

ATTACHMENT B

ECOLOGICAL ASSESSMENT

ECOLOGICAL ASSESSMENT REPORT

PSEG Long Island Ruland Road Substation Reactors Melville, NY

NPV No. 16160

Prepared for:

PSEG Long Island
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1.0 PROJECT BACKGROUND

Nelson, Pope & Voorhis, LLC (NPV) was retained by PSEG Long Island to conduct an ecological assessment of the proposed project site to evaluate existing ecological conditions and assess potential impacts associated with vegetation clearing. The subject property (hereinafter referred to as the “Project Site”) is located in the Hamlet of Melville, Town of Huntington, Suffolk County, New York. The site is located on Ruland Road bordered primarily by residential uses to the south and east and commercial to the north and west. (See attached **Figure 1** Location Map and **Figure 2** Aerial Photography)

This assessment was performed in accordance with applicable environmental review protocols to ensure regulatory compliance and to support planning and permitting processes.

The proposed project at the Ruland Road Substation in Melville entails the installation of six new 138 kilovolt (kV) Air Core Reactors along with associated support equipment on a currently vacant, vegetated area adjacent to the existing substation. To accommodate the new infrastructure, the lot will be fully cleared of existing trees and vegetation prior to construction.

2.0 SITE DESCRIPTION

On January 9, 2026, a two-person field team consisting of an ecologist and an arborist from NPV conducted an ecological reconnaissance of the project site. The purpose of this assessment was to document existing site conditions and identify any potential ecological concerns associated with the proposed work. The assessment focused on areas of the property anticipated to be cleared, graded, or otherwise impacted by development activities (“disturbance area”).

The site visit included a qualitative assessment of habitat characteristics, with particular attention to mature trees (trees greater than 8 inches diameter at breast height (DBH)), vegetative communities, and any features that may provide ecological value such as the presence of native plant species and structurally diverse vegetation communities. Observations also included current site conditions and landscape elements.

A two-person field team employed meander methodology to survey the full extent of the proposed disturbance areas. This method ensured comprehensive visual coverage and allowed for the documentation of relevant ecological features, including vegetation communities, topography, and any existing structures or landscape elements.

2.1 Vegetation

As shown in **Figure 3**, the ecological community of the disturbance area, as classified under the *Ecological Communities of New York State* framework developed by the NYSDEC (Edinger et al., 2014), can best be described as Successional Southern hardwood (0.2 Acres) and Mowed Lawn (0.18 Acres). Together, these communities encompass the entire disturbance area, which totals roughly 0.38 acres.

The disturbance area is characterized by two primary ecological community types: *Successional Southern Hardwood* and *Mowed Lawn*, as defined by the NYSDEC classification system. While these communities are present, the site is highly disturbed and reflects a long history of anthropogenic alteration. The canopy consists of a mixed assemblage of coniferous and deciduous species, including Douglas fir (*Pseudotsuga menziesii*), White spruce (*Picea glauca*), Eastern red cedar (*Juniperus virginiana*), and hardwoods such as Red oak (*Quercus rubra*), White oak (*Quercus alba*), Black cherry (*Prunus serotina*), and Black locust (*Robinia pseudoacacia*). Several invasive plant species, including Japanese honeysuckle (*Lonicera japonica*), Oriental bittersweet (*Celastrus orbiculatus*), and garlic mustard (*Alliaria petiolata*), were documented during the survey, contributing to the degraded ecological condition. Vegetation density varies across the disturbance area, with the western portion supporting a higher concentration of mature trees and understory growth compared to the more open, lawn-dominated eastern section.

Edinger et al. (2014) describes Successional Southern Hardwood as:

“a hardwood or mixed forest that occurs on sites that have been cleared or otherwise disturbed. Characteristic trees and shrubs include any of the following: American elms (Ulmus americana), slippery elm (Ulmus rubra), white ash (Fraxinus americana), red maples (Acer rubrum), box elders (Acer negundo), silver maple (Acer saccharinum), sassafras (Sassafras albidum), gray birch (Betula populifolia), hawthorns (Crataegus spp.), eastern red cedar (Juniperus virginiana), and choke-cherrys (Prunus virginiana). Certain introduced species are commonly found in successional forests, including black locust (Robinia pseudo-acacia), tree-of-heaven (Ailanthus altissima), and buckthorn (Rhamnus cathartica). Any of these may be dominant or codominant in a successional southern hardwood forest. This is a broadly defined community and several seral and regional variants are known.”

Edinger et al. (2014) describes Mowed Lawn as:

“Residential, recreational, or commercial land, or unpaved airport runways in which the groundcover is dominated by clipped grasses and there is less than 30% cover of trees. Ornamental and/or native shrubs may be present, usually with less than 50% cover. The groundcover is maintained by mowing and broadleaf herbicide application.”

During the ecological reconnaissance, NPV conducted a thorough visual inventory of plant species within the proposed disturbance area. The species listed below were identified onsite and represent those most prevalent or ecologically significant to site conditions. This list is not intended to be comprehensive; additional species not observed during the site visit may also occur on the property.

Table 2-1 below provides a summary of the plant species identified during the site survey.

TABLE 2-1
VEGETATION OBSERVED ON SITE

Common Name	Scientific Name
<i>Herbaceous Species</i>	
Mugwort	<i>Artemisia vulgaris</i>
Curly Dock	<i>Rumex crispus</i>
Goldenrod	<i>Solidago spp.</i>
Spotted Knapweed	<i>Centaurea stoebe</i>
Little Bluestem	<i>Schizachyrium scoparium</i>
Garlic Mustard	<i>Alliaria petiolata</i>
<i>Trees and Shrubs</i>	
Spruce	<i>Picea spp.</i>
Fir	<i>Abies spp.</i>
White Oak	<i>Quercus alba</i>
Red Cedar	<i>Juniperus virginiana</i>
White Spruce	<i>Picea glauca</i>
Black Locust	<i>Robinia pseudoacacia</i>
Honey Locust	<i>Gleditsia triacanthos</i>
<i>Vines</i>	
Oriental Bittersweet	<i>Celastrus orbiculatus</i>
Japanese Knotweed	<i>Fallopia japonica</i>
Japanese Honeysuckle	<i>Lonicera japonica</i>
Multiflora Rose	<i>Rosa multiflora</i>

3.0 MATURE TREE ASSESSMENT

On January 9, 2025, NPV conducted a mature tree survey within the proposed disturbance area to document existing tree resources and evaluate potential ecological implications of their removal. The survey included all trees with a diameter at breast height (DBH) greater than 8 inches. A total of thirteen (13) mature trees were identified, representing a mix of species including Douglas fir (*Pseudotsuga menziesii*), White spruce (*Picea glauca*), Eastern red cedar (*Juniperus virginiana*), Red oak (*Quercus rubra*), White oak (*Quercus alba*), Black locust (*Robinia pseudoacacia*), Black cherry (*Prunus serotina*), Box elder (*Acer negundo*), and Green ash (*Fraxinus pennsylvanica*). DBH measurements ranged from 8 inches to 20 inches, with an average DBH of approximately 11.5 inches. Notable specimens include a White spruce measuring 20 inches DBH and a Black cherry measuring 20 inches DBH. **Table 3-1** summarizes the trees surveyed on January 9, 2025. Tree locations are shown in **Figure 4**. The survey included only trees with a diameter at

breast height (DBH) greater than 8 inches.

TABLE 3-1
MATURE TREES ON SITE

Tree ID	Tree Species	DBH
1	Douglas Fir	17
2	White spruce	20
3	Red cedar	8
4	Red oak	8.5
5	White oak	10
6	White oak	9
7	Black locust	10
8	Black cherry	9.5
9	Box elder	9
10	Black cherry	20
11	Green ash	9
12	Red cedar	10
13	Red cedar	10

4.0 IMPACT ASSESSMENT

4.1 Rare Threatened and Endangered (RTE) Species

No rare, threatened, or endangered (RTE) species were observed on the Project Site during the January 9, 2026 field survey. Additionally, a review of the NYSDEC Environmental Resource Mapper (**Appendix A**), conducted on the same date, confirms that the site is not located within or adjacent to any areas known to support RTE species.

4.2 Anticipated Impacts

The proposed project will require the removal of all vegetation within the 0.38-acre disturbance area. Given the relatively small size of the area to be cleared, the anticipated ecological impacts are expected to be minimal. The site is already heavily disturbed and surrounded by existing development, further reducing its ecological connectivity and overall habitat value.

Should any impacts occur as a result of the proposed clearing, they would generally be limited to the temporary loss of canopy cover, minor changes to local microclimate, and a reduction in available habitat for common wildlife species that utilize the existing vegetation. The removal of invasive plant species may also result in a modest improvement in site conditions over time. No impacts to rare, threatened, or endangered species or significant ecological communities are

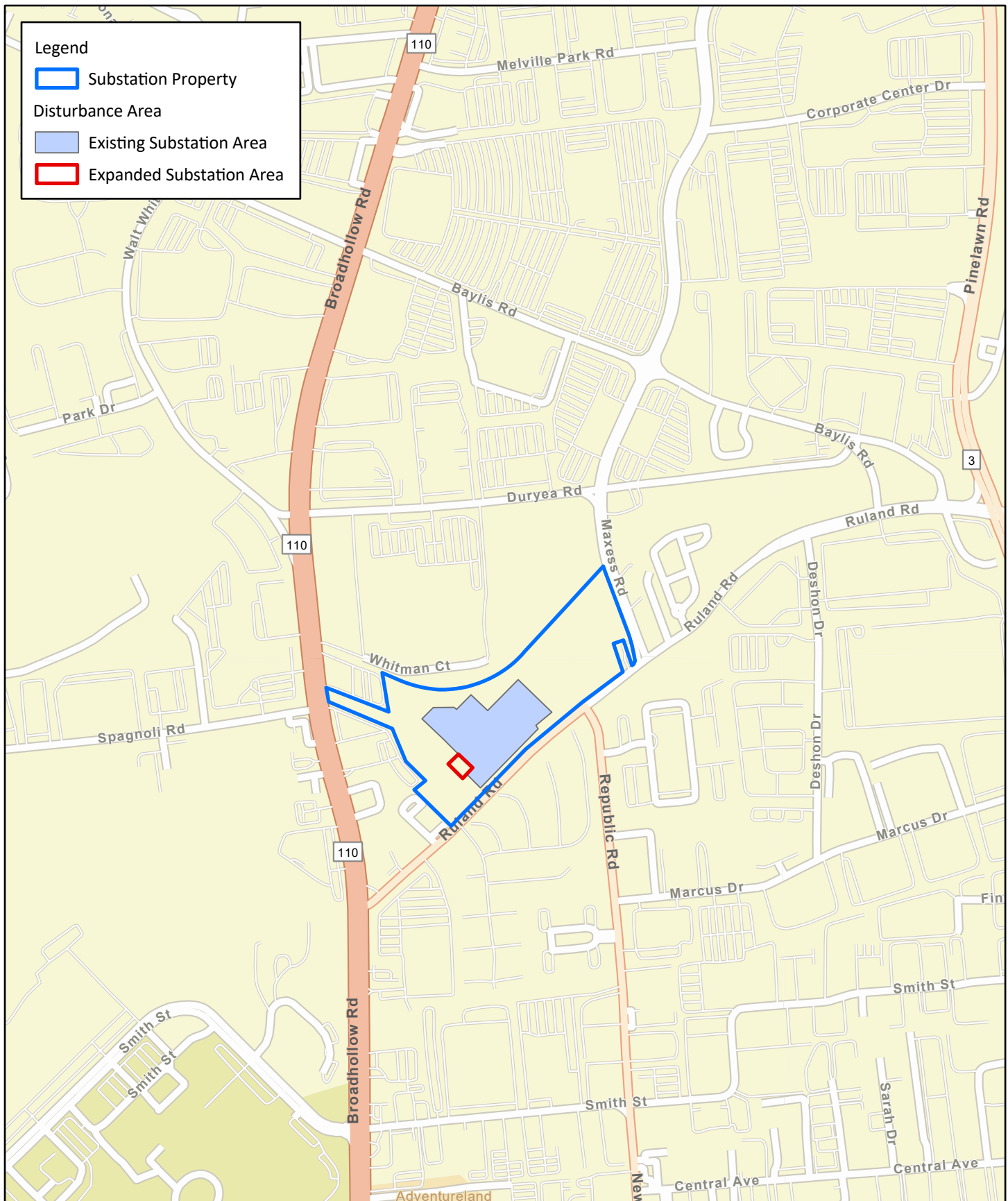
anticipated, and no additional mitigation measures are warranted beyond standard best management practices for vegetation clearing.

5.0 CONCLUSION

In summary, the ecological assessment determined that the disturbance area is characterized by two ecological community types: Successional Southern Hardwood and Mowed Lawn, encompassing approximately 0.38 acres. The disturbance area supports a mix of coniferous and deciduous tree species, including Douglas fir, White spruce, Eastern red cedar, Red oak, White oak, Black cherry, and Black locust, along with several invasive plant species such as Japanese honeysuckle, Oriental bittersweet, and garlic mustard. A total of thirteen mature trees were documented, with DBH measurements ranging from 8 to 20 inches.

The proposed project will require complete vegetation clearing within the disturbance area. Given the site's small size, highly disturbed condition, and lack of ecological connectivity, anticipated impacts are minimal and primarily limited to the temporary loss of canopy cover and localized habitat for common wildlife species. No rare, threatened, or endangered species or significant ecological communities were identified on-site, and the project is not expected to result in any adverse ecological effects. Standard best management practices for vegetation clearing should be implemented, but no additional mitigation measures are warranted.

FIGURES



**FIGURE 1
LOCATION**

Sources: ESRI Street Map 2025, Suffolk County GIS 2025
Scale: 1 inch equals 1,000 feet



**PSEG Ruland Road
Substation
Ecological Assessment
Report**



FIGURE 2
AERIAL

Sources: NYS Ortho imagery 2023, Suffolk County GIS 2025
Scale: 1 inch equals 100 feet



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**FIGURE 3
HABITAT**

Sources: NYS Ortho imagery 2023, Suffolk County GIS 2025
Scale: 1 inch equals 25 feet



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FIGURE 4
TREE LOCATIONS

Sources: NYS Ortho imagery 2023, Suffolk County GIS 2025
Scale: 1 inch equals 50 feet



PSEG Ruland Road
Substation
Ecological Assessment
Report

APPENDIX A

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Heritage Program

625 Broadway, Fifth Floor, Albany, NY 12233-4757

Phone: (518) 402-8935 | Fax: (518) 402-8925

www.dec.ny.gov

01/09/2026

The attached report from the Environmental Resource Mapper includes information from the New York Natural Heritage Program database with respect to the location indicated on the map below. This letter, together with the attached report from the Environmental Resource Mapper, is equivalent to, and carries the same validity, as a letter from the New York Natural Heritage Program, including for projects where a Natural Heritage letter is required.

If your location of interest does not fall within an area covered by the Rare Plants and Rare Animals layer or in the Significant Natural Communities layer, then New York Natural Heritage has no records to report in the vicinity of your project site. Submitting a project screening request to NY Natural Heritage is not necessary.

If the attached report lists that your location of interest is in the vicinity of state-listed animals, including state-listed bats, please consult the [EAF Mapper](#) to obtain a list of the species involved. (You do not have to be filling out an Environmental Assessment Form in order to use the EAF Mapper). Then consult the appropriate [NYSDEC Regional Office](#) for information on any project requirements or permit conditions.

If the attached report lists unlisted animals, rare plants, or significant natural communities, and if you would like more information on these, please submit a project screening request to [New York Natural Heritage](#). For more information, please see the DEC webpage [Request Natural Heritage Information for Project Screening](#).

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, NYNHP files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. NYNHP cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources from a proposed project.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the NYNHP database.

New York Natural Heritage Program

<https://www.nynhp.org/>.

Environmental Resource Mapper



The coordinates of the point you clicked on are:

UTM 18	Easting:	633413.8452352267	Northing:	4513502.124718441
Longitude/Latitude	Longitude:	-73.41936859963056	Latitude:	40.76167566293691

The approximate address of the point you clicked on is:

51-51 Ruland Rd, Melville, New York, 11747

County: Suffolk

Town: Huntington

USGS Quad: HUNTINGTON

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in another data layer (ie. a wetland) and thus be subject to permit jurisdiction.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.