

**ENVIRONMENTAL MANAGEMENT AND  
CONSTRUCTION PLAN**

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

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

**ATTACHMENT 10 – INVASIVE SPECIES MANAGEMENT PLAN**

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

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## Introduction

Invasive species are defined in Section 9-1703(10) of the Environmental Conservation Law as a species that is: (a) non-native to the ecosystem under consideration; and, (b) whose introduction causes or is likely to cause economic or environmental harm or harm to human health. The overall goal of invasive species management is to ascertain the most appropriate management method given the species present, population size, and location of the species within and outside the Project area.

This Invasive Species Management Plan has been prepared to be compliance with 6 NYCRR Part 575 and created in accordance with the current Environmental Energy Alliance of New York (“EEANY”) Best Management Practices for Preventing the Transportation of Invasive Species (“EEANY BMP”) developed by New York State utilities in consultation with the New York State Department of Environmental Conservation (“NYSDEC”).

The overall goal of this Invasive Species Management Plan is to utilize best management practices to minimize the spread of and expansion of invasive species specifically associated with the Riverhead to Canal Project (the “Project”) within the Project Area. For the purpose of this document, the Project Area is defined as locations where the Project proposes physical disturbance to vegetated lands.

In terms of invasive species within the Project Area, each invasive species will be considered given its species characteristics (i.e., mode of propagation, etc.) and in its landscape context, such as whether a species has been observed, or is otherwise known to be abundant within the Project Area.

Notwithstanding the presence of invasive species within the Project Area, which may also be present on adjacent lands, this document describes measures to minimize the potential for introduction or spread of invasive species associated with the Project’s construction activities.

Best management practices described in the sections below will be implemented during and subsequent to Project construction activities to reduce the potential for spread of prohibited species and the introduction of new invasive species as a result of construction-related activities and the movement of materials, construction vehicles, and people through the Project Area.

## Invasive Species Locations

Invasive species surveys that recorded precise locations of species were not previously conducted, however, invasive species were more generically identified within the vicinity of the Project area. Invasive species identified in the vicinity of work areas and access roads are indicated on the project Environmental Features Map.

Isolated occurrences of 10 invasive species were identified during other Project surveys along the Project route and are noted in Table 1, below.

Table 1

Location	Species
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MH1.5	Common Reed ( <i>Phragmites australis</i> )
MH2.5	<i>Phragmites australis</i>
MH4.5	Common Mugwort ( <i>Artemesia vulgaris</i> )
MH6.5	<i>Artemesia vulgaris</i>
MH7.5	<i>Artemesia vulgaris</i>
MH10.5	Chinese bushclover ( <i>Lespedeza cuneate</i> )
MH12.5	Japanese honeysuckle ( <i>Lonicera japonica</i> ), Autumn olive ( <i>Elaeagnus umbellata</i> )
MH22.5	<i>Elaeagnus umbellata</i> , Multiflora rose ( <i>Rosa multiflora</i> )
MH29.5	<i>Elaeagnus umbellata</i>
MH30.5	<i>Elaeagnus umbellata</i> , Black locust ( <i>Robinia pseudoacacia</i> )
MH32.5	<i>Elaeagnus umbellata</i> , <i>Artemesia vulgaris</i>
MH33.5	<i>Lonicera japonica</i> , <i>Rosa multiflora</i>
MH34.5	<i>Elaeagnus umbellata</i> ,
MH 37.5	<i>Artemesia vulgaris</i> , Border privet ( <i>Ligustrum obtusifolium</i> ), <i>Rosa multiflora</i> , Norway maple ( <i>Acer platanoides</i> )
MH38.5	<i>Acer platanoides</i>
MH38.5A	<i>Elaeagnus umbellata</i> , <i>Ligustrum obtusifolium</i> , <i>Artemesia vulgaris</i> , <i>Rosa multiflora</i>
MH39.5	<i>Elaeagnus umbellata</i>
VR3	<i>Elaeagnus umbellata</i>
VR1	<i>Elaeagnus umbellata</i>
VR4	<i>Robinia pseudoacacia</i> , <i>Acer platanoides</i> , <i>Ligustrum obtusifolium</i> , <i>Artemesia vulgaris</i> , Wineberry ( <i>Rubus phoenicolasius</i> )

All of the species present on the Project ROW are also present within the broader landscape and are not just limited to the Project ROW. Some of the more prevalent invasive species were common mugwort, which tends to grow in open upland areas, and Autumn olive. Common reed was also identified in multiple locations.

### Best Management Practices

BMP's to be utilized during construction will be aimed at the prevention or reduction of the transport of invasive species at all points of ingress/egress by any Project associated vehicles. Construction vehicles will use defined paths along the Project route, as illustrated in Attachment 1 – Environmental Features Map. PSEG Long Island will use the following measures to minimize the potential for the introduction and spread of invasive species: 1) Contractor/employee training; 2) Construction materials inspection; 3) Avoidance; 4) Minimization of ground disturbance; 5) Clearing and disposal practices; 6) Equipment cleaning; and 7) Site restoration best management practices.

1. All vehicles, equipment and materials will be inspected for and cleaned, of any visible soils, vegetation and debris before bringing them into the Project area.
2. The inspection and cleaning of equipment will be done at specific areas designated on Project Environmental Features Maps.
3. At cleaning stations, identified on the Environmental Features Maps, soils plant parts and seeds will be cleaned from tools and equipment including undercarriage, tires, tailgates and grills of all vehicles and equipment. This will be accomplished using high-pressure air, brushes and other hand tools (without using water).
4. Soil disturbance will be minimized through the use of delineation of clearing, grading and ground disturbance limits prior to construction. Disturbance areas will be kept to the minimum size necessary for construction activities.
5. Bare soils will be revegetated as soon as appropriate with appropriate plantings to minimize possible establishment of invasive species.
6. All field management personnel as well as project contractors will be trained and educated in the identification of invasive species, implementing best management practices, and cleaning methods to prevent, control and/or minimize the transport of invasive species throughout and off the Project.
7. Environmental Monitor(s) will be able to recognize all pertinent invasive species in 6 NYCRR Part 525 and will be aware of the areas of invasive species identified within the ROW and work places.
8. In particular, the Environmental Monitor(s) shall be trained to identify the Asian Longhorned Beetle, the Emerald Ash Borer, Southern Pine Beetle, Spotted Lanternfly, and any other invasive insects that the DEC identifies as a potential problem. If evidence of the existence of these insects is found, or if the species is identified during the course of construction activities, they shall be reported immediately to the DEC.
9. Appropriate erosion and sediment controls will be installed to help prevent or control the potential transport of invasive plant species via soil erosion.
10. Imported fill and construction material will be inspected by the Environmental Monitor for invasive species. If any new invasive species or any invasive insects are found, the material will not be accepted. Depending on the species, proper notifications will occur to allow for early detection/rapid response for invasive species that need to be contained as soon as they are identified.

### Contractor Training

The potential for new invasive species introduction on the Project ROW is high, as equipment, materials, and vehicles will arrive to the Project area from elsewhere. It is therefore important to educate construction workers about invasive species and how to prevent their spread. This education will be accomplished through training provided by PSEG Long Island.

PSEG Long Island will train and educate construction workers on identifying the target invasive plant species and site-specific measures for preventing or controlling their transport onto and throughout the ROW. The contractors will be instructed on how to inspect for invasive species, and the various equipment cleaning methods to be used. The contractor will be informed of known invasive species concentration areas during pre-construction training and at morning meetings when reviewing daily construction plans.

#### Construction Materials Inspection

Construction material such as seed mixes and straw bales brought into the Project Area from an outside source, will be required to be visibly free of invasive plant material. The contractor will not move invasive plant infested materials to locations that are free of invasive species. This control measure applies to the entire Project Area.

Construction activities have been designed to minimize ground disturbance by limiting the size of designated work areas, avoiding areas that require grading, and minimizing vegetation removal. There are no DEC regulated wetland and adjacent areas or agricultural areas crossed or bisected by the Project.

In areas where construction equipment leaves the ROW, the Environmental Monitor will inspect the equipment prior to their use off-roadway and after off-roadway work has been completed.

#### Equipment Inspection and Cleaning: Construction equipment

In order to prevent the potential introduction of invasive plant species from other areas or regions to the Project area, equipment, vehicles and materials (including mats) as well as other equipment used transport other equipment to the Project area should be inspected and cleaned of any visible soils, vegetation (including seeds and plant parts), and debris prior to arriving at the work area or entering an area uninfested with invasive plants. Similarly, equipment, vehicles, clothing, and material should be inspected (and cleaned if necessary) prior to leaving work areas with infestations of invasive plants. The Environmental Supervisor/ Environmental Monitor and Construction Supervisor will conduct periodic inspections of the cleaning station to ensure compliant with EM&CP guidelines.

Soils, plant parts, and seeds should be cleaned from tools and equipment including undercarriage, tires, sideboards, tailgates, and grills of all vehicles and equipment. This can be accomplished with high-pressure air, vacuum cleaners, brushes, brooms, shovels, or other hand tools without using water. Soil, plant parts, and seeds should be removed from clothing, boots, and gear using wire brushes, small screwdrivers, and boot brushes before leaving a work area infested with invasive plants. Cleaning of clothing, footwear, and other equipment should not take place in or near waterways or near documented locations of rare plants.

As appropriate, contractor(s) and subcontractor(s) must minimize ground disturbances and vegetation removal (e.g. by limiting number of access points and routes) to limit the amount of bare/disturbed soil created, as much as possible. Crews must stay within the access paths and work areas designated on the project drawings reflected in the Environmental Management and Construction Plans approved for the Project.

#### Material Disposal

Contractors must avoid moving soil, gravel, rock and other fill material from areas infested by invasive species to areas that are relatively free of invasive plants. Soils from areas in which invasive species have been identified and seeds or other plant material can spread invasive species if not disposed of properly. Any disposal of soils, seeds, and plant material from areas currently infested with invasive species should

occur in or immediately adjacent to those infested areas. Potentially infested soils or other materials must not be disposed of down storm drains or near waterways, which could inadvertently spread the invasive species. Soils, seeds, and plant material from areas infested with invasive species should be placed in black bags and allowed to rot in the sun for several weeks before being disposed of at a State-approved landfill.

#### Prevention Measures

Additional steps should be taken, when feasible, to help prevent the potential spread of invasive species. Vehicular access should be minimized within and adjacent to infested areas.

#### Post-Construction Monitoring

PSEG Long Island does not propose to conduct post-construction surveys or monitoring.