A Fact Sheet will be included in the mailing.
3. Communications matrix: For Suffolk County and Town of Southampton officials, as well as NYSDOT, fire, police, EMS and hospitals in the area, a communications matrix will be created to allow for quick distribution of information to a large number of stakeholders. Approximately two weeks prior, in addition to the construction commencement letter, those on the matrix will receive a start of construction notification, and subsequent weekly updates detailing the two-week look ahead for the work.
4. Public advertising: As noted in the Certificate Conditions, posters containing information about Project, based upon the Fact Sheet, will be posted in places of public interest (municipal buildings, post offices and libraries) approximately two weeks prior to the commencement of work. The posters will be based upon the Fact Sheet and will contain the information required within the Certificate Conditions.
5. Door-to-door notification: For abutting neighbors to the Project, approximately two weeks prior to commencement of work in their specific area, or to alert of potential road

closures no more than two weeks prior and no less than 48 hours prior, door-to-door canvassing will occur. The canvassing will use a door hanger containing information about the communications tools to the public, as well as the Fact Sheet. The canvasser will provide specific details about the work in the area.

6. Variable message boards: Approximately two weeks prior to the start of construction in a particular area, and the Project in general, variable message boards will be placed along the affected roadways detailing the work and providing communications portals (website, hotline) for the public to seek information, including closures, detours and timeframes.

8.3 Complaints

Throughout the construction process, abutting landowners and the general public will be granted access to communications tools (website, hotline, email portal) where they can gain information about the Project's scope and schedule. During construction, the public can register a complaint with the Project through those communications tools. PSEG Long Island will endeavor to resolve those complaints through face-to-face resolution with the landowner, and will document the resolution of that complaint. Monthly, the Project will provide the DPS a report containing the details of all contacts to the Project and the status of complaints in resolution. All project specific complaints not resolved within 30 days will be transferred to the appropriate DPS Staff for resolution with PSEG Long Island's participation.

8.3.1 Complaint Resolution Procedures

Adjoining property owners, community officials and other identified stakeholders along the proposed construction route will receive notification of the anticipated start of construction as well as the location of PSEG Long Island's Operations Center in their immediate area.

Complaints concerning the construction project will be routed to PSEG Long Island's External Affairs Office, which will fully discuss the nature of the complaint with the complainant. Thereupon, PSEG Long Island will investigate the problem and the course of action necessary to address the situation.

Upon completion of all actions with respect to the complaint, the Project Manager will record the outcome of the investigation as well as the resolution program, and file completed forms with the DPS Staff upon project completion.

PSEG Long Island will organize and conduct site compliance audits during the access point clearing, cable installation and site restoration phases of the project. These audits will be held along the project route on a monthly basis prior to energizing the Second Cable and at least semi-annually for at least one year after the project is fully energized. In addition to a field review of the project, the audit agenda will include a review of all complaints received and their proposed or actual resolution. Any substantive comments, concerns, or suggestions made by the public, local governments or State agencies will also be reviewed at the monthly audits.