A. INTRODUCTION

PROPOSED ACTION

The Long Island Power Authority (LIPA) provides electric service to most of Long Island and a small portion of New York City. Included in the LIPA service area are the North and South Forks of Long Island (i.e., the East End) in Suffolk County. In order to meet current and future service needs (i.e., the projected growth in demand for electricity) as well as to ensure system reliability, LIPA periodically proposes improvements and upgrades to its transmission system. Based upon demand forecasts, LIPA has identified the need to increase transmission line capacity between the Village of Southampton and Bridgehampton hamlet by the summer of 2008. This Southampton to Bridgehampton Transmission Line and Expansion of Bridgehampton Substation Project (the Proposed Action) would add a new single circuit 69 kilovolt (kV) transmission line that would meet projected future growth and increase reliability for residents and businesses in the Village and Town of Southampton as well as for residents and businesses across the South Fork. To accommodate the new transmission line, the Proposed Action includes an upgrade and expansion of the Bridgehampton Substation on the same LIPA-owned parcel as the current substation. The existing distribution substation and new transmission substation would both operate.

The focus of this Environmental Impact Statement (EIS) is the evaluation of all four alternative routes (described below) and configurations of underground and overhead lines that could be installed along those routes. Figures 1-1 and 1-2 depict each of the routes considered for the new line.

This Draft EIS (DEIS) has been prepared to identify and analyze the potential impacts of these alternatives pursuant to the requirements of the State Environmental Quality Review Act (SEQRA). The main body of the EIS evaluates and analyzes the Direct Route Alternative while the alternatives chapter evaluates and analyzes the remaining three alternatives. For each of the four alternatives, the reasonable worse case is analyzed in each of the technical sections in order to disclose all potential impacts to the decision makers. The assumption of the reasonable worse case in the EIS does not imply that decision makers would have to choose that configuration.

This Project Description chapter of the EIS contains a discussion of: the public purpose and need for the proposed project; alternative routes and configurations considered; agency actions, permits, and approvals; construction schedule; and public outreach efforts.

B. PUBLIC NEED AND PURPOSE

INTRODUCTION

To meet anticipated future load growth within the eastern portion of the Town of Southampton and the South Fork, and to address system reliability, LIPA has determined that a new 69 kV transmission supply would need to be established between the Southampton and Bridgehampton Substations. In addition to the new line, the Bridgehampton Substation would need to be upgraded and expanded to accommodate the new 69 kV line. The proposed project would eliminate the potential for thermal overloads and the potential voltage collapse of the South Fork system caused by the limitations of the existing Southampton to Bridgehampton 69 kV double circuit line. Further, the proposed project would ensure sufficient electrical capacity for the expected continued load growth on the South Fork through the year 2025. Once completed, the new 69 kV line would be able to sustain the forecasted future load growth and would increase system reliability. In addition, the third transmission line would increase the reliability of electric supply on the East End. If the existing transmission lines were damaged, the new transmission line could still supply electricity. If the new transmission line is not operational by summer 2008, the current South Fork system would have to be operated at extremely high loads. The high loads create a greater risk of voltage collapse (power outages and blackouts) in that part of LIPA's eastern service area, and even increase the possibility that outages could cascade back into other Towns within the district, including East Hampton, Southold, Shelter Island, Riverhead, and Brookhaven.

UPGRADES

The design of the entire South Fork transmission system, including the existing 69 kV double circuit transmission line from Southampton Substation to Bridgehampton Substation, has been the subject of several studies, and resulting improvements, by LIPA. Since 1999, various transmission and distribution system reinforcements have been made that enabled the South Fork system to accommodate the increase in demands over the past several years including the record demand of 236 MW experienced in August 2006. As a result of continued area improvements, there has been reduced dependence on voltage load shedding schemes that have been developed in the past as a contingency to protect the system from collapse.

Going back to as early as 1999, LIPA determined that there would be a need for South Fork reinforcements in the 2008 to 2010 time frame. Options considered at that time included a new 138 kV line (initially operated at 69 kV) from Southampton eastward to either the Bridgehampton Substation or to the Buell Substation (located in the Town of East Hampton). Future conversion to 138 kV operation and installation of new 138/69 kV transformers were also considered. Updates to analyses were performed periodically to account for the changes to the East End system and the higher than expected load growth. In 2005, the analysis of the above mentioned various options resulted in the selection of the proposed project as currently configured for the 2008 time frame. This option determined that the design and construction should be at 69 kV. In the spring of 2007, planning for the proposed project commenced.

LIPA continues to evaluate the transmission expansion plans on the South Fork and the East End. This ongoing evaluation considers the changing long-term needs of the area over the next 20- to 30-year period.

PROJECTED GROWTH IN ELECTRIC DEMAND

Peak demand for power on LIPA's service territory, including the South Fork, has been increasing steadily in recent years. Demand on the South Fork has increased over the last six years (between 2000 and 2006) by an average of 5.2 percent. KeySpan's Electric System Planning Group has forecasted demand to increase on the South Fork at an annual average of about 3.3 percent through 2025. This growth rate is almost double the 1.7 percent annual growth rate in electric demand projected for the remainder of LIPA's service territory. This growth in peak demand is greater than the existing electrical transmission system on the South Fork can sustain.

Development within the Town of Southampton is increasing at a rapid pace. Based on population projections made by the Long Island Regional Planning Board (LIRPB) in July 2004, the Town of Southampton population is expected to grow 35 percent during a 25-year period from 2000 to 2025 (an annual growth rate of 1.4 percent). The population of the Town in 2000, according to the US Census, was 55,216 and the forecasted population in 2025 is 74,347. Further, population within the Town of East Hampton is expected to increase by 31 percent over the same period (an annual growth rate of 1.2 percent). In contrast, Suffolk County as a whole is expected to grow 20 percent over the 25 year period from 2000 to 2025 (an annual growth rate of 0.8 percent). The South Fork growth rate, based on the LIRPB population projections, is more than triple that expected for Suffolk County as a whole. A major portion of the new load growth on the LIPA system within the Town is expected to be from residential development.

SYSTEM RELIABILITY

In addition to load growth, the reliability of the 80-year-old 69 kV transmission system is a major concern. The system experienced a total of 24 breaker trips between 2000 and 2007. Approximately 13 percent of the trips were caused by equipment and grounding problems, including insulator and static wire failures and 67 percent of the trips were unknown or nothing was found during line patrols. The South Fork transmission system will experience thermal overloads and voltage collapse, resulting in blackouts for various East End electric outages unless reinforcements are made to the system. A loss of the existing double circuit infrastructure between the Southampton and Bridgehampton Substations would create severe transmission circuit overloads and voltage problems on the South Fork system. Specifically, the loss of this line west of Deerfield could cause the Jamesport to Peconic 69 kV circuit to reach 118 percent of its long term emergency (LTE) rating and 108 percent of its short term emergency rating. In addition, the Southold to Buell 69 kV cable would reach 116 percent of its LTE rating. A loss of the existing double circuit line would also cause service interruptions on the East End, including the Towns of East Hampton, Riverhead and Southold as well as areas outside of the East End, including the Town of Brookhaven.

Transmission supply interruptions, especially those of a sustained nature, impact public health and traffic safety. The problems associated with blackouts were evidenced by the power failure on August 14/15 2003. The blackout led to large public costs and loss of output in the private sector.

The proposed project would minimize the risk of blackouts and brownouts and ensure system reliability by providing transmission capacity that is independent of the existing transmission system. This proposed project would also alleviate the potential for load shedding as well as reduce the reliance on local electric generation and the need for shunt capacitors, which could be needed to ensure system reliability if the project were not built. Moreover, the proposed project

would enhance the delivery capability of the South Fork transmission system and act as a strong source to support the South Fork electrical load growth.

CONCLUSIONS

To meet anticipated future load growth within the eastern portion of the Town of Southampton and the South Fork, and to address system reliability, LIPA has determined that a new 69 kV transmission supply is needed between the Southampton and Bridgehampton Substations. In addition to the new line, the Bridgehampton Substation would need to be upgraded and expanded to accommodate the new 69 kV line. The proposed project would eliminate the potential for thermal overloads and the potential voltage collapse of the South Fork system caused by the limitations of the existing Southampton to Bridgehampton 69 kV double circuit line. Further, the proposed project would ensure sufficient electrical capacity for the expected continued load growth on the South Fork through the year 2025. Once completed, the new 69 kV line would be able to sustain the forecasted future load growth and would increase system reliability. In addition, the new transmission line would increase the reliability of electric supply on the East End. If the existing transmission lines were damaged, the new transmission line could still supply electricity. Without the addition and expansion discussed above, customers in the Towns of Southampton and East Hampton, and the East End as a whole, will likely be exposed to increasingly frequent service interruptions in the future and the expected load growth could not be sufficiently met. Further, without the proposed project, areas west, including the Town of Brookhaven, could also experience severe service interruptions.

C. PROJECT DESCRIPTION

TRANSMISSION LINE

The proposed project would consist of either an overhead transmission line, underground cable, or a combination of the two approaches. The new transmission line could exit the Southampton Substation in two ways. The first is overhead to the Long Island Rail Road (LIRR) right-of-way, and the second is underground to North Sea Road. The overhead exiting from the Southampton Substation above ground would require that the existing wood mono poles (approximately 57 feet above grade and 19 inches in diameter at the base) be replaced with 61 foot (above grade) steel mono poles, approximately 30 inches in diameter at the base. The steel poles would be neutral gray in color. Due to LIRR safety requirements, poles along the LIRR right-of-way have to be taller than standard transmission poles. The remainder of the new transmission line design would utilize wood mono poles for any portion of the line that is above ground. The typical new pole would be approximately 48 feet tall (above grade) and 22 inches in diameter at its base (tapering to 12 inches in diameter at the top of the pole). The number of poles installed along the new route would depend on the length of the route that would have overhead lines, as opposed to an underground configuration, as well as the particulars and length of the route selected for installation. Below the transmission line, existing distribution wires (where they exist) would be transferred from existing shorter poles. Other facilities such as telephone, cable, and fire alarm, if so attached to the existing shorter poles, would also be transferred to the new poles by the respective utility owner. According to the National Electric Safety Code (NESC), all poles on the South Fork must be designed to withstand 120 mile per hour (mph) winds. However, LIPA has recently adopted a more stringent transmission design criteria for poles of 130 mph winds (a Category 3 hurricane) and would thus construct new replacement poles to withstand this wind

speed. The second way of exiting the Southampton Substation is referred to as the Village underground option, and the transmission line would be underground as it reaches and follows North Sea Road.

The underground system would consist of a manhole and duct system having three high density polyethylene conduits installed approximately 4 feet below grade in a triangular fashion along the route. Within each conduit, a 69 kV solid dielectric cable would be installed. Manholes would be spaced accordingly throughout the route tying conduit ends together providing a work location for splicing cable ends. At the end of each underground cable segment, an underground to overhead transition riser pole would be installed where transitions are necessary. These riser poles would be wood and approximately 61 feet above grade with the underground cable attached to three sides of the pole. The cables would be covered with protective covering, (i.e., steel U-shaped guards).

The underground trench required for installation of the cable would be approximately 2 to 3 feet wide by 4 to 6 feet deep.

SUBSTATION

The expanded substation, Bridgehampton 9RT, would be installed on the current Bridgehampton Substation parcel north of the existing substation, Bridgehampton 9R. The substation expansion site plan is provided as Figure 1-3. This approximately 10-acre parcel is located on the west side of Bridgehampton Sag Harbor Turnpike, approximately 0.4 miles north of Scuttle Hole Road on the Suffolk County Tax parcel identified as District 900, Section 39, Block 27, Lot 1.

Construction of the new transmission substation would include the installation of a 4-legged, 69kV breaker and a half bus arrangement with provisions for a future fifth leg. Development of the new transmission substation would require clearing and grading on the proposed transmission substation site as well as construction of an access road to the proposed substation site. In addition, culverts to handle storm water run-off for the on-site streams would be installed. The new substation footprint would be approximately 204 feet by 730 feet (148,920 square feet or 3.4 acres) and would accommodate five 69kV line terminals for four existing LIPA lines from the East Hampton, Buell and Deerfield (2) Substations plus the new transmission line from the Southampton Substation.

ALTERNATIVE ROUTES AND DESIGNS

Regardless of the route and configuration selected (overhead, underground, or a combination of both), all existing transmission and distribution lines and poles would remain. However, along the selected route where an overhead configuration is selected, the distribution lines would be transferred and attached to the new mono poles, and the old poles would be removed and properly disposed.

All of the four alternative routes described below includes the Village underground option, which would place the proposed transmission line underground within the Village of Southampton. The Village underground option is described after the description of the four alternatives below.

In addition to the alternative routes and designs discussed below, this EIS also analyzes a No Action Alternative as well as a Demand Side Management Alternative. The No Action Alternative would analyze the 2008/2009 build conditions without the proposed project while

the Demand Side Management Alternative would consider conservation methods to reduce demands on the East End to eliminate the need for the proposed project.

EXISTING LINE ALTERNATIVE

The Existing Line Alternative would consider a new transmission line (approximately 8.3 miles) along the same route as the existing transmission line easements between the Southampton and Bridgehampton Substations. This route would exit the Southampton Substation and follow Prospect Street for a short distance, and then turn north and northeast, following the existing double circuit transmission line. The existing 69 kV double circuit line that utilizes steel four-legged lattice towers would remain and the new transmission line would be installed adjacent to this line in the existing right-of-way. The existing lattice towers that run parallel to the LIRR right-of-way would also remain and new steel 61-foot mono poles, approximately 30 inches in diameter at the base would be constructed in this vicinity to accommodate the new transmission line and connect to the Southampton Substation. The remaining poles would be wood and about 48 feet above grade.

The configuration for this alternative would be an all underground transmission line due to the constraints in the width of the easements and reliability rules. For safety purposes, good engineering practices require a certain physical separation between the transmission lines. These separations cannot be achieved within the existing easements, and therefore limit the potential to construct the proposed project overhead along this route. There is not enough physical space along the existing easements to achieve the required wire clearances without creating aerial encroachments on the surrounding property. Even underground, all of the easements would have to be renegotiated because the existing easements are for overhead transmission lines only. In addition, all three transmission lines would be in the same corridor, and one incident could disable all three lines. Rules for reliability do not allow for this type of configuration and redundancy, which is an important component of the South Fork area needs, would not be provided.

The existing easements are for above ground transmission lines and therefore, each of the individual easements would have to be renegotiated to allow for underground installation. LIPA may not be able to complete the renegotiation process within the time frame needed to provide an operational additional transmission line by summer 2008. This alternative would include a Village underground option, which is described below.

DIRECT ROUTE ALTERNATIVE

The Direct Route Alternative would follow existing roadways between the two substations for about 8.4 miles. Starting at the Southampton Substation, this route would follow the LIRR right-of-way to David Whites Lane to Seven Ponds Road to Lower Seven Ponds Road to Head of Pond Road to Scuttle Hole Road (Huntington Path) to Bridgehampton Sag Harbor Turnpike to the Bridgehampton Substation. Four configurations are associated with this alternative, including all overhead; all underground; overhead in residential areas and underground in agricultural areas; and overhead in agricultural areas and underground in residential areas. The poles to be installed along the LIRR right-of-way would all be overhead. There are currently 250 existing wood distribution mono poles along this specified route that are between 30 and 35 feet above grade and approximately 16 inches in diameter at the base. In an all overhead configuration, each of these wooden poles would be replaced with new wooden poles. The

typical replacement pole would be about 22 inches in diameter at the base and about 48 feet above grade. Taller wood poles, about 61 feet above grade and 22 inches in diameter at the base, would be utilized for riser poles (i.e., poles that are installed at the end of the underground segment, acting as a transition from underground to overhead lines) and installed at turns along the route and road crossings. The existing distribution lines that supply electricity to residences and businesses along the route would be transferred to the new transmission poles and remain at about the same height as current conditions, while the new transmission lines would be accommodated in the approximately 10 feet above the distribution lines. In addition, the 22 existing wood poles (about 57 feet above grade and 19 inches in diameter at the base) that exit the Southampton Substation and traverse the LIRR right-of-way, would be replaced with steel mono poles about 61 feet above grade and 30 inches in diameter at the base.

For the all underground configuration, the existing wood distribution mono poles would be retained to accommodate existing distribution lines. For the hybrid (overhead and underground combination) configuration, the existing wood distribution mono poles would be replaced with the new wooden poles in the areas where the transmission lines are proposed overhead and the existing wood distribution mono poles would be retained in the areas where the transmission line would run underground. LIPA has proposed to place about 50 percent of the Direct Route Alternative underground. This alternative would include a Village underground option, which is described below.

LIRR ROUTE ALTERNATIVE

This alternative would consider the installation of the proposed transmission line along the LIRR Montauk line right-of-way from the Southampton Substation to Bridgehampton Sag Harbor Turnpike and then north along this roadway to the Bridgehampton Substation. This alternative is about 8.2 miles in length. Similar to the Direct Route Alternative, this alternative would replace the existing 57 foot wood mono poles with 61 foot steel mono poles inside the Village. The remainder of the proposed line would likely utilize poles ranging from 61 to 75 feet (above grade) steel poles 30 to 34 inches in diameter with the exception of the poles to be installed along the Bridgehampton Sag Harbor Turnpike. These poles would be about 48 feet above grade. The increased pole height along the LIRR right-of-way (greater than 61 feet) feet would be required to span existing overpasses where there are clearance issues (i.e., Head of Pond Road and Butter Lane). Outside of the Village of Southampton, there are no existing distribution poles along the LIRR right-of-way, and therefore, all of the poles along this right-of-way would be new. Similar to the Existing Line Alternative, there is limited space along the LIRR right-of-way for installation of the new transmission line.

The configuration under consideration for this alternative is to construct the entire proposed line overhead along the LIRR right-of-way and hybrid overhead and underground along Bridgehampton Sag Harbor Turnpike. For the underground configuration along Bridgehampton Sag Harbor Turnpike, the existing wood distribution mono poles would be retained to accommodate existing distribution lines. For the overhead/underground configurations, the existing wood distribution mono poles would be replaced with the new wooden poles in the areas where the transmission lines are proposed overhead and the existing wood distribution mono poles would be retained in the areas where the transmission line would run underground. This alternative would include a Village underground option, which is described below.

MONTAUK HIGHWAY ALTERNATIVE

The Montauk Highway Alternative, the longest route considered (approximately 9.5 miles), would exit the Southampton Substation, follow the LIRR right-of-way to CR 39 to Montauk Highway to Bridgehampton Sag Harbor Turnpike and then turn north along the roadway to the Bridgehampton Substation. The typical pole along this route would be approximately 48 feet above grade with the exception of the poles along the LIRR right-of-way, which would be 61 feet above grade. Similar to the Direct Route Alternative, taller poles (approximately 61 feet above grade) would be required at turns along the route and road crossings as well as for riser poles. There is one area along Montauk Highway Alternative within Water Mill, approximately 2,000 feet long, that does not currently have existing distribution poles and therefore poles within this section would be new. The configuration of this line along the LIRR right-of-way and Montauk Highway would be all overhead. Along Bridgehampton Sag Harbor Turnpike, the transmission line would be a combination of overhead and underground. An all-underground line along this route was not considered because of the length of the route and resultant cost. If an all underground configuration were chosen, a shorter, less expensive route would be selected. As with the other alternatives, in areas where the transmission lines were underground, the existing wood distribution mono poles would be retained to accommodate existing distribution lines. This alternative would include a Village underground option, which is described below.

VILLAGE UNDERGROUND OPTION

Each of the four alternatives described above include the Village underground option. This option would place the proposed transmission line underground within the Village of Southampton from the Southampton Substation to North Sea Road to Wiltshire Street to the point where each alternative intersects the buried portion of the line, i.e., the line would follow Wiltshire Street to CR 39 to the LIRR tracks. Specifically, for the Existing Line Alternative, the Village underground option would stop at the intersection of Wiltshire and the existing transmission right-of-way, where the proposed line would then be overhead or underground. For the Direct Route Alternative, the Village underground option would stop at the intersection of CR 39 and David Whites Lane, where the line would then be overhead or underground. For both the LIRR Route and Montauk Highway Alternatives, the Village underground option would stop at the intersection of CR 39 and the LIRR right-of-way. See Figure 1-1 for a depiction of the Village underground option.

COSTS

A wide cost differential exists between overhead lines and underground lines. These costs can be divided into three categories: (1) the capital cost for installation of the electric line, (2) cost to maintain the electric lines, and (3) cost to repair the electric lines. The capital cost difference between overhead and underground lines ranges between the underground lines being 3 to 10 times more expensive on a per mile basis at utilities across the country[1]. Based on LIPA's experience over the past few years throughout Long Island, an underground transmission line is about 4 to 5 times more expensive to install than an overhead line. The total cost for the project includes both the transmission line and the expansion of the substation, and the cost of the

[1] Johnson, Brad *Out of Sight, Out of Mind? A study on the costs and benefits of undergrounding overhead power line* (Washington, D.C.: Edison Electric Institute, January 2004).

substation expansion does not vary with an overhead or underground transmission line. Therefore, the total project cost if the transmission were underground is about 3.5 times more expensive than if the transmission line were overhead, because of the substation expansion cost. For the Southampton to Bridgehampton transmission line, the cost differential between overhead and underground installation is expected to be about the same as the systemwide average.

Generally, overhead lines have a minimum life of about 40 years compared to the expected minimum life of about 25 years for an underground line. The newer, solid dielectric cables have a shorter working history than with the older, oil-cooled cables that were previously installed by LIPA, but based on the limited experience, the newer cables are expected to have a life span equal to overhead lines. Whether this is borne out with more experience remains to be seen.

As noted, LIPA's primary experience with underground transmission lines is based only on the older, oil-cooled cables. Those cables have mechanical equipment to pump the oil and other pieces of equipment that require more maintenance than the newer underground cables. New underground cables are typically inspected once a year. Overhead cables, which are inspected yearly from the air with infrared photographic equipment, and also require tree maintenance and vegetation clearing are somewhat more expensive to maintain than new, non-oil-cooled underground cables.

The cost of repairs varies greatly depending on the cause of damage to the transmission line. Based on a simple break in a transmission line and using the costs for individual work tasks with outside contractors, repair to an underground line is about 10 times more expensive than repair to an overhead line. Based on past experience[1], the failure rate of LIPA's overhead transmission lines is about 2.25 times greater (more often) than for underground lines.

In summary, underground lines are about 4 to 5 times more expensive to install and about 10 times more expensive to repair than overhead lines, which is partially offset by a higher failure rate and higher maintenance costs of overhead transmission lines. These increased costs are borne by all LIPA rate payers, not just those in the vicinity of the underground lines.

INVOLVED AND INTERESTED AGENCIES

- New York State Department of Environmental Conservation
- New York State Public Service Commission
- New York State Department of State
- New York State Office of Parks, Recreation and Historical Preservation
- New York State Department of Transportation
- New York State Department of Agriculture & Markets
- Suffolk County
- Suffolk County Department of Health
- Suffolk County Department of Planning
- Town of Southampton
- Town of Southampton Planning Board

[1] KeySpan *LIPA Transmission System Expansion Overhead vs Underground Analysis* (KeySpan Electric Service, LLC, Hickville, New York, May 2003).

- Village of Southampton
- Long Island Rail Road

AGENCY ACTIONS, PERMITS, AND APPROVALS

A number of actions are needed prior to operation of the proposed line. These include:

Long Island Power Authority:

- Selection of route.

New York State Department of Environmental Conservation (NYSDEC)

- Review of plans for conformance with existing general permit for construction within freshwater wetlands and buffer areas;
- Notice of Intent for disturbance of more than one acre during expansion of the Bridgehampton Substation.

CONSTRUCTION SCHEDULE

It is expected that construction of the transmission line component of the proposed project would commence in March 2008 and be fully operational in June 2008. The new transmission line would be connected to the existing Bridgehampton distribution station while the transmission substation is under construction. The construction of the substation expansion would commence in June 2008 and be fully operational in June 2009.

PUBLIC OUTREACH

LIPA has conducted an extensive public and agency outreach and participation process in association with the Proposed Action. The purpose of the public and agency outreach process was to encourage communication among all interested entities regarding the development of alternatives and configurations. Provided below on Table S-1 is a summary of meeting and outreach efforts conducted to date. In addition, LIPA utilized local and regional newspapers and direct mailings to notify interested entities of any public meetings.

In accordance with SEQRA, an optional public scoping meeting was held on September 18, 2007. As part of the scoping process, LIPA sought public input on the Draft Scope of Work for the EIS. Written and oral comments from interested individuals, organizations, agencies, and elected officials were received at the public scoping meeting and subsequent to the meeting until 5:00 PM on Tuesday, October 2, 2007. Comments were reviewed and where appropriate, incorporated into a Final Scope of Work, which was sent to all commenters and made available in local libraries and on LIPA's website. The Final Scope of Work, adopted by LIPA on October 25, 2007, was used to develop this EIS.

Table S-1
Public and Agency Outreach Efforts

Date	Outreach Audience	Purpose
March 9, 2006	Town of Southampton	Discuss alternatives
June 8, 2006	Town of Southampton	Discuss alternatives, site tour
August 11, 2006	Town of Southampton	Discuss alternative configurations
February 12, 2007	Watermill Citizens Advisory Committee (CAC)	Present project
February 26, 2007	Bridgehampton CAC	Present project
March 5, 2007	Town of Southampton	Discuss Bridgehampton Substation property
March 8, 2007	Southampton CAC	Present project
March 19, 2007	Village of Southampton	Present project
March 26, 2007	Our Lady of Southampton School	Present project
April 2007	Watermill CAC	Present Project
June 25, 2007	Elected officials from the Town and Village of Southampton and Assemblyman Fred Thiel	Discuss project
August 21, 2007 (Public Meeting)	Elected officials and residents within 500 feet of each considered alternative	Present project
August 24, 2007	Southampton Town Planning Board	Discuss lead agency designation and project
September 18, 2007	Elected officials and residents	Present information to be incorporated into the EIS
September 2007	Southampton elected officials	Discuss project
October 29, 2007	Watermill CAC	Discuss project
October 30, 2007	Southampton Town and Village representatives	Discuss project

D. POTENTIAL IMPACTS OF THE PROPOSED PROJECT

LAND USE AND COMMUNITY CHARACTER

The new transmission line (whether overhead or underground, or a hybrid) and expanded substation would be consistent with current and anticipated future land use conditions and would have no significant adverse land use impacts. Additionally, the Direct Route Alternative would have no significant adverse impact on the health, safety, or welfare of the community or residents, nor would it result in an undesirable change in the character, or the environmental conditions of the surrounding neighborhood or nearby properties. The Direct Route Alternative would be constructed along a preexisting distribution route along the existing right-of-way, therefore avoiding the need for disturbance or clearance in the region. This right-of-way has historically been used for utility purposes, and therefore would not conflict with the existing and future land use patterns in the area. The distribution line has coexisted with the agricultural,

residential, and other uses located along the route for more than 80 years. There is currently no evidence that these utility uses have an adverse impact on farming functions or residential uses. The uses along and surrounding the proposed transmission line, whether the line was constructed overhead or underground, would continue to function in the same capacity without an impact from the Direct Route Alternative. The transmission line with the Direct Route Alternative would have no significant adverse impacts in terms of land use and community character.

The Bridgehampton Substation and proposed expanded substation are located in close proximity to open space. LIPA has proposed to maintain natural buffers around the perimeter of the site to prevent any adverse impact on the surrounding scenic vistas. The proposed substation would also be gated for safety purposes. The proposed substation would generally not be visible from the roadway. Moreover, the lot has historically been used as a substation and would therefore continue to be compatible with surrounding uses. The substation expansion would have no significant adverse impacts in terms of land use and community character.

Furthermore, LIPA may bury all or part of the transmission line. Any underground portions of the transmission line, including the Village underground option, would not result in significant adverse impacts on land use and community character (including scenic vistas)[1] within the study area.

COMMUNITY FACILITIES AND OPEN SPACE

COMMUNITY FACILITIES

The Direct Route Alternative would not result in any significant adverse impacts on community facilities and emergency services regardless of the configuration selected (above ground, underground, or a combination of overhead and underground). In fact, the Direct Route Alternative could improve emergency responsiveness by ensuring a stronger transmission infrastructure. In addition, the Direct Route Alternative would replace pre-existing distribution lines and therefore would not introduce a new use to the area and would therefore not impact community facilities. By utilizing an existing distribution route, LIPA would avoid disturbing existing community facilities and services. In addition, the expanded substation would be sited on the same lot as the existing Bridgehampton Substation and therefore not significantly increase the demand on community facilities and emergency services.

The transmission line would be constructed along the same route as the existing distribution lines, and LIPA has proposed to construct about 50 percent of the line underground. The expanded substation would be sited on the same lot as the existing Bridgehampton Substation. Therefore, the Direct Route Alternative would continue a pre-existing use that has coexisted with community facilities, as well as agricultural, residential, and commercial lands for more than 80 years. Moreover, the new transmission line and expanded substation would provide for future growth and increase reliability of electric service for area residents and businesses.

Any underground portions of the transmission line, including the Village underground option, would not result in significant adverse impacts on community facilities and emergency services.

[1] The Direct Route Alternative with the entire line constructed above ground, or hybrid overhead and underground would not result in any significant adverse visual impacts or scenic vistas.

OPEN SPACE

The preservation of open space parcels would not be affected by the proposed transmission line or expanded substation whether the transmission line is overhead, underground, or hybrid. The preservation of these properties has occurred in the past and would be expected to occur in the future with the Direct Route Alternative.

The Direct Route Alternative would not conflict with State, County, and local open space policy goals and objectives and would not have a negative impact on any identified parcels for preservation that are identified in these policy documents.

The Direct Route Alternative would not have any significant adverse impacts with regard to preservation of open space or complying with open space acquisition plans. Any underground portions of the transmission line, including the Village underground option, would not result in significant adverse impacts on open space.

ZONING AND PUBLIC POLICY

ZONING

In relation to zoning, under well-established case law doctrine and based on language in its enabling statute, LIPA is not obligated to seek local zoning approvals. However, if the Direct Route Alternative were subject to local zoning regulations within the Town and Village, the transmission poles to be installed and new substation equipment may be considered structures as defined by the Town's and Village's zoning ordinance, and therefore would be subject to the Town's and Village's use and bulk restrictions. All districts along the route permit the construction of utility structures by special exception.

Previous applications for substation approval have resulted in the New York State Office of General Services (NYSOGS) informing LIPA that substations do not fall within the agency's definition of a structure, and therefore would not require a building permit. It can also be assumed that NYSOGS would not identify poles as structures since they are not a habitable facility. Thus, no permits are required from NYSOGS. However, if LIPA were subject to local zoning, the Direct Route Alternative would require site plan approval for both the poles and the substation expansion. The Direct Route Alternative would conform to the Town's and Village's requirements of the conditions for site plan approval, if such approval were required.

As stated, if LIPA were subject to local zoning, the Direct Route Alternative would require a special exception permit for the pole replacement. In addition, a height variance ranging from 8 to 29 feet would be required for all districts along the route. The maximum height permitted in the Town's zoning districts in which the Direct Route Alternative is located is 40 feet and the minimum height permitted is 32 feet. A height variance of 26 feet would be required for all districts along the route within the Village. The existing 57-foot poles would be replaced with 61-foot poles, increasing the pole height by 4 feet. An additional 4 feet would not cause a detriment to the Village or materially change the views along this corridor. The Town and Village both empower the Board of Appeals to grant variances to the zoning chapter of the Village Code

Even in the absence of LIPA's status as a State public authority, the transmission line and substation expansion with the Direct Route Alternative would be consistent with the existing uses on and along the existing distribution line right-of-way and within the ½-mile study area as presently zoned and, therefore, would not have a significant adverse impact on zoning and land

use in the study area whether the transmission line is overhead, underground, or hybrid, including the Village underground option.

PUBLIC POLICY

The Direct Route Alternative is the development of a new transmission line that would meet the forecasted energy demands for the South Fork and therefore is consistent with regional energy plans that promote the reliable transfer of energy. The Direct Route Alternative would ensure that energy transmission is clean, equitable, and addresses the energy needs of the area in a manner that is environmentally sound. In addition, this project would meet the expected energy needs for the area as projected in Town and regional plans.

The preservation and enhancement of visual resources and scenic vistas is a stated policy goal in reports published by State, regional, County, and local municipalities. Currently, the Direct Route Alternative contains existing distribution lines. Installation of the new transmission line above ground would not alter the location or presence of the existing distribution lines. Nevertheless, LIPA has proposed to place about 50 percent of the Direct Route Alternative transmission line underground, along this route. The Direct Route Alternative would not have a significant adverse effect on visual resources within the study area. The proposed Direct Route Alternative would replace a pre-existing distribution line and therefore would not introduce a new use to the area. In addition, the expanded substation would be sited on the same lot as the existing Bridgehampton Substation, thus remaining consistent with existing uses on the lot. The Direct Route Alternative would retain the existing vegetated buffer around the Bridgehampton Substation.

Additionally, the Direct Route Alternative would not significantly affect natural resources, including flora, fauna, surface water, groundwater, topography, and soil. LIPA will continue to work with the Town and Village to determine which portions of the line would be placed underground. LIPA has proposed to pay for and place underground cables along about 50 percent of the Direct Route Alternative within the study area and reduce the overall impact on street trees. LIPA would, where practicable, avoid the removal of street trees.

The Direct Route Alternative would be located along an existing road right-of-way and would not interfere with future development of new transportation projects. In the event of widening projects (e.g., CR 39 road widening, which is just west of the Direct Route Alternative), it is expected that the appropriate agency would coordinate with LIPA should the road right-of-way be affected or included in such a project. The Village underground option would intersect the CR 39 road widening at North Sea Road. LIPA would coordinate with Suffolk County Department of Public Works to avoid construction overlap.

Although there are no current proposals for the development of the recommended joint-use corridor or new highway along the LIRR right-of-way, there is a possibility that the Town may proceed with the construction of the proposed joint-use corridor or new highway along the LIRR right-of-way in the future. The Direct Route Alternative would not, however, prevent the construction of the proposed joint-use corridor because most roadways within the Town maintain utility lines along the adjacent road right-of-way. Further, the Direct Route Alternative would not be located along the LIRR right-of-way where the joint-use corridor is proposed.

The Direct Route Alternative would not have a significant adverse impact on public policy whether the transmission line is overhead, below ground, or hybrid, including the Village underground option.

COASTAL ZONE MANAGEMENT (CZM)

The CZM program encourages coordination among all levels of government to promote sound waterfront planning and requires consideration of the program's goals in making land use decisions. The New York State Department of State (NYSDOS) administers this program at the State level. State agency actions along the state's coastal area are required to be consistent with the state's coastal policies.

The proposed transmission line would be consistent with the policies of the New York State Coastal Management Program. The Direct Route Alternative would be located inland away from the waterfront and would allow LIPA to meet future energy demands while providing a reliable supply of energy.

VISUAL RESOURCES

Views of the transmission line would vary throughout the study area as a function of topography, vegetation, and built structures, including existing utility poles. The Direct Route Alternative, as it is proposed, includes above ground and underground configurations. LIPA has proposed to install underground cables along about 50 percent of the Direct Route Alternative. However, the precise location of the underground portion of the route has not been determined. Therefore, for the purposes of a conservative "worst case" analysis, assessment of impacts assumed that the entire transmission line would be aboveground.

In general, as a result of the proposed transmission line, there would be an incremental increase in height over the existing poles. This height increase would not be significantly more visible over longer distances. The incremental height and the overall height of the replacement poles would not be considered significantly visible, especially taking into account the effects of atmospheric perspective and intervening vegetation or structures. Furthermore, even if overhead transmission line was not installed, the Direct Route Alternative would still include views of existing poles and utility lines. The replacement of the existing poles with incrementally higher poles, along with the addition of a new single transmission line, would result in minimal changes to views because the existing utility lines are already visible from most locations that would have visibility of the proposed Direct Route Alternative transmission line.

This analysis is based on an all overhead line configuration. If portions of the transmission line are buried, riser poles would be used to transition from above to below ground. While the riser poles have an appearance that is more obtrusive than standard utility poles, they would be placed in locations that minimize their prominence in the surrounding landscape, to the extent possible.

The analysis of visual resources found that of the total 106 visual resources identified in the study area, the proposed poles associated with the Direct Route Alternative (assuming the entire route were to be overhead) would be visible or potentially visible from 33 of those 106 resources, which are listed below. The Direct Route Alternative transmission line and/or Bridgehampton Substation expansion would be visible from the following existing or proposed resources:

- Southampton North Main Street Historic District
- Southampton Village Historic District & Expansion
- Eastern GEIS/Great Swamp
- Long Pond Greenbelt (Community Preservation Fund Parcels)
- Paumanok Path

- Morton-to-Kellis Pond Trail
- Trout Pond to Brick Hill Trail
- Brick Kiln Woods
- Bay-to-Ocean Trail
- Blank Lane
- Brick Kiln Road
- Bridgehampton Sag Harbor Turnpike
- Butter Lane from north of Foster Avenue to Scuttle Hole Road
- Cooks Lane
- Deerfield Road
- Edge of Woods Road
- Hayground Road
- Head of Pond Road
- Lopers Path
- Lumber Lane
- Millstone Road
- Mitchells Lane from north of Snake Hollow Road to Scuttle Hole Road
- Narrow Lane
- Narrow Lane South
- North Sea Mecox Road west of David Whites Lane
- Noyack Path
- Old Mill Road from south of Mill Pond to Montauk Highway/NYS Route 27
- Scuttle Hole Road
- Water Mill-Towd Road
- David Whites Park, Village of Southampton
- Long Pond Greenbelt (Trails)
- Railroad Plaza Park, Village of Southampton
- Windward Way Park, Village of Southampton

Following the guidance of DEC-00-2, visibility of the proposed transmission line is not considered a significant adverse impact at these locations because the Direct Route Alternative would replace an existing above ground distribution line at the same location and thus would not significantly alter views from these locations or the public's enjoyment of those resources.

The Direct Route Alternative would not have any significant adverse impacts on the visual character of the study area. Although the new utility poles would be taller than the previous poles, the height difference of 13 to 18 feet from a visual standpoint, and especially when viewed from a distance of 100 or more feet, is negligible. The new transmission line, where visible, would not be substantially different from the existing distribution lines along the route, nor would it be in sharp contrast with existing land uses. This analysis concludes that the Direct

Route Alternative would not significantly impair the visual landscape as experienced from any scenic or historic resources or interfere with or reduce the public's, or area residents', enjoyment and/or appreciation of the appearance of any inventoried scenic, historic, open space or agricultural resource. In addition, residents and visitors to the area would not experience a significant change in the visual character of the area. Thus, there would be no significant adverse visual impacts as a result of the Direct Route Alternative.

If the Village underground option were selected, five historic or recreational resources with potential visibility of the Direct Route Alternative would have no visibility of the transmission line. These resources include the Southampton North Main Street Historic District, Southampton Village Historic District and Expansion, David Whites Park, Railroad Plaza Park, and Winward Way Park. However, the existing distribution lines would remain and be visible along the Direct Route Alternative.

ARCHEOLOGICAL RESOURCES

A review of the site files of the New York State Museum (NYSM), the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP), and the Suffolk County Archaeological Association (SCAA), as well as site information maintained by The Institute for Long Island Archaeology (ILIA), document 16 prehistoric sites, one site with prehistoric and historic (Native American and European) components, one historic Native American site, and three historic period archaeological sites within a one-mile radius of the project area. Prehistoric sites in the project vicinity range from very small temporary occupations to large camps or villages.

A Stage 1 Archaeological Survey for the Bridgehampton Substation (Bernstein and Manfra 2007a) concluded that no further archaeological investigations are necessary for the Bridgehampton Substation expansion location. Therefore, no additional archaeological studies would be necessary for this component of the Direct Route Alternative.

In accordance with the recommendations of the Stage 1A Archaeological Survey for the Proposed LIPA Southampton to Bridgehampton Transmission Line Upgrade (Bernstein and Manfra 2007b), a Phase 1B Archaeological Survey will be completed by ILIA to determine if archaeological resources are present in remaining portions of the study area. If any such resources are identified, additional testing may be necessary to determine if they meet the eligibility requirements for listing on the S/NR. Adverse effects, which generally occur where eligible resources are located in areas that will be affected by project actions, such as excavation, construction, or the storage of heavy machinery or supplies, would be mitigated either through avoidance, project redesign, or completion of a data recovery designed in consultation with the OPRHP.

HISTORIC RESOURCES

Numerous designated, locally significant, and potential historic resources have been identified in the study area. The historic resources impact analysis assessed project impacts on architectural resources, which could include both direct (i.e., physical) and indirect (i.e., contextual) impacts.

DIRECT IMPACTS

The proposed transmission line, if overhead, would run directly through the North Main Street Historic District (S/NR-Listed; Village of Southampton-designated) along the railroad right-of-

way. In addition, multiple individual historic resources, another historic district, and a thematic nomination, are located in other portions of the study area. Installation of the new transmission line would not result in the demolition, physical destruction, or alteration of any historic resources. To ensure that construction activities associated with the installation of the transmission line would not cause inadvertent physical impacts to adjacent historic resources, LIPA would prepare and implement a construction protection plan (CPP) in consultation with OPRHP for any architectural resources in close proximity to Direct Route Alternative construction. The CPP would set forth the specific measures to be used, and specifications that would be applied, to protect architectural resources during the construction period for both overhead and underground, including the Village underground option, construction.

The construction of the Bridgehampton Substation Expansion would not have the potential to directly impact historic resources in the study area, as the historic resources are far removed from this proposed feature.

Consequently, it not expected that the Direct Route Alternative would result in significant adverse direct impacts to historic resources.

INDIRECT IMPACTS

Indirect effects, such as changes in the appearance of a historic resource or in its setting have also been considered. In configurations that would result in overhead transmission lines, the Direct Route Alternative would result in changes to the height, size, and appearance of the poles along the transmission line route. However, these changes would not result in significant adverse impacts. The proposed poles would replace existing poles and would be spaced at the same intervals as the existing poles. The new poles would be only 13-18 feet taller and 6 inches thicker in diameter at the base than the existing poles along roadways. These new poles would be constructed of the same material (wood) as the existing poles and would exist within the context of an area where overhead distribution lines presently exist. Furthermore, the taller and slightly wider poles would not cause a significant change in the visual character and the settings of the resources. Therefore, the Direct Route Alternative would not introduce visual, audible, or atmospheric elements to a resource's setting that would have a significant adverse impact.

The only locations where the new poles would be of a different material from the standard wood poles would be along the LIRR segment of the line in Southampton Village, where the poles would be of steel construction. However, because the poles would be located along a railroad line, where existing rail infrastructure features define the immediate visual landscape, the new poles would not be expected to represent a substantial new visual intrusion.

At the end of each underground cable segment, an underground to overhead transition riser pole would be installed where transitions are necessary. These riser poles are more obtrusive in appearance than the existing and proposed poles, and would require guy wires from the top of each riser pole, which would run to the ground, about 25 to 40 feet from the pole. The proposed locations of these riser poles have not yet been identified. LIPA would consult with OPRHP and the Town and Village of Southampton, as appropriate, to identify sites, which would minimize and eliminate the potential for significant adverse impacts to historic resources from the riser poles.

The expansion of the Bridgehampton Substation is not expected to indirectly impact historic resources. No historic resources are located within sight of this proposed feature, and therefore,

their settings and visibility would not be affected. Therefore, the Bridgehampton Substation Expansion would not have a significant adverse impact on the setting, views, or context of historic resources.

Consequently, it not expected that the Direct Route Alternative would result in significant adverse indirect impacts to historic resources.

NATURAL RESOURCES

The analysis of potential impacts to natural resources from the Direct Route Alternative considered the potential effects for direct habitat loss, wetland loss, modification of surface water and groundwater patterns, and temporary or permanent disruption of wildlife habitats or migration patterns from the installation of transmission line poles or trenching for buried transmission lines within the project footprint.

TERRESTRIAL RESOURCES

Transmission Corridor

Overhead

Maintenance for the overhead lines would consist of tree trimming every 3 to 7 years. In wetland areas, overhead lines would be situated to span the line over the wetlands, and no poles would be set within wetlands.

Mature trees bordering the corridor may be subject to removal of entire trees and/or branches overhanging existing lines, if trees would pose a danger to the existing distribution lines and/or the new transmission line. The street trees would be inspected by a licensed arborist or trained horticulturalist before final project design to assess which trees would require trimming or other special protection provisions. These provisions for special construction techniques would be integrated into the Contract Bid documents. Any special conditions would be closely observed and best management practices would be integrated into the project design. Conservation strategies to reduce impact on wildlife in upland areas, such as design to maximize connectivity between forested uplands and wetlands, would be implemented during project installation.

A diverse network of important ecological communities fragmented by human uses of the landscape exists along the Direct Route Alternative corridor. As new lines would be placed predominantly in previously disturbed areas (i.e., along open-landscaped habitats and roadways), it is unlikely that the Direct Route Alternative corridor represents a substantial additive impact on the connectivity of adjacent ecological communities.

During construction and maintenance of the Direct Route Alternative, the disturbance area for construction of overhead lines would be limited to a narrow corridor within the project site and would involve few direct impacts to vegetation. It is unlikely that this will have a deleterious effect on the landscape, as this corridor exists along a highly developed, human-influenced roadside corridor. However, construction activities (i.e., clearing, grading, excavating soils, removing vegetation) would be limited to existing disturbed areas within the right-of-way, whenever possible, to ensure that any suitable habitat would not be disturbed.

Underground

For areas of the Direct Route Alternative that may be placed underground (e.g., Village underground option) trenches would be constructed within existing roadways; as these sites are

already paved, no natural resources impacts would be expected. The contractor would select either directional drilling or open cut to install the underground portion of the proposed transmission line. Typically, contractors use open cut for the majority of the line, and directional drilling only under intersections, streams, and wetlands. The contract documents would direct the contractor to drill under any identified wetlands. Any underground installation in regulated wetland areas would be authorized under the General Wetlands Permit issued to KeySpan, as directional drilling under a wetland is an authorized activity. No maintenance within the wetlands would be expected for underground lines

During construction and maintenance of the Direct Route Alternative, the disturbance area for construction of underground lines would be limited to a narrow corridor within the project site and would involve few direct impacts to vegetation. It is unlikely that this will have a deleterious effect on the landscape, as this corridor exists along a highly developed, human-influenced roadside corridor. However, construction activities (i.e., clearing, grading, excavating soils, removing vegetation) would be limited to existing disturbed areas within the right-of-way whenever possible, to ensure that any suitable habitat would not be disturbed.

Thus, the Direct Route Alternative would have no significant adverse impacts on terrestrial resources, whether the line is constructed overhead, underground, or hybrid, including the Village underground option.

Bridgehampton Substation

The proposed expansion of the Bridgehampton Substation would involve clearing approximately 3.5 acres, and a 14-foot wide access road from the Bridgehampton Sag Harbor Turnpike. Due to the relative prevalence of oak-hickory forests and associated ericaceous understory surrounding the Bridgehampton Substation expansion, this limited clearing would not be expected to have a significant adverse impact on terrestrial resources.

FLOODPLAINS AND WETLANDS

Army Corps of Engineers (ACOE) and NYSDEC regulate freshwater wetlands existing in the vicinity of the Direct Route Alternative corridor. In concurrence with conditions of a NYSDEC General Permit issued to KeySpan, LIPA would coordinate with NYSDEC on wetland and rare species-related issues. Precautions during the removal of the existing poles and replacement of poles near wetland areas would avoid any impacts to sensitive ecological habitats and associated species. No new poles would be installed within wetlands, and the new poles would be no closer to wetland areas than the existing poles.

Transmission Corridor

New poles would not be placed closer to wetland areas than existing distribution line poles. Sub-surface trenching would be conducted beneath the existing roadway and would retain all groundwater or culvert flows. Therefore, any existing wetlands adjacent to the transmission line would not be negatively affected.

No significant adverse impacts to floodplains or wetlands would result from the Direct Route Alternative, whether the line is overhead, underground, or hybrid, including the Village underground option.

Bridgehampton Substation

The 14 foot wide access road required as part of the proposed substation expansion, would cover three ephemeral streams that currently convey surface water runoff eastwards towards the Bridgehampton Sag Harbor Turnpike and then to Long Pond. These areas do not exhibit wetland soil and therefore do not meet the definition of a federal wetland in accordance with the 1987 ACOE Wetland Delineation manual. The applicability of local and federal wetland regulations to these drainage ways is unlikely. Culverts would be placed in these areas to maintain the hydrological connection and would not impair the wetlands.

No significant adverse impacts to floodplains and wetlands would result from the proposed substation expansion.

STORMWATER

Under the Phase II stormwater permitting program, site disturbance of more than 1 acre requires the development of a Stormwater Pollution Prevention Plan (SPPP) and submission of a Notice of Intent (NOI) to NYSDEC. The installation of the underground portions of the Direct Route Alternative would expose and involve less than 1 acre at any given time. Therefore, post-construction stormwater management measures would not be required. Nevertheless, KeySpan's Wetland Construction Guidelines would be used for erosion control and stormwater management to protect critical wetlands, drainage channels, and private property during construction.

SIGNIFICANT HABITATS AND ECOLOGICAL RESOURCES

Transmission Corridor

Several sites outside of the Direct Route Alternative corridor provide suitable habitat for New York State Natural Heritage Program (NYNHP)-listed plant and wildlife species, particularly the Long Pond Greenbelt wetland and pond shore communities east of the Bridgehampton Sag Harbor Turnpike. Since the Direct Route Alternative transmission corridor would not be placed through these areas, and there would be no construction or maintenance within these adjacent areas, the Direct Route Alternative would not have a direct impact on these ecologically sensitive areas as a result of transmission corridor construction.

Bridgehampton Substation

Wetlands within the vicinity of the expanded substation area are not mapped by the National Wetlands Inventory (NWI) or NYSDEC, but could represent potential habitat for several threatened and endangered species known to occur in the vicinity of the Direct Route Alternative (e.g., knotted and long-tubercled spikerush, creeping St. John's-wort, etc.). These plants have been noted in the past within Great Swamp (west of the substation) and the Long Pond Greenbelt CEA (east of the substation). The wetlands within the substation area represent an important ecological and hydrological connection between the Great Swamp and Long Pond wetland systems, and are important to the long term well-being of these habitats. Therefore, the drainage ways within the substation area would be maintained with the expanded Bridgehampton Substation, and no construction would take place within the nearby wetlands. These steps would preclude any significant adverse impacts to the Great Swamp and Long Pond wetland systems and would not impair their long term well being.

WILDLIFE

The Direct Route Alternative, including the Bridgehampton Substation expansion, would not have a substantial effect on commonly occurring birds, mammals, reptiles and amphibians, or insects. Species with expanding populations (i.e., wild turkey, ring-necked pheasant, white-tailed deer) would also not likely be effected by the proposed project). Habitats available along the proposed transmission corridor are either highly landscaped, used for agricultural purposes, or contain remnant elements of natural ecological communities. he relatively small disturbance zone (approximately 25 feet or less on either side of existing overhead and underground line placement) would not likely result in an overall degradation of critical habitat for commonly occurring species.

Once the precise location and arrangement of all transmission line equipment has been verified, more detailed wildlife surveys would be performed within the areas of potential impact to species of concern, and appropriate measures would be followed to reduce impacts to wildlife populations during construction and maintenance of the selected transmission line route.

To reduce the chance of wildlife dispersal or migration through areas subject to construction activity, temporary fencing (i.e., type B silt fence) would be placed in the vicinity of the disturbed area, and would extend beyond the area of construction to allow for the movement of wildlife around the construction area. An experienced terrestrial ecologist would direct placement of any temporary fencing to prohibit wildlife movement through areas impacted by construction.

Consequently, the Direct Route Alternative, including the Bridgehampton Substation expansion, would not have a significant adverse impact on wildlife, whether the transmission line was constructed overhead, underground, or hybrid, including the Village underground option.

ENDANGERED, THREATENED, SPECIAL CONCERN, AND RARE SPECIES

Transmission Corridor

No threatened and endangered plant or wildlife species listed by the NYNHP were found along the Direct Route Alternative corridor during the August 2007 field surveys. Once the precise location and arrangement of all transmission line equipment has been verified, more detailed wildlife surveys would be performed within the areas of potential impact to listed flora and fauna, and appropriate measures would be followed to minimize impacts to these populations during construction and maintenance of the selected transmission line route.

Construction activities (i.e., clearing, grading, excavating soils, and removing vegetation) would be limited to existing disturbed areas within the right-of-way, whenever possible, to ensure that any suitable habitat for threatened, endangered, or rare plant communities would not be disturbed.

To reduce the chance of wildlife dispersal or migration through areas subject to construction activity, temporary fencing would be placed in the vicinity of the disturbed area, and would extend beyond the area of construction to allow for the movement of wildlife around the construction area. An experienced terrestrial ecologist would direct placement of any temporary fencing to prohibit wildlife movement through areas impacted by construction.

The corridor of the Direct Route Alternative includes several ecologically sensitive areas, either directly on (i.e., Mill Pond, Short's Pond) or within the vicinity of (i.e., coastal plain pond

shoreline in the Long Pond Greenbelt) the Direct Route Alternative. Many of the species indicated by the NYNHP were located in habitat conditions that vary from year to year (i.e. fluctuating water levels, ephemeral wetlands), often having dormant seed banks.

The State-endangered Eastern tiger salamander, which has been identified over the past 20 years in at least one area adjacent to the Direct Route Alternative (i.e., wetlands in the Shorts Pond area), has specific ecological requirements only supported by the presence of dispersal corridors between breeding areas (i.e., small wetlands unable to support substantial predatory fish populations) and underground burrows in forested uplands where adults of this species spend the majority of the year. However, direct impact to wetland habitats would be avoided along the Direct Route Alternative corridor, thereby minimizing the potential for affecting wetland-dependent listed plant or animal species. It is unlikely that Eastern tiger salamanders would be significantly affected by the temporary construction along the corridor.

As all project-related construction and maintenance activities would occur adjacent to highly-traveled roadways, no significant impacts are expected to occur to important dispersal pathways that have not already occurred

Consequently, the Direct Route Alternative would not have a significant adverse impact on threatened, endangered, special concern or rare species, whether the transmission line was constructed overhead, underground, or hybrid, including the Village underground option

Bridgehampton Substation

No threatened and endangered plant or wildlife species listed by the NYNHP were found along the proposed substation expansion area during the August 2007 field surveys.

One major conservation concern in the vicinity of the proposed substation expansion is the potential for significant impacts to connectivity between forested upland areas and wetland areas, specifically Great Swamp and the Long Pond Greenbelt. Several threatened and endangered plant species and one state-endangered amphibian species, the Eastern tiger salamander, have occurred in wetland areas present within the vicinity of the proposed substation expansion. These species disperse to and from wetland areas and adjacent upland areas during their life cycle.

Once the precise location and arrangement of all equipment has been verified, more detailed surveys for threatened and endangered flora and fauna would be performed within the areas of potential impact. Accepted survey protocols would be used to search for target species, and NYSDEC would be consulted for more specific information on threatened and endangered flora and fauna within the area of the proposed substation footprint. LIPA would conduct such a survey and make appropriate adjustments in the plans to prevent loss of Eastern tiger salamander habitat.

Consequently, the Bridgehampton Substation expansion would not have a significant adverse impact on threatened, endangered, special concern or rare species.

HAZARDOUS MATERIALS

A review of regulatory records indicated that the Direct Route Alternative corridor (i.e., the area within 100 feet of the proposed line) contains numerous Hazardous Waste Generators/Transporters, Hazardous Material Spills, underground storage tanks (USTs), and Petroleum Bulk Storage Sites. The complete Toxics Targeting Environmental Report included a database search within ½ mile of the proposed line.

Given the history of this area, extensive contamination of the soil or the groundwater is unlikely. Nevertheless, localized pockets of contamination could exist within the Direct Route Alternative corridor. Excavation and construction activities could disturb these hazardous materials and increase pathways for human exposure. In the areas where power lines would be installed underground, the need for soil disturbance would be greater. Therefore, the potential for exposure to subsurface contaminants in these areas would also be greater. The potential for adverse impacts due to the presence of subsurface contamination would be avoided by ensuring that construction activities are performed with the implementation of accepted protocols to minimize the potential impact on the community and construction workers. With the implementation of such protocols, no significant adverse impacts related to hazardous materials would result from demolition and/or construction activities related to the Direct Route Alternative, including the Village underground option. Following construction, there would be no further potential for significant adverse impacts.

INFRASTRUCTURE

WATER SUPPLY AND TREATMENT

The expansion of the Bridgehampton Substation and installation of a new transmission line along the Direct Route would not create an additional demand on the existing water supply system, and individual cesspools.

SOLID WASTE

The Direct Route Alternative would generate minimal solid waste, which would be handled by commercial carters and therefore would not have significant affect on solid waste management within the Town.

ENERGY

The Direct Route Alternative would provide 69 kV of electric power to the Town of Southampton and other East End communities. By providing additional reliable electric supplies, the Direct Route Alternative would meet the projected energy demand forecasted for 2008 and beyond. The Direct Route Alternative would not have an adverse effect on the distribution, generation, and maintenance of existing energy facilities nor would it create a demand for additional electric energy. The addition of the proposed transmission line along the Direct Route Alternative would add redundancy to the South Fork system to avoid electric interruptions when the existing double circuit line is out of service.

EMERGENCY MANAGEMENT

LIPA has committed to installing poles that withstand 130 mph winds (a Category 3 hurricane). The existing poles were designed to withstand between 74 and 95 mph wind speeds (a Category 1 hurricane), and therefore the Direct Route Alternative would install more stable poles throughout the system than what currently exists. In the event of such a storm, portions of the critical corridors could be flooded. Although the roadways along the Direct Route Alternative are not critical corridors, these roadways could be utilized as an evacuation corridor, since most of the roadways along the Direct Route Alternative would not be affected by storm surge, with the exception of a small portion located in the vicinity of Mill Pond.

The Direct Route Alternative is not expected to have an adverse effect on existing emergency management. Should poles and/or lines come down during a storm event, LIPA's Restoration Team is a designated specialty trained team that is able to respond to storm emergencies to restore service. In any event, the poles that would be installed would be more stable than the existing distribution poles, and thus an improvement over existing conditions in the areas where poles are replaced.

Overall, LIPA gives the highest repair priorities to vital public services such as hospitals, police, emergency respondents, and sewage pumping stations.

GROUNDWATER AND SURFACE WATER RESOURCES

SOILS AND GEOLOGY

The proposed Direct Route Alternative transmission line would not alter the grade of the affected land surface while the expanded Bridgehampton Substation site would require regrading. On-site soils would be used to regrade the area for the expanded substation. Only topsoil and unsuitable material, which can not be used for site grading, would be removed from the site. It is expected that about 12,000 cubic yards of material would be removed from the site. Typical regrading would occur in the upper 2 feet of soil and thus, would not substantially change the characteristics or functions of the upper Glacial Aquifer, which is the shallowest of Long Island's three geologic formations. The overall topography at the substation would remain similar to existing conditions. Therefore, the Direct Route Alternative would not significantly impact the local geology. During and after construction, erosion and sediment control measures would be implemented to stabilize exposed soil and to provide a final cover of vegetation on post-construction slopes

It is not expected that soil suitability limitations would impact the siting of the new transmission line and substation expansion because there are already existing distribution lines along this route and an existing substation on the same lot where the substation expansion is proposed. It is expected that good engineering practices, Best Management Practices, and erosion control measures instituted as part of the installation of the underground portion of the line would overcome any soil suitability limitation and not pose a significant adverse impact. It is not expected that the proposed line, whether overhead or underground, would have a significant adverse impact on soils since the soils present are compatible with the construction of pipelines, paths and trails, streets and parking lots, and home sites and good engineering practices would overcome soil suitability limitations.

During grading of the expanded substation, erosion control measures and Best Management Practices would be in-place in conformance with local, County, and State regulations to avoid adverse impacts.

GROUNDWATER AND SURFACE WATER

If groundwater is encountered during construction, dewatering would be implemented and testing would be performed in those areas in which contaminated soil and/or groundwater is suspected to ensure compliance with proper regulatory discharge requirements. If necessary, the water would be pre-treated prior to discharge, as required by regulatory permits and approvals. However, in most instances, the poles would not reach the water table. It is not expected that the installation of the transmission poles would cause the degradation of groundwater because the poles would not contain hazardous materials that would pose a threat to the aquifer.

The Direct Route Alternative would increase impervious coverage by about 23,000 square feet, a relatively small area that would not materially change natural recharge of the aquifer. To minimize disturbance to surface waters, directional drilling would be utilized in areas where the Direct Route Alternative would cross a wetland, stream, or culvert.

KeySpan's Wetland Construction Guidelines would be used for erosion control and stormwater management. These guidelines meet or exceed the New York State Best Management Practices. The guidelines would be strictly enforced during the construction period to prevent any impacts on nearby wetlands, drainage courses, and properties. Observance of KeySpan's Wetland Construction Guidelines and the restrictions contained in the NYSDEC-issued General Wetlands Permit would prevent significant adverse impacts from stormwater.

A Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented for the construction of the expanded substation as part of the Direct Route Alternative. The SWPP would ensure that emergency spill control equipment would be provided, an inspection program would be developed and implemented, and proper periodic training of personnel to prevent the discharge of oil or hazardous substances would occur and, in the event of a spill, ensure proper spill cleanup and reporting.

TRAFFIC, AIR QUALITY, AND NOISE

The Direct Route Alternative would not affect traffic circulation. After the transmission line is erected, the only new vehicle trips would be for periodic maintenance along the route. This small number of vehicle trips would not result in any significant adverse impacts.

The Direct Route Alternative would replace existing poles, generally spaced at the same intervals as the existing poles, and would, on average, only be about 6 inches thicker in diameter at the base than the existing poles. Riser poles would be installed at the end of underground cable segments. Where taller poles are required (i.e., at road crossings, at turns along the route, and for riser poles), the increased diameter would still only be about 6 inches over the existing condition. The Direct Route Alternative would replace preexisting distribution lines and therefore would not be expected to result in a substantial change in the proportion of traffic accidents involving utility poles. Further, between 2004 and 2007, only a minor proportion (fewer than 3 percent) of accidents at major intersections and links in the vicinity of the Direct Route Alternative involved light supports/utility poles. Since the Direct Route Alternative would largely replace existing poles, it is anticipated that the Direct Route Alternative would not materially alter the proportion of accidents where lighting and/or utility poles are involved.

ELECTRIC AND MAGNETIC FIELDS (EMF)

Potential EMF impacts of the proposed new 69 kV transmission line between the Southampton and Bridgehampton Substations and the expansion of the Bridgehampton Substation would generally be due to magnetic fields created by the transmission line, because normal construction materials provide virtually total shielding from electric fields and would not be expected to result in exposure levels above existing guidelines.

For a 69 kV transmission line operating at 167 amps, at the transmission line center the strength of the magnetic field would typically be approximately 23-27 milligauss (mG). At a distance of 40 feet from the transmission line centerline, the strength of the magnetic field would typically drop to approximately 4 to 7 mG, and at a distance of 100 feet from the transmission line

centerline, the strength of the magnetic field would typically drop to less than 2 mG. Field strength decays with distance, and consequently at distances beyond 100 feet, the magnetic field would be expected to be 0-1 mG. Regardless of whether the line is above or below grade, magnetic fields of the magnitudes cited above would be expected.

Magnetic field levels in nearby buildings would vary depending upon the contribution from other indoor sources, e.g., appliances and wiring. However, at all locations adjacent to the proposed transmission line route for the Direct Route Alternative, regardless of whether the transmission line is on poles or underground, the strength of the magnetic field would be significantly below the guideline exposure value established for the general population by the International Commission on Non-Ionizing Radiation Protection.

Maximum magnetic fields at locations immediately adjacent to the site of the expanded Bridgehampton Substation would be expected to be in the range of 1 to 25 mG, and maximum fields would be expected to be within 0 to 2 mG at distances of 100 feet or more from the substation. At all locations near the proposed site of the expanded substation, off LIPA property, the maximum strength of any magnetic field would be significantly below the guideline exposure value established for the general population by the International Commission on Non-Ionizing Radiation Protection.

Installation of the proposed 69 kV transmission line, with the Direct Route Alternative, would result in magnetic fields significantly below the New York State 200 mG level at the edge of the right-of-way. In addition, magnetic fields would also be significantly below the guideline exposure value established for the general population by the International Commission on Non-Ionizing Radiation Protection at or in the vicinity of the proposed line, including nearby building and residences.

CONSTRUCTION

CONSTRUCTION SCHEDULE

The installation of the transmission line is expected to take about 3 to 4 months. Under the current schedule, work would commence in March 2008 and be completed by June 2008. During this time, about 5 to 10 construction workers and engineers are expected to be employed at one location at any given time.

The expansion of the Bridgehampton Substation is expected to take about 12 months. Under the current schedule, work would commence in June 2008 and be completed by June 2009. The number of construction workers would vary depending on the particular type of construction underway at the time. The number of workers on-site could range from 5 to 50 at any one time.

CONSTRUCTION-RELATED IMPACTS AND CONTROLS

Land Use and Community Character

Throughout the construction period, access to residences and businesses would be maintained. During this time, measures would also be implemented to control noise, vibration, and dust. Because construction would not be continuous in any one location and would last less than a week in any one particular area, no significant adverse impacts on land use patterns or neighborhood character would occur.

Cultural Resources

With the Direct Route Alternative, it is not expected that there would be significant adverse construction impacts on archaeological resources. The area of the proposed transmission line is moderately to highly sensitive for archaeological resources. Archaeological Phase 1B testing along the Direct Route is taking place and will be included in the Final Environmental Impact Statement. If potential archaeological resources are identified along portions of the routes where the transmission line may be underground, detailed resource recovery work by qualified archaeologists would be completed prior to the start of construction. Detailed archaeological Phase 1B testing on the substation site has been completed, and no archaeological resources were found.

Similarly, the Direct Route Alternative would not be expected to result in significant adverse construction impacts on historic resources. The installation of the transmission line, either overhead or underground, would not have a direct impact on any architectural resources. A CPP would be developed, if necessary, in consultation with OPRHP. The CPP would specify measures to be taken to prevent vibration from the construction affecting historic structures. LIPA would employ and enforce the CPP to prevent any significant adverse impacts on architectural resources. The Bridgehampton Substation is not located near any architectural resources, and the expansion of the substation would not have any significant adverse impacts on architectural resources.

Traffic

Construction of the proposed transmission line would occur over about a 12 to 16 week period and would include both truck and construction work traffic. Construction is currently planned for March through June to avoid taking place during the peak summer traffic season. Installation of the overhead portions of the transmission line is expected to have little impact on traffic. One lane of traffic would be temporarily closed at active construction locations. Traffic flow will be managed by use of flagmen. Some truck delivery of construction materials would likely occur during the construction period. Heavy equipment and construction material delivery would average less than 10 trucks per day over the construction period.

The installation of the underground portions would typically be performed during normal construction hours, between 7:00 AM and 4:00 PM. The workday, on occasion, could extend to the times of natural daylight, up to 12 hours per day. However, based on scheduling, some activities, such as splicing, may take place outside of this timeframe (weekends and after 6:00 PM). These activities that may take place outside of normal working hours are typically quiet and do not use large equipment. The trench would be closed at night either with steel plate or by backfilling the trench and cold patching the road surface.

During the construction period, the total number of workers would vary from about 20 to 25 personnel at any one time. It is likely that two or more crews would be working at the same time. These crews would not be working in the same location, and the worker traffic would be dispersed throughout various roads. The addition to the worker vehicular traffic during construction would add from 15 to 25 additional vehicles daily. This increased worker traffic volume would not be a significant impact.

Construction of the substation expansion would occur over about a 12 month period and would include both truck and construction work traffic. Unlike installation of the transmission line, expansion of the substation would not cause lane closures. All construction would take place

distant from the road network. The only effects on traffic would be workers arriving in the morning and departing in the afternoon, and trucks making deliveries during the day.

During the construction period for the substation expansion, the number of workers would vary from about 5 to 50 personnel at any one time. The addition to the worker vehicular traffic during construction would add up to 50 additional vehicles daily at hours outside of peak traffic. Typical peak truck traffic would be approximately 10 to 20 trucks per day. However, during the 2 month period when soil removal would take place, a maximum of approximately 30 to 40 truck trips per day may occur. This minor increase in worker and truck traffic volume would not have a significant adverse traffic impact.

Air Quality

Possible impacts on local air quality during construction of the Direct Route Alternative include fugitive dust (particulate) emissions from earth movement; mobile source emissions, including hydrocarbons, nitrogen oxide, and carbon monoxide emissions from construction workers and delivery vehicles and construction equipment operation.

Generally, no site clearing would be needed for the overhead portion of the transmission line. The only exposed earth would be the small volume of soil excavated for the monopole. For the underground portion, only short distances, about 500 to 1,000 feet, would be exposed at any given time. Appropriate fugitive dust control measures, including watering of exposed areas and dust covers for trucks, would be employed to minimize any impacts. As a result, no significant air quality impacts from fugitive dust emissions are anticipated.

Fugitive dust emissions are possible from earth movement, wind erosion and traffic over unpaved areas. Actual quantities of emissions depend on the extent and nature of clearing operations, the type of equipment employed, the physical characteristics of the underlying soil, the speed at which construction vehicles are operated and the type of fugitive dust control methods employed. Appropriate fugitive dust control measures, including watering of exposed areas and dust covers for trucks, would be employed to minimize any impacts. As a result, no significant air quality impacts from fugitive dust emissions are anticipated.

During construction, mobile source emissions may result from trucks delivering materials or removing debris, workers' private vehicles, and construction equipment operation. Because the route is either along or near roadways, truck deliveries and workers' private vehicles would not need to travel excessive distances, and are subsequently not expected to have a significant impact on mobile source emissions. Therefore, mobile source emissions are not expected to be significant.

Noise

Impacts from noise during construction of the Direct Route Alternative include noise from construction equipment operation and noise from vehicles traveling to and from the work site. In general, construction of the Direct Route Alternative would result in some increased noise levels for a limited period of time.

Noise from construction equipment is regulated by the EPA noise emission standards. These federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emission standards and construction material be handled and transported in such a manner as not to create unnecessary noise.

These EPA regulations would be carefully followed. To the extent possible, the Town and Village noise codes would be observed. If late or Sunday work is needed, it would be quiet tasks, such as splicing cables. In addition, where practical, at noise sensitive locations, including residences, low-noise emission level equipment, and quiet operational procedures would be utilized. Compliance with noise control measures would be ensured by including them in the contract documents as material specifications, and by directives to the construction contractor.

Noise levels caused by construction activities would vary, depending on the phase of construction and specific tasks being performed Increases in noise levels caused by the small number of delivery trucks, workers traveling to and from the site, and other construction vehicles would not be significant, and would be limited to public roadways. Increased noise levels caused by construction activities can be expected to be most significant during the stages of construction that require the use of impact equipment. This type of equipment would be used only during the daytime, and impact equipment for both overhead and underground installations is used for short periods of time.

In general, noise from construction activities associated with the Direct Route Alternative could be intrusive at nearby residences. However, these impacts would be short-term in duration and would not be considered a significant adverse impact.

Contaminated Materials Management

Installation of the transmission line and expansion of the substation may generate limited amounts of some waste solvents and cleaning materials. A licensed contractor would remove these materials for appropriate off-site disposal.

Solid waste and debris that cannot be recycled, reused, or salvaged would be stored in dumpsters or similar containers for disposal. Potentially hazardous wastes would be separated from normal waste including segregation of storage and proper labeling of containers. Licensed contractors would remove all waste from the project site in accordance with applicable regulatory requirements.

LIPA would require the construction contractor to develop and implement a Health and Safety Plan to ensure that the potential for exposure of construction workers, workers on nearby sites, and others in the area is minimized. The Health and Safety Plan would define worker safety training, monitoring procedures, and personal protective measures.

The construction phase would require use of various petroleum and chemical products, including medium-weight oil, waste oil, aerosol lubricant, thinners, solvents, paint, gasoline, and diesel. None of these products would exceed 500 gallons with aerosol lubricant and thinners and solvents at less than 50 gallons.

Stormwater and Erosion Control

KeySpan would follow its Wetland Construction Guidelines during the installation of the transmission lines. Those guidelines provide for procedures that prevent or minimize intrusions into the wetlands and minimize sediments being deposited into the wetlands. Adherence to these guidelines would provide for erosion control and stormwater management during construction activities. KeySpan has a General Wetlands Permit that regulates utility activities within the adjacent area and within the wetland itself. The purpose of the restrictions in the General Wetlands Permit is to prevent degradation of the wetlands. The KeySpan guidelines and restrictions in the NYSDEC-issued General Wetlands Permit would be strictly enforced during

the construction period in order to prevent any impacts on nearby wetlands, drainage courses, and properties.

Expansion of the Bridgehampton Substation would require site disturbance of more than 1 acre, requiring the development of a SPPP and submission of a NOI to NYSDEC. The SPPP would be prepared and the NOI would be submitted prior to the start of any construction for the expansion of the substation. The requirements of the General Wetlands Permit would also be employed during the expansion of the Bridgehampton Substation.

During construction of the substation expansion, erosion and sediment control measures would be installed prior to land disturbance and would not be removed until the disturbed land areas are stabilized. Such practices include seeding or mulching for surface stabilization, silt fences, haybale dikes, and water quality swales. Maintenance would be performed as necessary to ensure continued stabilization. Below are measures that would or may be used during project construction:

- Protection of trees/mature vegetation
- Stabilized Construction Entrance
- Vegetated swales
- Haybale Barrier
- Temporary Seeding
- Geotextiles

All erosion and sediment control measures and best management practices (including specifications for temporary and permanent seeding) used during construction of the substation expansion would comply with the specifications contained in the New York State Stormwater Management Design Manual dated August 2003. In addition, KeySpan's Wetland Construction Guidelines would be used for erosion control and stormwater management. These guidelines meet or exceed the New York State Best Management Practices. The guidelines would be strictly enforced during the construction period to prevent any impacts on nearby wetlands, drainage courses, and properties Observance of KeySpan's Wetland Construction Guidelines and the restrictions contained in the NYSDEC-issued General Wetlands Permit would prevent significant adverse impacts from stormwater.

Natural Resources

Installation of the transmission line, whether overhead or under ground, would be limited to a narrow corridor along side already developed land and roads. Thus, the area of disturbance would be small. The areas along side the roads were found not to contain sensitive habitats or valuable natural resources. If wetlands are encountered, the transmission line poles would not be placed in the wetlands for overhead portions of the line, and the transmission line would be horizontally directionally drilled under the wetlands for the underground portion of the line. Therefore, no significant adverse impacts from installation of the transmission line are expected.

The expansion of the Bridgehampton Substation would involve the clearing of about 3.5 acres for the substation and about 1/3 of an acre for a 14-foot wide access road from the Bridgehampton Sag Harbor Turnpike. The existing substation covers just less than 1 acre. Of the total 10 acre parcel, slightly more than half would remain wooded with the remainder as road or housing the substation equipment.

During the construction period for the substation expansion, a large amount of activity would occur on-site and would displace animals from the site and nearby areas while construction is ongoing. Animals are mobile and without injury are able to leave an area that is being disturbed. When the construction activities cease temporarily, such as nights and weekends, the animals, primarily mammals and birds, would return to forage. When the construction activity ceases permanently, the animals, including reptiles and amphibians, would return to nest, reproduce and forage, except on the cleared portions of the parcel. Fencing and specific strategies, such as turtle exclusion devices would be employed to prevent animals from entering the construction area. Therefore, no significant adverse impacts on the animal population are expected from expansion of the Bridgehampton Substation.

Unlike animals, plants are not mobile and cannot leave the area of construction activity. The permanent loss of the small acreage of the expanded substation is not expected to have a significant adverse impact. The construction site, including staging and laydown areas, would have construction fencing to prevent workers and equipment from entering the surrounding areas that are not part of the construction. This would serve to protect the plants in the surrounding areas and no significant adverse impacts on plants and habitat in the surrounding areas are expected.

Agricultural Pests

Portions of the transmission line route are located within a New York State agricultural district. According to the US Department of Agriculture and Cornell Cooperative Extension, nuisance pest species, such as the golden nematode, Colorado potato beetle and others, could be found in the farm fields. In addition, invasive species are found along the route. To minimize the potential for spreading these agricultural pests, the equipment would be decontaminated prior to moving from one field to another, which would prevent any significant adverse impacts from agricultural pests and the spread of invasive species during construction.

ENVIRONMENTAL JUSTICE

The study area as a whole is not considered a potential environmental justice area. Approximately 85 and 94 percent of the study area is made up of non-minority and non-low-income populations, respectively. While the study area includes one minority community—CT 1907.04 BG 3 in the northeastern portion of the study area—this community would not be adversely affected by construction or operation of the proposed transmission line, based on a review of the other chapters included in this EIS. As noted above, the Direct Route Alternative would not result in significant adverse impacts on the surrounding communities during construction or operation. This conclusion considers the potential for cumulative impacts from the proposed transmission line in conjunction with other similar facilities located in the area. Therefore, the Direct Route Alternative is not expected to result in any disproportionate significant adverse impacts on minority or low-income populations. Moreover, the project includes an extensive public outreach program to the affected communities, including minority and low-income populations in the study area, providing these groups with ample opportunity to have any of their concerns addressed.

E. POTENTIAL IMPACTS OF THE PROJECT ALTERNATIVES

NO ACTION ALTERNATIVE

Under the No Action Alternative, no changes would occur along the Direct Route Alternative roadways, the Bridgehampton Substation would not be expanded, and the existing transmission system would remain in its current state and not have sufficient capacity to accommodate the current demand and future anticipated growth on the East End. With the No Action Alternative, the existing 80-year-old 69 kV double circuit transmission line would become overstressed under certain circumstances, carrying an electric load beyond its design capacity, and would not provide the South Fork with a back-up transmission supply should something disable the existing 69 kV double circuit line. As such, the reliability of the 80-year-old 69 kV transmission system would continue to be a major concern. By the summer of 2008 without the new transmission lines, LIPA would be forced to operate the South Fork transmission system at very high risk loads, which could cause thermal overloads and voltage collapse throughout the East End towns of Southampton, East Hampton, Shelter Island, and Southold. Indeed, a catastrophic collapse could cascade back into other parts of LIPA's transmission system, potentially impacting the towns of Riverhead and Brookhaven, immediately west of the East End area to be served by the new transmission line. Therefore, the No Action Alternative would not meet the energy needs of the South Fork and the East End and would result in increasingly likely blackouts and brownouts. The No Action Alternative would not ensure transmission system reliability in this part of the LIPA system.

In addition, increased power outages have the potential to cause other significant adverse environmental impacts on the East End, including the potential increased operation of peak power-generating equipment located in East Hampton, Southampton, Greenport, Southold, and Montauk at higher capacity in order to accommodate the increased load. The operation of such generating equipment has the potential to cause significant adverse impacts, including noise and air quality impacts.

The No Action Alternative would not result in the expansion of the Bridgehampton Substation. Both the No Action and Direct Route Alternatives would not result in any significant adverse impacts.

ENERGY EFFICIENCY AN DEMAND SIDE MANAGEMENT ALTERNATIVE

While the Energy Efficiency and Demand Side Management Alternative is extensive and provides for future savings in energy use, it will not reduce the expected demand for power on the East End of Long Island in 2008 to a sufficient degree to obviate the need for an additional transmission line. Even with the current and future measures, the demand for electricity on the East End from new development and other factors is rising faster than the ability of the region's current infrastructure to deliver it. None of the energy efficiency and demand side management programs provides for the transmission of electric power to locations where demand exceeds the local electric generation capacity, nor will they result in reductions in overall demand that would obviate the need for the addition of new transmission capacity on the South Fork. Thus, the Energy Efficiency and Demand Side Management Alternative alone would not allow LIPA to meet the growing energy needs on the East End and permit LIPA to ensure reliable and efficient delivery of electricity to its customers.

EXISTING LINE ALTERNATIVE

LAND USE AND COMMUNITY CHARACTER

It is not expected that this alternative would have an adverse impact on land use and community character, especially since land use conditions would not substantially change as a result of the Existing Line Alternative. Because there is an existing transmission line along this route, community character would not significantly change. Therefore, the Existing Line Alternative, similar to the Direct Route Alternative, would not have a significant adverse impact on land use or community character.

COMMUNITY FACILITIES AND OPEN SPACE

The Existing Line Alternative, similar to the Direct Route Alternative, would not result in any significant adverse impacts on community facilities and emergency services. Because this alternative would construct a new line underground along an existing utility right-of-way, this additional transmission line would not add any additional demand on community facilities and for emergency services.

The Existing Line Alternative similar to the Direct Route Alternative, would not affect the preservation of open space parcels. Open space preservation in the Town of Southampton has occurred in the past and would be expected to occur in the future with or without the Existing Line Alternative.

The Existing Line Alternative, similar to the Direct Route Alternative, would not conflict with State, County, and local open space policy goals and objectives and would not have a negative impact on any identified parcels for preservation that are identified in these policy documents.

The Existing Line Alternative, similar to the Direct Route Alternative, would not have any significant adverse impacts with regard to preservation of open space or complying with open space acquisition plans.

ZONING AND PUBLIC POLICY

Like the Direct Route Alternative, the Existing Line Alternative would not have any significant adverse impact on zoning or public policy. Even in the absence of LIPA's status as a state public authority, the Existing Line Alternative is consistent with the existing uses along the existing distribution line right-of-way and within the ½-mile study area as presently zoned.. Therefore, similar to the Direct Route Alternative, would not have a significant adverse impact on zoning in the study area. This alternative would not have a significant adverse impact on public policy.

Open space parcels for preservation would not be affected by the new transmission line. The preservation of these properties has occurred in the past and would be expected to occur in the future with or without the transmission line.

COASTAL ZONE MANAGEMENT

The Existing Line Alternative is not within the Coastal Management Zone. Therefore, no analysis is required.

VISUAL RESOURCES

Since the Existing Line Alternative would be all underground, there would be no significant adverse impacts to visual resources.

ARCHAEOLOGICAL RESOURCES

Based on the results of the Stage 1A survey, if the Existing Line Alternative were to be selected, a Phase 1B Archaeological Survey (i.e., subsurface testing) would be necessary in advance of construction to determine if archaeological resources are present in the study area, similar to what would be required for the Direct Route Alternative.

Consequently, the Existing Line Alternative, similar to the Direct Route Alternative, would not result in significant adverse impacts in terms of archaeological resources.

HISTORIC RESOURCES

Direct Impacts

The Existing Line Alternative, similar to the Direct Route Alternative, would not be expected to directly impact historic resources. Multiple individual historic resources, two historic districts, and a thematic nomination, are located in the study area. However, installation of the new transmission line would not result in the demolition, physical destruction, or alteration of historic resources.

In order to ensure that construction activities associated with the installation of the transmission line would not cause inadvertent physical impacts to adjacent historic resources, LIPA would prepare and implement a CPP in consultation with OPRHP for any architectural resources in close proximity to the Existing Line Alternative construction.

Indirect Impacts

Indirect effects, such as changes in the appearance of a historic resource or in its setting have also been considered. The Existing Line Alternative would be underground and therefore would not cause a significant change in the setting of resources. Therefore, the Existing Line Alternative, similar to the Direct Route Alternative, would not adversely impact visual, audible, or atmospheric elements of a resource's setting, nor would it eliminate publicly accessible views to the resource.

NATURAL RESOURCES

Habitat and Natural Resources

Construction of the proposed transmission line within the Existing Line Alternative would be underground. Construction would be limited to the area within the existing easements that are currently cleared and maintained in a shrub/herbaceous condition. No impacts to adjacent forest would occur.

Installation of new transmission line poles or trenching of a new transmission line within the existing easement would cause temporary impacts to the habitats within the easement. However, on a long-term basis, the corridor can be expected to regenerate to the same habitat structure and similar vegetation composition of low shrubs, grasses, and forbs that occur today. Increased incidence of invasive (non-native) plant species colonization may result from the proposed project, whether trenching of the line or overhead via new poles. However, this may be avoided

by strict adherence to an appropriate seed mix of native grasses/forbs appropriate to sandy soils and coastal oak-pine communities of eastern Long Island. However, on a long-term basis, the corridor would regenerate to the same habitat structure and vegetation composition of low shrubs, grasses, and forbs that occur today. No disturbance to adjacent forest is expected and no new corridor fencing is proposed. Therefore, no significant adverse impacts to local and regional wildlife populations are expected over the long term.

Much of the forested portions abutting the right-of-way of the Existing Line Alternative contain single-family houses, some under construction at the time of survey, close to or within the cleared (maintained) area beneath the existing transmission lines. This residential development is largely of recent origin based on historic aerial photos and observations made in the field. Although the existing transmission line easements itself represent a linear feature causing a discontinuity in the largely unbroken forest, the existing transmission lines easement are not fenced and little traveled. As a result, from a wildlife habitat value perspective, it does not constitute a significant barrier for the movement of animals (or plant dispersal). By contrast, the recent pattern of suburbanization in this region of Southampton, exhibiting newly constructed, large-lot homes, has resulted and continues to result in forest fragmentation, decreasing the region's value for habitat specialist species, for neotropical migrant birds, and for animals requiring larger home ranges. It is also causing the spread of non-native plant species. In sum, habitat fragmentation of the surrounding forest represents the most significant change in habitat structure and function that is occurring in the region through which the transmission lines pass.

Threatened and Endangered Species

The New York State endangered Eastern tiger salamander has been identified over the past 20 years in at least two areas adjacent to the proposed Existing Line Alternative (i.e., wetlands in the Short's Pond area and Long Pond Greenbelt). This species has specific ecological requirements supported by the presence of dispersal corridors between breeding areas (i.e., small wetlands unable to support substantial predatory fish populations) and underground burrows in forested uplands where adults of this species spend the majority of the year. Although there are no known records of occurrence of this species within the limit of disturbance of the Existing Line Alternative, ephemeral wetland areas do occur in proximity to the Existing Line Alternative and the route passes through forested areas that may be suitable for this species.

The Existing Line Alternative is considered by NYSDEC to be one of the most intrusive routes of the four project alternatives. In order to minimize disturbance to potential habitats of the Eastern tiger salamander, the NYSDEC suggests that more information collected during a biologically relevant time of year is required to determine the presence of this species along the Direct Route Alternative corridor. Due to the life cycle of the Eastern tiger salamander, the presence of the species within a pond cannot be determined between the months of August and January. To identify appropriate habitat, surveys for the presence of vernal pools would be conducted within three days of a rain event greater than 0.1 inch between March 1 and August 1. Pools found suitable as habitat should be revisited between the months of February and March to conduct surveys for Eastern tiger salamander adults and egg masses, or in June while the species would be found in larval stages within ponds. LIPA has committed to conducting this survey, if the Existing Line Alternative is selected.

In order to reduce the chance of the dispersal or migration of threatened and endangered animals, principally the Eastern tiger salamander, through areas subject to construction activity, temporary fencing (i.e., type B silt fence) would be placed in the vicinity of expected or

documented occurrence of this species. This wildlife exclusion fencing would extend beyond the area of construction to allow for the movement of wildlife around the construction area. An experienced terrestrial ecologist would direct the placement of any temporary fencing to prevent wildlife movement through areas affected by construction. Fencing would be removed upon final grading and removal of all construction related materials and equipment.

The Existing Line Alternative would not have significant adverse impacts on any threatened or endangered species.

Wetland Resources

The Army Corps of Engineers and NYSDEC regulate disturbances to freshwater wetlands. Wetlands that could require wetland permits include the Great Swamp area in the vicinity of Mulvihill Pond. Should the Existing Line Alternative be chosen for implementation of the proposed project, wetlands within the existing right-of-way would be delineated and surveyed in accordance with NYSDEC and Corps methodology. Work near wetlands would be done in accordance with conditions of a NYSDEC General Permit issued to Keyspan. The General Permit authorizes KeySpan to perform minor utility install, repair, and maintenance activities in the adjacent areas of tidal wetlands, freshwater wetlands, and Wild and Scenic Rivers. These activities include the installation of poles with overhead cables, and trenching in the adjacent area. The General Permit also authorizes drilling under wetlands as long as the entry and exit points are in the adjacent area and the wetlands are not disturbed. KeySpan is allowed to use this General Permit for LIPA projects. LIPA would coordinate with NYSDEC on wetland and rare species–related issues. Special precautions near wetland areas would avoid any impacts to sensitive ecological habitats and associated species. Underground installation of the transmission line would avoid wetland impacts by directional drilling to avoid any activities within the wetlands. Therefore, no significant adverse impacts would occur to wetlands.

HAZARDOUS MATERIALS

Given the history of this area, extensive contamination of the soil or the groundwater would be unlikely within the Existing Line Alternative corridor. Nevertheless, localized pockets of contamination could exist within the Existing Line Alternative corridor. The potential for adverse impacts due to the presence of subsurface contamination would be avoided by ensuring that construction activities are performed in accordance with the same protocols that would be implemented for the Direct Route Alternative (see “Hazardous Materials,” above).

Similar to the Direct Route Alternative, with the implementation of these protocols, no significant adverse impacts related to hazardous materials would result from demolition and/or construction activities related to the Existing Line Alternative. Following construction, there would be no further potential for significant adverse impacts.

INFRASTRUCTURE

Similar to the Direct Route Alternative, the Existing Line Alternative would not create an additional demand on the existing water supply system and individual septic systems, but would generate minimal solid waste, which would be handled by commercial carters and therefore would not have significant adverse effect on solid waste management within the Town of Southampton.

This alternative would allow for the transmission of an additional 69 kV of electric power for the Town of Southampton and other East End communities. By providing additional reliable electricity, this alternative would meet the energy demand forecasted for 2008 and beyond.

With regard to emergency situations, LIPA has a designated emergency response system in place to handle emergency issues when they arise.

GROUNDWATER AND SURFACE WATER RESOURCES

Similar to the Direct Route Alternative, it is not expected that the Existing Line Alternative would have a significant adverse impact on geology, soils, and groundwater or surface water resources. Depending on the exact locations selected along the route, directional drilling may be required under some wetlands to avoid significant adverse impacts.

As with the Direct Route Alternative, stormwater runoff and erosion control measures would be utilized as part of the project (see "Groundwater and Surface Water Resources," above).

TRAFFIC/AIR QUALITY/NOISE

Since the Existing Line Alternative would be underground, it would not affect traffic circulation and would not result in any increase in traffic accidents.

The Existing Line Alternative would not involve the addition of any new stationary sources of emissions and therefore would not result in any significant adverse impacts on air quality.

The Existing Line Alternative would not involve the addition of new stationary sources of noise. Therefore, similar to the Direct Route Alternative, this alternative would not result in a significant increase in noise levels due to mobile or stationary sources.

ELECTRIC AND MAGNETIC FIELDS

In general, similar to the Direct Route Alternative, long-term magnetic field exposures in nearby residences with the proposed 69 kV transmission line, with the Existing Line Alternative, would be expected to be much the same as they are now, well below New York State regulatory levels, and below levels that would most experts believe would pose any increase in health risk.

CONSTRUCTION

The potential impacts of the Existing Line Alternative would be similar to those for the Direct Route Alternative, except for traffic, air quality, and infrastructure.

Almost all of the Existing Line Alternative would be installed not next to existing roadways, but within existing easements that traverse private lands. The road closures that would be expected with the Direct Route Alternative would be far less with the Existing Line Alternative.

Because the Existing Line Alternative would not be installed along paved roadways as would the Direct Route Alternative, but on unpaved land, the potential for fugitive emissions from construction activities is greater. This potential for increased fugitive emissions would be avoided by greater use of watering and other dust suppressions methods.

For the Direct Route Alternative, minor (a few minutes to less than an hour) electrical shutoffs to business and residences are expected when the existing distribution lines are reconnected on the

new poles. These minor electrical shutoffs would not occur with the Existing Line Alternative because no existing distribution lines would be disconnected.

Similar to the Direct Route Alternative, no significant adverse impacts are expected from the construction of the Existing Line Alternative.

ENVIRONMENTAL JUSTICE

Based on NYSDEC methodology, the environmental justice study area for the Existing Line Alternative and each of its census block groups are not communities of concern for environmental justice. Therefore, similar to the Direct Route Alternative, there would be no potential for environmental justice impacts from the Existing Line Alternative.

LIRR ROUTE ALTERNATIVE

LAND USE AND COMMUNITY CHARACTER

The two portions of this alternative route with existing distribution poles are (1) between the Southampton Substation and the LIRR Southampton Station located on Railroad Avenue, and (2) along the Bridgehampton Sag Harbor Turnpike. The remaining portion of this alternative does not have existing distribution poles, and therefore, any poles between the LIRR Southampton Station and the Bridgehampton Sag Harbor Turnpike installed as part of an above ground configuration along this portion of the right-of-way would be new. Similar to the Direct Route Alternative, this alternative would replace existing 57 foot wood poles with 61 foot (above grade) steel poles, while the remainder of the new poles along the LIRR right-of-way would be between 61 and 75 feet above grade (steel poles)

The portion of this alternative route that is located along the LIRR tracks is not publicly accessible. The right-of-way is a transportation/utility use, and therefore installation of the new transmission line along the LIRR right-of-way would not have an adverse impact on surrounding land uses or the character of the area. Similar to the Direct Route Alternative, because Bridgehampton Sag Harbor Turnpike has existing poles, this alternative would not introduce a new use or new height element along this portion of the route. Thus, the LIRR Route Alternative would not change or conflict with the surrounding land uses. Similar to the Direct Route Alternative, the LIRR Route Alternative would not have significant adverse impact on land use or community character.

COMMUNITY FACILITIES AND OPEN SPACE

Similar to the Direct Route Alternative, the LIRR Route Alternative would not result in any significant adverse impacts on community facilities and emergency services regardless of the configuration selected. Although adding a new transmission line along this right-of-way would add a new use to this corridor, the existing right-of-way already functions as a utility use, and therefore would not increase demand on community facilities and emergency services.

The preservation of open space parcels would not be affected by the LIRR Route Alternative regardless of the configuration chosen. The preservation of these properties has occurred in the past and would be expected to continue in the future with the LIRR Route Alternative.

The LIRR Route Alternative, similar to the Direct Route Alternative, would not conflict with State, County, and local open space policy goals and objectives and would not have a negative impact on any identified parcels for preservation that are identified in these policy documents.

The LIRR Route Alternative, similar to the Direct Route Alternative, would not have any significant adverse impacts with regard to preservation of open space or complying with open space acquisition plans.

ZONING AND PUBLIC POLICY

Like the Direct Route Alternative, the LIRR Route Alternative would not have any significant adverse impact on zoning. Even in the absence of LIPA's status as a State public authority, the LIRR Route Alternative is consistent with the existing uses along the existing distribution line right-of-way and within the ½-mile study area as presently zoned and, therefore, would not have a significant adverse impact on zoning in the study area.

Two Town policies specific to the LIRR Route Alternative are the proposed South Fork Bikeway and the joint-use corridor. The South Fork Bikeway is proposed in close proximity to and at certain locations along the LIRR Route Alternative. The LIRR Route Alternative would not have any significant adverse impacts on the proposed bikeway because the bike path would not be located within the LIRR right-of-way.

Although there are no current proposals for the development of the recommended joint-use corridor or new highway along the LIRR right-of-way, there is a possibility that the Town may proceed with the construction of either of these recommendations in the future.If the LIRR Route Alternative is selected and the Town proceeds with the construction of this roadway, it would be expected that the Town coordinate all activities with the LIRR, NYSDOT, as well as LIPA. This alternative would not hinder or prevent this roadway from being constructed or operated. Roadway improvement projects that contain or involve preexisting utility poles have been successfully completed in the past through a coordinated effort by all agencies involved.

Therefore, similar to the Direct Route Alternative, the LIRR Route Alternative would not have an adverse impact on the State, regional, Town, or Village public policies. This alternative route would be located along a right-of-way that is currently recognized as a transportation/utility use. Further, open space parcels for preservation would not be affected by the new transmission line. The preservation of these properties has occurred in the past and would be expected to occur in the future with or without the transmission line.

COASTAL ZONE MANAGEMENT

In general, the CZM consistency analysis completed for the Direct Route Alternative is similar to the LIRR Route Alternative analysis. The LIRR Route Alternative would be consistent with the policies of the New York State Coastal Management Program.

VISUAL RESOURCES

Vegetation and commercial facilities screen most views of the LIRR right-of-way and therefore would also screen most views of the LIRR Route Alternative. In general, views would only be possible at railroad crossings and across open fields.

If portions of the transmission line along Bridgehampton Sag Harbor Turnpike are buried, riser poles would be used to transition from above to below ground. While the riser poles have an appearance that is more obtrusive than standard utility poles, they would be placed in locations that minimize their prominence in the surrounding landscape.

Of the 106 visual resources listed in Table S-2, the proposed poles associated with the LIRR Route Alternative would be visible or potentially visible from 26 resources. At those locations where the LIRR Route Alternative would be visible or potentially visible, this alternative would not result in any significant adverse visual impacts. Similar to the Direct Route Alternative, with the LIRR Route Alternative, residents and visitors to the area would not experience a significant change in the visual character of the area.

Table S-2
Summary of Inventory of Resources

No.	Resource	LIRR Route Alternative	Direct Route Alternative	Montauk Highway Alternative
1.	Southampton North Main Street Historic District	V	V	V
2.	Southampton Village Historic District & Expansion	PV	PV	PV
3.	Water Mill at Water Mill	V	N	PV
4.	Windmill at Water Mill (Corwith Windmill)	PV	N	V
5.	The Bridgehampton Historical Society (the Corwith House)	N	N	V
6.	Bridgehampton Presbyterian Church	N	N	V
7.	Beebe Windmill	N	N	PV
8.	The Captain Nathaniel Rogers House (a.k.a. the Hampton House; a.k.a. the Hopping House)	N	N	V
National Wildlife Refuges				
9.	Conscience Point National Wildlife Refuge	N	N	N
10.	Elizabeth A. Morton National Wildlife Refuges	N	N	N
State Game Refuges and State Wildlife Management Areas				
11.	Linda Gronlund Memorial Nature Preserve	N	N	N
Bond Act Properties purchased under Exceptional Scenic Beauty or Open Space Category				
12.	Eastern GEIS/Great Swamp	PV	V	PV
13.	Great Hill Pine Barrens	N	N	N
14.	Long Pond Greenbelt	V	V	V
15.	Sagaponack Woods	N	N	N
16.	Tuckahoe Woods	N	N	N
17.	Paumanok Path	PV	PV	PV
18.	Tuckahoe Woods trails	N	N	N
19.	Oak Ponds-to-Peconic Bay Trail	N	N	N
20.	Morton-to-Kellis Pond Trail	V	V	V
21.	Trout Pond-to-Brick Hill Trail	PV	PV	PV
22.	Brick Kiln Woods	V	V	V
23.	Bay-to-Ocean Trail	V	V	V

Table S-2 (cont'd)
Summary of Inventory of Resources

No.	Resource	LIRR Route Alternative	Direct Route Alternative	Montauk Highway Alternative
Locally Significant Resources—Public Parks				
24.	Agawam Park, Village of Southampton	N	N	PV
25.	Berwind Memorial Green	N	N	PV
26.	Big Woods Preserve	N	N	N
27.	Bridgehampton Militia Green	N	N	V
28.	Coopers Beach	N	N	N
29.	Cryder Beach	N	N	N
30.	David Whites Park, Village of Southampton	PV	PV	PV
31.	Emma Rose Elliston Park	N	N	N
32.	Flying Point Beach	N	N	N
33.	Flying Point Park, Village of Southampton	N	N	PV
34.	Foster Memorial Beach (Long Beach)	N	N	N
35.	Fowlers Lane Beach	N	N	N
36.	Georgica Pond Area	N	N	N
37.	Gibson Beach	N	N	N
38.	Gin Lane Beach	N	N	N
39.	Halsey Neck Lane Beach	N	N	N
40.	Havens Beach	N	N	N
41.	Laurel Valley County Park	N	N	N
42.	Little Plains Beach	N	N	N
43.	Lola Prentice Park, Village of Southampton	N	N	PV
44.	Long Pond Greenbelt	V	V	V
45.	Mashashimuet Park, Village of Sag Harbor	N	N	N
46.	Mecox Bay Preserve	N	N	PV
47.	Mecox Beach	N	N	N
48.	Munn Point	N	N	N
49.	North Sea Athletic Facility and Park	N	N	N
50.	Northwest Harbor County Park	N	N	N
51.	Old Town Beach	N	N	N
52.	Peter's Pond Beach	N	N	N
53.	Poxabogue County Park	N	N	N
54.	Railroad Plaza Park, Village of Southampton	V	V	N
55.	Richard L. Fowler Nature Walk, Village of Southampton	N	N	N
56.	Rosko Drive Park, Village of Southampton	N	N	N
57.	Ruth Wales DuPont Sanctuary	N	N	N
58.	Sagg Main Beach	N	N	N

Table S-2 (cont'd)
Summary of Inventory of Resources

No.	Resource	LIRR Route Alternative	Direct Route Alternative	Montauk Highway Alternative
59.	Sagg Swamp Nature Preserve	N	N	N
60.	Sayre Park, Bridgehampton hamlet	V	N	N
61.	Scallop Pond Preserve	N	N	N
62.	Town Line Beach	N	N	N
63.	Trout Pond Park	N	N	N
64.	Water Mill Hamlet Center Green	PV	N	V
65.	William Dunwell Park, Village of Southampton	N	N	N
66.	Windward Way Park, Village of Southampton	PV	V	PV
67.	W. Scott Cameron Beach	N	N	N
68.	Wolf Swamp Sanctuary	N	N	N
69.	Wyandanch Beach	N	N	N
Other Locally Significant Resources				
70.	Railroad Corridor	V	V	V
71.	Mill Pond	V	N	PV
Locally Significant Resources—Scenic Roads Identified in the Comprehensive Plan				
a.	Atlantic Avenue/Ocean Road	N	N	V
b.	Blank Lane	N	V	N
c.	Brick Kiln Road	N	V	N
d.	Bridgehampton Sag Harbor Turnpike	V	V	V
e.	Butter Lane	PV	V	N
f.	Church Lane	N	N	V
g.	Cobb Isle Road	N	N	N
h.	Cobb Road	PV	N	V
i.	Cooks Lane	N	V	N
j.	Davids Lane	N	N	V
k.	Deerfield Road	N	V	N
l.	Edge of Woods Road	N	PV	N
m.	Flying Point Road from Cobb Lane to the southern edge of the study area	N	N	N
n.	Halsey Lane	N	N	V
o.	Hayground Road	V	PV	V
p.	Head of Pond Road	N	V	N
q.	Highland Terrace	N	N	N
r.	Hildreth Lane	N	N	V
s.	Lopers Path	N	PV	N
t.	Lumber Lane	PV	V	N
u.	Mecox Road	N	N	V
v.	Millstone Road	N	PV	N
w.	Mitchells Lane from north of Snake Hollow Road to Scuttle Hole Road	N	V	N

Table S-2 (cont'd)
Summary of Inventory of Resources

No.	Resource	LIRR Route Alternative	Direct Route Alternative	Montauk Highway Alternative
Locally Significant Resources—Scenic Roads Identified in the Comprehensive Plan (continued)				
x.	Montauk Highway/NYS Route 27 from Hildreth Lane to west of Poxabogue Lane	N	N	V
y.	Narrow Lane	N	V	N
z.	Narrow Lane South	N	PV	N
aa.	North Sea Mecox Road west of David Whites Lane	N	N	N
bb.	Noyack Path	N	PV	N
cc.	Old Mill Road from south of Mill Pond to Montauk Highway/NYS Route 27	V	PV	V
dd.	Old Sag Harbor Road	N	N	N
ee.	Pauls Lane east of Halsey Lane	N	N	N
ff.	Sagaponack Road/Sagg Road east of Highland Terrace	N	N	N
gg.	Scuttle Hole Road	V	V	V
hh.	Water Mill-Towd Road	N	V	N
ii.	Wickapogue Road	N	N	N

ARCHAEOLOGICAL RESOURCES

Based on the results of the Stage 1A survey, if the LIRR Route Alternative were to be selected, a Phase 1B Archaeological Survey (i.e., subsurface testing) would be necessary in advance of construction to determine if archaeological resources are present in the study area.

Consequently, the LIRR Route Alternative, similar to the Direct Route Alternative, would not result in significant adverse impacts in terms of archaeological resources.

HISTORIC RESOURCES

Four known historic resources are located in the study area for this alternative, including two historic districts and two individual historic resources. They are the North Main Street Historic District, Southampton Village Historic District & Expansion, The Water Mill at 41 Old Mill Road, and the Windmill at Water Mill (Corwith Windmill).

Fifty-nine (59) individual potential historic resources, three (3) potential historic districts, and one (1) potential thematic grouping have been identified in the study area.

Direct Impacts

The LIRR Route Alternative would not be expected to directly impact historic resources. The proposed transmission line would run directly through the North Main Street Historic District (S/NR-Listed; Village of Southampton-designated) and through the Bridgehampton Industrial

Historic District (potential historic district) along the railroad right-of-way. In addition, multiple individual historic resources, two additional historic districts, and a thematic nomination, are located in the study area. Installation of the new transmission line would not result in the demolition, physical destruction, or alteration of historic resources.

In order to ensure that construction activities associated with the installation of the transmission line would not cause inadvertent physical impacts to adjacent historic resources, LIPA would prepare and implement a CPP in consultation with OPRHP for any architectural resources in close proximity to the LIRR Route Alternative construction.

Indirect Impacts

The new overhead transmission line would introduce new poles along the LIRR right-of-way and result in changes to the height, size, and appearance of the poles along Bridgehampton Sag Harbor Turnpike. Because the poles would be located along a railroad line, where existing rail infrastructure features define the immediate visual landscape, the new poles would not be expected to represent a substantial new visual intrusion. Along the Bridgehampton Sag Harbor Turnpike, the poles would replace existing poles and would be spaced at the same intervals as the existing poles. Therefore, there would be no significant change in visual character and the settings of the historic resources, which presently exist in context with the existing overhead transmission line, would not be substantially altered.

At the end of each underground cable segment, an underground to overhead transition riser pole would be installed where transitions are necessary. These wood riser poles are similar in appearance to the existing and the proposed poles, but would require guy wires from the top of each riser pole, which would run to the ground, about 25 to 40 feet from the pole. The proposed locations of these riser poles have not yet been identified. LIPA would consult with OPRHP and the Town and Village of Southampton, as appropriate, to identify sites, which would minimize and eliminate the potential for significant adverse impacts to historic resources from the riser poles.

Consequently, similar to the Direct Route Alternative, the LIRR Route Alternative would not adversely impact visual, audible, or atmospheric elements to a resource's setting, nor would it eliminate publicly accessible views to the resource.

NATURAL RESOURCES

Habitat and Natural Resources

The LIRR Route Alternative is characterized by flora and fauna typical of edge habitats and urban/suburban environments. Vegetation tends to form a narrow band north and south of the existing railway, predominantly composed of a mix of native and non-native trees and shrubs, often covered by vines. The relatively small disturbance zone (~10 feet or less adjacent to the existing rail line) would result in little or no change to existing terrestrial habitats, and is not likely to result in an overall degradation of critical habitat for commonly occurring species.

Human-adapted wildlife dominates the existing LIRR corridor. Wetlands pass through culverts under the existing rail line, constricting wetland dependant wildlife movement. By placing the proposed transmission line, in either overhead or underground configuration, no significant adverse impacts to wildlife habitat or movements are expected.

Threatened and Endangered Species

The LIRR Route Alternative passes in close proximity to areas mapped as "coastal plain pond shore" community by the NYNHP in the vicinity of the intersection of the LIRR rail line and the Bridgehampton Sag Harbor Turnpike. Several New York State-listed plant species are known to occur here. These are predominantly wetland plants not found in disturbed, roadside habitats. None were observed within the proposed footprint of disturbance during August 2007 field inspections. Nevertheless, these wetland areas occur in close proximity to the roadway adjacent to this eastern segment of the LIRR Route Alternative.

The New York State endangered Eastern tiger salamander breeds in ephemeral wetlands and disperses through upland forested habitat. It is known to occur east of the Bridgehampton Sag Harbor Turnpike. The existing roadway acts as a barrier to Eastern tiger salamander movement. Installation of the proposed project along the LIRR Route Alternative is not expected to have a significant adverse impact to Eastern tiger salamander habitat directly, either by wetland or upland forest lost, or indirectly by acting as a new barrier to animal movement and migration.

Animal exclusion fencing in proximity to known or suspected Eastern tiger salamander breeding areas would be used, which would avoid any significant adverse impacts on the Eastern tiger salamander. Supplemental surveys for Eastern tiger salamander habitats would be conducted if this alternative is selected. If habitat is found the route would be adjust so that the habitat would not be disturbed. Therefore, no significant adverse impacts to threatened or endangered species are expected.

Wetlands

Areas of mapped wetlands in proximity to the LIRR Route Alternative that may require New York State or federal wetland permits for pole or sub-surface placement include:

- Mill Pond/Mill Creek and northern reaches of Hayground Cove, including forested wetlands identified during site inspection (SA-9).
- Long Pond and Little Long Pond (SA-5).

The Army Corps of Engineers and NYSDEC regulate disturbances to freshwater wetlands. Work near wetlands would be done in accordance with conditions of a NYSDEC General Permit issued to Keyspan. The General Permit authorizes KeySpan to perform minor utility install, repair, and maintenance activities in the adjacent areas of tidal wetlands, freshwater wetlands, and Wild and Scenic Rivers. These activities include the installation of poles with overhead cables, and trenching in the adjacent area. The General Permit also authorizes drilling under wetlands as long as the entry and exit points are in the adjacent area and the wetlands are not disturbed. KeySpan is allowed to use this General Permit for LIPA projects. LIPA would coordinate with NYSDEC on wetland and rare species–related issues. Special precautions during the removal of the existing poles and replacement of poles near wetland areas would avoid any impacts to sensitive ecological habitats and associated species. No new poles would be installed within wetlands, and the new poles would be no closer to wetland areas than the existing poles. Wetland impacts would be avoided by siting transmission line poles outside of regulated areas. Underground installation of the transmission line would avoid wetland impacts by directional drilling to avoid any activities within the wetlands. Therefore, no significant adverse impacts would occur to wetlands.

HAZARDOUS MATERIALS

Given the history of this area, extensive spread contamination of the soil or the groundwater is unlikely. Nevertheless, localized pockets of contamination could exist within the LIRR Route Alternative corridor. Excavation and construction activities could disturb these hazardous materials and increase pathways for human exposure. The potential for adverse impacts due to the presence of subsurface contamination would be avoided by ensuring that construction activities are performed in accordance with the same protocols that would be implemented for the Direct Route Alternative, identified above. With the implementation of these protocols, similar to the Direct Route Alternative, no significant adverse impacts related to hazardous materials would result from demolition and/or construction activities related to the LIRR Route Alternative. Following construction, there would be no further potential for significant adverse impacts.

INFRASTRUCTURE

The LIRR Route Alternative would be located entirely above ground along the LIRR right-of-way and either entirely aboveground, below ground, or hybrid along Bridgehampton Sag harbor Turnpike. Similar to the Direct Route Alternative, this configuration would not have a significant adverse impact on infrastructure for the following reasons:

- The LIRR Route Alternative would not create an additional demand on the existing water supply system and individual septic systems. This alternative would generate minimal solid waste, which would be handled by commercial carters, and therefore would not have significant effect on solid waste management within the Town.
- This alternative would provide additional energy to the area, which would have a positive effect on energy supply.

The LIRR Route Alternative would not be constructed along an identified critical corridor. Nevertheless, all structures would be constructed with materials that would be able to withstand a Category 3 hurricane. Furthermore, LIPA has a designated emergency response system in place for situations in which emergency management issues may arise.

GROUNDWATER AND SURFACE WATER RESOURCES

Similar to the Direct Route Alternative, it is not expected that the LIRR Route Alternative would have a significant adverse impact on geology, soils, and groundwater or surface water resources. Depending on the exact locations selected along Bridgehampton Sag Harbor Turnpike, directional drilling may be required under some wetlands to avoid significant adverse impacts.

As with the Direct Route Alternative, stormwater runoff and erosion control measures would be utilized as part of the project.

TRAFFIC/AIR QUALITY/NOISE

Traffic

The LIRR Route Alternative, similar to the Direct Route Alternative, would not affect traffic circulation, and the only new vehicle trips would be for periodic maintenance along the route. For the segment along the LIRR right-of-way, the LIRR Route Alternative would have no impact on traffic accidents involving poles. Along Bridgehampton Sag Harbor Turnpike (CR

79), the LIRR Route Alternative would replace preexisting distribution lines and therefore is not expected to result in a substantial change in the proportion of traffic accidents involving utility poles. Further, while 5 of the 252 accidents that occurred between 2004 and 2007 at major intersections and links in the vicinity of the LIRR Route Alternative involved light supports/utility poles, only one occurred along Bridgehampton Sag Harbor Turnpike (CR 79). The LIRR Route Alternative would not interfere with future development of transportation projects and would not have a significant adverse impact on public policies related to transportation.

Air Quality

The LIRR Route Alternative would not involve the addition of any new stationary sources of emissions and therefore would not result in any significant adverse impacts on air quality.

Noise

The LIRR Route Alternative would not involve the addition of new stationary sources of noise. Therefore, similar to the Direct Route Alternative, this alternative would not result in a significant increase in noise levels due to mobile or stationary sources.

ELECTRIC AND MAGNETIC FIELDS

In general, similar to the Direct Route Alternative, long-term magnetic field exposures in nearby residences with the proposed 69 kV transmission line, with the LIRR Route Alternative, would be expected to be much the same as they are now, well below New York State regulatory levels, and below levels that would most experts believe would pose any increase in health risk.

CONSTRUCTION

The potential impacts of the LIRR Route Alternative would be similar to those for the Direct Route Alternative, except for traffic and infrastructure.

The majority of the LIRR Route Alternative would be installed not next to existing roadways, but along the LIRR right-of-way. The road closures that would be expected with the Direct Route Alternative would be less with the LIRR Route Alternative. Any effect on LIRR passengers is expected to be minor because most of the work would be accomplished during non-peak hours when fewer trains carry fewer passengers than during peak hours.

For the Direct Route Alternative, minor (a few minutes to less than an hour) electrical shutoffs to business and residences are expected when the existing distribution lines are reconnected on the new poles. These minor electrical shutoffs would less with the LIRR Route Alternative because fewer existing distribution lines would be disconnected.

Similar to the Direct Route Alternative, no significant adverse impacts are expected from the construction of the LIRR Route Alternative.

ENVIRONMENTAL JUSTICE

The environmental justice study area for the LIRR Alternative is not considered a potential environmental justice area. The LIRR Route Alternative would not result in significant adverse impacts on the surrounding communities during construction or operation. This conclusion considers the potential for cumulative impacts from the LIRR Route Alternative in conjunction with other similar facilities located in the area. Therefore, as with the Direct Route Alternative,

the LIRR Route Alternative is not expected to result in any disproportionate significant adverse impacts on minority or low-income populations.

MONTAUK HIGHWAY ALTERNATIVE

LAND USE AND COMMUNITY CHARACTER

There is one area along the Montauk Highway Alternative in the vicinity of Water Mill that does not currently have existing distribution poles. Specifically, there are no poles on Montauk Highway between Halsey Lane and Head of Pond Road in Water Mill within this area. In this vicinity, similar to the Direct Route Alternative, the installation of poles would introduce a new use to the area. However, in the areas where poles do not exist, the Montauk Highway Alternative would not have an adverse impact on land use and community character due to the fact that the land uses are located along a major roadway where utility uses are commonly found.

COMMUNITY FACILITIES AND OPEN SPACE

Community Facilities

The Montauk Highway Alternative would not result in any significant adverse impacts on community facilities and emergency services regardless of the configuration selected. Similar to the Direct Route Alternative, the proposed transmission line would not add any additional demand to community facilities and emergency services. Accordingly, the Montauk Highway Alternative would not cause a significant adverse impact on community facilities and emergency services.

Open Space

The preservation of open space parcels would not be affected by the Montauk Highway Alternative regardless of the configuration chosen. The preservation of these properties has occurred in the past and would be expected to occur in the future with the Montauk Highway Alternative.

The Montauk Highway Alternative, similar to the Direct Route Alternative, would not conflict with State, County, and local open space policy goals and objectives and would not have a negative impact on any identified parcels for preservation that are identified in these policy documents.

The Montauk Highway Alternative, similar to the Direct Route Alternative, would not have any significant adverse impacts with regard to preservation of open space or complying with open space acquisition plans.

ZONING AND PUBLIC POLICY

There are some areas along the Montauk Highway Alternative that currently do not have existing distribution poles, and therefore installation of the Montauk Highway Alternative within these sections would introduce a new use. However, Montauk Highway and roadways similar to Montauk Highway have historically coexisted with transmission and distribution lines with little incident. Similar to the Direct Route Alternative, this alternative would not have an adverse impact on the Town or Village zoning because the majority of this route has existing distribution lines and would not conflict with uses present along the route and therefore would be consistent with zoning.

The Montauk Highway Alternative would not have an adverse impact on the State, regional, Town, or Village public policies. This alternative, with the exception of the area between Head of Pond Road and Halsey Lane, would not introduce a new use along Montauk Highway or Bridgehampton Sag Harbor Turnpike.

COASTAL ZONE MANAGEMENT

The Montauk Highway Alternative is generally located within the same portion of the State's coastal zone as the LIRR Route Alternative but instead of following the LIRR right-of-way, this alternative would run along Montauk Highway. Therefore, the Coastal Zone Management analysis provided for the LIRR Route Alternative is also applicable for this alternative and no further assessment is warranted.

VISUAL RESOURCES

Table S-2 lists the resources that were analyzed and identifies whether each alternative would be visible (V), potentially visible (PV), or not visible (N) from each resource. Any resources where the transmission line would be visible or potentially visible are described in further detail below with a discussion of the likely views.

In general, the Montauk Highway Alternative would utilize the right-of-way of Montauk Highway and other roads with residential or commercial development. As such, the transmission line and poles would not represent a significant variation from the overhead distribution lines and utility poles that already exist. Furthermore, the majority of the new transmission line would be attached to new approximately 48 foot wooden poles that simply replace the existing 35 foot wooden distribution utility poles.

The visual analysis assumes a "worst-case scenario" where the entire transmission line would be located above ground. If portions of the transmission line are buried, riser poles would be used to transition from above to below ground. While the riser poles have an appearance that is more obtrusive than standard utility poles, they would be placed in locations that minimize their prominence in the surrounding landscape.

Of the 106 visual resources listed in Table S-2, the proposed poles associated with the Montauk Highway Alternative would be visible or potentially visible from 39 resources. At those locations where the Montauk Highway Alternative would be visible or potentially visible, this alternative would not result in any significant adverse visual impacts. Similar to the Direct Route Alternative, with the Montauk Highway Alternative, residents and visitors to the area would not experience a significant change in the visual character of the area.

ARCHAEOLOGICAL RESOURCES

Based on the results of the Stage 1A survey, if the Montauk Highway Alternative were to be selected, a Phase 1B Archaeological Survey (i.e., subsurface testing) would be necessary in advance of construction to determine if archaeological resources are present in the study area. Consequently, the Montauk Highway Alternative, similar to the Direct Route Alternative, would not result in significant adverse impacts in terms of archaeological resources.

HISTORIC RESOURCES

Eight known historic resources are located in the study area for this alternative, including two historic districts and six individual historic resources. They are the North Main Street Historic District, the Southampton Village Historic District & Expansion, the Water Mill, the Windmill at Water Mill (Corwith Windmill), the Bridgehampton Historical Society (the Corwith House), the Bridgehampton Presbyterian Church, the Beebe Windmill, and the Captain Nathaniel Rogers House (a.k.a. the Hampton House; a.k.a. the Hopping House).

Sixty (60) individual potential historic resources, two (2) potential historic districts, and one (1) potential thematic grouping have been identified in the study area for this alternative.

Direct Impacts

The Montauk Highway Alternative would not be expected to directly impact historic resources. The proposed transmission line would run directly through the North Main Street Historic District (S/NR-Listed; Village of Southampton-designated) along the railroad right-of-way and the Bridgehampton Historic District (potential historic district) along Montauk Highway and the Bridgehampton-Sag Harbor Turnpike. In addition, multiple individual historic resources, one additional historic district, and a thematic nomination, are located in the study area. Installation of the new transmission line would not result in the demolition, physical destruction, or alteration of historic resources.

In order to ensure that construction activities associated with the installation of the transmission line would not cause inadvertent physical impacts to adjacent historic resources, LIPA would prepare and implement a CPP in consultation with OPRHP for any architectural resources in close proximity to the Montauk Highway Alternative construction.

Indirect Impacts

Where the transmission line is proposed overhead, including the small distance were there are no poles, the project would result in changes to the height, size, and appearance of the poles along the transmission line route. However, this change is expected to be minimal. With some exceptions, the proposed poles would replace existing poles and would be spaced at the same intervals as the existing poles. Furthermore, the new poles would be only 13-18 feet taller than the existing poles and 6 inches thicker in diameter at the base than the existing poles, and would be constructed of the same material (wood) as the existing poles. Therefore, there would be no significant change in visual character and the settings of the resources, which presently exist in context with the existing overhead transmission lines, would not be substantially altered. Therefore, the Montauk Highway Alternative would not adversely impact visual, audible, or atmospheric elements to a resource's setting, nor would it eliminate publicly accessible views to the resource.

At the end of each underground cable segment, an underground to overhead transition riser pole would be installed where transitions are necessary. These wood riser poles are similar in appearance to the existing and the proposed poles, but would require guy wires from the top of each riser pole, which would run to the ground, about 25 to 40 feet from the pole. The proposed locations of these riser poles have not yet been identified. LIPA would consult with OPRHP and the Town and Village of Southampton, as appropriate, to identify sites, which would minimize and eliminate the potential for significant adverse impacts to historic resources from the riser poles.

NATURAL RESOURCES

Habitat and Natural Resources

The Montauk Highway Alternative is characterized by landscaped and maintained vegetation, consisting of ornamental trees and herbaceous vegetation, hedgerows, and lawns offering minimal resources for wildlife (i.e., birds, mammals, reptiles and amphibians). The relatively small disturbance zone (~10 feet or less on either side of existing overhead line and within existing paved roadway for underground line placement) would result in little or no change to the existing terrestrial habitats, and is not likely to result in an overall degradation of critical habitat for commonly occurring species.

Mature trees bordering the corridor may be subject to removal of the tree and/or branches overhanging existing lines. The street trees would be inspected by a licensed arborist or trained horticulturalist before final project design to assess which trees would require trimming or other special protection provisions. These provisions for special construction techniques would be integrated into the Contract Bid documents. Any special conditions would be closely observed and best management practices would be integrated into the project design. Conservation strategies to reduce impact to wildlife in upland areas, such as design to maximize connectivity between forested uplands and wetlands, would be implemented during project installation. Maintenance for the overhead lines would consist of tree trimming every 3 to 7 years. None of the activities are expected to have a significant adverse impact.

Construction of the Montauk Highway Alternative would occur primarily in previously disturbed areas (i.e., along open-ornamental habitats, roadways). This project would not represent a substantial additive impact on the connectivity of adjacent ecological communities. Therefore, the proposed project, whether constructed as overhead lines or underground, would not constitute a new or detrimental barrier to wildlife habitats or wildlife movements and would not have any significant adverse impacts.

Threatened and Endangered Species

The Montauk Highway Alternative passes in close proximity to areas mapped as “coastal plain pond shore” community by the NYNHP adjacent to the Bridgehampton Sag Harbor Turnpike. Several New York State-listed plant species are known to occur here. These are predominantly wetland plants not found in disturbed, roadside habitats. None were observed within the proposed footprint of disturbance during August 2007 field inspections. Nevertheless, these wetland areas occur in close proximity to the roadway adjacent to the Montauk Highway Alternative.

The New York State endangered Eastern tiger salamander breeds in ephemeral wetlands and disperses through upland forested habitat. It is known to occur east of the Bridgehampton Sag Harbor Turnpike. The existing roadway acts as a barrier to Eastern tiger salamander movement. Installation of the proposed project along the Montauk Highway Alternative is not expected to produce a negative impact to Eastern tiger salamander habitat directly, either by wetland or upland forest lost, or indirectly by acting as a new barrier to animal movement and migration.

Animal exclusion fencing in proximity to known or suspected eastern tiger salamander breeding areas would be used, which would avoid any significant adverse impacts on the eastern tiger salamander. Supplemental surveys for Eastern tiger salamander habitat would be conducted if this alternative is selected. If suitable habitat is found, the route would be adjusted to avoid that

habitat. Therefore, no significant adverse impacts to threatened or endangered species are expected.

Wetland Resources

Areas of mapped wetlands in proximity to the Montauk Highway Alternative that may require New York State and federal wetland permits include:

- Mill Pond/Mill Creek and northern reaches of Hayground Cove (SA-9)
- Little Long Pond (SA-5)
- Kellis Pond (SA-7)

The Army Corps of Engineers and NYSDEC regulate disturbances to freshwater wetlands. Work near wetlands would be done in accordance with conditions of a NYSDEC General Permit issued to Keyspan. The General Permit authorizes KeySpan to perform minor utility install, repair, and maintenance activities in the adjacent areas of tidal wetlands, freshwater wetlands, and Wild and Scenic Rivers. These activities include the installation of poles with overhead cables, and trenching in the adjacent area. The General Permit also authorizes drilling under wetlands as long as the entry and exit points are in the adjacent area and the wetlands are not disturbed. KeySpan is allowed to use this General Permit for LIPA projects. LIPA would coordinate with NYSDEC on wetland and rare species–related issues. Special precautions during the removal of the existing poles and replacement of poles near wetland areas would avoid any impacts to sensitive ecological habitats and associated species. No new poles would be installed within wetlands, and the new poles would be no closer to wetland areas than the existing poles. Wetland impacts would be avoided by siting transmission line poles outside of regulated areas. Underground installation of the transmission line would avoid wetland impacts by directional drilling to avoid any activities within the wetlands. Therefore, no significant adverse impacts would occur to wetlands.

HAZARDOUS MATERIALS

Given the history of this area, extensive contamination of the soil or the groundwater is unlikely. Nevertheless, localized pockets of contamination could exist within the Direct Route Alternative corridor. Excavation and construction activities could disturb these hazardous materials and increase pathways for human exposure. The potential for adverse impacts due to the presence of subsurface contamination would be avoided by ensuring that construction activities are performed in accordance with the same protocols that would be implemented for the Direct Route Alternative. Therefore no significant adverse impacts related to hazardous materials would result from demolition and/or construction activities related to the Montauk Highway Alternative. Following construction, there would be no further potential for significant adverse impacts.

INFRASTRUCTURE

The Montauk Highway Alternative would not create an additional demand on the existing water supply system, and individual septic systems. This alternative, similar to all alternative routes, would generate minimal solid waste, which would be handled by commercial carters and therefore, would not have significant effect on solid waste management within the Town.

This alternative would, however, provide additional energy to the area, which would have a positive effect on energy supply.

The Montauk Highway Alternative would be constructed along an identified critical corridor that may be used during any emergency situation where evacuation is ordered. All structures would be constructed with materials that would be able to withstand a Category 3 hurricane, an improvement over existing conditions. Furthermore, LIPA has a designated emergency response system in place for situations in which emergency management issues may arise. Therefore, the Montauk Highway Alternative, like the Direct Route Alternative, is not expected to result in significant adverse infrastructure impacts.

GROUNDWATER AND SURFACE WATER RESOURCES

Similar to the Direct Route Alternative, it is not expected that the Montauk Highway Alternative would have a significant adverse impact on geology, soils, and groundwater or surface water resources. Depending on the exact locations selected along the route, directional drilling may be required under some wetlands to avoid significant adverse impacts.

Similar stormwater runoff and erosion control measures would be implemented as part of the project for both the Direct Route and Montauk Highway Alternatives.

TRAFFIC/AIR QUALITY/NOISE

Traffic

The Montauk Highway Alternative would not affect traffic circulation, and the only new vehicle trips would be for periodic maintenance along the route. Between 2004 and 2007, only a minor proportion (fewer than 2 percent) of accidents at major intersections and links in the vicinity of the Montauk Highway Alternative involved light supports/utility poles. Since the Montauk Highway Alternative would largely replace existing poles, it is anticipated that this alternative would not materially alter the proportion of accidents where lighting and/or utility poles are involved. The Montauk Highway Alternative would not have a significant adverse impact on public policies related to transportation.

Air Quality

The Montauk Highway Alternative would not involve the addition of any new stationary sources of emissions and therefore would not result in any significant adverse impacts on air quality.

Noise

The Montauk Highway Alternative would not involve the addition of new transformers at substations, nor would it involve the addition of any other new stationary sources of noise. Therefore, similar to the Direct Route Alternative, this alternative would not result in a significant increase in noise levels due to mobile or stationary sources.

ELECTRIC AND MAGNETIC FIELDS

In general, similar to the Direct Route Alternative, long-term magnetic field exposures in nearby residences with the proposed 69 kV transmission line, with the Montauk Highway Alternative, would be expected to be much the same as they are now, well below New York State regulatory levels, and below levels that would most experts believe would pose any increase in health risk.

CONSTRUCTION

The potential impacts of the Montauk Highway Alternative would be similar to those for the Direct Route Alternative, except for traffic.

The traffic on the Montauk Highway is far greater than the traffic on the roadways that the Direct Route Alternative would traverse. It is likely that the traffic disruptions that are expected to occur during construction of the Montauk Highway Alternative would affect more people than would the construction of the Direct Route Alternative. In addition, the traffic delays are expected to last longer.

These delays are not considered to be significant adverse impacts because they are limited in duration and would occur only over a period of a few months.

ENVIRONMENTAL JUSTICE

The environmental justice study area for the Montauk Highway Alternative is not considered a potential environmental justice area. Therefore, as with the Direct Route Alternative, the Montauk Highway Alternative is not expected to result in any disproportionate significant adverse impacts on minority or low-income populations.

F. MITIGATION

The proposed project would not result in significant adverse environmental impacts. A number of the project's potential short- and long-term impacts would be fully avoided by measures incorporated into the design of the proposed project. As described above, the Proposed Action would not result in any significant adverse environmental impacts. Potential long-term impacts related to natural, historic, and archaeological resources and hazardous materials would be fully avoided or minimized through the use of abatement measures.

G. CUMULATIVE IMPACTS

LONG-TERM CUMULATIVE IMPACTS

The Proposed Action would result in changes in the future conditions of the project study areas, but would not be expected to create significant adverse cumulative impacts. With the widening of CR 39 in place, the Proposed Action would yield cumulative benefits by accommodating anticipated growth and development in the region. The proposed project would not affect traffic circulation and would not involve any stationary sources of emissions or noise; therefore, the proposed project would not be expected to result in cumulative adverse impacts on traffic, air quality, and noise.

SHORT-TERM CUMULATIVE IMPACTS

Temporary cumulative effects could occur if the above mentioned projects have construction timetables overlapping with the proposed transmission line combined with a physical proximity to the Direct Route Alternative. The construction phase of the Proposed Action is currently expected to start in March 2008 and to last for approximately 3 to 4 months. Nonetheless, temporary cumulative effects could occur if other projects in the vicinity of the Direct Route Alternative are constructed at the same time as the Proposed Action.

H. UNAVOIDABLE IMPACTS

The Proposed Action would not result in significant adverse environmental impacts. However, the Proposed Action would result in short-term adverse construction effects in addition to long-term impacts on natural resources, which are not considered significant. A number of the potential construction impacts, as well as potential long-term impacts, have been avoided through the implementation of abatement measures incorporated into the project design.

POTENTIAL SHORT-TERM IMPACTS

As discussed below, all potential short-term adverse impacts have been fully avoided or abated to the maximum extent practicable. During the construction period, measures would be implemented to control noise, vibration, and dust. Because installation of the new transmission line would not be continuous in any one location and would last less than a week in any one particular area, no significant adverse impacts would occur.

POTENTIAL LONG-TERM IMPACTS

As described throughout this EIS, the Proposed Action would not result in any unavoidable long-term significant adverse environmental impacts. The permanent loss of the small acreage of the expanded substation is not expected to have a significant adverse impact.

I. IRREVERSIBLE AND IRRETRIEVABLE IMPACTS

There are a number of resources, both natural and built, that would be expended in the construction and operation of the Proposed Action. These resources include the materials used in construction (e.g. glass, wood, metal, plastics, etc.); energy in the form of gas and electricity consumed during construction and operation of the Proposed Action; and the human effort (time and labor) required to develop, construct, and operate various components of the Proposed Action. They are considered irretrievably committed because their reuse for some purpose other than the Proposed Action would be highly unlikely.

These commitments of land and human resources and materials should be weighed against the public purpose and need for the Proposed Action to provide the necessary energy infrastructure to meet projected local development growth and address system reliability within the eastern portion of the Town of Southampton, the South Fork, and the East End.

J. GROWTH-INDUCING ASPECTS

The development of the Southampton to Bridgehampton Transmission Line Project is not expected to significantly increase the development growth of the area. The proposed project is part of LIPA's overall long range expansion plans to meet the East End demands and to reduce dependence on local generation.

K. CONSERVATION OF ENERGY

The proposed project would not have an adverse effect on the distribution, generation, and maintenance of existing energy facilities nor would it create a demand for additional electric energy. In fact, the proposed project would have a positive effect on energy distribution and generation and would decrease dependence on local electric generation capacity. ✷