Sunrise Wind New York Cable Project

Appendix 4-E

Onshore Ecological Assessment and Field Survey Report

Prepared for:



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Sunrise Wind: Onshore Ecological Assessment and Field Survey Report

Town of Brookhaven, New York

December 2020

Prepared for:

Sunrise Wind LLC

Prepared by:

Stantec Consulting Services Inc.

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Acronyms and Abbreviations

CEA	Critical Environmental Area
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
GIS	Geographic Information Systems
GPS	Global Positioning System
HDD	Horizontal Directional Drill
he	hectare
ICW	Intracoastal Waterway
in	inch
in IPaC	inch Information for Planning and Conservation
IPaC	Information for Planning and Conservation
IPaC km	Information for Planning and Conservation kilometer
IPaC km LIE	Information for Planning and Conservation kilometer Long Island Expressway
IPaC km LIE mi	Information for Planning and Conservation kilometer Long Island Expressway mile



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NYSDEC	New York State Department of Environmental Conservation
ROW	right-of-way
RTE	rare, threatened and endangered
SCFWH	Significant Coastal Fish and Wildlife Habitats
USFWS	U.S. Fish and Wildlife Service



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1.0 INTRODUCTION

Sunrise Wind LLC (Sunrise Wind, or the Applicant), a 50/50 joint venture between Orsted North America Inc. and Eversource Investment LLC, proposes to construct, own, and operate the Sunrise Wind Farm Project. The Sunrise Wind Farm Project and its transmission components will be located in federal waters on the Outer Continental Shelf, in state waters of New York, and onshore in the Town of Brookhaven, Suffolk County, New York. Stantec Consulting Services Inc. was retained by Sunrise Wind to evaluate the onshore components (Onshore Facilities) for the potential presence of regulated natural resources, such as rare, threatened and endangered (RTE) species¹, significant natural communities or habitats, wetland and waterbody resources, and invasive plant species. This included an initial desktop assessment, followed by field surveys conducted by Stantec in June and October 2020. Field surveys focused on the delineation of wetlands and other waterbodies, the classification of natural communities, evaluation of potential habitat suitability for RTE species, and evaluation of presence and relative abundance of nonnative, invasive species associated with the Onshore Facilities (Figure 1 of Appendix A). For this report, RTE plant species include those with state and/or federal listing status or inclusion on New York's Rare Plant Status List (Young 2019). Fish and wildlife species include those identified by the U.S. Fish and Wildlife Service (USFWS) or New York State Department of Environmental Conservation (NYSDEC) during consultation. This report has been prepared in support of the Sunrise Wind federal Construction and Operations Plan as well as the Sunrise Wind application for a Certificate of Environmental Compatibility and Public Need under Article VII of the New York State Public Service Law for the portions of the Sunrise Wind Farm Project within New York State (the Sunrise Wind New York Cable Project).

The Onshore Facilities evaluated included the following:

- Landfall Work Area, where the connection of the Sunrise Wind Export Cable and the Onshore Facilities will occur via Horizontal Directional Drill (HDD) at Smith Point County Park on Fire Island. HDD will require temporary use of a Landfall Work Area located onshore within which the transition joint bays will be installed and HDD construction activities will occur, including cable pull in activities. HDD cable duct stringing activities may also occur adjacent to the Landfall Work Area.
- 2. Intracoastal Waterway (ICW) Work Area, which includes the ICW HDD at both Smith Point County Park on Fire Island and Smith Point Marina on Long Island.
- 3. Onshore Transmission Cable from the Landfall Work Area to the Union Avenue Site, where the cable will then interconnect with the existing electrical grid at the existing Holbrook Substation. Two routes have been evaluated for the Onshore Transmission Cable, including a primary route and alternative variations, as described below and shown on Figure 1:

¹ Presence of avian and bat species, marine mammals, marine fisheries, and benthic species are addressed in separate reports.



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- Long Island Expressway (LIE) Service Road Route (the primary route), an approximately 17.5-miles (mi; 28.2-kilometer [km]) route from the Landfall Work Area to the Union Avenue Site.
- Peconic Avenue Route, which initially follows the same route as LIE Service Road Route but diverts off Horseblock Road at Peconic Avenue and continues west along Peconic Avenue to North Ocean Avenue. The Peconic Avenue Route turns north along North Ocean Avenue, west to Long Island Avenue, and continues west along Long Island Avenue to Union Avenue to reach the Onshore Converter Station.
- 4. The Union Avenue Site, including:
 - An approximately 8-acre (3 hectares [ha]) Union Avenue North Site
 - An approximately 8-acre (3 ha) Union Avenue South Site
- 5. Interconnection Cables to the Existing Holbrook Substation

In this report, the term Landfall/ICW Study Area is used to describe an area encompassing the Landfall Work Area (at Smith Point County Park), the adjacent pipe-stringing area, and the ICW Work Area (at Smith Point County Park and at Smith Point Marina), as well as the adjacent lands around these areas to allow for the possibility of future design adjustments. The term 'Landfall/ICW Study Area on Fire Island' is used to specifically describe the assessed areas on Fire Island, while the term 'Landfall/ICW Study Area on the Mainland' is used to specifically describe the assessed areas within Smith Point Marina. The term 'Onshore Transmission Cable Survey Area' is used to specifically describe the assessed area where the potential Onshore Transmission Cable route will travel along existing roads to the Union Avenue Site.²

2.0 METHODOLOGY AND DATA SOURCES

2.1 DESKTOP REVIEW

The desktop review included consultations with natural resource agencies as well as a review of publicly available Geographic Information Systems (GIS) data:

- Aerial imagery
- National Wetlands Inventory data
- National Hydrography Dataset
- Critical Environmental Areas (CEAs) as designated by the NYSDEC and RTE-occupied habitat databases maintained by the New York Natural Heritage Program (NYNHP)
- NYSDEC-regulated tidal and freshwater wetlands as available through the NYSDEC Environmental Resource Mapper (NYSDEC 2020)
- Soil data available from the U.S. Department of Agriculture Natural Resources Conservation Service

² Due to pending survey access permission, only the desktop evaluation was conducted for the Union Avenue Site and Onshore Interconnection Cable. This report will be updated once survey access is obtained and these areas can be surveyed.



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- Flood Insurance Rate Maps from the Federal Emergency Management Agency (FEMA)
- Significant Coastal Fish and Wildlife Habitats (SCFWH) as designated by the NYSDEC
- Significant Natural Communities as designated by the NYSDEC and contained within the NYSDEC Environmental Resource Mapper (NYSDEC 2020)
- A list of RTE species for the Town of Brookhaven as well as Suffolk County, as available through the New York Nature Explorer (Appendix B)
- The results of a USFWS Information for Planning and Conservation (IPaC) query on March 11, 2020 (Appendix C)
- Information on the presence of RTE species proximal to the Onshore Facilities provided in a letter from the NYNHP on March 27, 2020 (Appendix C)
- Details regarding invasive species available from the New York iMapInvasives database and mapping tool
- Published local references, including the *Fire Island National Seashore Draft General Management Plan/Environmental Impact Statement* (NPS 2015), the *Central Pine Barrens Comprehensive Land Use Plan* (Central Pine Barrens Joint Planning and Policy Commission 2012), and the Final Design Report / Environmental Assessment for the bridge replacement/highway reconstruction project of the William Floyd Parkway, Route CR 46 over Narrow Bay (New York State Department of Transportation 2019)

Where available, digital data were compiled into a GIS data viewer along with aerial imagery and Onshore Facilities components to aid in the analyses. The results of the desktop assessment were used to inform the field surveys.

2.2 FIELD SURVEYS

Wetland/Waterbodies Delineation

Stantec wetland scientists conducted wetland and waterbody delineations during the months of June and October 2020. Wetland boundaries potentially regulated by state and/or federal jurisdiction were determined using the technical criteria described in the Corps Wetland Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regional Supplement (USACE 2012). In addition, boundaries of freshwater wetlands regulated under Article 24 of the New York Environmental Conservation Law were delineated according to methods described in the New York State Freshwater Wetlands Delineation Manual (Browne et al 1995). Data collected for each wetland included the dominant vegetation, hydric soil indicators, and wetland hydrology indicators. Details on each delineated wetland are summarized in Section 3.2.1. Streams and other potential waters of the United States were delineated based on NYSDEC technical criteria and the Clean Water Rule: Definition of "Waters of the United States"; Final Rule (June 29, 2015). Data collected on streams included flow type, channel width (Ordinary High-Water Mark), and channel substrate. Details of each delineated waterbody are described in Section 3.2.2. The approximate Mean High Water mark was delineated along tidal waterbodies based on physical evidence including presence of wrack, drift, shelving, changes in slope, changes in vegetation, and other observable features. Wetland and watercourse/waterbody boundaries were located using a Global Positioning System (GPS) receiver capable of submeter accuracy.



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Principal and secondary functions and values of wetlands were identified during the delineation. The functional assessment largely followed *The Highway Methodology Workbook Supplement: Wetland Function and Value, A Descriptive Approach* (USACE 1999). This method bases function and value determinations on the presence or absence of specific criteria for each of the 13 wetland functions and values: groundwater recharge/discharge; floodflow alteration; fish and shellfish habitat; sediment/toxicant retention; nutrient removal; production export; sediment/shoreline stabilization; wildlife habitat; recreation; educational/scientific value; uniqueness/heritage; visual quality/aesthetics; and endangered species habitat. In addition to the presence or absence of specific functions and values, the probability functional capacity was based on wetland and buffer characteristics (e.g., the presence of associated watercourse or waterbodies, invasive species presence, and adjacent land uses).

Natural Communities and RTE Species Assessment

During the June and October 2020 field visits, Stantec wetland scientists characterized the general natural community types and evaluated their potential to provide habitat potentially suitable for RTE species. Natural communities were classified using Edinger et al. (2014). Any incidental observations of RTE species encountered during field visits were documented.

Invasive Species Assessment

Invasive species are non-native species that can cause harm to the environment, the economy, or human health. Stantec wetland scientists documented the presence of and evaluated the approximate relative density (low, medium, or high) of invasive plant species during the June and October 2020 field visits. Preliminary invasive species surveys were based on the NYSDEC Invasive Species Management Plan Specifications Template provided by NYSDEC on May 5, 2020. General locations and approximate relative relative density were recorded on field datasheets and located with GPS.

3.0 **RESULTS**

3.1 LANDSCAPE OVERVIEW

Long Island Region

Central Long Island's coastal and terrestrial environment varies widely and consists of a diversity of habitats. These range from exposed rocky shores and exposed bedrock, sandy coastal beaches, dunes, freshwater and brackish bays and ponds, and salt marshes fringing the shore of sheltered embayments to intertidal mudflats and sandflats (BOEM 2013). The sandy, coastal beaches along the southeastern coastline of Long Island are characterized by four zones: nearshore bottom (submerged areas below mean low water to 29.5 feet [ft; 9.0 meters {m}]); foreshore (intertidal areas between mean low water to the high tide zone); backshore (exposed sandflats above high tide line to dunes, but occasionally submerged during storms or exceptionally high tides); and dunes (areas of wind-blown sand ridges or mounds above the highest tide line and exposed to wind action) (USFWS 1997). These coastal habitats are constantly changing as a result of wave action and tidal currents that remove, transport, and deposit



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sediment (DOI-MMS 2007). The primary sources of deposited material, which maintain the sand beaches, is from erosional areas along existing beaches and sand shoals on the inner continental shelf (BOEM 2013). In 2012, Hurricane Sandy's wave energy and storm surge produced extensive coastal erosion along the entirety of Fire Island. Beaches and dunes across the island lost an average of 54% of their pre-storm volume with greater than 75% volume loss estimated near the Landfall/ICW Study Area on Fire Island (USGS 2013).

On Fire Island, American beach grass (*Ammophila breviligulata*) is the dominant plant species on foredunes. Beach plum (*Prunus maritima*), northern bayberry (*Morella pensylvanica*), seaside goldenrod (*Solidago sempervirens*), and eastern poison ivy (*Toxicodendron radicans*) commonly occur on the leeward side (NPS 2015). Interdunal swales, found mostly in the Fire Island Wilderness area located west of the Landfall/ICW Study Area on Fire Island, are wetlands that form when blowouts in the dunes intersect the water table and typical wetland plants such as grasses, forbs and woody shrubs become established. Characteristic species of these swale wetlands include purple gerardia (*Agalinis purpurea*), sundews (*Drosera spp.*), large cranberry (*Vaccinium macrocarpon*), highbush blueberry (*Vaccinium corymbosum*), and northern bayberry. Tidal marshes occupy the backside of Fire Island in broad areas where historic storms have overwashed adjacent upland materials. Common species of Fire Island's tidal marshes are saltwater cord grass (*Spartina alterniflora*), salt-meadow cord grass (*Spartina patens*) and coastal salt grass (*Distichlis spicata*) depending on the level of tidal inundation.

On mainland Long Island, residential and industrial development has removed or degraded much of the historical natural communities. One exception is the Central Pine Barrens, a 105,000-acre (42,492-ha) area of unique forested and wetland habitats created by The Long Island Pine Barrens Protection Act in 1993. In addition, the headwaters for the Carmans River, which intersects with the Onshore Transmission Route and is one of the four major rivers on Long Island, is located in the Central Pine Barrens. The river is freshwater where the Onshore Transmission Route crosses along Montauk Highway with brackish conditions beginning approximately 1,600 ft (487.7 m) downstream where a railroad crossing is located. Yaphank Creek begins above the Montauk Highway (where it intersects with the Onshore Transmission Cable route) before flowing through Wertheim National Wildlife Refuge in a southeastern direction before meeting Carmans River. The 2,550-acre (1,032-ha) refuge is bisected by Carmans River and provides habitat for resident wildlife species in addition to numerous migratory songbirds, raptors, and waterfowl.

Onshore Facilities

The Onshore Facilities begin at the Landfall Work Area on Fire Island at Smith Point County Park in Suffolk County. The Landfall Work Area occupies a portion of the parking lot at Smith Point County Park on Fire Island, an approximately 425-acre (172-ha) public beach and recreation area owned and managed by Suffolk County. In addition to these paved and disturbed areas, the Landfall/ICW Study Area on Fire Island includes portions of beach along the Atlantic Ocean to the south of William Floyd Parkway and the vegetated backshore areas along the bay side. Coastal habitats associated with the Landfall/ICW Study Area on Fire Island include foreshore, backshore, dune, and interdunal areas. The Landfall/ICW Study Area here also intersects with Maritime Beach, a significant NYSDEC natural community as discussed further below.



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From the Landfall Work Area, the Onshore Transmission Cable transits approximately 2,900 ft westnorthwest parallel to the Fire Island Beach Road within the paved Smith Point County Park parking lot, crossing under the William Floyd Parkway to a recreational area located to the west of William Floyd Parkway where the ICW Work Area will be located. The Onshore Transmission Cable will then be routed across the ICW via HDD to the ICW Work Area at Smith Point Marina on Long Island's mainland. For the purposes of this analysis, discussion of Great South Bay and Narrow Bay was also included where applicable, as habitats within Great South Bay and Narrow Bay are representative of the hydrologically connected and immediately adjacent ICW. The ICW Work Area largely consists of developed, paved parking lots on both sides of the ICW. Coastal habitats associated with the Landfall/ICW Study Area in the vicinity of the ICW Work Area include beach and dune communities located along the sound side of the mainland and associated interdunal areas.

After reaching the mainland, the Onshore Transmission Cable generally will be confined to established road right-of-way (ROWs) and travel along East Concourse Drive and north along William Floyd Parkway, then west along Mastic Boulevard, north along Ashley Place, then west along Montauk Highway. The Onshore Transmission Cable route travels west to Yaphank Avenue, crossing the Carmans River and Yaphank Creek, before heading northwest within established road ROWs (generally, either the LIE Service Road or Peconic Avenue) before reaching the Union Avenue Site. From the Union Avenue Site, the Onshore Interconnection Cable will connect to the existing Holbrook Substation, via one of the potential Onshore Interconnection Cable routes as depicted on Figure 1, all of which are located along existing roadway and utility ROWs.

Terrestrial habitat adjacent to the Onshore Transmission Cable and Union Avenue Site largely consists of developed residential or industrial land uses, with the exception of forested wetlands and watercourses at the Carmans River and Yaphank Creek crossings. The Union Avenue North Site at the terminus of the Onshore Transmission Cable is primarily undeveloped partly forested site and tree clearing is expected. The Union Avenue South Site is primarily a developed industrial/commercial site with small narrow forested areas along parcel boundaries. The Onshore Interconnection Cable is also located generally within paved portion of existing roadway or utility ROWs.

3.2 WETLAND AND WATERBODY RESOURCES

3.2.1 Wetlands

3.2.1.1 NWI-Mapped Wetlands

The National Wetland Inventory (NWI) provides information on the general characteristics and distribution of different types of wetlands. Descriptions are all adapted from Cowardin et al. (1979) and as described in Federal Geographic Data Committee (2013). Based on a desktop review of NWI data, the Onshore Transmission Cable will cross NWI-mapped wetlands in three locations, as depicted in Appendix A, Figure 2:

• Estuarine wetlands (E1AB3L, E1UBL, and E2U5N) in Narrow Bay along the ICW HDD



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- Palustrine forested (PFO1E) and unconsolidated bottom (PUBHh) wetlands associated with the crossing of the Carmans River
- Palustrine forested (PFO1E) and riverine wetlands (R2UBH) associated with its crossing of Yaphank Creek

Estuarine wetlands are deepwater tidal habitats and adjacent tidal habitats that are usually semi-enclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff. Palustrine wetlands are nontidal wetlands dominated by trees, shrubs, persistent emergent vegetation, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 parts per thousand. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 parts per thousand (FGDC 2013). Unconsolidated bottom wetlands have at least 25% cover of particles smaller than stones and a vegetative cover less than 30%.

Two small unconsolidated bottom (PUBHx) excavated NWI wetlands are mapped proximal to the Onshore Transmission Cable: one near the intersection of Blue Point Road and Expressway Drive S and a second near the intersection between Horse Block Road and Zorn Boulevard.

There are no wetland resources mapped proximal to the portion of the Peconic Avenue Route that differs from the LIE Service Road Route.

There are no wetlands mapped proximal to the Union Avenue Site.

Additional estuarine wetlands are adjacent to the Landfall Work Area and ICW Work Area but do not intersect with the proposed work area.

Finally, there is one NWI-mapped seasonally flooded, palustrine emergent persistent wetland (PEM1A) located approximately 150 ft (45.7 m) south of the Interconnection Cable Route as it runs parallel to I-495.

3.2.1.2 NYSDEC-Regulated Wetlands

Freshwater wetlands in New York, under Article 24 of the New York Environment Conservation Law (NYECL), must be at least 12.4 acres (5 ha) or provide local importance if smaller in area. An adjacent area of 100 ft (30.5 m) around a mapped NYSDEC freshwater wetland is regulated to provide further protection. Coastal tidal wetlands, under Article 25 of the NYECL, are those areas that border on or lie beneath tidal waters, such as, but not limited to, banks, bogs, salt marsh, swamps, meadows, flats or other low lands subject to tidal action, including those areas now or formerly connected to tidal waters. An adjacent area of up to 300 ft (91.4 m) inland from the tidal wetland boundary are regulated to provide further protection.

The Landfall/ICW Study Area on Fire Island will be located within the 300 ft (91.4 m) adjacent area of tidal wetlands as mapped by the NYSDEC including Littoral Zone and Coastal Shoals, Bars, and Mudflats wetland categories within the ICW. The ICW HDD will be located underneath tidal wetlands as mapped



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by the NYSDEC including Littoral Zone and Coastal Shoals, Bars, and Mudflats wetland categories within the ICW. The Landfall/ICW Study Area on the Mainland will be located within the 300 ft (91.4 m) adjacent area of mapped Littoral Zone, Intertidal Marsh, and High Marsh tidal wetlands to the west of the site.

The Onshore Transmission Cable – LIE Service Road Route and the Onshore Transmission Cable – Peconic Avenue Route will traverse two areas of mapped NYSDEC-regulated freshwater wetlands based on a review of spatial data available from the NYSDEC:

- Wetlands (Class I) associated with the crossing of the Carmans River
- Wetlands (Class I) associated with the crossing of Yaphank Creek

Per 6 CRR-NY 664.5, Class I wetlands have any of the following seven characteristics:

- classic kettlehole bog
- provides resident habitat of an endangered or threatened animal species
- contains an endangered or threatened plant species
- supports an animal species in abundance or diversity unusual for the State
- is a tributary to a body of water which could subject a sustainably developed area to significant damage from flooding or from additional flooding should the wetland be modified, filled or drained
- is adjacent or contiguous to a reservoir or other body of water that is used primarily for public water supply, or it is hydraulically connected to an aquifer which is used for public water supply
- contains four or more of the Class II wetland characteristics

Class II wetlands per 6 CRR-NY 664.5 have any of the following 17 characteristics;

- emergent marsh in which purple loosestrife and/or reed (phragmites) constitutes less than two thirds of the cover type
- contains two or more wetland structural groups
- is contiguous to a tidal wetland
- is associated with permanent open water outside the wetland
- is adjacent or contiguous to streams classified C(t)³ or higher under Article 15 of the NYECL
- is traditional migration habitat of an endangered or threatened animal species
- is resident habitat of an animal species vulnerable in the State
- contains a plant species vulnerable in the State
- supports an animal species in abundance or diversity unusual for the county in which it is found
- has demonstrable archaeological or paleontological significance as a wetland
- contains, is part of, owes its existence to, or is ecologically associated with, an unusual geological feature which is an excellent representation of its type
- is tributary to a body of water which could subject a lightly developed area, an area used for growing crops for harvest, or an area planned for development by a local planning authority, to

³ Under 6 CRR-NY 608.1, the "C" classification is for waters supporting fisheries and a "t" standard is for waters that may support a trout population. A "ts" standard is for waters that may support trout spawning. Waters with a "B" classification have a best usage for swimming and other contact recreation, but not for drinking water. An "A" classification is assigned to waters that can be used as sources for drinking water.



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significant damage from flooding or from additional flooding should the wetland be modified, filled or drained

- is hydraulically connected to an aquifer which has been identified by a government agency as a potentially useful water supply
- acts in a tertiary treatment capacity for a sewage disposal system
- is within an urbanized area
- is one of the three largest wetlands within a city, town, or New York City borough
- is within a publicly owned recreation area

The Carmans River is mapped as a Formerly Connected tidal wetland and will be crossed by the Onshore Transmission Cable via HDD. Formerly Connected wetlands include wetland areas whose connections to tidal waters are restricted by roadways, dikes, and other anthropogenic features. NYSDEC marks Formerly Connected designation at the railroad crossing approximately 1,600 ft (487.7 m) south of the proposed crossing location.

Based on a review of available spatial data, there are no mapped NYSDEC-regulated freshwater wetlands along other areas of the Onshore Transmission Cable – LIE Service Road Route, the Onshore Transmission Cable – Peconic Avenue Route, at the Union Avenue Site, or along the Onshore Interconnection Cable. Appendix A, Figure 2 depicts wetlands resources from desktop review in the vicinity of the Landfall Work Area, ICW Work Area, Onshore Transmission Cable, Union Avenue Site, and Onshore Interconnection Cable.

3.2.2 Waterbodies

The National Hydrogeography Dataset is managed by the U.S. Geological Survey and provides spatial data on the nation's drainage networks and related features, including rivers, streams, canals, lakes, ponds, glaciers, coastlines, dams, and stream gages. Under Article 15 of the NYECL, certain waters of New York State are protected on the basis of their classification. Streams and small water bodies located in the course of a stream that are designated as C(t) or higher (i.e., C(ts), B, or A)³ are collectively referred to as "protected streams". Additionally, small ponds and lakes with a surface area of 10 acres (4 ha) or less, located within the course of a stream protection category of Protection of Waters.

Three waterbodies are intersected by the Onshore Transmission Cable – LIE Service Road Route and Onshore Transmission Cable – Peconic Avenue Route based on a review of available data:

- The ICW between the ICW Work Area at Smith Point County Park and ICW Work Area at Smith Point Marina
- Carmans River
- Yaphank Creek

No other mapped waterbodies are intersected by the Onshore Facilities. An unnamed freshwater pond (PABHx) is located proximal to the Onshore Transmission Cable – LIE Service Road Route but does not extend into the proposed corridor. There are no waterbody resources mapped proximal to the Onshore Transmission Cable – Peconic Avenue Route or the Union Avenue Site.



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Appendix A, Figure 2 depicts waterbody resources from desktop review in the vicinity of the Landfall Work Area, ICW Work Area, Onshore Transmission Cable, Union Avenue Site, and Onshore Interconnection Cable.

3.2.3 Wetland and Waterbodies Delineation

Between June 8–16 and October 19–20, 2020, Stantec wetland scientists conducted a wetland and waterbody delineation of the Onshore Facilities including the Landfall/ICW Study Area on Fire Island, Landfall/ICW Study Area on the Mainland, and the Onshore Transmission Cable Study Area, including both the LIE Service Road Route and Peconic Ave Route. Surveys at the Wertheim National Wildlife Refuge were completed under USFWS Research and Monitoring Special Use Permit #2020-17. Field surveys at the Union Avenue Site and along the Onshore Interconnection Route could not be conducted pending landowner permissions. These areas will be assessed once permissions have been granted. Stantec scientists delineated a total of eight wetlands and three watercourses within the Onshore Facilities. Details for each of these features are organized by project component below and in Appendix A, Figure 3. Photographs and USACE Wetland Determination Forms for each wetland are included in Appendix D. A summary table, Table 2, is provided below in Section 3.2.4.

Landfall Work Area:

- Wetland W-01ASA is characterized as an estuarine, intertidal wetland system (E1SS/EM) dominated by common reed (*Phragmites australis*), rambler rose (*Rosa multiflora*) and Jesuit's-bark (*Iva frutescens*), and is consistent with the NWI classification. Additional species of vegetation include northern bayberry, and eastern poison ivy. This wetland is located along the northeastern edge of the Smith Point County Park on the backslope of Fire Island abutting Great South Bay. The eastern portion of this feature overlaps with the Smith Point County Park SCFWH unit. See Section 3.3 for further discussion of this SCWFH. A wrack line was observed, with the upland edge of the wetland extending toward the parking lot to the south and east. The wetland contains sandy soils with redoximorphic features. At the time of the delineation, evidence of wetland hydrology included a high-water table (approximately 10 inches [in] below the ground surface), and saturation at the soil surface.
- Wetland W-01ASB is characterized as an estuarine, intertidal wetland system (E1SS/EM) dominated by groundsel tree (*Baccharis halimifolia*), common reed, rambler rose, and Jesuit's-bark and is consistent with the NWI classification. Additional species of vegetation include northern bayberry and eastern poison ivy. The wetland is located along the northeastern edge of the Smith Point County Park on the backslope of Fire Island abutting Great South Bay. A wrack line was observed, with the upland edge of the wetland extending toward the parking lot to the east and upland area of Fire Island National Seashore. The wetland contains sandy soils with redoximorphic features. At the time of the delineation, evidence of wetland hydrology included a high-water table (approximately 10 in below the ground surface), and saturation at the soil surface.



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 Wetland W-01CFA is an estuarine, intertidal wetland system (E1SS/EM) dominated by Jesuit'sbark, northern bayberry, and common reed. The wetland is located along the north edge of the Smith Point County Park on the backslope of Fire Island abutting Great South Bay. The wetland contains sandy soils with redoximorphic features. At the time of the delineation, evidence of wetland hydrology included soil saturation at the surface.

ICW Work Area:

- Wetland W-01ASC is a palustrine (freshwater), man-made basin dominated by common reed (PEM). Additional species of vegetation include eastern poison ivy. The wetland is located several hundred ft inland from the northern shore of Great South Bay at the Smith Point Marina on the mainland and consists of two manmade catchment areas surrounded by boat launch parking. The northern and southern basins are bisected by an asphalt travel lane in the parking area that may provide overland surface flow during extreme rain events. This feature occurs within the Town of Brookhaven Coastal Zone Area South CEA unit. See Section 3.3 for further discussion of this CEA. The wetland contains sandy soils with redoximorphic features. At the time of the delineation, evidence of wetland hydrology included soil saturation within 12 in of the surface, geomorphic position, and soil cracks.
- Wetland W-01CFB is a palustrine (freshwater), man-made basin dominated by common reed (PEM). The wetland is located on the southeastern shore of Great South Bay at the Smith Point Marina on the mainland, along the edge of the survey area. This feature occurs within the Town of Brookhaven Coastal Zone Area South CEA unit. The wetland contains sandy soils with redoximorphic features. At the time of the delineation, evidence of wetland hydrology included soil saturation within 12 in of the surface, geomorphic position, and soil cracks. A portion of the wetland located outside the survey limits contained standing water and waterfowl were observed.

Onshore Transmission Cable routes:

- Wetland W-01ASD is characterized as palustrine (freshwater) scrub/shrub wetland (PSS1E) that is within a riparian area adjacent to Yaphank Creek. It is located along Montauk Highway northeast of the intersection with Old South County Road. Dominant vegetation within the wetland includes rambler rose, Chinaroot (*Smilax hispida*), spotted touch-me-not (*Impatiens capensis*), river-bank grape (*Vitis riparia*), and smooth arrow-wood (*Viburnum recognitum*). At the time of the delineation, evidence of wetland hydrology included a high-water table (approximately 8 in below the ground surface) and saturation at the soil surface.
- Wetland W-01ASE is a palustrine (freshwater) scrub/shrub wetland dominated by skunkcabbage (*Symplocarpus foetidus*) and jewelweed located along Montauk Highway south of the intersection with Old South County Road. This feature occurs within the Town of Brookhaven Coastal Zone Area South CEA unit. Other vegetation within the wetland includes rambler rose and Chinaroot. At the time of the delineation, evidence of wetland hydrology included a highwater table (approximately 8 in below the ground surface) and saturation at the soil surface.



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- Wetlands W-01CFC/01JRB and W-01CFD/01JRA are characterized as palustrine (freshwater) forested wetlands (PFO1E) along the banks of Carmans River and have been documented as a high-value Red Maple Blackgum Swamp (a NYNHP Significant Natural Community). Both features are within the Town of Brookhaven Coastal Zone Area South CEA unit and the Carmans River SCFWH. The forested wetlands and Carmans River are part of the USFWS Wertheirm National Wildlife Refuge along Montauk Highway (County Road 80). Dominant vegetation within these wetlands include red maple (*Acer rubrum*), black tupelo (*Nyssa sylvatica*) trees with coastal sweet-pepperbush (*Clethra alnifolia*), northern spicebush (*Lindera benzoin*), and northern arrowwood shrubs and skunk-cabbage, cinnamon fern (*Osmundastrum cinnamomeum*), and sensitive fern (*Onoclea sensibilis*) in the herbaceous layer. Common reed, highbush blueberry, and horsebrier (*Smilax rotundifolia*) are scattered within the wetlands. The forested wetlands contain deep organic soils near the Carmans River impoundment and sandy soils with a stripped matrix along the wetland edges. At the time of the delineation, evidence of wetland hydrology included a shallow water table, saturation at the soil surface, and water-stained leaves.
- Watercourse S-01CF is a freshwater river (Carmans River R2UBH) that crosses the Onshore Transmission Cable Survey Area, is classified as a SCFWH and is within the Town of Brookhaven Coastal Zone Area South CEA unit. The river flows southeast under Montauk Highway along the banks of the forested wetland portions of W-01CFC and W-01CFD. The river adjacent to the highway was flooded up to the forested wetlands on both banks and contained a mucky substrate. At the time of the delineation, approximately 3 to 4 ft of flowing water was observed within the stream channel. Several people were observed kayaking in the river during the delineation.
- Watercourse S-01AS is a small freshwater intermittent stream (Yaphank Creek) where it crosses the Onshore Transmission Cable Survey Area. The stream flows under Montauk Highway through a culvert in a southern direction. The feature was dry in June with an ordinary high-water mark of approximately 3 ft and bank depth of 1 ft.
- Watercourse S-02MA is a small freshwater perennial tributary stream (R2UB3) of the Carmans River and originates from a groundwater seep adjacent to the Montauk Highway. It flows westerly for approximately 100 ft before intersecting the Carmans River. This feature is within the Town of Brookhaven Coastal Zone Area South CEA unit and overlaps with high-value Red-Maple-Blackgum swamp. The banks of the stream were approximately 7 ft wide and the stream had a deep mucky substrate. Approximately 6 to 8 in of water were observed within the channel at the time of the delineation.

Functions and values provided by the wetlands located within the Onshore Facilities include groundwater recharge and discharge, floodflow alteration, and water quality protection (i.e., sediment/toxicant retention and nutrient removal). Those wetlands associated with Great South Bay and Carmans River provide fish and shellfish habitat, wildlife habitat, endangered species habitat, significant social values such as recreation, education/scientific value, uniqueness/heritage, and visual quality/aesthetic values. Although these functions and values are not principal for all the delineated wetlands, it is expected that they provide these functions and values by varying degrees depending on characteristics such as size,



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percent vegetation cover, and landscape position. Larger wetland complexes would have a greater capacity to provide most functions. Similarly, wetlands dominated by dense vegetation would be capable of retaining and slowing surface water flow, thereby reducing potential flooding and protecting water quality by allowing sediment to settle out of the water column. Key functions and values of the delineated features within the Onshore Facilities are summarized in Table 1.



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Feature ID	Groundwater recharge & discharge	Floodflow alteration	Sediment retention and nutrient removal	Sediment and shoreline stabilization	Fish and shellfish habitat	Wildlife habitat	RTE species habitat	Recreation, educational, scientific value, uniqueness, visual quality, aesthetics
W-01ASA		×	×	×		×		
W-01ASB		×	×	×		×		
W-01ASC		×	×			×		
W-01ASD	×	×	×	х		×	×	
W-01ASE	×	×	×	х		×	×	
W-01CFA		×	×	×		×		
W-01CFB		×	×	×		×		
W-01CFC/01JRB	×	×	×	×		×	×	х
W-01CFD/01JRA	×	×	×	×		×	×	х
S-01AS					х	х		
S-01CF		×			×	×	×	×
S-02MA	x	×			×	×	×	

Table 1. Summary of Functions and Values of Delineated Features

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3.2.4 Summary

Table 2 summarizes the wetland and waterbody resources associated with the Onshore Facilities. The location of the wetland and waterbody resources relative to the Onshore Facilities are provided in Appendix A, Figure 3. Field results supported the results of the desktop assessment and allowed for further refinement of wetland and waterbody locations relative to the Onshore Facilities. As expected, these resources were concentrated in several locations: Landfall/ICW Study Area on Fire Island, Carmans River and Yaphank Creek within the Onshore Transmission Cable Route Study Area. No wetland or waterbodies were delineated along the Onshore Transmission Cable route variations.



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Table 2. Summary of Wetland and Waterbody Resources

Onshore Facility		Wetland and Waterbody Resources Documented via Desktop Review	Wetland and Waterbody Resources Identified Via Field Survey		
		Wetlands	Delineated Wetlands		
	Landfall Work Area	 NYSDEC-mapped tidal wetlands (adjacent) NYSDEC-mapped estuarine wetlands (adjacent) 	• Estuarine (W-01ASA, W-01ASB, and W-01CFA)		
		Waterbodies	Delineated Waterbodies		
Landfall/ICW Study Area on		Atlantic Ocean (adjacent)Great South Bay (adjacent)	None		
Fire Island and Mainland		Wetlands	Delineated Wetlands		
Mainland	ICW Work Area	 NYSDEC-mapped tidal wetlands (adjacent) NYSDEC-mapped estuarine wetlands (adjacent) 	Palustrine (W-01ASC and W-01CFB)		
		Waterbodies	Delineated Waterbodies		
		Narrow Bay (adjacent)	None		
Onshore Transmission Cable	LIE Service Road Route and Peconic Avenue Route	 Wetlands NYSDEC-mapped Formerly Connected tidal wetlands at Carmans River crossing NYSDEC-mapped freshwater wetlands at and adjacent to Carmans River and Yaphank Creek crossing NWI-mapped wetlands at Carmans River and Yaphank Creek crossings 	 Delineated Wetlands Palustrine (W-01ASD and W-01ASE) near Yaphank Creek Palustrine (W-01CFC/01JRB and W-01CFD/01JRA) near Carmans River 		
		Waterbodies	Delineated Waterbodies		
		Carmans RiverYaphank Creek	 Watercourse S-01AS (Yaphank Creek) Watercourse S-01CF (Carmans River) Watercourse S-02MA (tributary to Carmans River) 		
Union Avenue Site	e	None	Pending access permission for field surveys		
Interconnection Route		NWI-mapped wetland south of route as it parallels I-495	Pending access permission for field surveys		



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3.3 SIGNIFICANT AND CRITICAL NATURAL COMMUNITIES AND HABITATS

3.3.1 Critical Environmental Areas

A portion of the Landfall/ICW Study Area intersects with the Coastal Zone Area South CEA on the Mainland. In addition, the Onshore Transmission Cable traverses the Coastal Zone Area South CEA in an approximately 1-mi (1.6-km) segment along William Floyd Parkway from ICW Work Area to its intersection with Fawn Place as well as an approximately 0.7-mi (1.1 km) segment at the Carmans River crossing. Coastal Zone Area South CEA has been designated by the Town of Brookhaven to protect public health, open space, and wetlands. The Onshore Facilities within this CEA have been largely located within existing developed areas including parking lots and paved roadways. The Onshore Transmission Cable crossing of the Carmans River and associated wetlands will be constructed through use of HDD to avoid and minimize impacts within undeveloped areas.

3.3.2 Significant Coastal Fish and Wildlife Habitats

There are four SCFWHs associated with the Onshore Facilities:

- Great South Bay-East
- Smith Point County Park
- Moriches Bay
- Carmans River

Great South Bay–East

The Great South Bay–East SCFWH is located in the portion of the ICW between Landfall/ICW Study Area on Fire Island and the Landfall/ICW Study Area on Mainland, west of the Smith Point Bridge. The Great South Bay–East SCFWH is identified as the largest protected, shallow, coastal bay in New York State and provides feeding and nesting habitat for several RTE avian species and supports one of the largest concentrations of wintering waterfowl in New York State (NYSDEC 2008a).

The ICW HDD will traverse this SCFWH but will be installed using HDD to avoid and minimize potential impacts to this area.

Smith Point County Park

The Smith Point County Park SCFWH intersects the Landfall/ICW Study Area on Fire Island. The Smith Point County Park SCFWH is identified as one of the largest segments of an undeveloped barrier beach ecosystem on Long Island and provides feeding and nesting habitat for several RTE avian species and supports populations of RTE plant species such as seabeach amaranth (*Amaranthus pumilus*) and seabeach knotweed (*Polygonum glaucum*). The park receives heavy recreational use during the summer months and is subject to disturbance by pedestrian and off-road vehicle traffic. The dunelands also comprise a significant segment of the fall migration corridor for raptors (NYSDEC 2008b).



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The Landfall Work Area on Fire Island overlaps portions of the mapped SCFWH but the Landfall Work Area and ICW Work Area are located in developed parking lots, which will avoid direct impacts. If conducted on the beach, HDD cable duct stringing activities would require laydown of linked conduit sections within this SCFWH prior to installation via HDD. HDD stringing work may result in the short-term disturbance to vegetation for approximately 2 to 3 weeks per duct between October and March.

Moriches Bay

The Moriches Bay SCFWH abuts the Landfall/ICW Study Area on Fire Island. It is identified as one of the largest, protected, shallow, coastal bays in New York State and provides feeding and nesting habitat for several RTE avian species and supports significant concentrations of wintering waterfowl in New York State. It is a highly productive bay and supports regionally significant habitat for fish and shellfish, migrating and wintering waterfowl, colonial nesting waterbirds, beach-nesting birds, migratory shorebirds, raptors, and rare plants (NYSDEC 2008c).

The Landfall/ICW Study Area on Fire Island abuts this SCFWH but the Landfall Work Area and ICW Work Area are located in developed parking lots, which will avoid direct impacts.

Carmans River

The Carmans River SCFWH intersects the Onshore Transmission Cable where the cable crosses the Carmans River. The Carmans River SCFWH is identified as one of only four major riverine systems on Long Island and it contains undeveloped lands and is used by rare species including peregrine falcon (*Falcos peregrinus*), eastern tiger salamander (*Ambystoma tigrinum*), eastern box turtle (*Terapene carolina*), osprey (*Pandion haliaetus*), and potentially pied-billed grebe (*Podilymbus podiceps*). The Carmans River SCFWH is also identified as one of the few streams on Long Island that support concentrations of sea-run brown trout (*Salmo trutta*) and wild brook trout (*Salvelinus fontinalis*) (NYSDEC 2008d).

The Onshore Transmission Cable will traverse this SCFWH but will be installed using HDD to avoid and minimize potential impacts to this area.

3.3.3 Significant Natural Communities

There are five significant natural community types associated with the proposed Onshore Facilities as identified by the NYNHP in their March 27, 2020, letter:

- Maritime Beach
- Marine Eelgrass Meadow
- Red Maple Blackgum Swamp
- Brackish Tidal Marsh
- Marine Back-barrier Lagoon



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Maritime Beach

A Maritime Beach is associated with the Landfall/ICW Study Area on Fire Island. It is part of a 32-mi (51.5-km) community partially within the Smith Point County Park SCFWH area on Fire Island. The Maritime Beach is a sparsely vegetated community dominated by beach grass. It occurs on unstable sand, gravel, or cobble shores above the mean high tide line and is continually modified through wave and wind action (NYSDEC 2008b; Edinger at al. 2014).

Locating components within an existing parking lot at the Fire Island landfall location and utilizing HDD construction methods for cable installation will avoid and minimize potential impacts to this natural community.

If conducted on the beach, HDD cable duct stringing activities would require laydown of linked conduit sections within this SCFWH prior to installation via HDD. HDD stringing work may result in the short-term disturbance to vegetation for approximately 2 to 3 weeks per duct between October and March.

Maritime Eelgrass Meadow

Areas of extensive Maritime Eelgrass Meadow are located in Narrow Bay between Smith Point County Park and Smith Point Marina. The NYNHP states that the community is in good condition within a fair quality landscape. The community is dominated by eelgrass (*Zostera marina*) along with occurrences of wigeon grass (*Ruppia maritima*). It also supports a diverse array of attached and suspended marine algae. The areas of submerged aquatic vegetation are highly productive and provide spawning and foraging habitat for many species of mollusks, crustaceans, juvenile fish, and diving ducks and they also enhance sediment stability (NYSDEC 2008a; Edinger at al. 2014).

Installation of the Onshore Transmission Cable via HDD under the ICW will avoid and minimize potential impacts to this community type.

Red Maple – Blackgum Swamp

A Red Maple – Blackgum Swamp is located along the eastern shore of the Carmans River at the Onshore Transmission Cable crossing. The community is dominated by red maple, black tupelo, and coastal sweet-pepperbush (NYSDEC 2008d). The NYNHP notes in their March 27, 2020, letter that the swamp is of moderate size with good diversity and some large diameter trees. A second community area is located approximately 300 ft (91.4 m) south of the Onshore Transmission Cable crossing of Yaphank Creek, just east of South Haven School along Montauk Highway.

Installation of the Onshore Transmission Cable via HDD construction under the Carmans River and Yaphank Creek is anticipated to avoid potential impacts to this community type

Brackish Tidal Marsh

The NYNHP identified an occurrence of a Brackish Tidal Marsh approximately 0.4 mi (0.6 km) south of the Onshore Transmission crossing of the Carmans River. The community is approximately 214 acres (87



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ha) and dominated by graminoids including salt marsh bulrush (*Bolboschoenus robustus*), Olney three-square (*Schoenoplectus americanus*), and wild rice (*Zizania aquatica*) (NYSDEC 2008d).

The Onshore Transmission Cable location is approximately 0.4 mi (0.6 km) north of this community and, therefore, no impacts to this community type are anticipated.

Marine Back-barrier Lagoon

In its March 27, 2020, letter, the NYNHP notes an occurrence of a Marine Back-barrier Lagoon associated with Great Bay South and Moriches Bay near the Landfall/ICW Study Area. NYNHP indicates that it is a very large system in good condition within a fair, but mostly developed landscape.

Installation of the Onshore Transmission Cable via HDD construction under the ICW will avoid and minimize potential impacts to this community type.

3.3.4 Central Pine Barrens

The Long Island Pine Barrens Protection Act established an approximately 105,000-acre (42,492-ha) region on Long Island in 1993. The region includes an approximately 52,500-acre (21246-ha) Core Preservation and an approximately 47,500-acre (19,223-ha) Compatible Growth Area. In general, land use of the pine barren region addresses preservation of the pine barren ecosystem and water quality as well as addressing development patterns, land use categories, and agricultural, recreational, and human uses. Development activities within the region are regulated by the Central Pine Barrens Joint Planning and Policy Commission (Central Pine Barrens Joint Planning and Policy Commission 2012). The Onshore Transmission Cable traverses the Central Pine Barrens Core Preservation Area and Compatible Growth Area at and adjacent to the Carmans River crossing (Appendix A, Figure 4). Most of the Core Preservation Area at this location is mapped as forested wetland communities including a rare Red Maple – Blackgum Swamp. The adjacent uplands are dominated by oak (*Quercus* spp.) trees based on a review of available imagery. Installation of the Onshore Transmission Cable via HDD construction under the Carmans River to minimize impacts to sensitive resources within the Core Preservation Area.

Installation of the Onshore Transmission Cable via HDD construction under the Carmans River will minimize potential impacts to this community type.

3.3.5 Field Assessment of Natural Communities

General natural communities were characterized during the wetland delineation efforts. In general, most of the Onshore Facilities are associated with a developed landscape, consisting of existing commercial, industrial, and residential development and associated transportation infrastructure. The Onshore Transmission Cable routes are predominately associated with roadway ROWs and impervious asphalt or paved surfaces. Field efforts focused on characterizations of the Onshore Facilities that intersect or are proximal to significant or high value natural communities identified during the desktop assessment, including the natural communities associated with the Carmans River, Fire Island, and Smith Point Marina.



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Carmans River Crossing

As identified during the desktop assessment and confirmed during the wetland delineations, the forested wetlands associated with the Carmans River support a rare Red Maple – Blackgum Swamp community. The community structure is well developed with a mature canopy of red maple and black tupelo (blackgum) trees. The understory is densely vegetated with shrubs consisting primarily of coastal sweet-pepperbush. Highbush blueberry and clammy azalea (*Rhododendron viscosum*) shrubs and horsebrier vines are scattered within the community. Herbaceous species are rather sparse within the community and include cinnamon fern and skunk-cabbage. The portion of the community closest to the Carmans River is regularly inundated and vegetation is restricted to hummocks interspersed amongst inundated areas. The substrate consists of deep organic muck. Further from the edge of the Carmans River, the microtopography is flatter and dominated by firm, sandy soils. These areas are periodically flooded.

Invasive species are abundant along the edge of the community near Montauk Highway and include a suite of common invasive species such as Norway maple (*Acer platanoides*), Oriental bittersweet (*Celastrus orbiculatus*), Japanese honeysuckle (*Lonicera japonica*), common reed, rambler rose, wineberry (*Rubus phoenicolasius*), common buckthorn (*Rhamnus cathartica*), garlic-mustard (*Alliaria petiolata*), common mugwort (*Artemisia vulgaris*), and Japanese stilt-grass (*Microstegium vimineum*). Although present along the roadway edge, few observations of invasive species were noted in the interior of the wetland.

The upland forests to the east of the Carmans River and west of Smith Road are characterized as a Coastal Oak-Hickory Forest. This upland is dominated by trees of scarlet oak (*Quercus coccinea*) and white oak (*Quercus alba*) with scattered hickories (*Carya* spp.). The understory diversity is low and consists primarily of shrubs such as black huckleberry (*Gaylussacia baccata*) and Blue Ridge blueberry (*Vaccinium pallidum*). Horsebrier vines are scattered within the forest. Herbaceous species are sparse and include Pennsylvania sedge (*Carex pensylvanica*), eastern teaberry (*Gaultheria procumbens*), and bristly dewberry (*Rubus hispidus*).

Landfall/ICW Study Area

Beach, dune, and other undeveloped areas at the Landfall/ICW Study Area were evaluated during the field delineations. The most prominent features of the Landfall/ICW Study Area are the presence of a Maritime Beach and Maritime Dunes along the southern edge of the site landward of the Atlantic Ocean. The Maritime Beach community is dominated by sand and is unvegetated. It is extensively utilized by the public and portions of the beach are open to vehicle traffic. It is a dynamic community and subjected to storm surges and other erosional and depositional events. The landward portion of the Maritime Beach transitions into Maritime Dune community. The frontal dune community is dominated by American beach grass. A small colony of common reed was observed in the eastern end of the survey area. The frontal dune is a dynamic community and migrates based on wind erosion / deposition and storm surges.

The back-dune system is more stabilized and includes small trees and saplings of pitch pine (*Pinus rigida*) as well as American beach grass. At the time of survey, the width of the Maritime Dune system



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varied between approximately 150 and 250 ft. Several established trails traverse the dunes to allow public access.

The northern portion of the Landfall/ICW Study Area on Fire Island includes a Maritime Shrubland community along the ICW. This is a rather densely vegetated shrubland characterized by shrubs of groudseltree, Jesuit's-bark, and northern bayberry. Herbaceous species include slender goldentop (*Euthamia caroliniana*), wand panic grass (*Panicum virgatum*), woolly beachheather (*Hudsonia tomentosa*), alkali grass (*Puccinellia* spp.), little false bluestem (*Schizachyrium scoparium*), rosette-panicgrasses (*Dichanthelium* spp.), pitch pine, and needle beak sedge (*Rhynchospora capillacea*). Common reed becomes progressively denser towards the water edge within the community. The remainder of the Landfall/ICW Study Area consists of impervious surfaces and development including parking lots, roadways, and buildings.

Smith Point Marina

Smith Point Marina and the associated ICW Work Area is largely developed with an existing boat launch and parking area. The wetland communities, as described above, are largely dominated by common reed and are unexceptional. A narrow vegetated buffer is provided between the parking lot and the shoreline along the ICW to the south. This area is similarly dominated by invasive species including common reed and common mugwort. A small dune area is present in the southeastern portion of the ICW Work Area. This is an unexceptional community and has been affected by vehicular and pedestrian activity. Dominant vegetation includes American beach grass, Jesuit's-bark, northern bayberry, seaside goldenrod (*Solidago sempervirens*), wand panic grass, and beach sedge (*Carex silicea*).

3.3.6 Summary

Table 3 summarizes the significant and critical natural communities and habitats associated with the Onshore Facilities. The locations of CEAs, SCFWH, NYSHP Significant Natural Communities, and the Central Pine Barrens relative to the Onshore Facilities are provided in Appendix A, Figure 3. Field results support the results of the desktop assessment of the Onshore Facilities.



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Onshore Facility		Significant and Critical Natural Communities and Habitat Resources Present	Significant and Critical Natural Communities and Habitat Resources Identified Via Field Survey		
		Critical Environmental Areas	Critical Environmental Areas		
		None	None observed		
		SCFWH	SCFWH		
Landfall/ICW St	udv Area (Fire	 Smith Point County Park Moriches Bay (adjacent) Great South Bay-East (adjacent) 	Smith Point County ParkMoriches BayGreat South Bay		
Island and Main		Significant Natural Communities	Significant Natural Communities		
		 Maritime Beach Marine Eelgrass Meadow (adjacent) Marine Back-barrier Lagoon (adjacent) 	Maritime BeachGreat South Bay		
		Central Pine Barrens	Central Pine Barrens		
		• None	None observed		
	LIE Service Road Route and Peconic Avenue Route	 Critical Environmental Areas Coastal Zone Area South at ICW HDD and associated Work Area; Carmans River crossing 	Confirmed by field survey		
		SCFWH	SCFWH		
		 Moriches Bay (adjacent to ICW HDD) Great South Bay-East (ICW HDD) Carmans River crossing 	 Confirmed by field survey 		
Onshore		Significant Natural Communities	Significant Natural Communities		
Transmission Cable		 Marine Eelgrass Meadow (ICW HDD) Marine Back-barrier Lagoon (ICW HDD) Red Maple – Blackgum Swamp (Carmans River; adjacent to Yaphank Creek crossings) Brackish Tidal Marsh (Carmans River; ~0.4 mi downstream) 	• Red Maple – Blackgum Swamp (Carmans River)		
		Central Pine Barrens	Central Pine Barrens		
		Carmans River crossing	Confirmed by field survey		
Union Avenue Site		None	 Pending access permission for field surveys 		
Interconnection Route		• None	 Pending access permission for field surveys 		

Table 3. Summary of Significant and Critical Natural Communities and Habitats



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3.4 RARE, THREATENED, AND ENDANGERED SPECIES

3.4.1 Plants

In its March 27, 2020, letter, the NYNHP identified known occurrences of several RTE plant species within the vicinity of the Onshore Facilities. The USFWS IPaC query indicated known occurrences of two species of federally listed plant species proximal to the Onshore Facilities. Table 4 summarizes the known RTE plant occurrences and potential habitat for those species associated with the Onshore Facilities components based on desktop review and field surveys⁴.

⁴ Field surveys for RTE plants evaluated the potential for suitable habitat within the Onshore Facilities and were not targeted surveys to determine potential presence / probable absence of species.



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Table 4. RTE Plant and NYS Watch List Species Documented by NYSDEC or USFWS within the Vicinity of OnshoreFacilities and Occurrence Based on Field Surveys

Species	State Listing	Federal Listing	Habitat Association	Approximate Location ²	Potential at Onshore Facilities (Desktop)	Field Results ³				
Plants	Plants									
Sandplain Gerardia ¹ <i>Agalinis acuta</i>	Endangered	Endangered	Maritime grassland and shrubland	No location information provided	 Landfall/ICW Study Area Onshore Transmission Cable 	None observed; potential habitat at Landfall/ICW Study Area				
Seabeach Amaranth ¹ <i>Amaranthus</i> <i>pumilus</i>	Threatened	Threatened	Maritime beach	No location information provided	 Landfall/ICW Study Area Onshore Transmission Cable 	None observed; potential habitat at Landfall/ICW Study Area				
Blunt-lobe Grape Fern ² <i>Botrychium</i> oneidense	Threatened		Floodplain forest, Red Maple – Blackgum Swamp	Southaven County Park, within 0.25 mi (0.4 km) of Onshore Transmission Cable; in wet soil under shrubs and vines in red maple swamp	 Onshore Transmission Cable 	None observed; potential habitat at Carmans River wetlands				
Collins' Sedge ² Carex collinsii	Endangered		Red Maple – Blackgum Swamp	Southaven County Park, within 0.25 mi (0.4 km) of Onshore Transmission Cable; abandoned fish hatchery (part of Suffolk County Park) in a red maple- tupelo swamp	 Onshore Transmission Cable 	None observed; potential habitat at Carmans River wetlands				
Water Pigmyweed ² <i>Crassula aquatica</i>	Endangered		Freshwater intertidal mudflat, freshwater intertidal shore, and freshwater tidal marsh	Onshore Transmission Cable: Carmans River, west side immediately south of Montauk Highway; bank of an intertidal section of river at a road embankment	 Onshore Transmission Cable 	None observed; potential habitat in Carmans River				
Sandplain Wild Flax ²	Threatened		Maritime dunes, maritime grassland, maritime	Within 0.5 mi (0.8 km) of Onshore Transmission Cable: Station Avenue roadside; plants are on a pine barrens roadside	 Onshore Transmission Cable 	None observed; minimal potential habitat				



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Species	State Listing	Federal Listing	Habitat Association	Approximate Location ²	Potential at Onshore Facilities (Desktop)	Field Results ³
Linum intercursum			shrubland, and pitch pine-scrub oak barrens	with very sparse vegetation, dominated by grasses and legumes		
Fish and Wildlife						
Hairy-necked tiger beetle ² Cicindela hirticollis			Maritime beach and dunes	Great South Beach at Fire Island	 Landfall/ICW Study Area Onshore Transmission Cable 	None observed; potential habitat at Landfall/ICW Study Area
Eastern pirate perch ² Aphredoderus sayanus sayanus			Rivers and streams	Carmans River south of Montauk Highway and north of State Route 27; Yaphank Creek	Onshore Transmission Cable	None observed; potential habitat in Carmans River and Yaphank Creek
Atlantic silverside ² <i>Menidia menidia</i>			Rivers and streams	Carmans River south of Montauk Highway	Onshore Transmission Cable	None observed; potential habitat in Carmans River

¹ Source: USFWS Information for Planning and Consultation (IPaC). Accessed March 11, 2020

² Source: New York Natural Heritage Program Letter, March 27, 2020

³ Field surveys for RTE plants evaluated the potential for suitable habitat within the Onshore Facilities and were not targeted surveys to determine potential presence / probable absence of species.

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In addition to the above species, approximately 100 additional RTE plant recently or historically confirmed occurrences are identified within the Town of Brookhaven based on a query of the New York Nature Explorer database (Appendix C). RTE species known from the Town of Brookhaven are associated with a variety of habitats including coastal and freshwater wetlands (including open and forested areas), aquatic habitats, early successional communities, open and disturbed upland areas, pine barrens, edge habitats, upland forests, and coastal dunes and shrublands.

Based on desktop and field review, the Onshore Facilities are largely confined to existing developed and impervious areas including road ROWs and parking lots where RTE plants are unlikely to occur. Furthermore, trenchless crossing installation will be utilized to avoid impacts to wetland areas that may provide habitat for wetland-associated RTE plant species such as blunt-lobe grape-fern (*Botrychium oneidense*), Collins' sedge (*Carex collinsii*), and water pigmyweed (*Crassula aquatica*). During field surveys, blunt-lobed grape fern was not observed in the Red Maple – Blackgum Swamp community at Carmans River; however, populations of this species are often small and consist of a single individual and may be overlooked in the absence of a detailed search. Similarly, the saturated organic soils of the Red Maple – Blackgum Swamp community at the Carmans River crossing provide suitable habitat for Collins' sedge. Potential habitat for water pygmyweed is also present in the shallow aquatic habitats of the Carmans River. This species' location provided by NYSDEC indicated that it has been previously observed in Carmans River at the downstream bridge abutment at the Montauk Highway crossing. This area was investigated from the shore during the field survey, but no specimens were observed. Small waterwort (*Elatine minima*), a common aquatic species that often occurs with water pygmyweed populations was observed in this location.

The Maritime Beach community at the Landfall/ICW Study area provides potentially suitable habitat for seabeach amaranth. However, field surveys noted that this area is used extensively for recreation and the associated impacts from pedestrian and vehicle traffic substantially limits the likelihood of seabeach amaranth occurrences. Potentially suitable habitat for sandplain gerardia is provided in the northern portion of the Landfall/ICW Study Area on Fire Island within the Maritime Shrubland community north of the parking area. This community supports maritime grassland-associated species interspersed within sandy openings amongst patches of shrubs. Potential habitat for sandplain wild flax is also provided in the Maritime Dune community within the Landfall/ICW Study Area, particularly in the stable back dune areas. Potentially suitable habitat is also available in the Maritime Shrubland community in areas noted above for sandplain gerardia.

3.4.2 Inland Fisheries and Non-Avian Wildlife

In its March 27, 2020, letter, the NYNHP identified an occurrence of hairy-necked tiger beetle (*Cincindela hirticollis*), a rare but unlisted species, near the Landfall/ICW Study Area on Fire Island. The species is associated with a sand beach. A review of aerial imagery indicates that the ICW HDD Work Area also contains exposed sandy areas and field surveys noted the Maritime Dune community provides potentially suitable habitat for hairy-necked tiger beetle. In addition, the NYNHP identified two unlisted but rare fish occurrences within the Carmans River near the Onshore Transmission Cable: eastern pirate perch (*Aphredoderus sayanus*) and Atlantic silverside (*Menidia menidia*). Eastern pirate perch was also noted as occurring in Yaphank Creek. Field surveys confirmed that aquatic habitats of Carmans River and



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Yaphank Creek provide potentially suitable habitat for eastern pirate perch and Atlantic silverside as suggested by the NYNHP. The USFWS IPaC database query did not indicate occurrences of federally listed fish or non-avian or bat wildlife species proximal to the Onshore Facilities.

A query of the New York Nature Explorer database indicates that several other species of fish and nonavian wildlife species are known from the Town of Brookhaven (Appendix C). Many of the RTE species are associated with aquatic or wetland habitats, such as odonates (e.g., dragonflies and damselflies), or associated with pitch pine barrens, including species of moths and butterflies.

Trenchless crossing installation will be utilized to avoid sensitive environmental resources at certain crossing locations, which will avoid and minimize impacts to aquatic and wetland habitats that may support sensitive fish or invertebrate species. Similarly, activities at the Landfall Work Area proximal to sand beach habitat on Fire Island will be confined to existing developed areas to avoid and minimize potential impacts to hairy-necked tiger beetle. If conducted on the beach, HDD conduit stringing, however, may result in the short-term disturbance to vegetation for approximately 2 to 3 weeks per duct between October and March. Although the Onshore Transmission Cable traverses the Central Pine Barrens Core Habitat, impacts to pine barren communities will be minimized during design, based on HDD installation at the Carmans River crossing. Additional impacts to pine barrens are not anticipated as the majority of the proposed Onshore Transmission Cable components are located within previously disturbed and/or developed areas and do not intersect mapped pine barren communities.

3.4.3 Field Observations of RTE Species

No RTE species were observed within the surveyed portions of the Onshore Facilities during field visits in June and October 2020. While the Union Avenue site and the Interconnection Route were not visited, the presence of RTE species here is unlikely given the industrial and commercial nature of these areas.

Overall, the habitats associated with the Onshore Facility provide limited habitat for RTE species given the prevalence of existing development and presence of invasive species. However, natural communities associated with the Carmans River and Landfall/ICW Study Area exhibited habitat characteristics potentially suitable for several RTE species known from the vicinity.

3.5 INVASIVE SPECIES

Over 100 non-native invasive plant species occurrences have been documented proximal to the Onshore Facilities based on a query of the New York iMapInvasives database (NYNHP 2020). The invasive plant species documented include the following:

- Norway maple (Acer platanoides)
- Tree-of-heaven (Ailanthus altissma)
- Japanese barberry (*Berberis thunbergii*)
- Oriental bittersweet (Celastrus orbiculatus)
- Black swallow-wort (Cynanchum louiseae)
- European privet (*Ligustrum vulgare*)



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- Japanese honeysuckle (Lonicera japonica)
- Purple loosestrife (Lythrum salicaria)
- Chinese silvergrass (*Miscanthus sinensis*)
- Princess tree (*Paulownia tomentosa*)
- Mile-a-minute weed (Persicaria perfoliata)
- Common reed (*Phragmites australis*)
- Japanese knotweed (Fallopia japonica)
- Black locust (*Robinia pseudoacacia*)
- Rambler rose (Rosa multiflora)
- Wineberry (Rubus phoenicolasius)
- Climbing nightshade (Solanum dulcamara)
- Great mullein (Verbascum thapsus)
- Common periwinkle (Vinca minor)

Most of the occurrences are associated with the Wertheim National Wildlife Refuge in the vicinity of the Carmans River and Montauk Highway areas along the Onshore Transmission Cable routes. Additional locations of invasive plants have been documented proximal to the HDD work areas. In addition, the March 2019 Final Design Report / Environmental Assessment for the replacement of the William Floyd Parkway, Route CR 46 over Narrow Bay (New York State Department of Transportation 2019) notes a prevalence of invasive species such as Japanese honeysuckle, common reed, autumn olive (*Elaeagnus umbellata*), oriental bittersweet, and rambler rose near Smith Point Bridge. Widespread occurrences of invasive plant species are likely throughout the proposed Onshore Facilities given the association with developed residential and industrial areas and proliferation of invasive species throughout the greater Long Island region.

Based on the field assessments, invasive species are ubiquitous throughout the Onshore Facilities and results were consistent with species and locations identified in the New York iMapInvasives query (Appendix A, Figure 5). Common mugwort was the most prevalent species observed and commonly occurs along road shoulders throughout the Onshore Facilities. Large concentrations of common reed were observed along the backside of Fire Island and at Smith Point Marina at the Landfall/ICW Study Area. In addition, large concentrations of multiple species were observed along Montauk Highway at the Carmans River crossing and the areas immediately to the west and east. Additional commonly observed invasive species across the Onshore Facilities included Norway maple, rambler rose, oriental bittersweet, autumn olive, Japanese honeysuckle, black locust, garlic mustard (*Alliaria petiolata*), Japanese barberry, and common reed.

3.6 FLOODPLAINS

FEMA is responsible for flood hazard mapping to assess flood risk to infrastructure and guide mitigative actions. Based on FEMA's Flood Insurance Rate Maps (FIRM), the entirety of the Landfall/ICW Study Area on Fire Island and the Landfall/ICW Study Area on the Mainland is located within the 100-year floodplain (Zone AE; the area with a 1% annual chance of flooding; FIRM panel 36103C0951H).



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Beach and dune portions of the Landfall/ICW Study Area on Fire Island located oceanside of the William Floyd Parkway and the portion of the ICW HDD across Narrow Bay are designated as coastal flood zones with velocity (i.e., wave action) hazard (Zone VE; FIRM panel 36103C0951H). Flood elevations for the 100-year flood zones within the Landfall/ICW Study Area on Fire Island and at the Landfall/ICW Study Area on Mainland range from 6 to 17 ft (1.8 to 5.2 m) North American Vertical Datum of 1988.

Approximately 1,800 linear ft (548.6 m) of the Onshore Transmission Cable is located within the 100-year floodplain (Zone AE) along William Floyd Parkway as it exits ICW HDD Work Area at Smith Point Marina (FIRM panel 36103C0951H).

Another approximately 520 linear ft (158.5 m) of the Onshore Transmission Cable is within the 100-year floodplain at the Carmans River crossing, although base flood elevation data does not exist at this location (Zone A; FIRM panel 36103C0717H).All other portions of the Onshore Transmission Cable route, Interconnection Cable route and the Union Avenue Site are in areas of minimal flood hazard.

The Onshore Facilities are not expected to result in changes to the base flood elevation as the Onshore Transmission Cable will be installed via HDD or installed below the existing grade via trenching. The floodplain resources are provided on Figure 6 (Appendix A) and summarized below in Table 5.

Onshore Facility		Floodplain Resources
Landfall/ICW Study Area		• Zone AE, VE
Onshore Transmission Cable	LIE Service Road Route	 Zone AE (ICW HDD Work Area, William Floyd Parkway) Zone VE (ICW HDD) Zone A (Carmans River crossing)
Cable	Peconic Avenue Route	None
Union Avenue Site		None
Onshore Interconnection Cable		• None

Table 5. Summary of Floodplain Resources

4.0 SUMMARY

The Onshore Facilities intersect a variety of regulated natural resources as discussed above in this report and summarized in Tables 1–5. The highest concentrations of resources are associated with the Landfall/ICW Study Area on Fire Island, the Landfall/ICW Study Area on Mainland, and the Onshore Transmission Cable crossings of the Carmans River and Yaphank Creek. Generally confining activities to existing developed areas including parking lots, roadway and utility ROWs will avoid and minimize impacts to sensitive environmental resources. HDD methods will be used to connect the Sunrise Wind Export Cable to Onshore Facilities and for the crossing of the ICW to avoid impacts to dune and beach communities and mapped habitat. HDD or other trenchless crossing installation will be utilized to avoid sensitive environmental resources, including Carmans River and Yaphank Creek. Work areas along the



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Onshore Transmission Cable route will be established and the required safety measures will be implemented.

Where appropriate, temporary erosion controls will be installed and maintained until the work areas are restored and stabilized. An Emergency Response Plan and Oil Spill Response Plan have been developed for offshore work and a Stormwater Pollution Prevention Plan and a Spill Prevention Control and Countermeasures Plan will be implemented to avoid and minimize impacts to sensitive environmental resources. Invasive plants will be assessed and managed through an Invasive Species Management Plan. Time of year restrictions for certain work activities (e.g., HDD conduit stringing and tree and shrub removal) during the avian nesting and bat roosting periods, and adherence to other protective measures for avian and habitat will be employed to the extent feasible to avoid and minimize direct terrestrial habitat and species impacts during construction of the Landfall and Onshore Facilities. If work is anticipated to occur outside of these time of year restriction periods, Sunrise Wind will work with state and federal agencies to develop appropriate construction monitoring and impact minimization plans.

Where HDD is utilized, an Inadvertent Return Plan will be prepared and implemented to minimize the potential risks associated with the release of drilling fluids. Sunrise Wind will comply with New York State regulations and standards for treatment and disposal of solid and liquid wastes generated during all phases of construction activities



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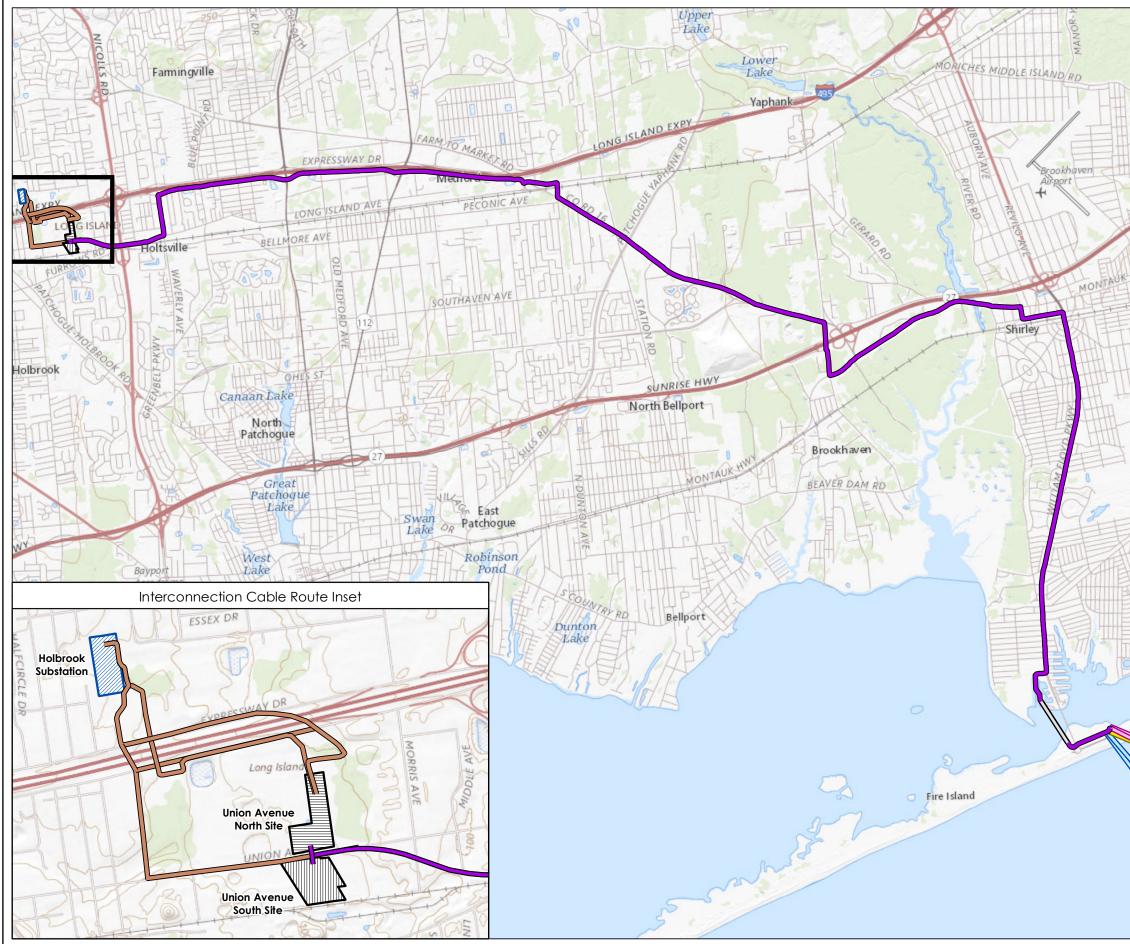
APPENDICES

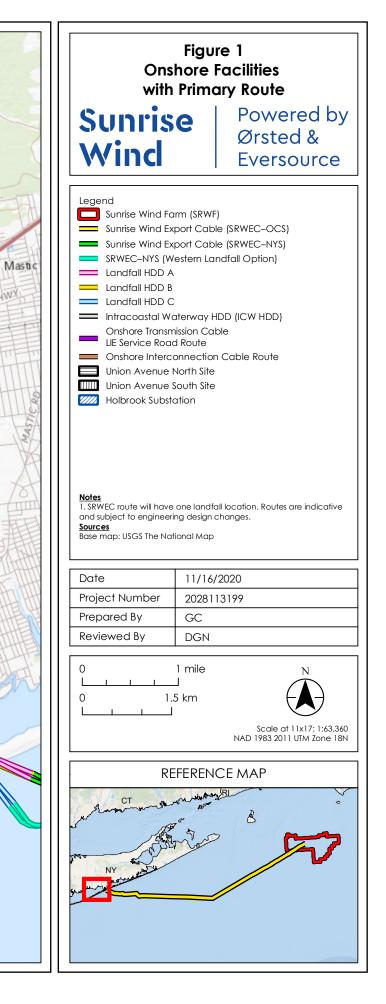


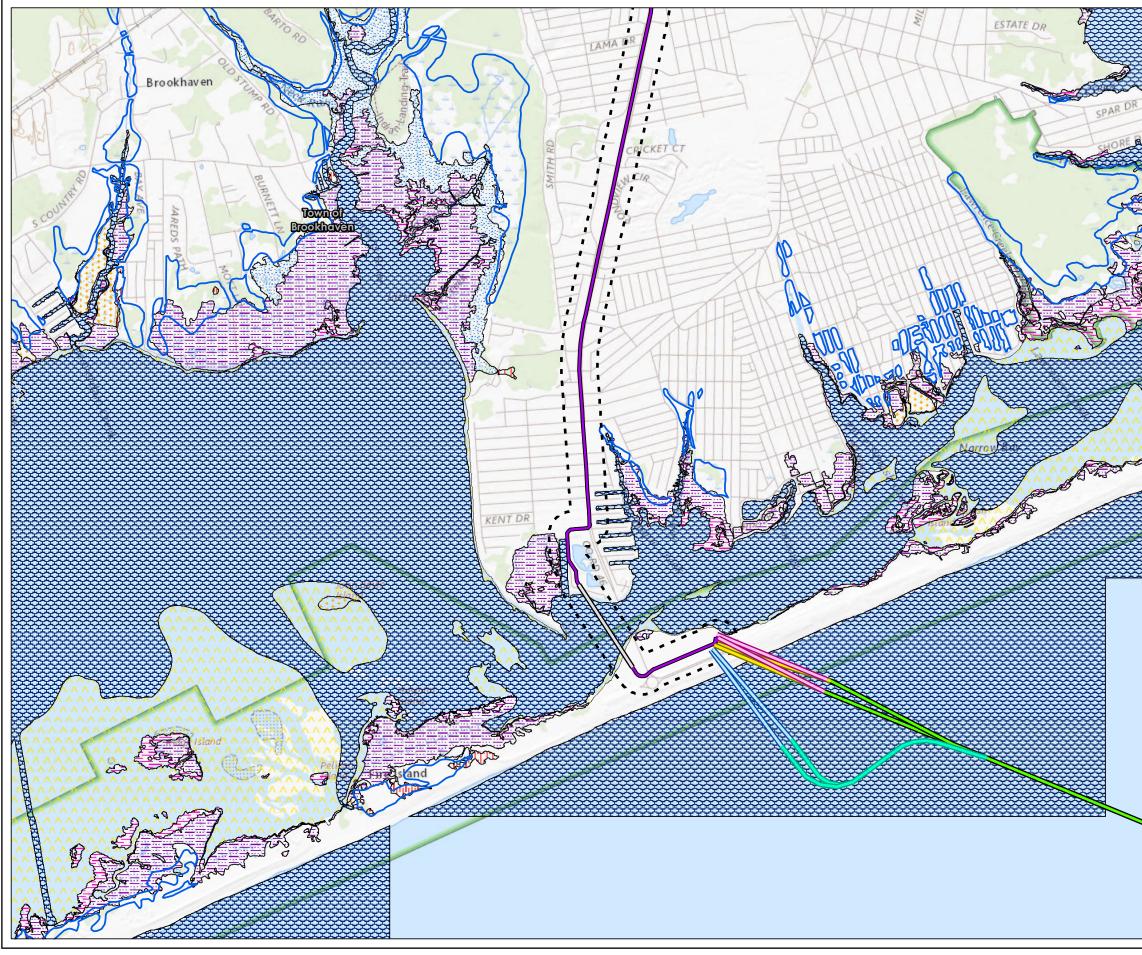
Appendix A FIGURES

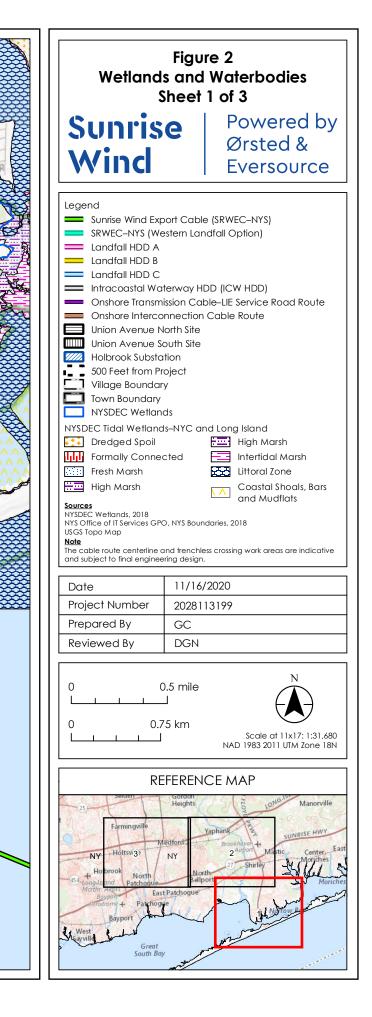
- Figure 1: Onshore Facilities with Primary Route
- Figure 2: Wetlands and Waterbodies
- Figure 3: Delineated Wetlands
- Figure 4: Significant and Critical Natural Communities and Habitat
- Figure 5: Invasive Plant Species
- Figure 6: Floodplains

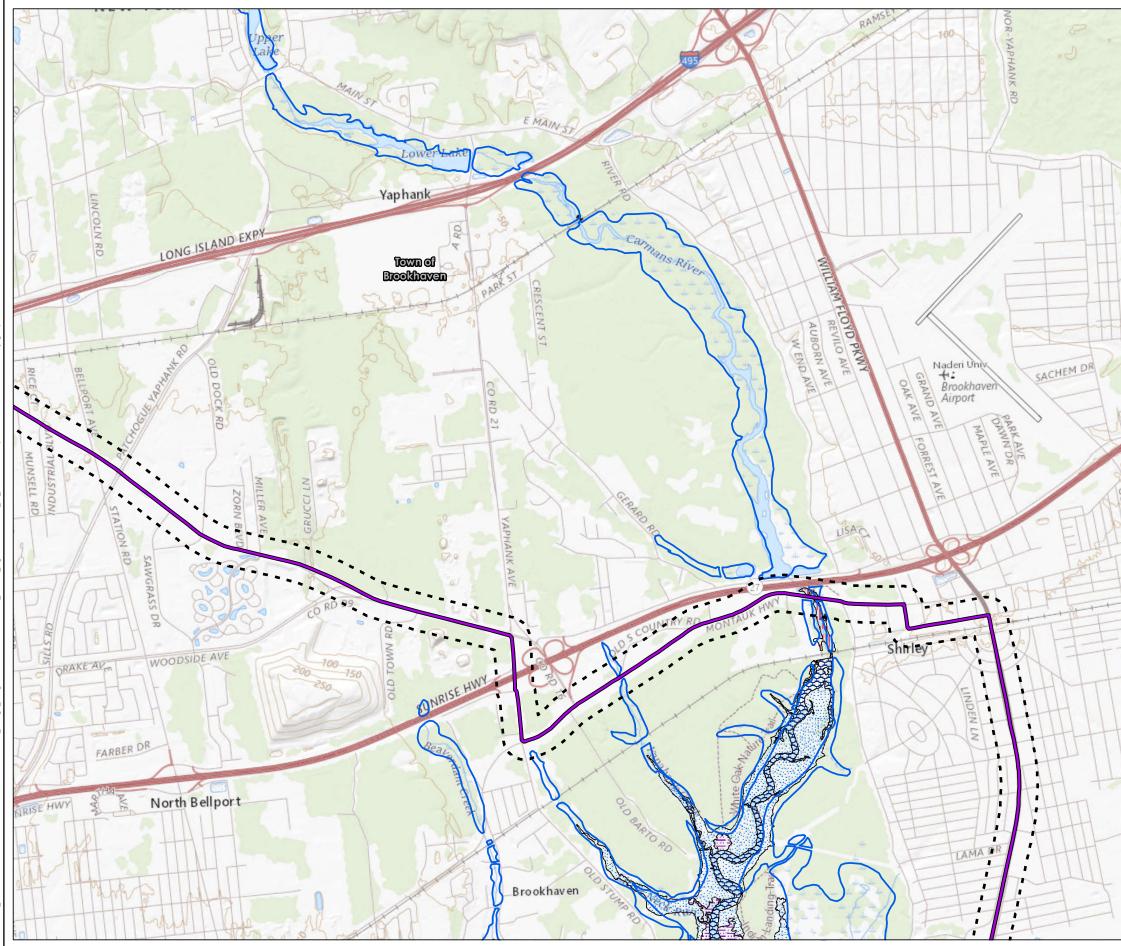


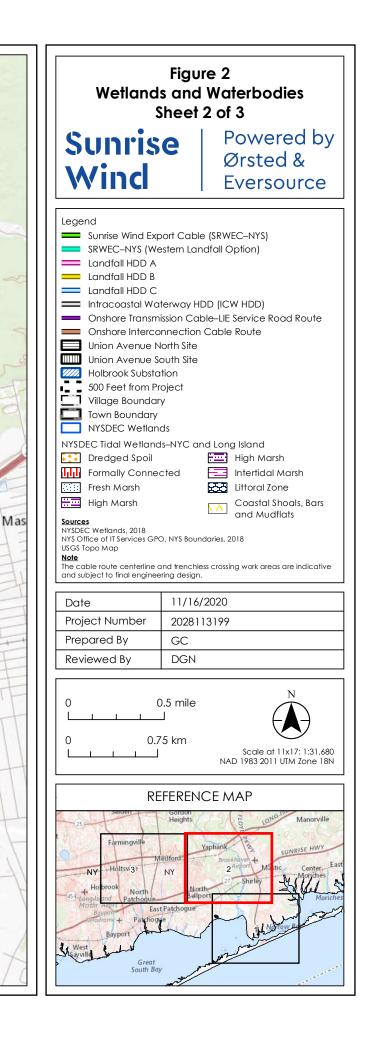


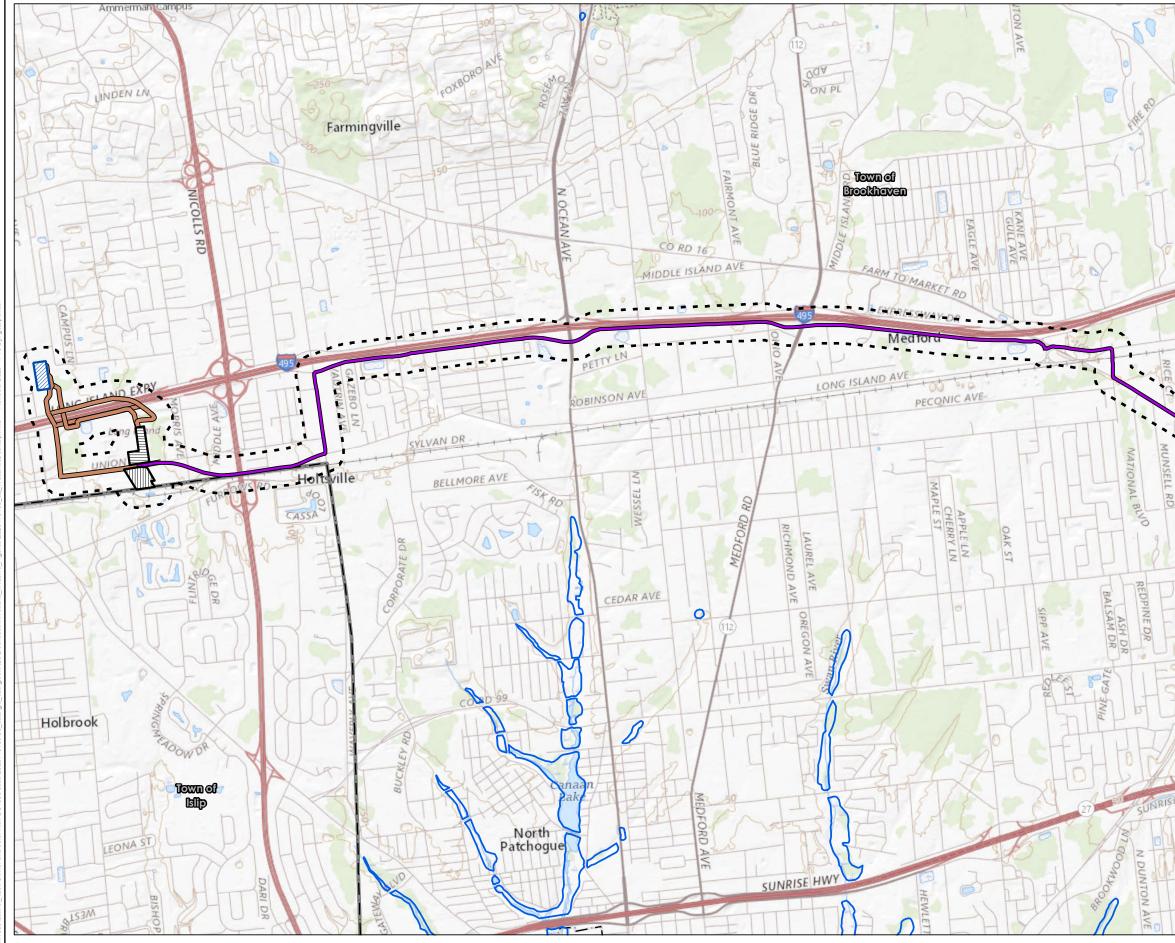


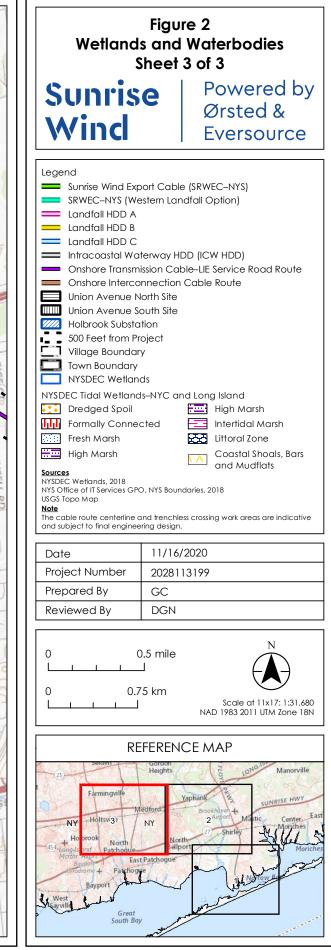




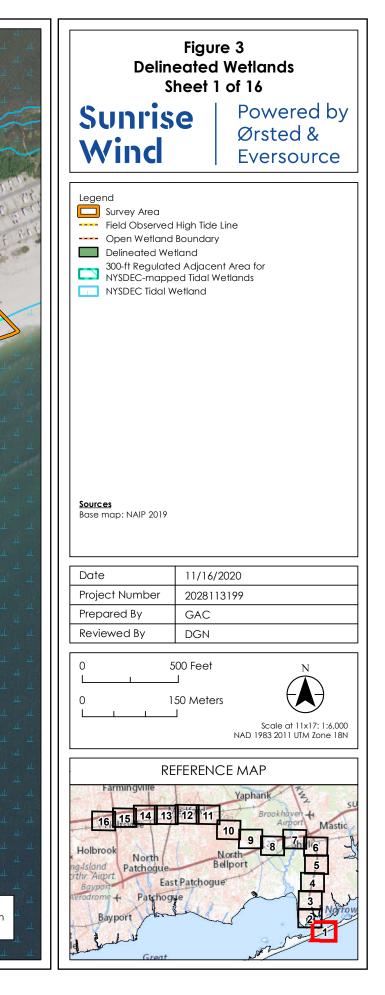


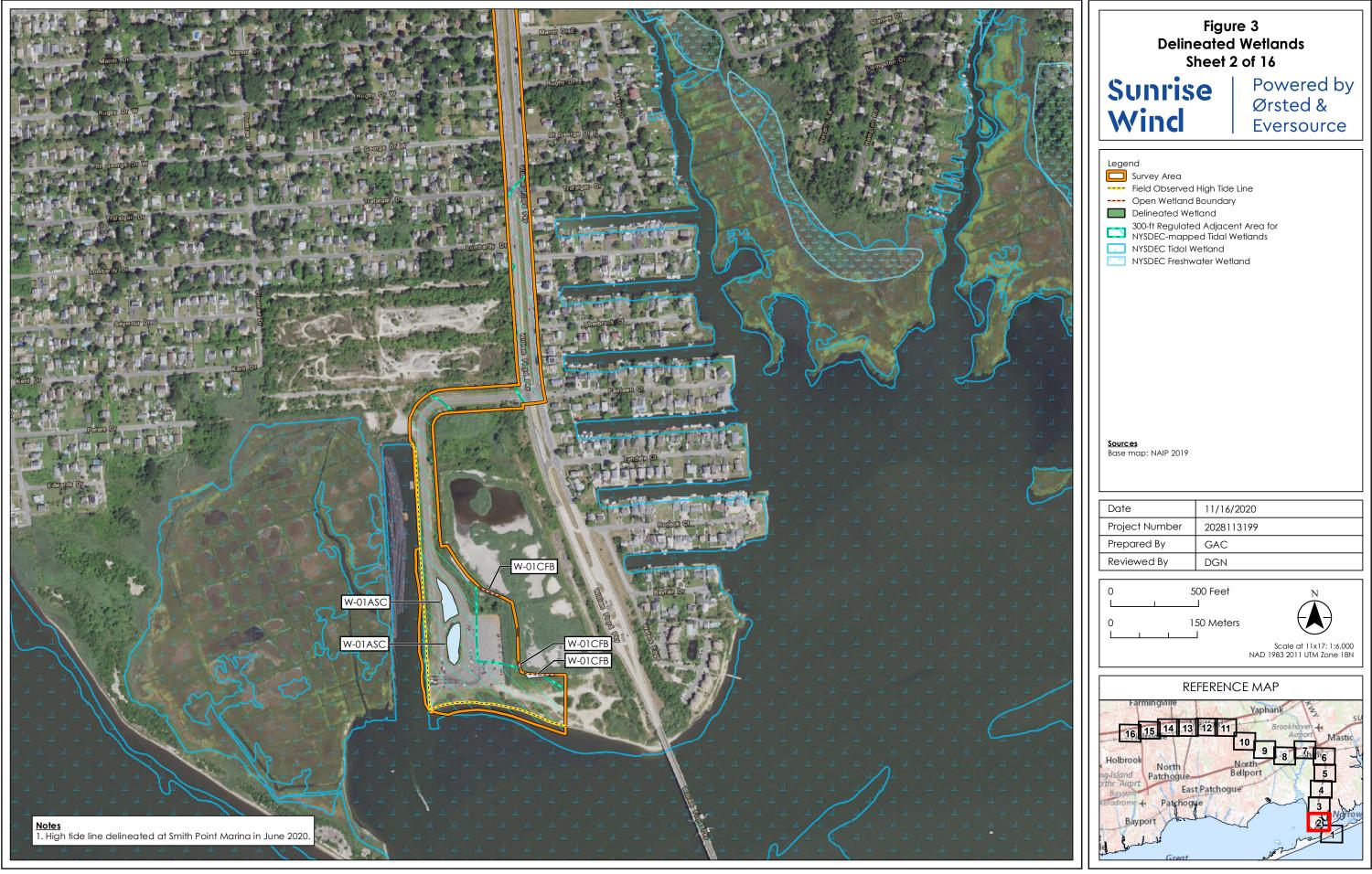


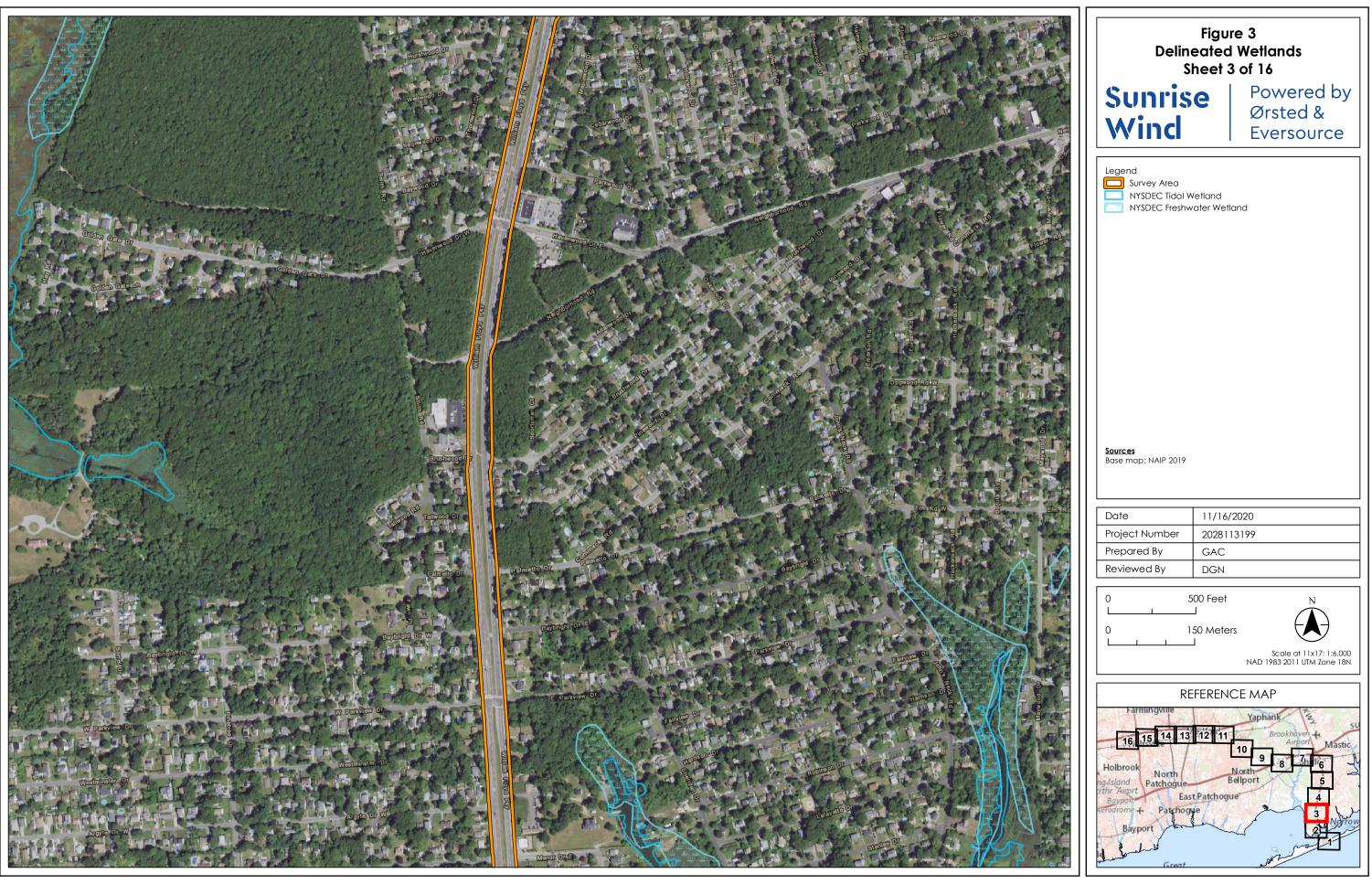


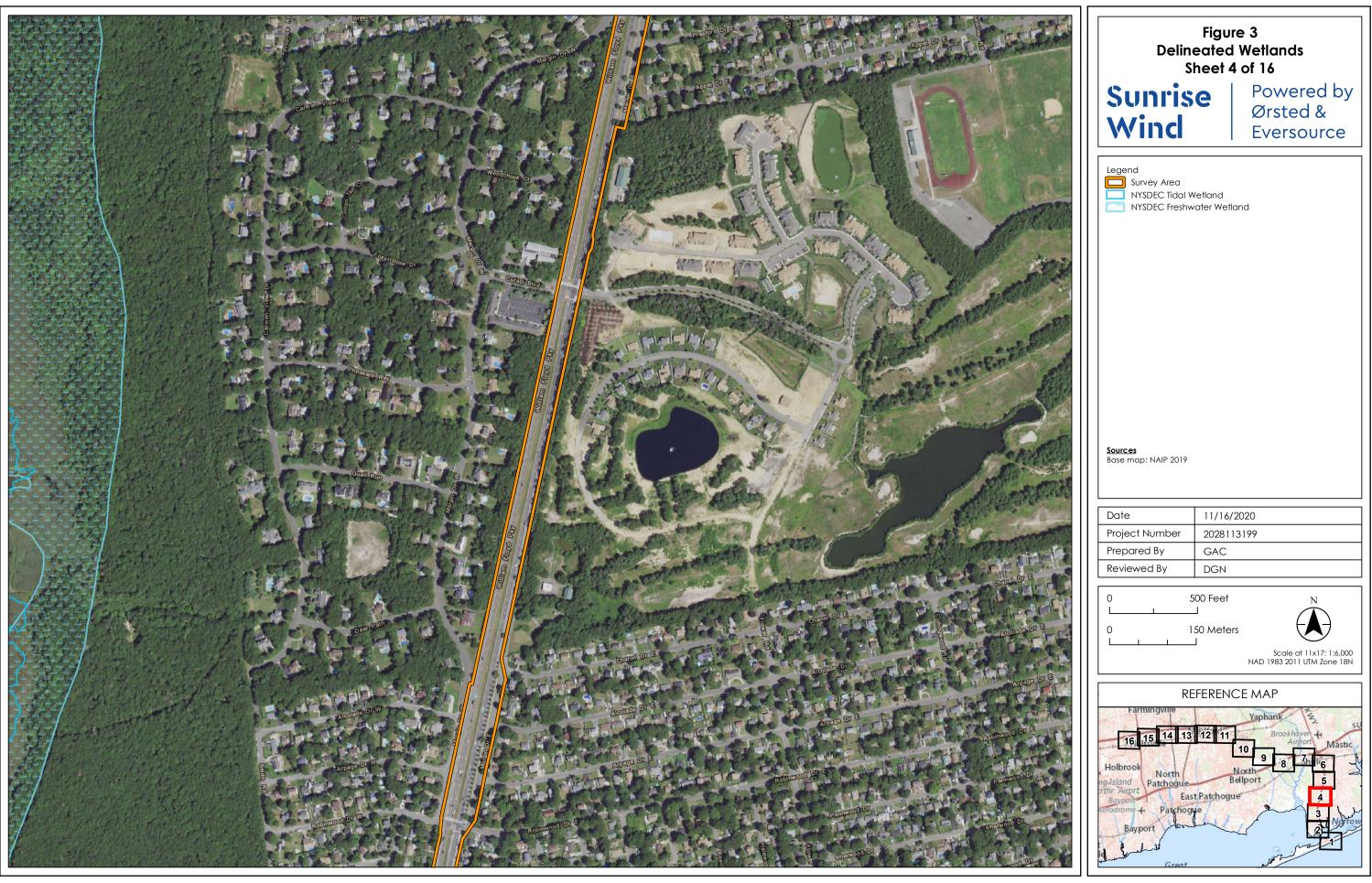










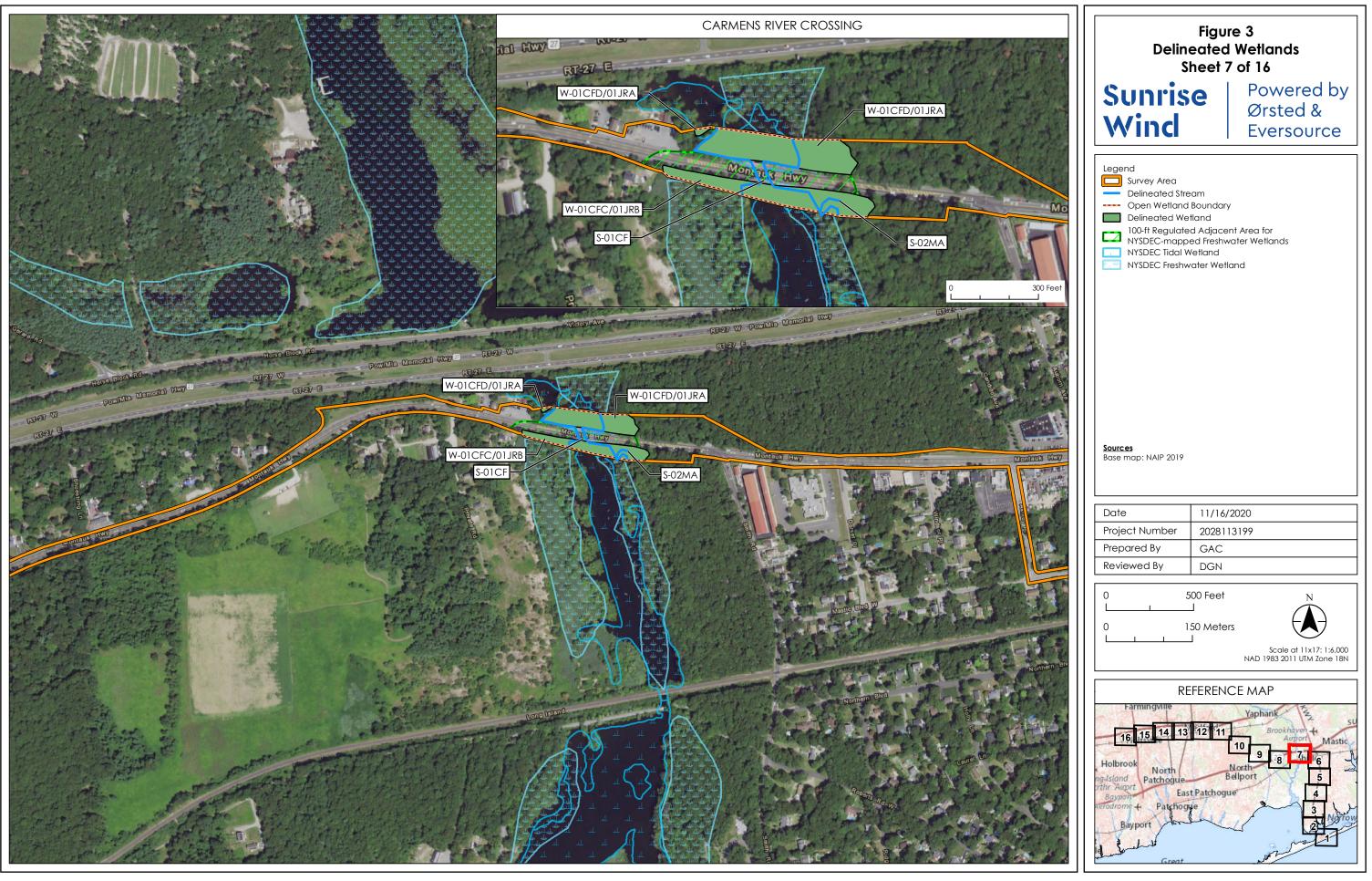


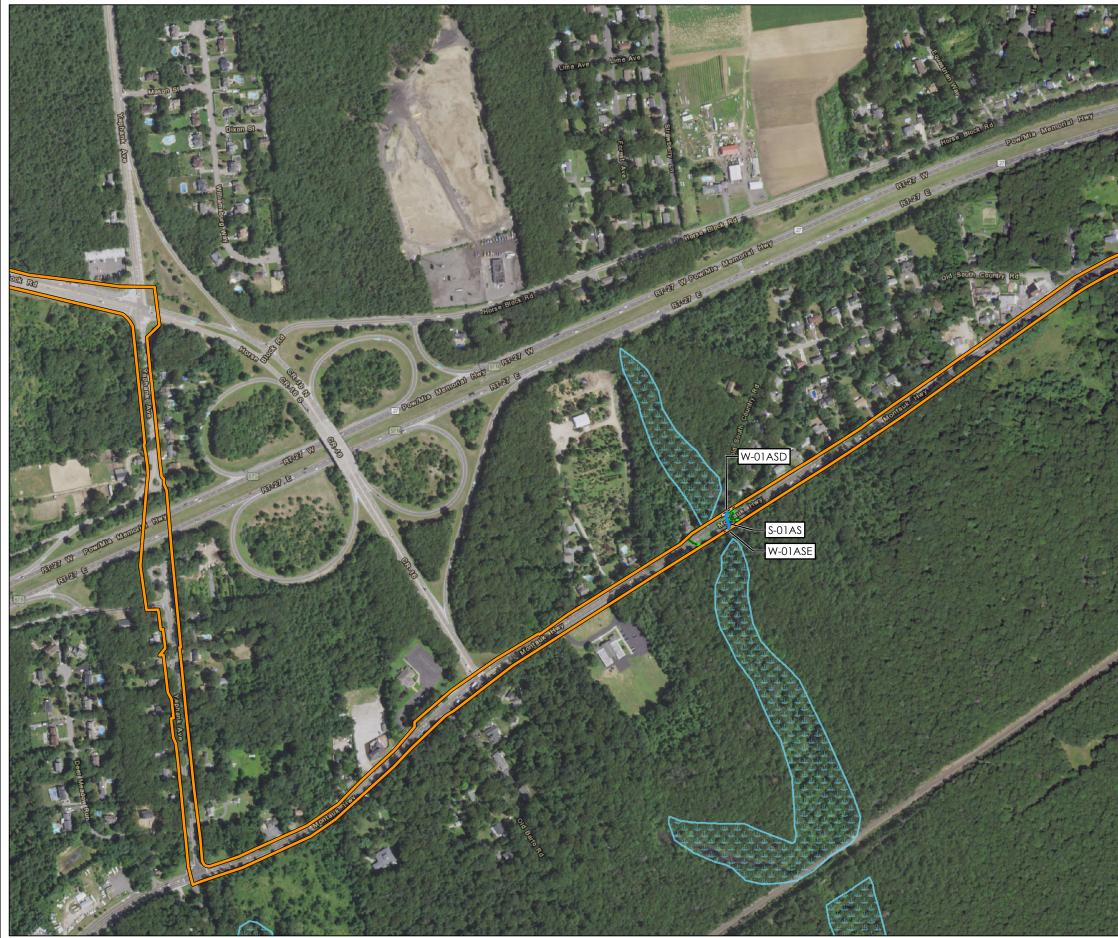


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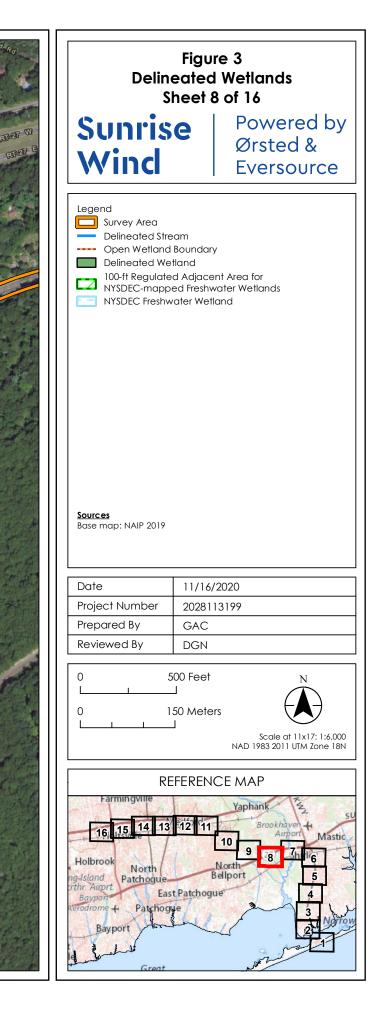




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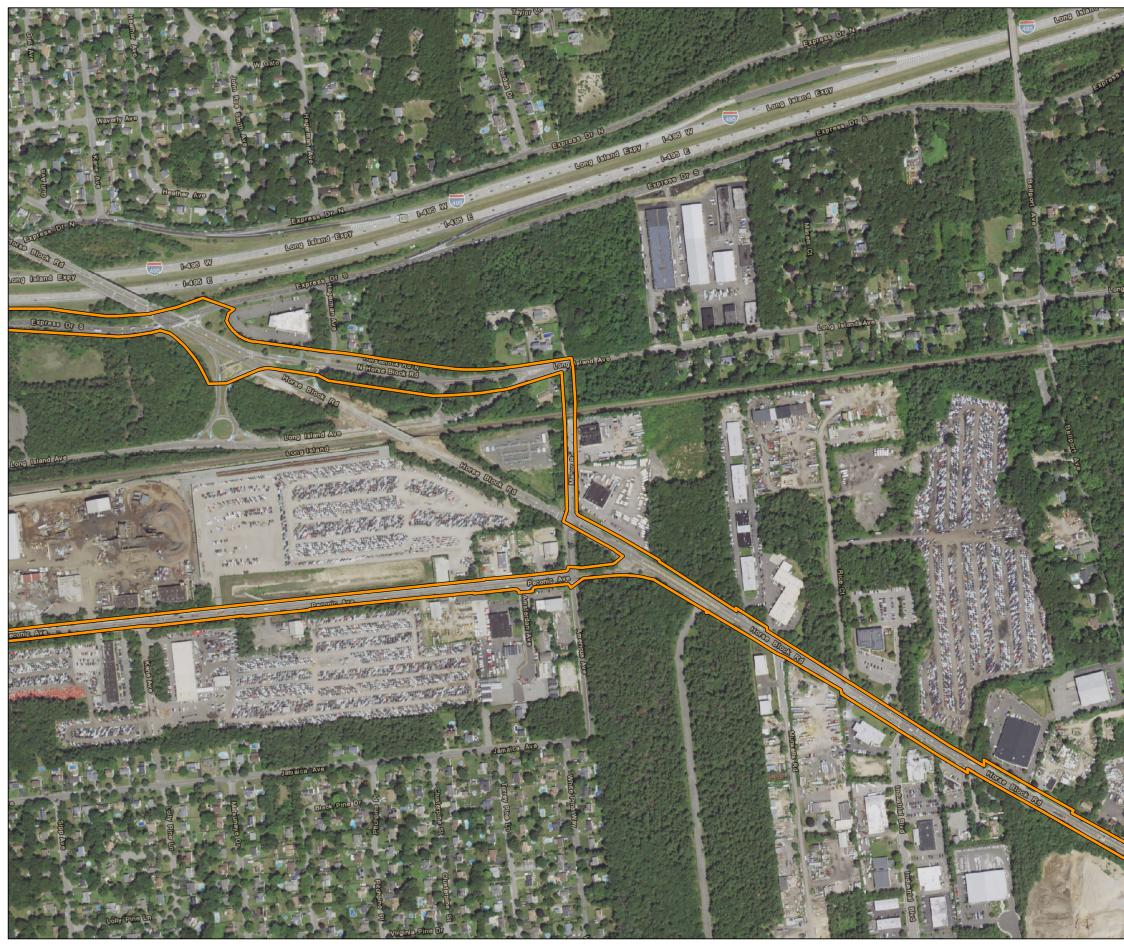
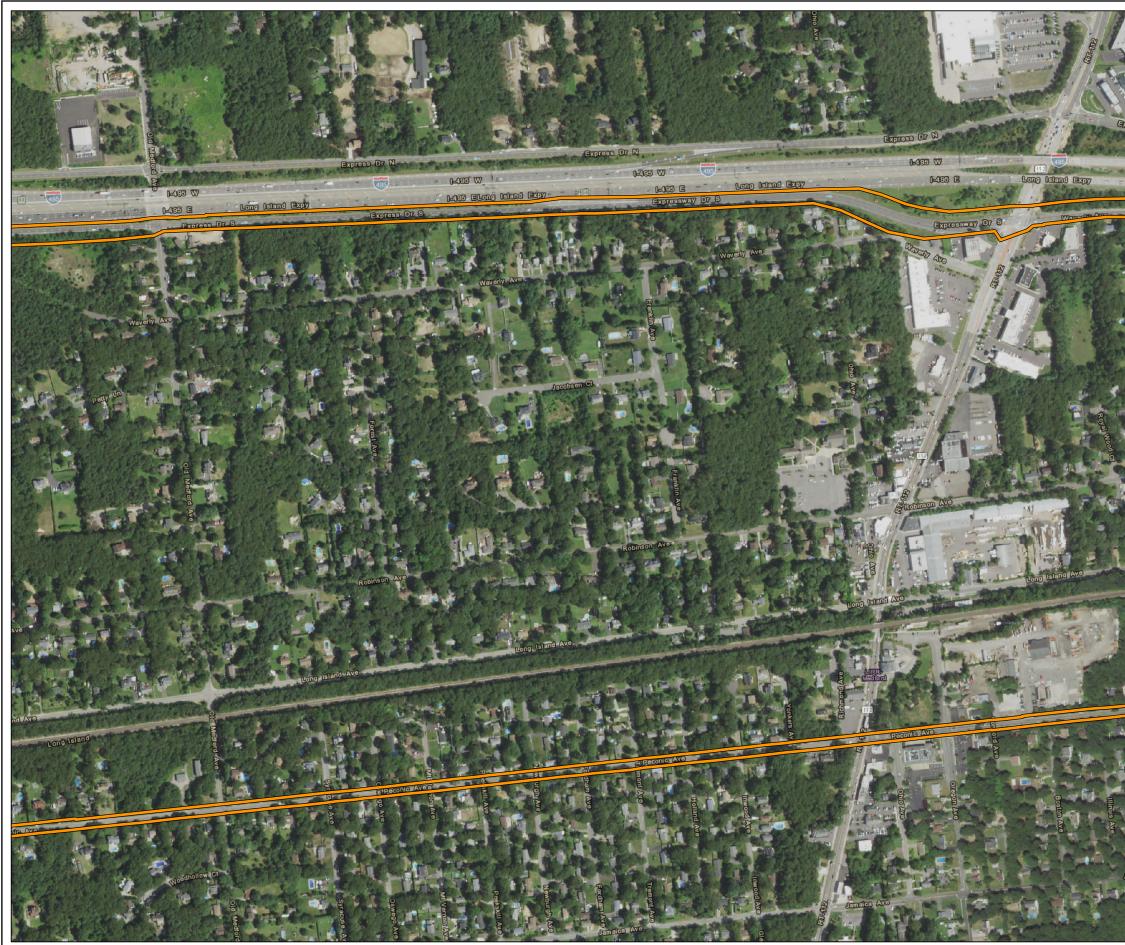


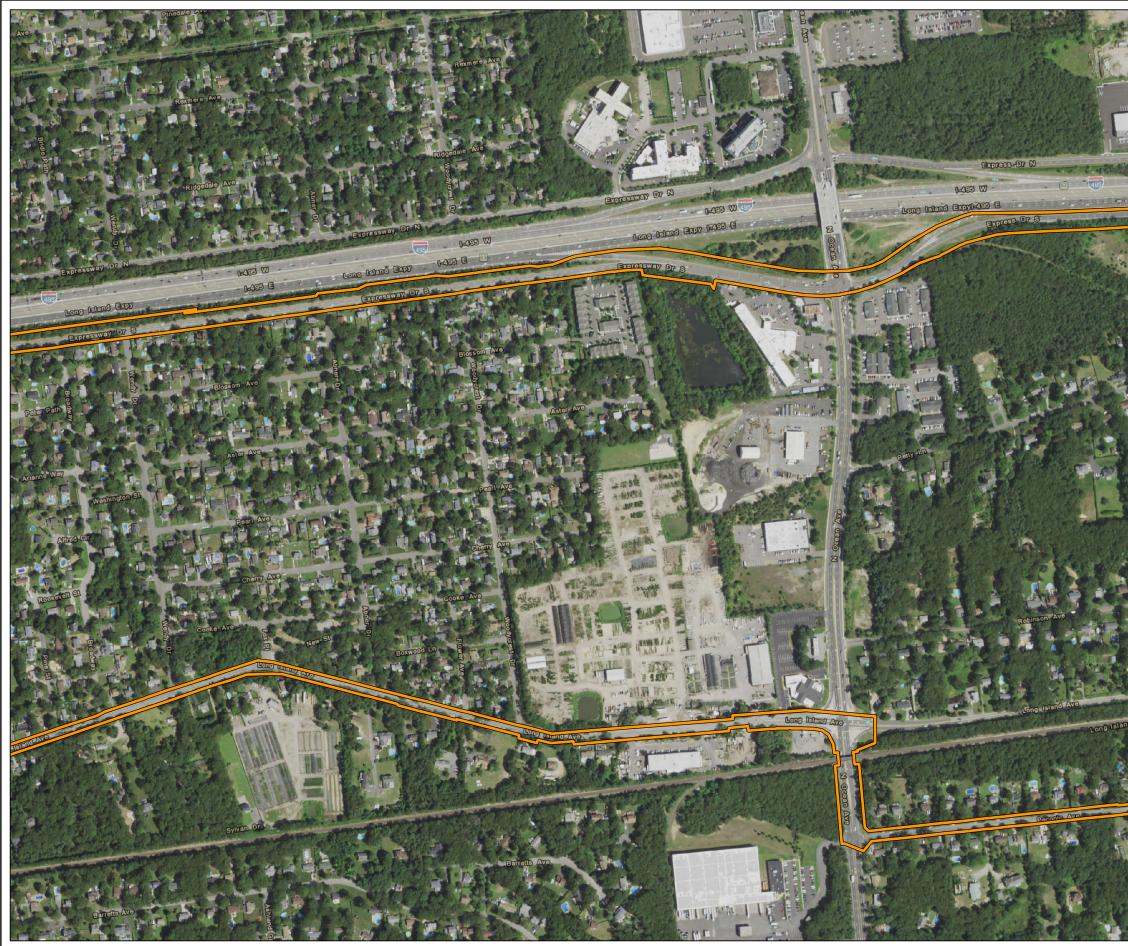
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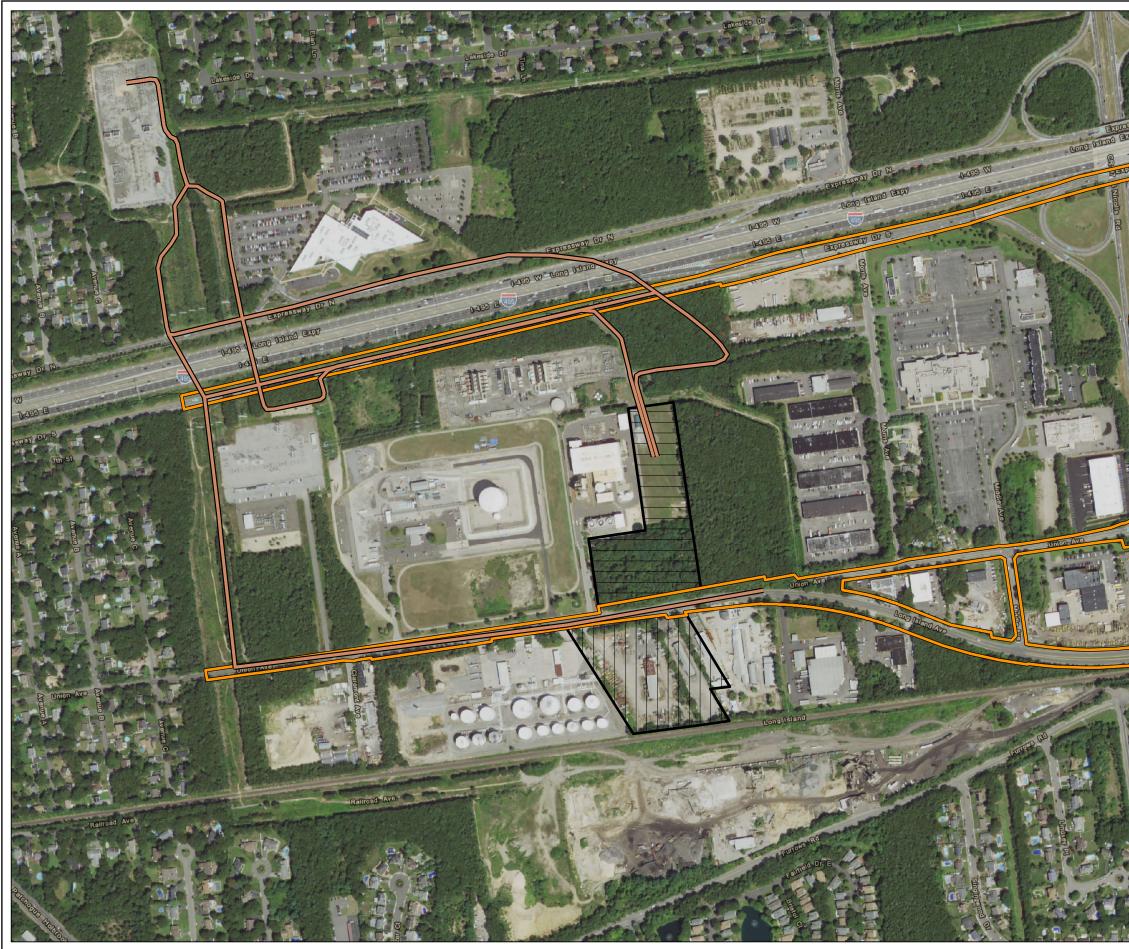
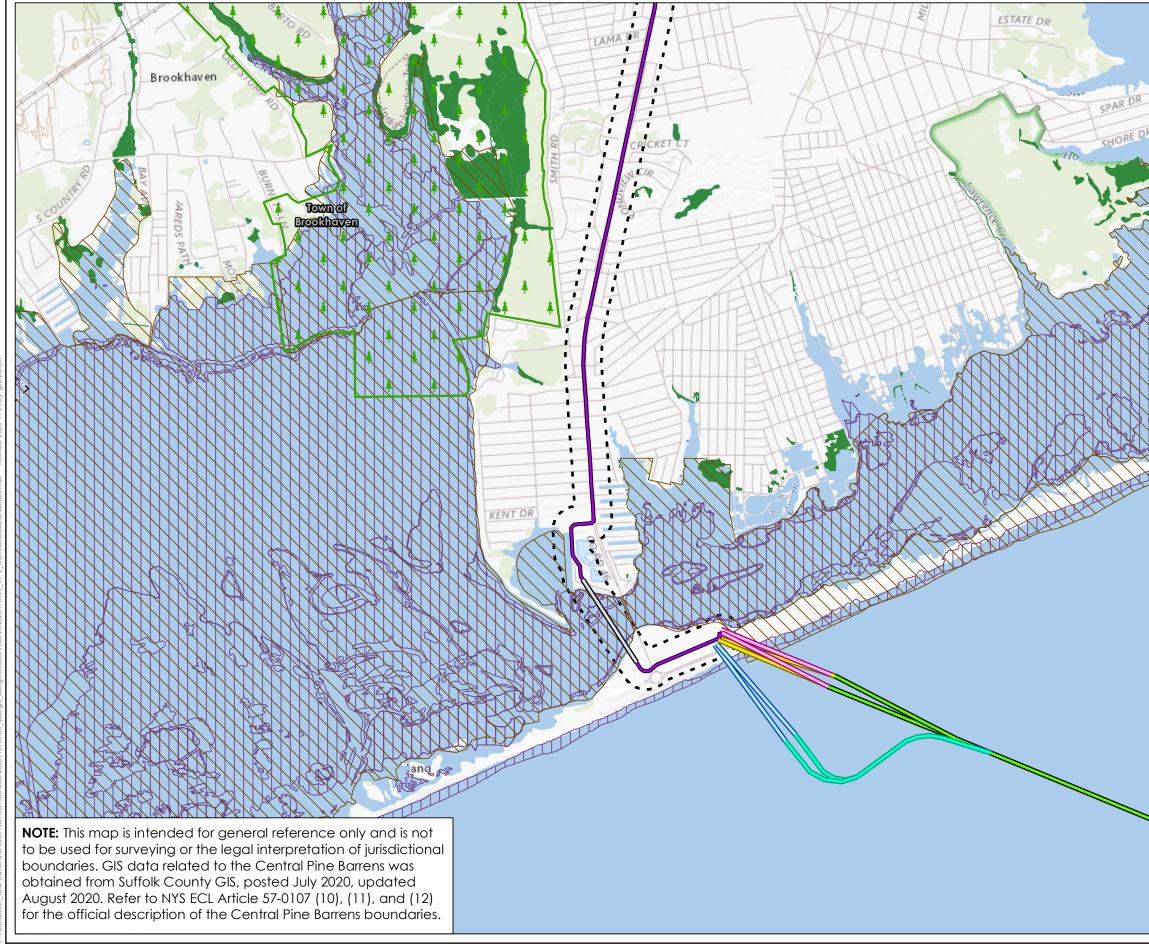
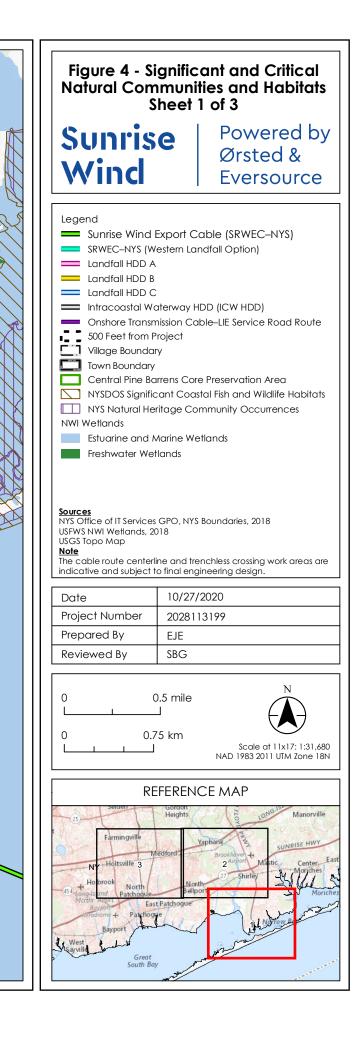
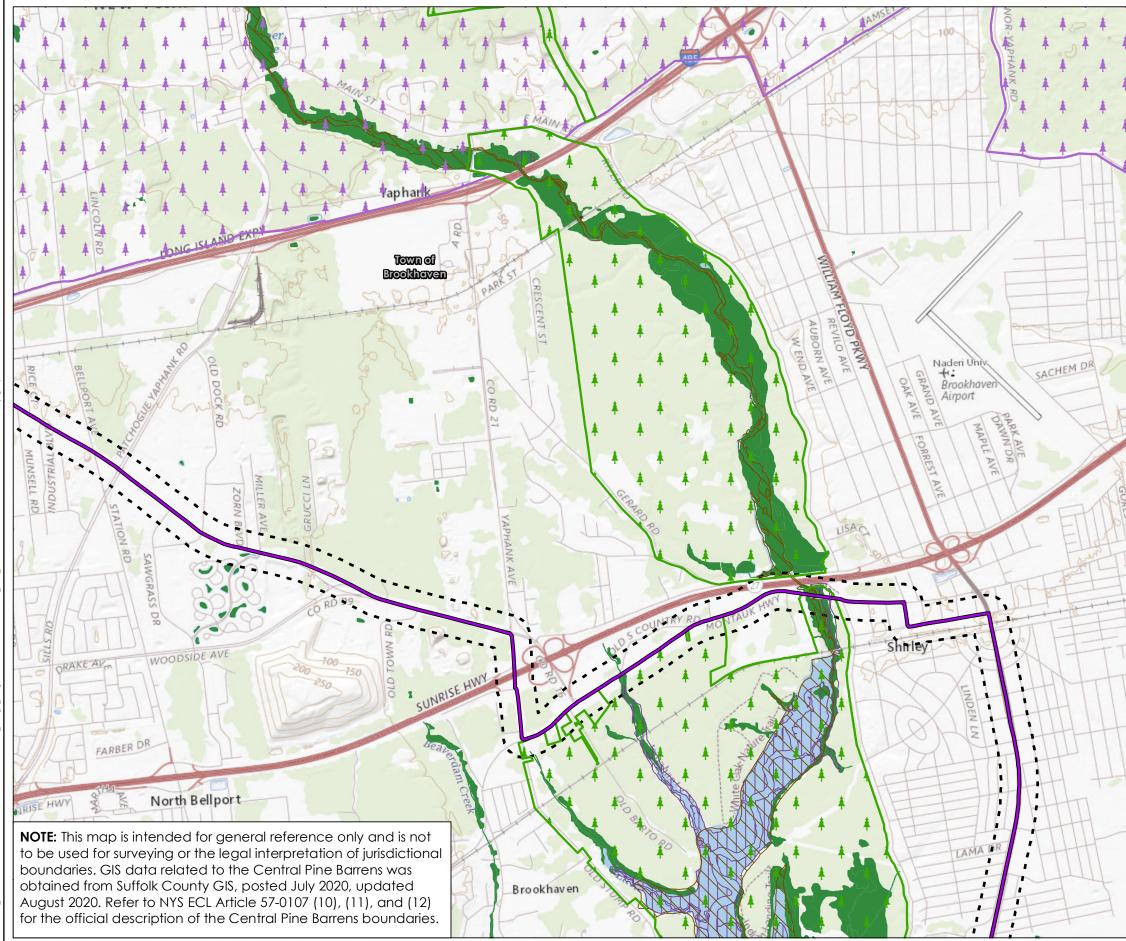
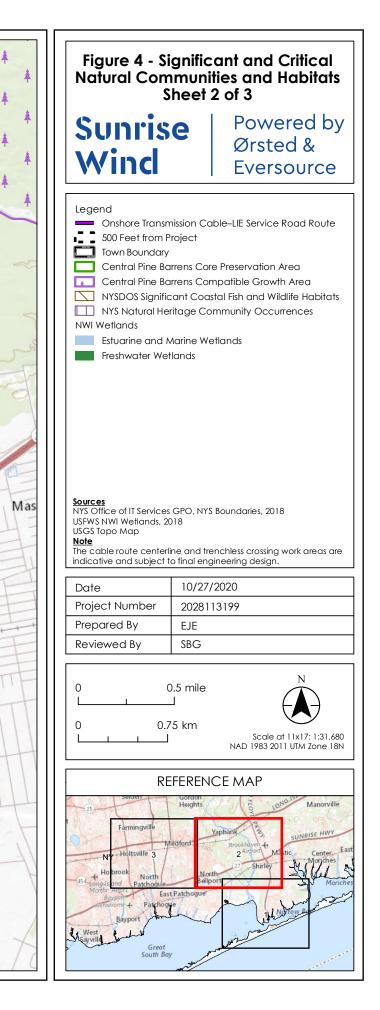


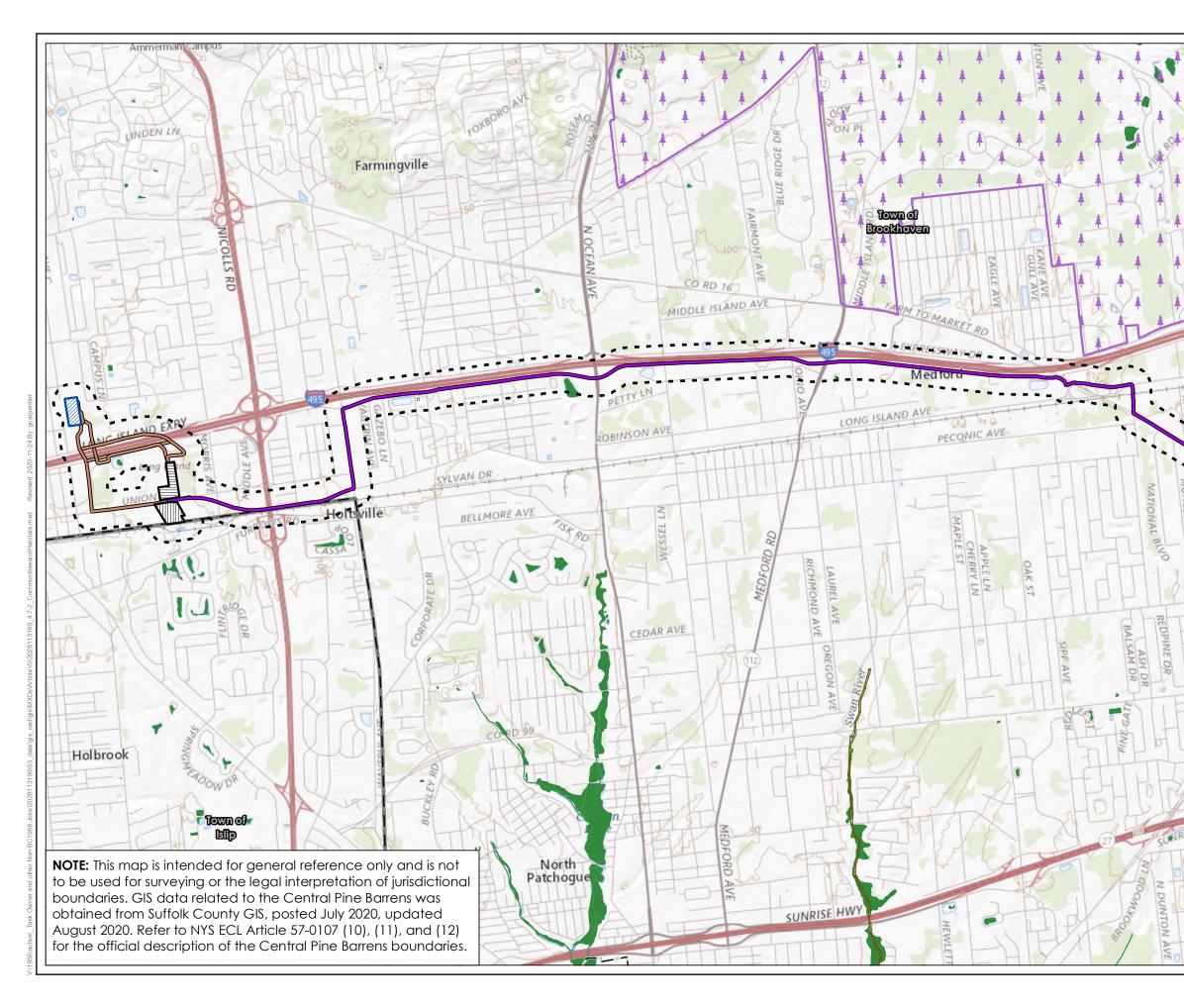
		Figure 3 Delineated Wetlands Sheet 16 of 16		
En cz	Sunris Wind	e	Powered by Ørsted & Eversource	
	Legend Survey Area Onshore Interco Union Avenue N Union Avenue S	North Site (N		
	<mark>Sources</mark> Base map: NAIP 2019			
	Date	11/16/20	020	
	Project Number	2028113		
	Prepared By	GAC		
	Reviewed By	DGN		
mal		00 Feet	N	
2000		⊐ 50 Meters	()	
1		0 150 Meters Scale at 11x17: 1:6,000 NAD 1983 2011 UTM Zone 18N		
1	RF	REFERENCE MAP		
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	and have the second sec	t Patchogue		











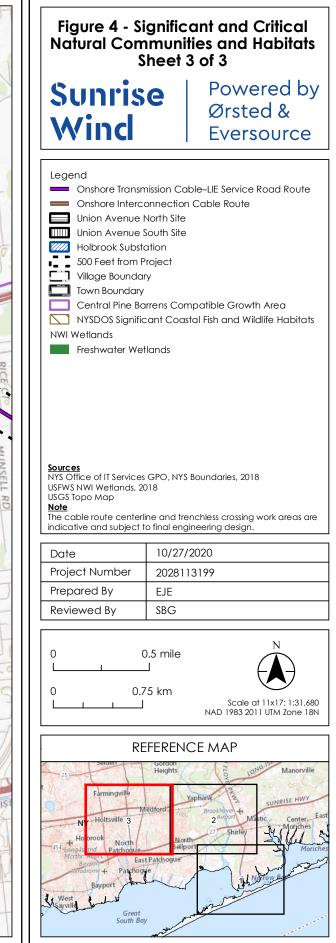




	Figure 5 Invasive Plant Species Sheet 1 of 16		
20	Sunrise	Powered by	
		Ørsted &	
-	Wind	Eversource	
それで	Legend Phragmites australis (Common Reed Grass) Phragmites australis (Common Reed Grass) Phragmites australis (Common Reed Grass)/ Rosa multiflora (Multiflora Rose) Survey Area 		
	Date 11/16/		
	Project Number 20281	13199	
	Prepared By GAC Reviewed By DGN		
	Reviewed By DGN		
	0 500 Feet N 0 150 Meters Scale at 11x17: 1:6,00 NAD 1983 2011 UTM Zone 18		
	REFEREN		
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	Holbrook North NY ng-Island Patchogue East Patchogu Bayport Patchogue Bayport Bayport Great	North Sellport 5	



	Figure 5 Invasive Plant Species Sheet 2 of 16			
-	Sunrise Powered by			
6*]	l Ørsted &			
	Wind Eversource			
	Legend Phragmites australis (Common Reed Grass) Robinia pseudoacacia (Black Locust) Elaeagnus umbellata (Autumn Olive) Phragmites australis (Common Reed Grass) Survey Area			
Ì				
	Date 11/16/2020 Project Number 2028113199			
	Prepared By GAC			
	Reviewed By DGN			
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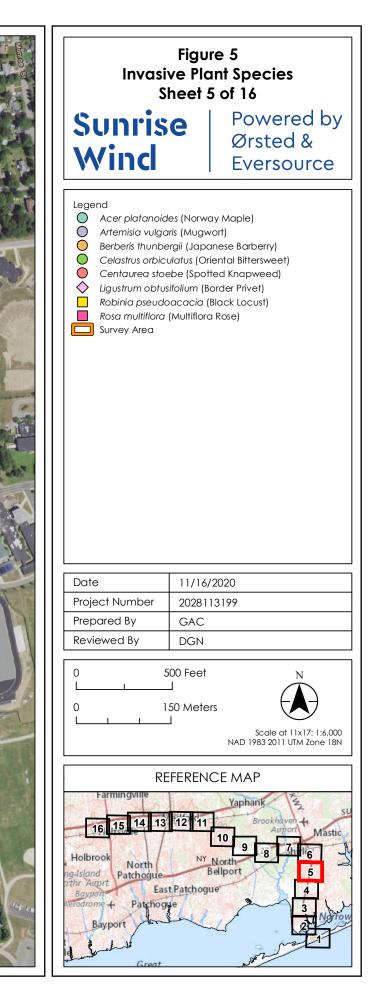


見てき	Figure 5 Invasive Plant Species Sheet 3 of 16		
	Sunrise Powered by		
Nat	Wind Eversource		
Con			
Maywood Or	Legend Robinia pseudoacacia (Black Locust) Rosa multiflora (Multiflora Rose) Survey Area		
A Maywood Dr			
1 State			
Elm Rd	Date 11/16/2020		
	Project Number 2028113199		
	Prepared By GAC		
1 20	Reviewed By DGN		
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	REFERENCE MAP		
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	Bayport Breat		

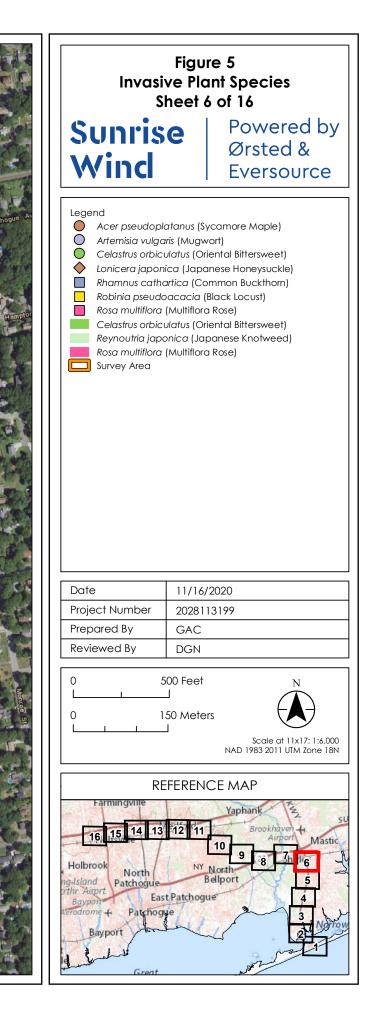


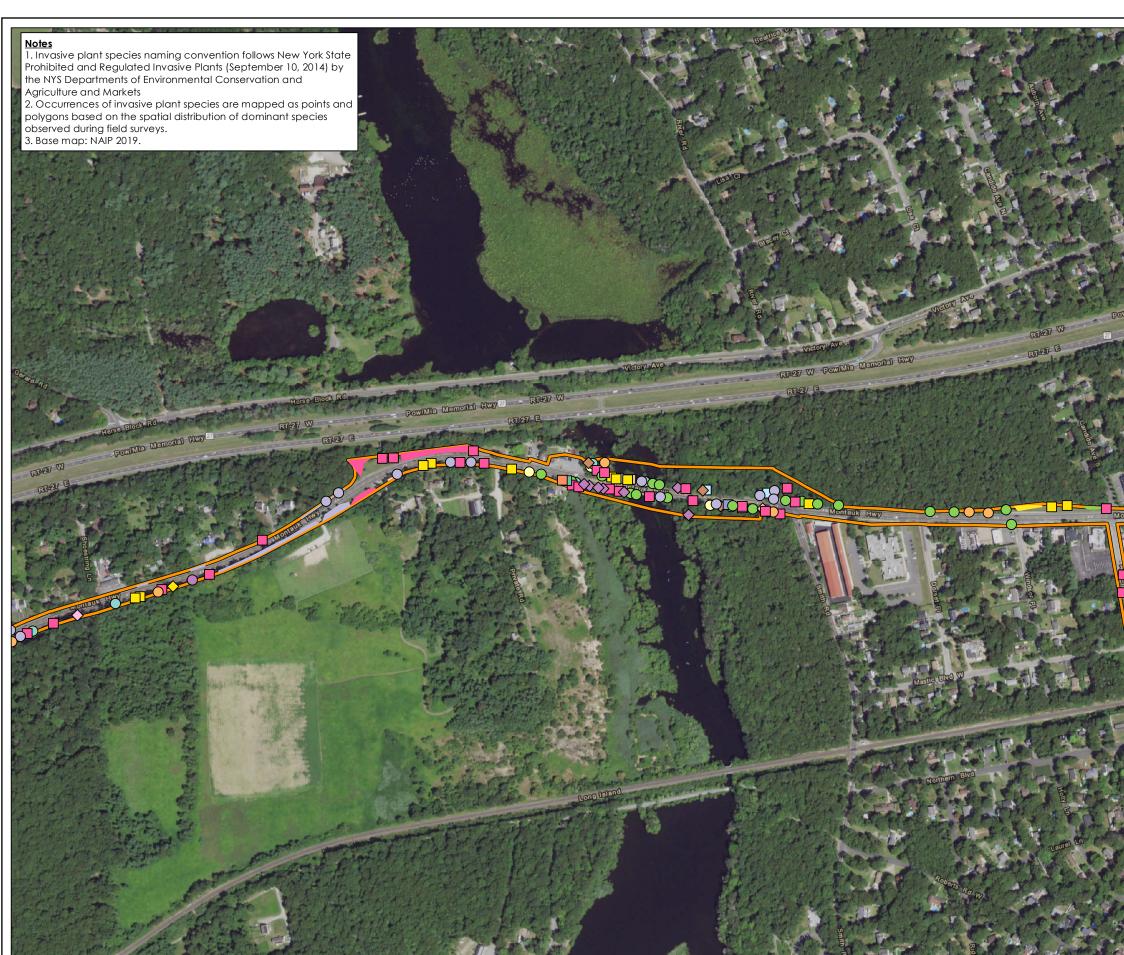
	Figure 5 Invasive Plant Species Sheet 4 of 16			
	Sunrise	Powered by		
		Ørsted &		
	Wind	Eversource		
		·		
	Legend Alliaria petiolata (Garlic Mustard) Celastrus orbiculatus (Oriental Bittersweet) Phyllostachys aurea (Golden Bamboo) Reynoutria japonica (Japanese Knotweed) Robinia pseudoacacia (Black Locust) Rosa multiflora (Multiflora Rose) Survey Area			
	Date	11/16/2020		
	Project Number	2028113199		
1-20	Prepared By	GAC		
-	Reviewed By	DGN		
T.	0 500 Feet N 0 150 Meters			
C.C.		Scale at 11x17: 1:6,000 NAD 1983 2011 UTM Zone 18N		
	REFERENCE MAP			

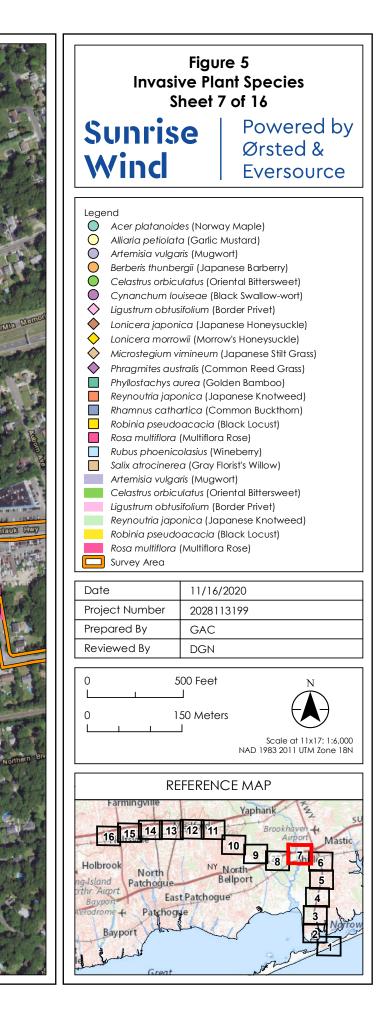


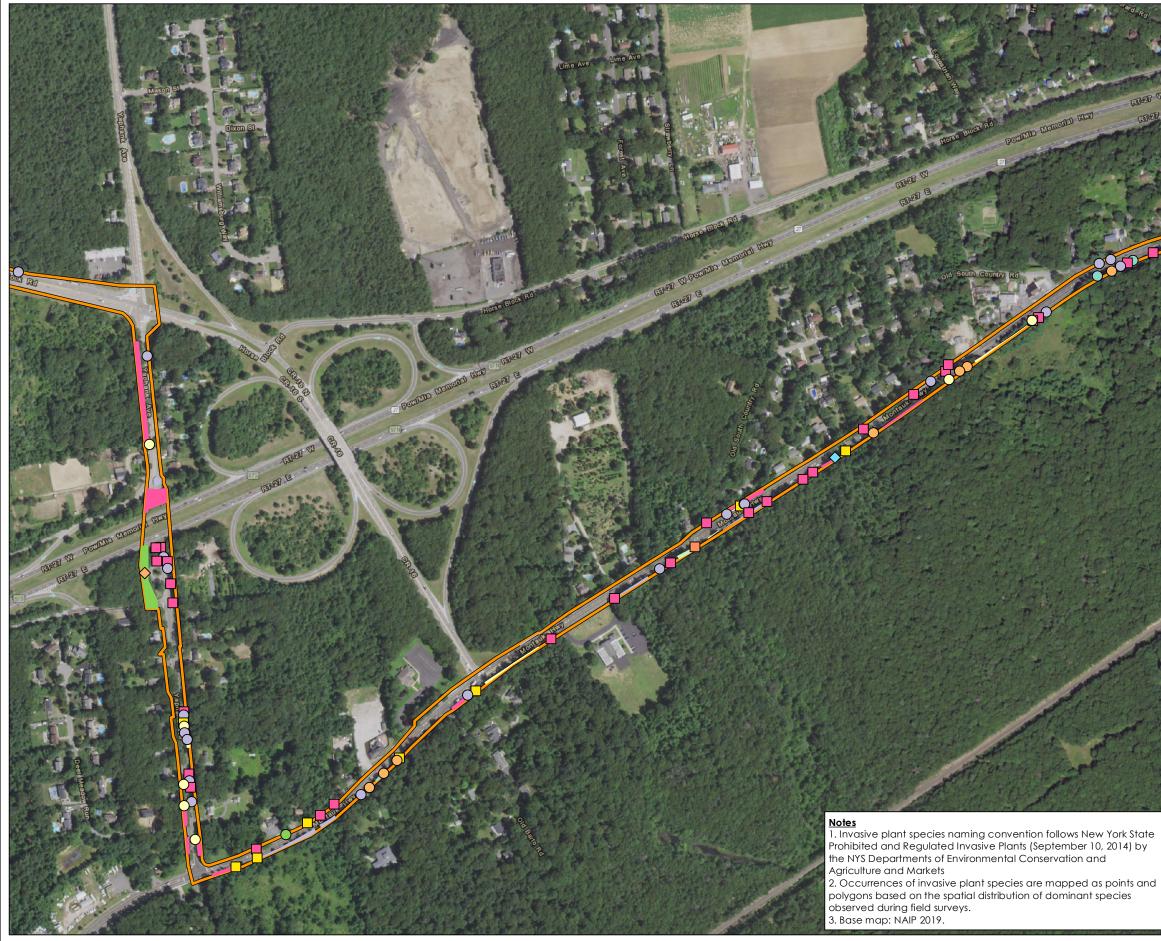


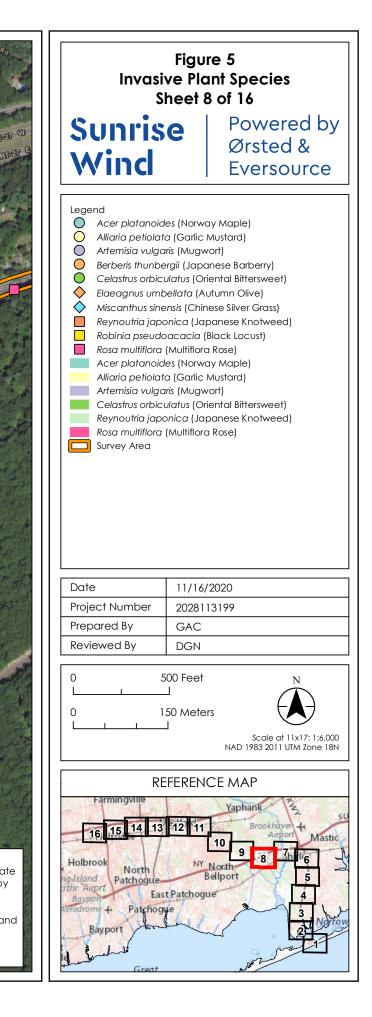




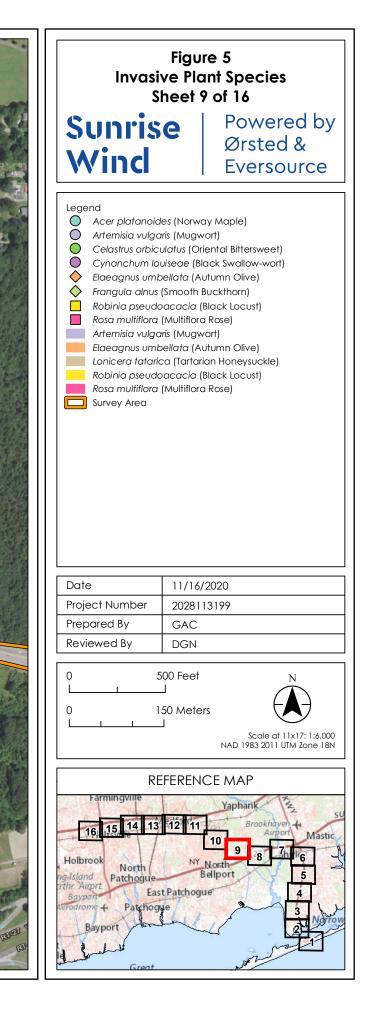


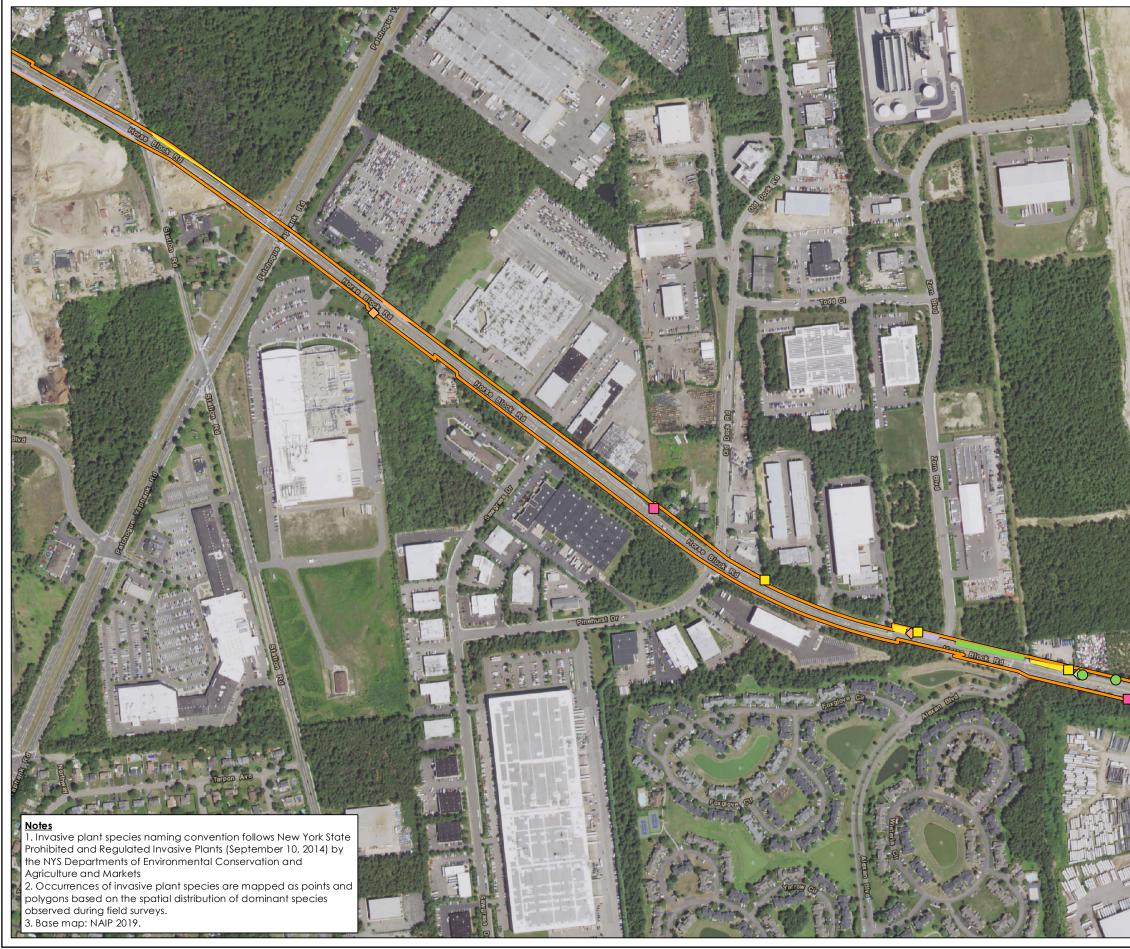


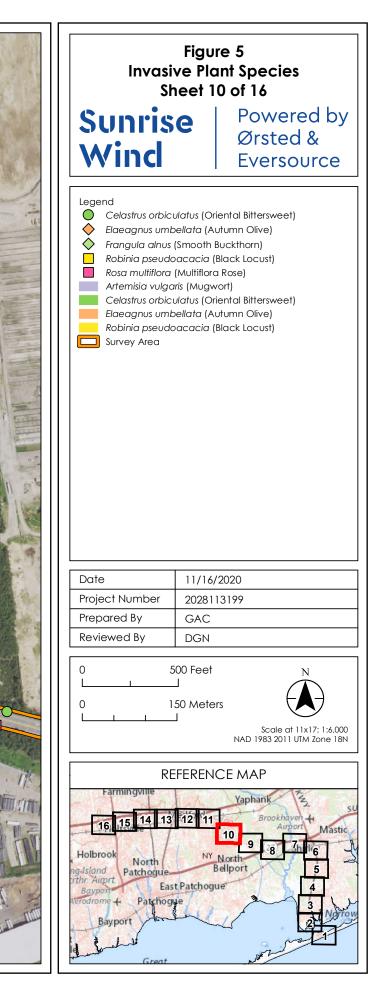


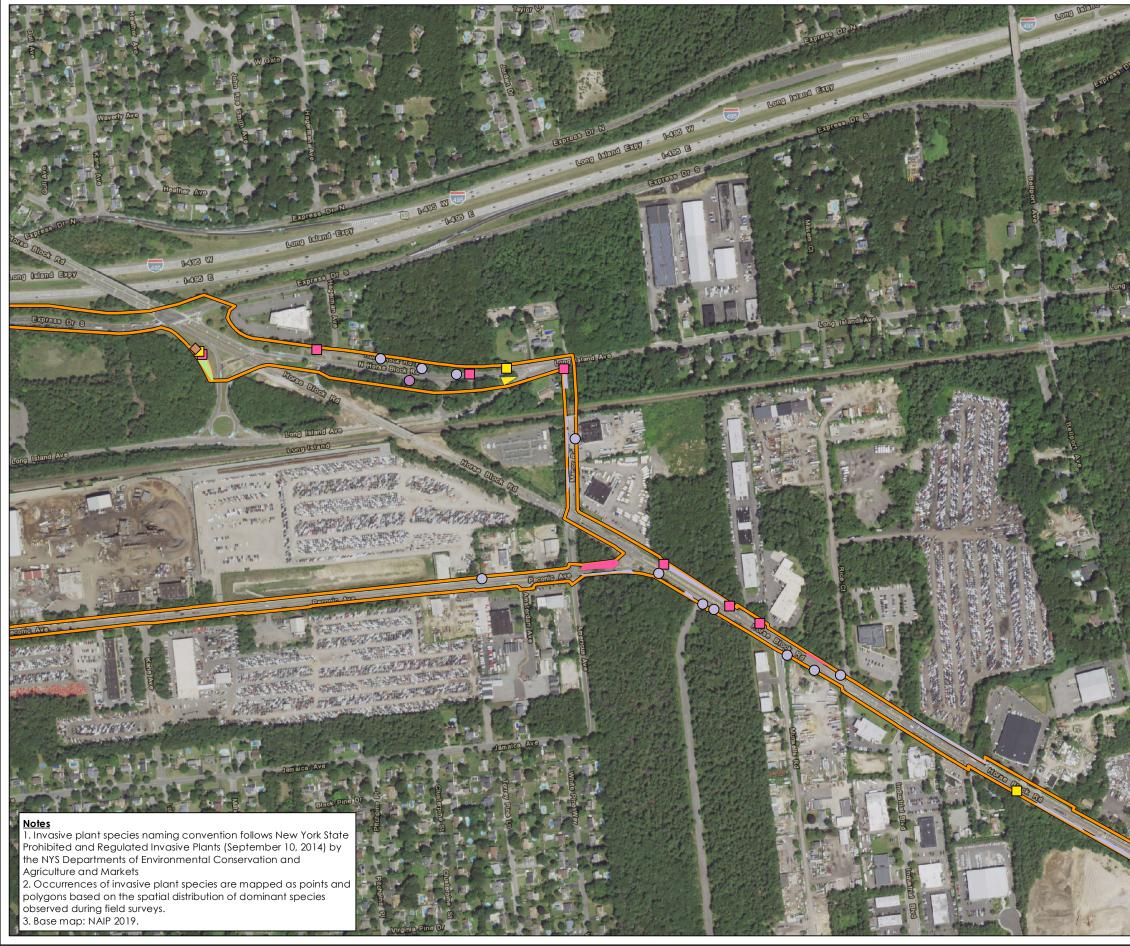


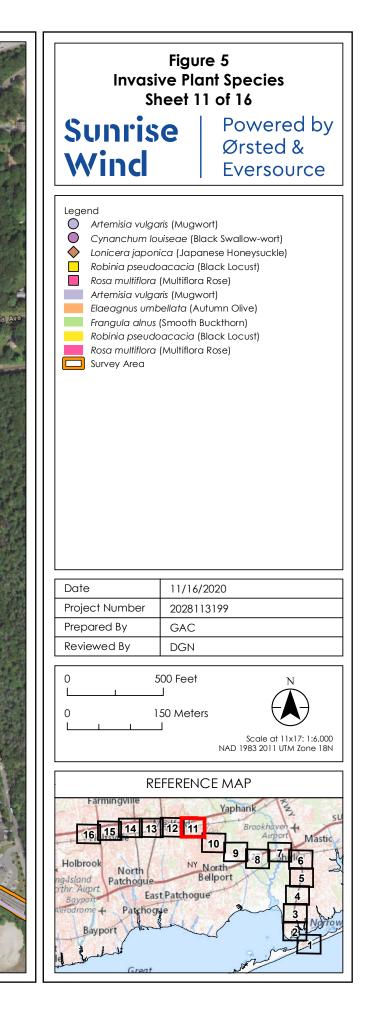


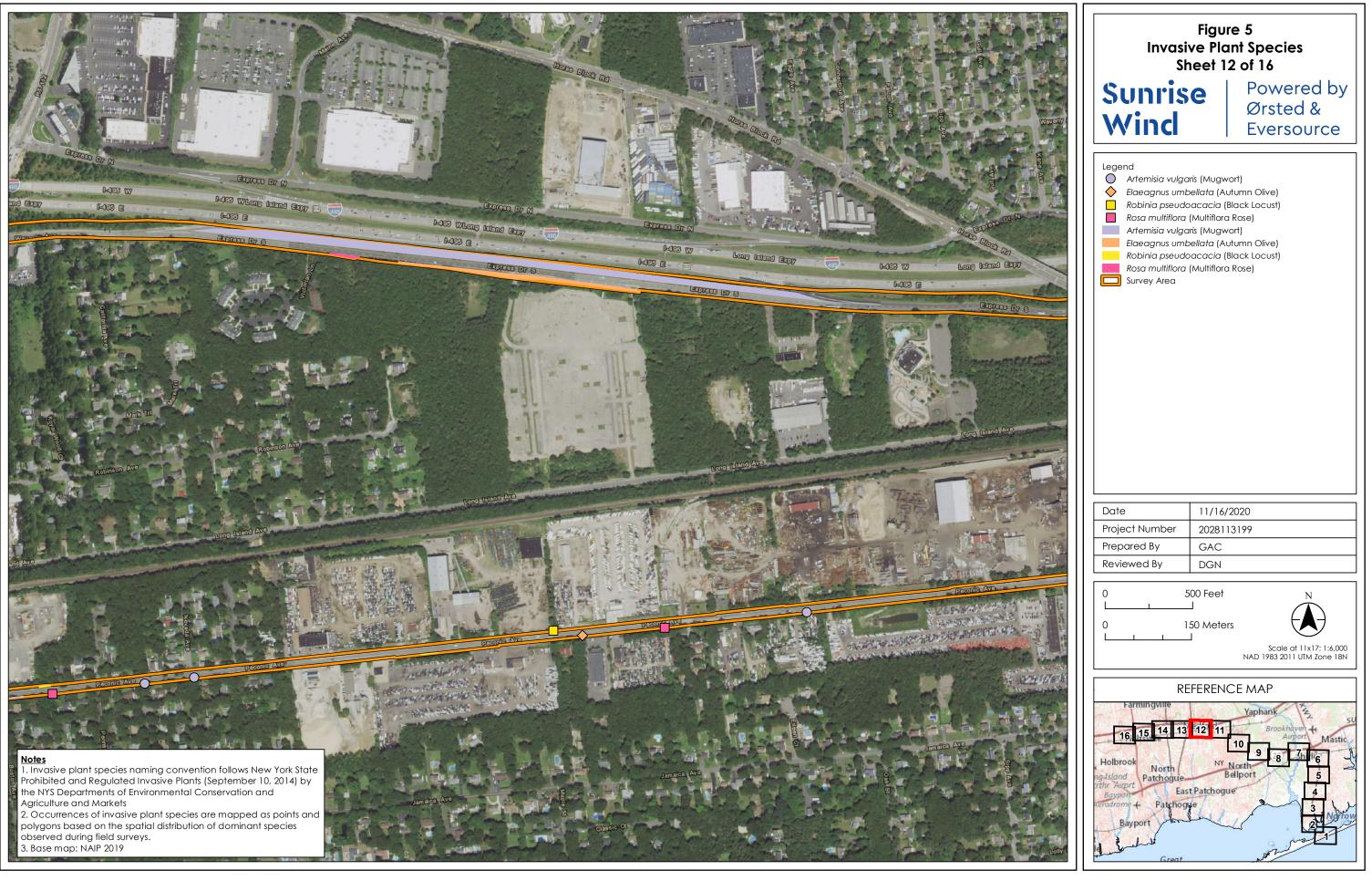






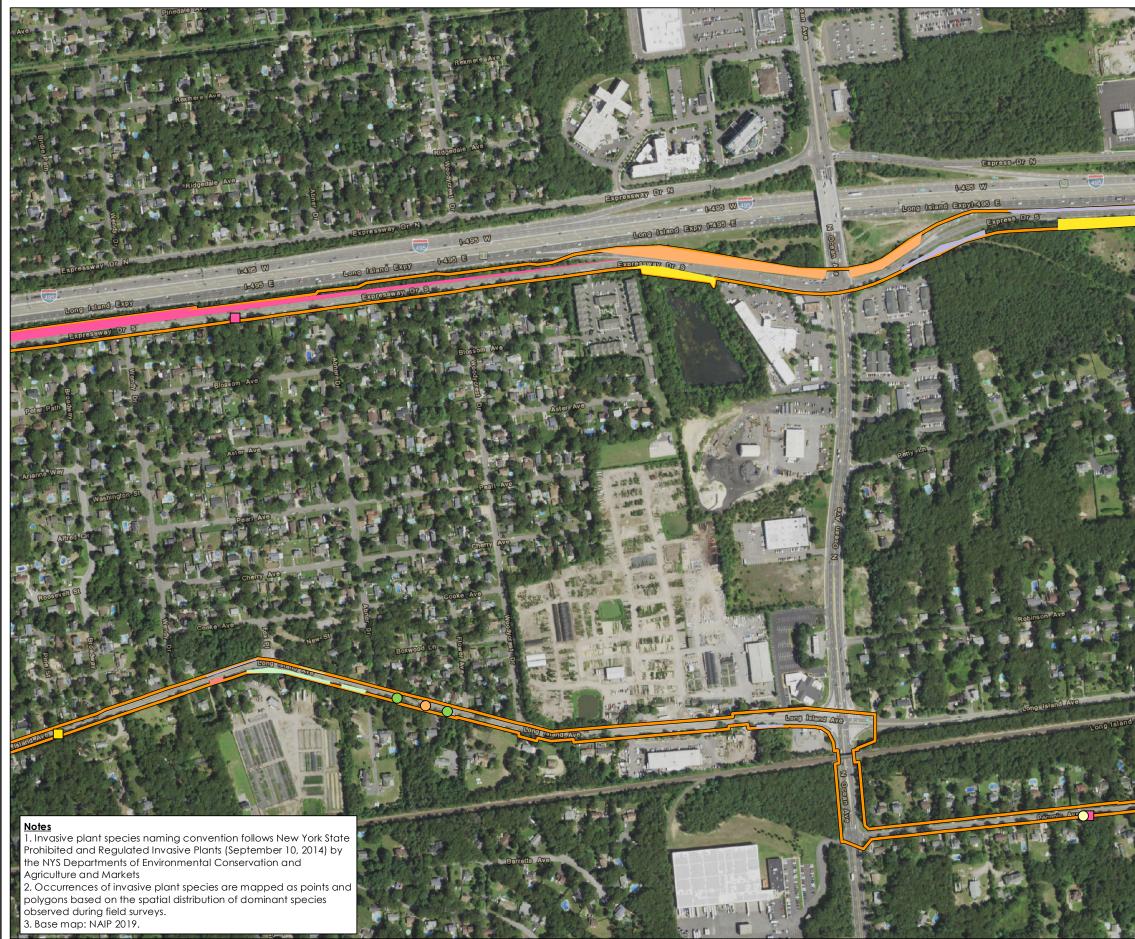


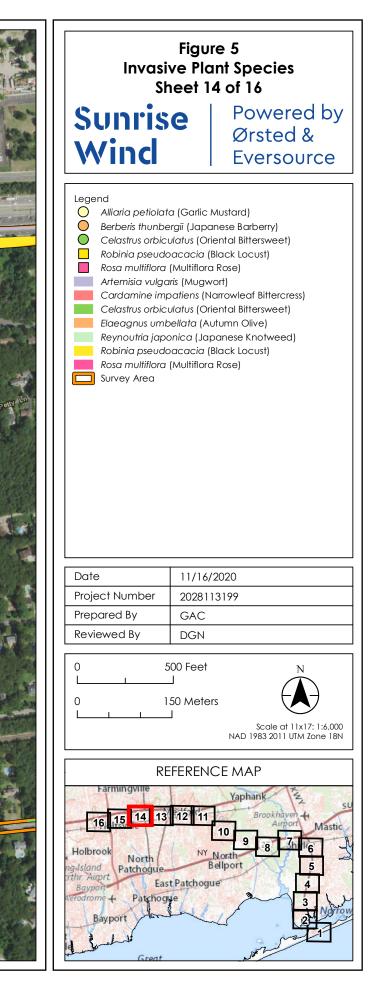


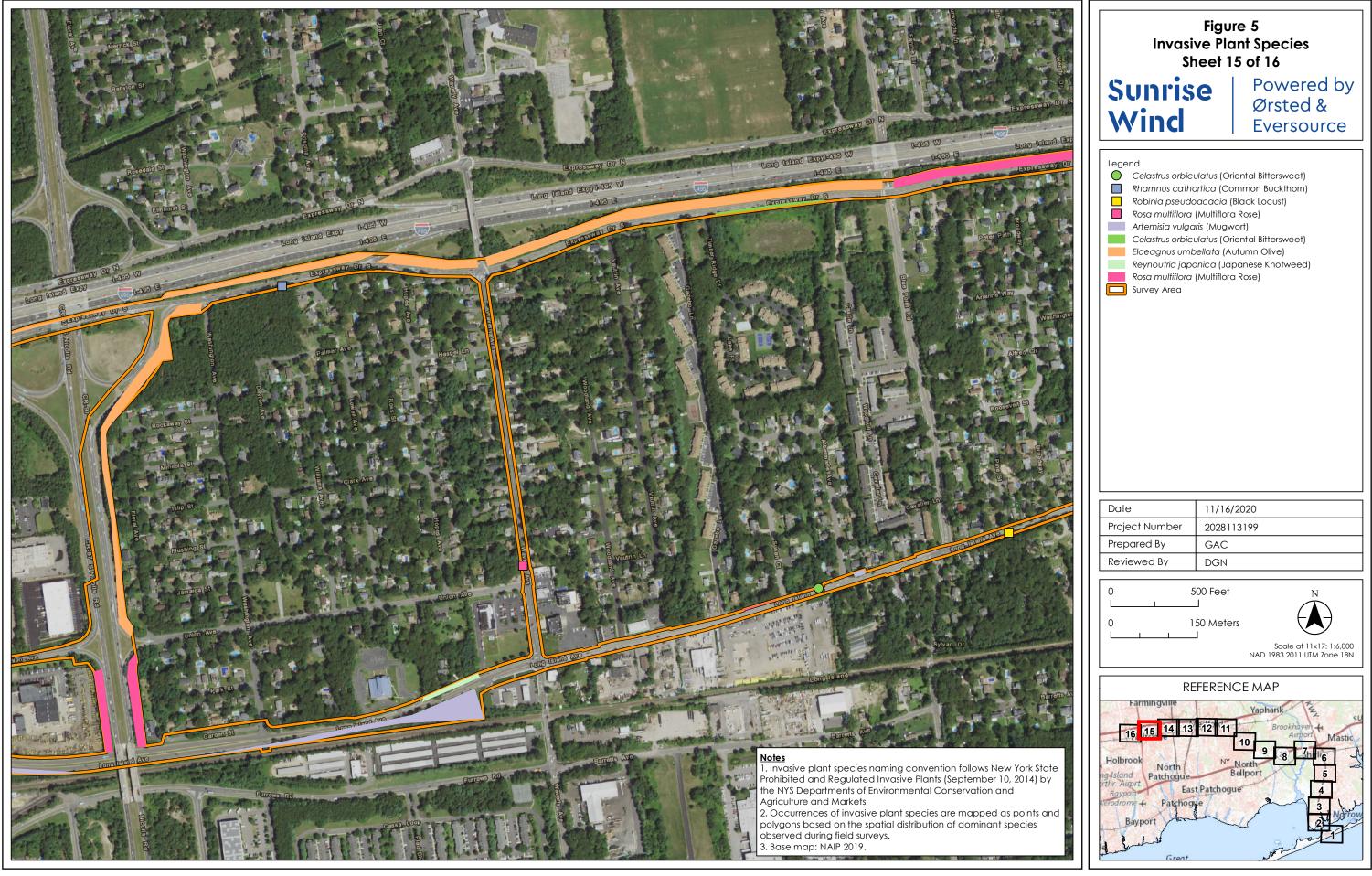


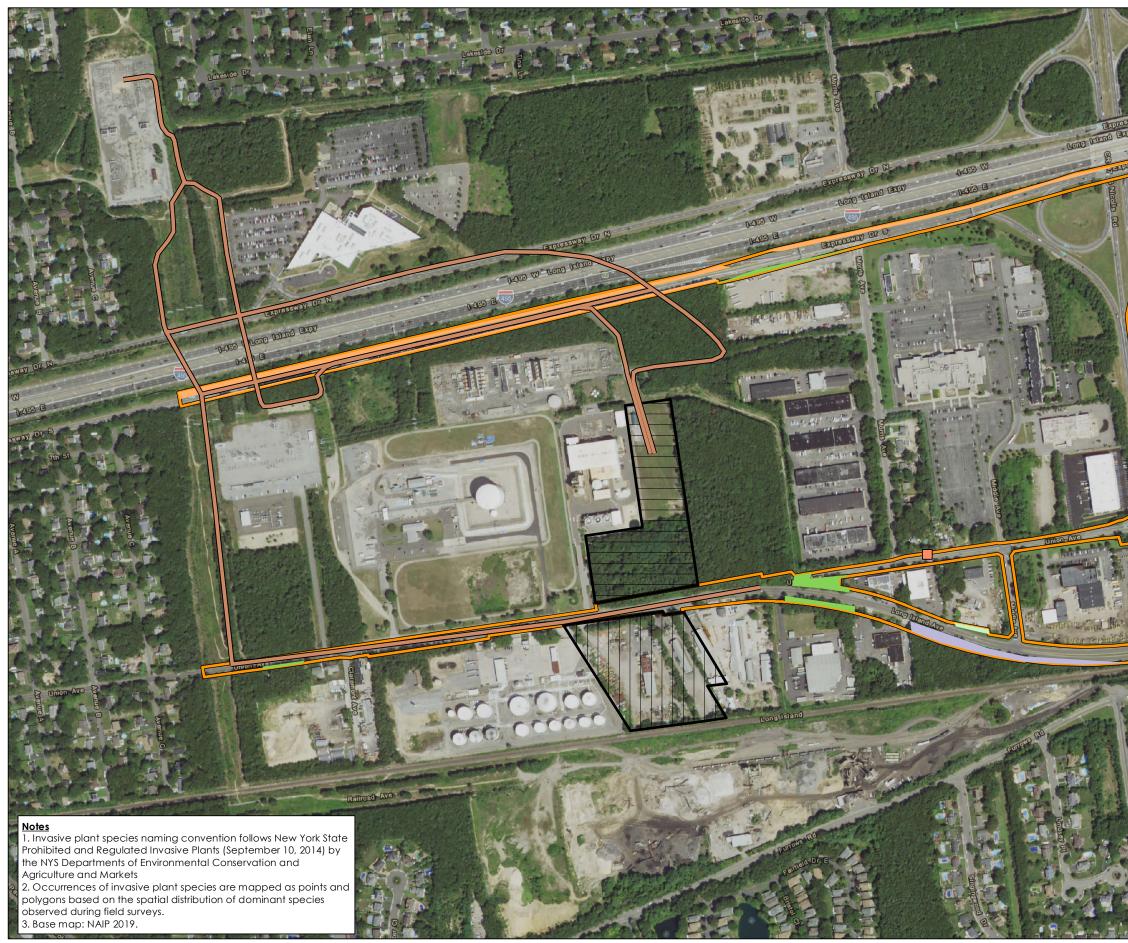


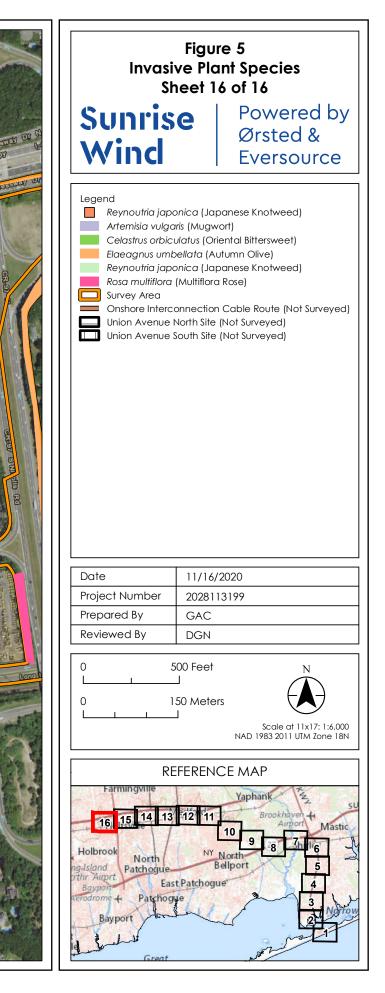


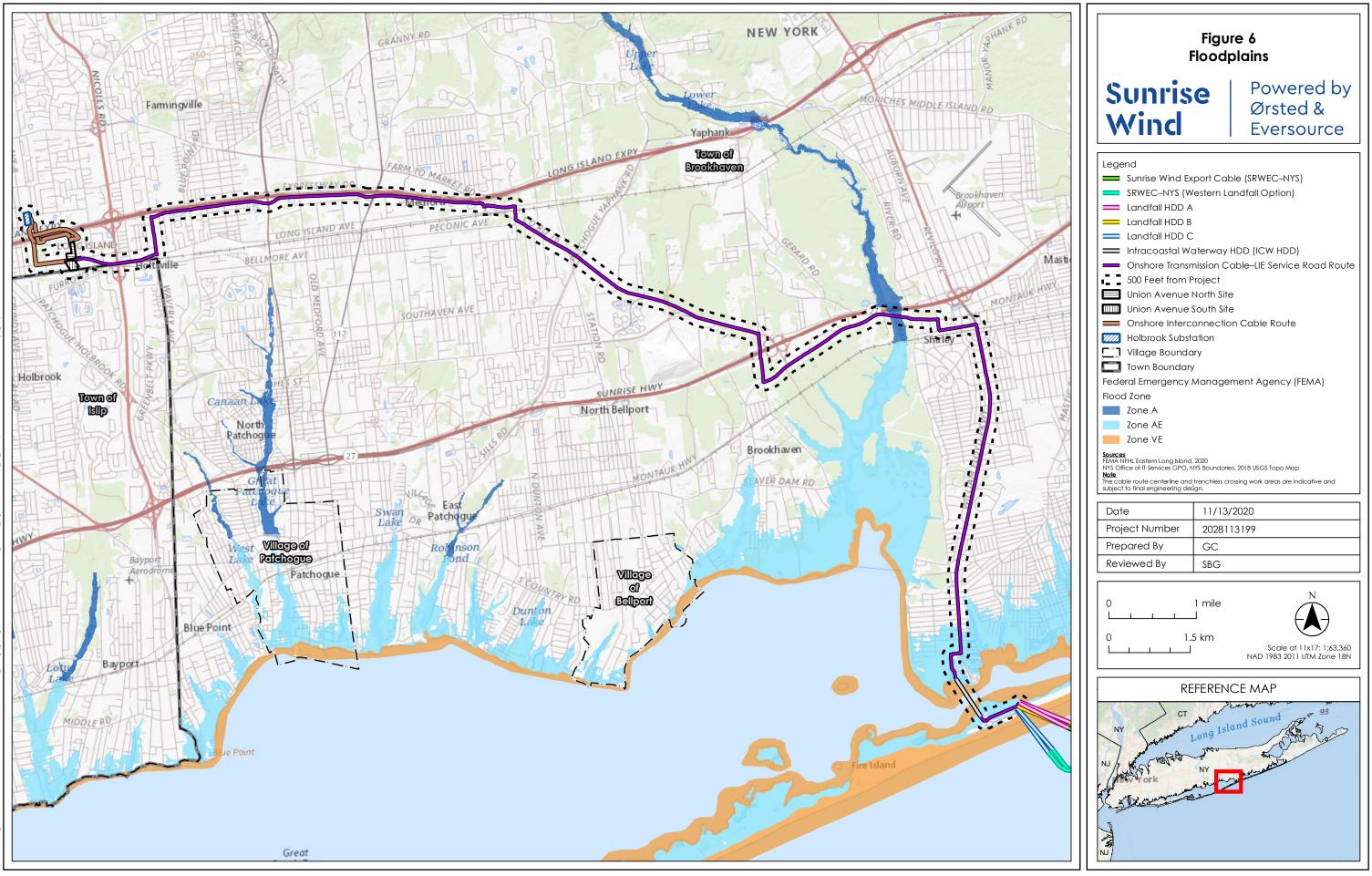








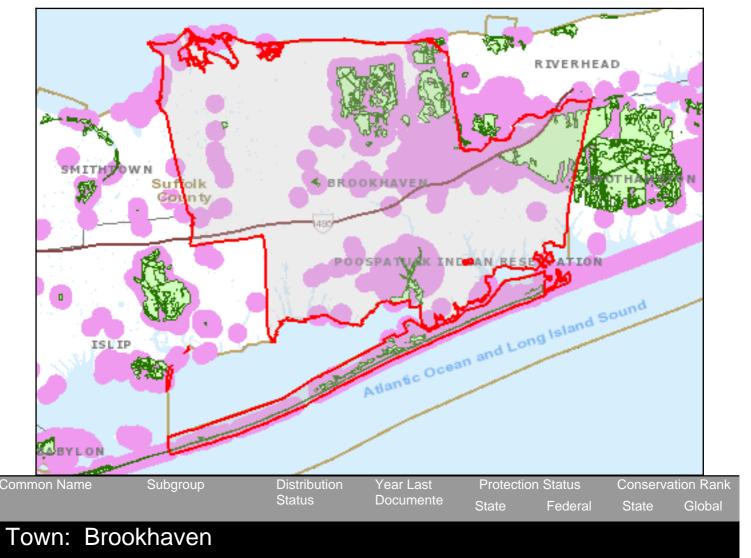




Appendix B NEW YORK NATURE EXPLORER

New York Nature Explorer Rare Species within Town of Brookhaven

Criteria: Town: Brookhaven



Animal: Birds

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Barn Owl	Owls	Recently Confirmed	2003	Protected Bird	S1S2	G5
Tyto alba						
Black Skimmer	Gulls, Terns, Plovers, Shorebirds	Recently Confirmed	2007	Special Concern	S2	G5
Rynchops niger						
Glossy Ibis	Herons, Bitterns, Egrets, Pelicans	Recently Confirmed	2007	Protected Bird	S2	G5
Plegadis falcinellus						

Common Name	Subgroup	Distribution	Year Last	Protection Status	Conservation Rank	
		Status	Documente	State Federal	State	Global
Kentucky Warbler	Wood-Warblers	Recently Confirmed	2012	Protected Bird	S2B	G5
Geothlypis formosa						
Little Blue Heron	Herons, Bitterns, Egrets, Pelicans	Recently Confirmed	2007	Protected Bird	S2	G5
Egretta caerulea						
Seaside Sparrow	Sparrows and Towhees	Recently Confirmed	2002	Special Concern	S2S3B	G4
Ammodramus maritimus						
Snowy Egret	Herons, Bitterns, Egrets, Pelicans	Recently Confirmed	2007	Protected Bird	S2S3	G5
Egretta thula						
Tricolored Heron	Herons, Bitterns, Egrets, Pelicans	Recently Confirmed	2004	Protected Bird	S2	G5
Egretta tricolor						
Yellow-breasted Chat	Wood-Warblers	Recently Confirmed	2007	Special Concern	S2?B	G5
Icteria virens						

Animal: Reptiles

Eastern Wormsnake	Snakes	Recently Confirmed	2015	Special Concern	S2	G5	
Carphophis amoenus							

Animal: Amphibians

Eastern Spadefoot	Frogs and Toads	Recently Confirmed	2008	Special Concern	S2S3	G5
Scaphiopus holbrookii						
Animal: Fish						

Recently S2S3 G5 Atlantic Needlefish Needlefishes 1990 Confirmed Strongylura marina Recently Atlantic Silverside Silversides 1990 S2S3 G5 Confirmed Menidia menidia Recently Eastern Pirate Perch Perches 2016 S1S2 G5T5 Confirmed Aphredoderus sayanus sayanus

Animal: Butterflies and Moths

A Geometrid Moth	Moths	Recently Confirmed	2017	S1	G4
Euchlaena madusaria					
Barrens Itame	Moths	Recently Confirmed	2017	S1S3	G3G4
Speranza exonerata					

Common Name	Subaroup	Distribution	Year Last	Protection		Concer	vation Dank
Common Name	Subgroup	Status	Pear Last Documente	Protection State	Federal	State	vation Rank Global
Black-bordered Lemon Moth	Moths	Recently Confirmed	2017			S1	G5
Marimatha nigrofimbria							
Chain Fern Borer Moth	Moths	Historically Confirmed	1987			S1?	G4
Papaipema stenocelis							
Chocolate Renia	Moths	Recently Confirmed	2017			SU	G4
Renia nemoralis							
Coastal Barrens Buckmoth	Moths	Recently Confirmed	2016	Special Concern		S2	G5T3
Hemileuca maia ssp. 5							
Dune Sympistis	Moths	Recently Confirmed	2013			SU	G4
Sympistis riparia							
Edwards' Hairstreak	Butterflies and Skippers	Recently Confirmed	2003			S3S4	G5
Satyrium edwardsii							
Golden Aster Flower Moth	Moths	Historically Confirmed	1947			S2	G4
Schinia tuberculum							
Herodias or Pine Barrens Underwing Catocala herodias gerhardi	Moths	Recently Confirmed	2017	Special Concern		S1S2	G3T3
Jersey Jair Underwing	Moths	Recently Confirmed	2017	Special Concern		S1S2	G4?T4?
Catocala jair ssp. 2							
Mottled Duskywing	Butterflies and Skippers	Historically Confirmed	1966	Special Concern		S1	G3
Erynnis martialis							
Orange Holomelina	Moths	Recently Confirmed	2017			SU	G5
Virbia aurantiaca							
Orange-striped Oakworm Moth	¹ Moths	Recently Confirmed	2013			SU	G5
Anisota senatoria							
Packard's Lichen Moth	Moths	Recently Confirmed	2013			SU	G5
Cisthene packardii							
Pine Barrens Zanclognatha	Moths	Recently Confirmed	2013			S1S2	G4
Zanclognatha martha							
Pine Tussock Moth	Moths	Recently Confirmed	2017			SU	G4
Dasychira pinicola							
Umber Moth	Moths	Recently Confirmed	2017			SU	G4
Hypomecis umbrosaria							

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Common Name	Subgroup	Distribution	Year Last	Protection Status		Conservation Rank	
		Status	Documente	State	Federal	State	Global
Violet Dart	Moths	Recently Confirmed	2017			SU	G4
Euxoa violaris							
White-m Hairstreak	Butterflies and Skippers	Recently Confirmed	2000			SU	G5
Parrhasius m-album							
Yellow-spotted Graylet	Moths	Recently Confirmed	2017			SU	G4
Hyperstrotia flaviguttata							

Animal: Dragonflies and Damselflies

Damselflies	Recently Confirmed	2009		S1S2	G5
Dragonflies	Recently Confirmed	2006		S2S3	G5
Dragonflies	Recently Confirmed	2009		S2S3	G5
Dragonflies	Recently Confirmed	2006	Special Concern	S1	G5
Dragonflies	Recently Confirmed	2009		S1	G5
Dragonflies	Recently Confirmed	2006		S1S2	G5
Dragonflies	Recently Confirmed	2009		S2	G4
Damselflies	Recently Confirmed	2004		S2S3	G5
Dragonflies	Recently Confirmed	2004		S2	G5
Damselflies	Recently Confirmed	2005		S2S3	G5
Dragonflies	Recently Confirmed	2005		S2	G4
Dragonflies	Historically Confirmed	1926		S1	G5
	Dragonflies Dragonflies	DamselfliesConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDamselfliesRecently ConfirmedDamselfliesRecently ConfirmedDamselfliesRecently ConfirmedDamselfliesRecently ConfirmedDamselfliesRecently ConfirmedDragonfliesRecently ConfirmedDamselfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently ConfirmedDragonfliesRecently Confirmed	DamselfilesConfirmed2009DragonfliesRecently Confirmed2009DragonfliesRecently Confirmed2009DragonfliesRecently Confirmed2006DragonfliesRecently Confirmed2009DragonfliesRecently Confirmed2009DragonfliesRecently Confirmed2009DragonfliesRecently Confirmed2009DragonfliesRecently Confirmed2009DragonfliesRecently Confirmed2009DamselfliesRecently Confirmed2004DragonfliesRecently Confirmed2004DragonfliesRecently Confirmed2005DragonfliesRecently Confirmed2005DragonfliesRecently Confirmed2005DragonfliesRecently Confirmed2005DragonfliesRecently Confirmed2005DragonfliesRecently Confirmed2005	Darissellities Confirmed 2009 Dragonflies Recently Confirmed 2006 Dragonflies Recently Confirmed 2009 Dragonflies Recently Confirmed 2006 Dragonflies Recently Confirmed 2009 Damselflies Recently Confirmed 2004 Dragonflies Recently Confirmed 2004 Dragonflies Recently Confirmed 2005 Dragonflies Recently Confirmed 2005 Dragonflies Recently Confirmed 2005	DamselfliesRecently Confirmed2009S1S2DragonfliesRecently Confirmed2006Special ConcernS1DragonfliesRecently Confirmed2006Special ConcernS1DragonfliesRecently Confirmed2009Special ConcernS1DragonfliesRecently Confirmed2009S1S1DragonfliesRecently Confirmed2009S1DragonfliesRecently Confirmed2009S1DragonfliesRecently Confirmed2009S2DragonfliesRecently Confirmed2009S2DamselfliesRecently Confirmed2004S2S3DragonfliesRecently Confirmed2004S2DamselfliesRecently Confirmed2005S2S3DragonfliesRecently Confirmed2005S2DamselfliesRecently Confirmed2005S2DragonfliesRecently Confirmed2005S2DragonfliesRecently Confirmed2005S2DragonfliesRecently Confirmed2005S2DragonfliesRecently Confirmed2005S2DragonfliesRecently Confirmed2005S2DragonfliesRecently Confirmed2005S2DragonfliesRecently Confirmed2005S2DragonfliesRecently Confirmed2005S2DragonfliesRecently Confirmed2005S2Dragonfli

Animal: Beetles

Common Name	Subgroup	Distribution Status	Year Last	Protec	tion Status	Conservation Rank	
		Status	Documente	State	Federal	State	Global
American Burying Beetle	Carrion Beetles	Historically Confirmed	1934	Endangered	Endangered	SH	G2G3
Nicrophorus americanus							
Eastern Pinebarrens Tiger Beetle	Tiger Beetles	Historically Confirmed	1913			SH	G3G4
Cicindela abdominalis							
Hairy-necked Tiger Beetle	Tiger Beetles	Recently Confirmed	2017			S1S2	G5
Cicindela hirticollis							
Northeastern Beach Tiger Beetle	Tiger Beetles	Extirpated	1939	Threatened	Threatened	SX	G3G4T2
Cicindela dorsalis dorsalis							

Animal: Animal Assemblages

Gull Colony	Animal Assemblages	Recently Confirmed	2004	SNRB	GNR
Gull Colony					

Plant: Flowering Plants

American Ipecac	Other Flowering Plants	Historically Confirmed	1928	Endangered	S1	G5
Euphorbia ipecacuanhae						
Annual Saltmarsh Aster	Asters, Goldenrods and Daisies	Recently Confirmed	2011	Threatened	S2S3	G5
Symphyotrichum subulatum var. subulatum						
Autumnal Water-starwort	Other Flowering Plants	Historically Confirmed	1927	Endangered	S1	G5
Callitriche hermaphroditica						
Black-edge Sedge	Sedges	Recently Confirmed	2008	Threatened	S3	G5
Carex nigromarginata						
Brown Bog Sedge	Sedges	Historically Confirmed	1986	Threatened	S2	G5
Carex buxbaumii						
Button Sedge	Sedges	Recently Confirmed	2001	Endangered	S1	G5
Carex bullata						
Carey's Smartweed	Other Flowering Plants	Recently Confirmed	2000	Endangered	S1S2	G4
Persicaria careyi						
Carolina Redroot	Other Flowering Plants	Historically Confirmed	1925	Endangered	S1	G4
Lachnanthes caroliniana						
Catfoot	Asters, Goldenrods and Daisies	Historically Confirmed	1929	Endangered	SH	G4G5T3?
Pseudognaphalium micradenium						

Common Name	Subgroup	Distribution	Year Last	Protection Status	Consei	Conservation Rank	
		Status	Documente	State Federal	State	Global	
Clustered Bluets	Other Flowering Plants	Recently Confirmed	2008	Endangered	S1	G5	
Oldenlandia uniflora							
Clustered Sedge	Sedges	Possible but not Confirmed	1967	Threatened	S2S3	G4?	
Carex cumulata							
Coastal Goldenrod	Asters, Goldenrods and Daisies	Historically Confirmed	1929	Endangered	S1	G5	
Solidago latissimifolia							
Coastal Silverweed	Other Flowering Plants	Recently Confirmed	2008	Threatened	S2	G5TNR	
Potentilla anserina ssp. pacifica							
Collins' Sedge	Sedges	Historically Confirmed	1987	Endangered	S1	G4	
Carex collinsii							
Comb-leaved Mermaid Weed	Other Flowering Plants	Recently Confirmed	2016	Threatened	S2	G5	
Proserpinaca pectinata							
Coppery St. John's Wort	Other Flowering Plants	Historically Confirmed	1923	Endangered	S1	G5	
Hypericum denticulatum							
Cut-leaved Evening Primrose	Other Flowering Plants	Recently Confirmed	1990	Endangered	S1	G5	
Oenothera laciniata							
Dark-green Sedge	Sedges	Recently Confirmed	1999	Endangered	S1	G4	
Carex venusta							
Downy Lettuce	Asters, Goldenrods and Daisies	Historically Confirmed	1936	Endangered	S1	G5?	
Lactuca hirsuta							
Dwarf Bulrush	Sedges	Recently Confirmed	2005	Endangered	S1	G5	
Cyperus subsquarrosus							
Dwarf Hawthorn	Other Flowering Plants	Historically Confirmed	1916	Endangered	SH	G5	
Crataegus uniflora							
Early Frostweed	Other Flowering Plants	Recently Confirmed	2007	Threatened	S2	G4	
Crocanthemum propinquum							
Eastern Grasswort	Other Flowering Plants	Recently Confirmed	2007	Threatened	S2	G5	
Lilaeopsis chinensis							
Eastern Silvery Aster	Asters, Goldenrods and Daisies	Historically Confirmed	1934	Endangered	SH	G5T5	
Symphyotrichum concolor var. concolor							
Engelmann's Spike Rush	Sedges	Historically Confirmed	1919	Endangered	S1	G4G5	
Eleocharis engelmannii							

	11011					
Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status State Federal	Conser State	vation Rank Global
Featherfoil	Other Flowering Plants	Recently Confirmed	1995	Threatened	S2	G4
Hottonia inflata						
Few-flowered Nut Sedge	Sedges	Historically Confirmed	1985	Endangered	S1	G5
Scleria pauciflora						
Fibrous Bladderwort	Other Flowering Plants	Recently Confirmed	2005	Threatened	S2	G4G5
Utricularia striata						
Field Beadgrass	Grasses	Recently Confirmed	2003	Endangered	S2	G4G5
Paspalum laeve						
Flax-leaf Whitetop	Asters, Goldenrods and Daisies	Recently Confirmed	1991	Threatened	S2	G5
Sericocarpus linifolius						
Globe-fruited Ludwigia	Other Flowering Plants	Recently Confirmed	1995	Threatened	S2	G5
Ludwigia sphaerocarpa						
Golden Dock	Other Flowering Plants	Historically Confirmed	1984	Endangered	S1	G5
Rumex fueginus						
Great Plains Flatsedge Cyperus lupulinus ssp.	Sedges	Historically Confirmed	1966	Threatened	S1S2	G5T5?
lupulinus		Historically				
Large Yellow-eyed Grass	Other Flowering Plants	Confirmed	1985	Threatened	S2	G5
Xyris smalliana		D				
Little-leaf Tick Trefoil	Other Flowering Plants	Recently Confirmed	2007	Threatened	S2S3	G5
Desmodium ciliare						
Long-beaked Beak Sedge	Sedges	Recently Confirmed	2008	Rare	S2	G4
Rhynchospora scirpoides						
Loose-headed Beak Sedge Rhynchospora chalarocephala	Sedges	Extirpated	1932		SX	G5
Marsh Straw Sedge	Sedges	Historically Confirmed	1985	Threatened	S2S3	G4G5
Carex hormathodes						
Minute Duckweed	Other Flowering Plants	Historically Confirmed	1944	Endangered	S1	G5
Lemna perpusilla						
Narrow-leaf Sea Blite	Other Flowering Plants	Historically Confirmed	1968	Endangered	S1S2	G5
Suaeda linearis						
Narrow-leaved Bush Clover	Other Flowering Plants	Historically Confirmed	1986	Threatened	S2	G5
Lespedeza angustifolia						

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status State Federal	Conse State	rvation Rank Global
Northern Blazing Star	Asters, Goldenrods and Daisies	Recently Confirmed	1992	Threatened	S2	G5?T3
Liatris scariosa var. novae- angliae						
Northern Dwarf Huckleberry	Other Flowering Plants	Historically Confirmed	1927	Endangered	S1S2	G5T4T5
Gaylussacia bigeloviana						
Northern Gama Grass	Grasses	Recently Confirmed	2007	Threatened	S2	G5TNR
Tripsacum dactyloides var. dactyloides						
Oakes' Evening Primrose	Other Flowering Plants	Recently Confirmed	2006	Threatened	S2	G4G5Q
Oenothera oakesiana						
Ovate Spike Rush	Sedges	Recently Confirmed	2008	Endangered	S1S2	G5
Eleocharis ovata						
Pale Duckweed	Other Flowering Plants	Historically Confirmed	1974	Endangered	S1	G5
Lemna valdiviana						
Pencil Flower	Other Flowering Plants	Historically Confirmed	1914		SX	G5
Stylosanthes biflora						
Persimmon	Other Flowering Plants	Recently Confirmed	2001	Threatened	S2	G5
Diospyros virginiana						
Pine Barren Bellwort	Other Flowering Plants	Historically Confirmed	1928	Endangered	S1	G5
Uvularia puberula						
Pinebarren Death Camas	Other Flowering Plants	Historically Confirmed	1887		S1	G4Q
Stenanthium leimanthoides						
Primrose-leaved Violet	Other Flowering Plants	Historically Confirmed	1927	Threatened	S2	G5TNR
Viola primulifolia var. primulifolia		Committee				
Quill-leaved Arrowhead	Other Flowering Plants	Recently Confirmed	2005	Endangered	S1	G3
Sagittaria teres						
Retrorse Flatsedge	Sedges	Possible but not Confirmed	1976	Endangered	S1	G5
Cyperus retrorsus						
Reznicek's Sedge	Sedges	Recently Confirmed	2008	Endangered	S1S2	G5
Carex reznicekii						
Rose Coreopsis	Asters, Goldenrods and Daisies	Recently Confirmed	2014	Rare	S3	G3
Coreopsis rosea						
Rough Hedge Nettle	Other Flowering Plants	Recently Confirmed	2004	Threatened	S2	G5T4T5
Stachys hyssopifolia var. hyssopifolia						

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Common Name	Subgroup	Distribution Status	Year Last Documente		ion Status Federal	Conser State	vation Rank Global
Round-leaf Boneset	Asters, Goldenrods and Daisies	Historically Confirmed	1929	Endangered		SH	G5T5
Eupatorium rotundifolium							
Rush Bladderwort	Other Flowering Plants	Recently Confirmed	1991	Endangered		S1	G5
Utricularia juncea							
Saltmarsh Bulrush	Sedges	Recently Confirmed	2007	Endangered		S1	G5
Bolboschoenus novae-angliae							
Sand Blackberry	Other Flowering Plants	Possible but not Confirmed	1962	Endangered		SH	G5
Rubus cuneifolius							
Sandplain Agalinis	Other Flowering Plants	Historically Confirmed	2007	Endangered	Endangered	S1	G3G4
Agalinis decemloba							
Sandplain Wild Flax	Other Flowering Plants	Recently Confirmed	1996	Threatened		S2	G4
Linum intercursum							
Screw-stem	Other Flowering Plants	Recently Confirmed	1997	Endangered		S1	G5T5
Bartonia paniculata ssp. paniculata							
Sea Purslane	Other Flowering Plants	Historically Confirmed	1873	Endangered		S1	G5
Sesuvium maritimum							
Seabeach Amaranth	Other Flowering Plants	Recently Confirmed	2018	Threatened	Threatened	S2	G2
Amaranthus pumilus							
Seabeach Knotweed	Other Flowering Plants	Recently Confirmed	2003	Rare		S3	G3
Polygonum glaucum							
Seaside Agalinis	Other Flowering Plants	Recently Confirmed	2007	Threatened		S2S3	G5T5
Agalinis maritima var. maritima							
Seaside Plantain	Other Flowering Plants	Recently Confirmed	2007	Threatened		S2S3	G5T5
Plantago maritima var. juncoides							
Sedge Rush	Rushes	Possible but not Confirmed	1928	Endangered		S1	G5TNR
Juncus scirpoides var. scirpoides		Committee					
Short-beaked Beak Sedge	Sedges	Recently Confirmed	2005	Threatened		S2	G4?
Rhynchospora nitens							
Showy Aster	Asters, Goldenrods and Daisies	Recently Confirmed	2004	Threatened		S2	G5
Eurybia spectabilis							
Slender Blue Flag	Other Flowering Plants	Recently Confirmed	2005	Threatened		S2	G4G5
Iris prismatica							

Common Name	Subgroup	Distribution	Year Last	Protection Status	Conse	rvation Rank
		Status	Documente	State Federa	l State	Global
Slender Crab Grass	Grasses	Historically Confirmed	1955	Endangered	S1	G5TNR
Digitaria filiformis var. filiformis						
Slender Marsh Pink	Other Flowering Plants	Recently Confirmed	2006	Endangered	S1	G5
Sabatia campanulata						
Slender Pinweed	Other Flowering Plants	Recently Confirmed	2000	Threatened	S2	G5
Lechea tenuifolia						
Slender Spike Rush	Sedges	Possible but not Confirmed	1962	Endangered	S1	G5T5?
Eleocharis tenuis var. pseudoptera						
Small Floating Bladderwort	Other Flowering Plants	Recently Confirmed	2000	Threatened	S2	G4
Utricularia radiata						
Small White Snakeroot	Asters, Goldenrods and Daisies	Historically Confirmed	1883	Endangered	S1	G5
Ageratina aromatica						
Smooth Tick Trefoil	Other Flowering Plants	Historically Confirmed	1914	Endangered	SH	G5
Desmodium laevigatum						
Southern Snailseed Pondwee	d Other Flowering Plants	Historically Confirmed	1938	Endangered	S1	G5
Potamogeton diversifolius						
Southern Yellow Flax	Other Flowering Plants	Historically Confirmed	1925	Threatened	S2	G5T5
Linum medium var. texanum						
Spotted Pondweed	Other Flowering Plants	Historically Confirmed	1878	Threatened	S2	G5
Potamogeton pulcher						
Stargrass	Other Flowering Plants	Recently Confirmed	2004	Threatened	S2	G5
Aletris farinosa						
Stiff Tick Trefoil	Other Flowering Plants	Recently Confirmed	2007	Endangered	S1	G4G5
Desmodium obtusum						
Swamp Oats	Grasses	Historically Confirmed	1874	Endangered	S1	G4
Sphenopholis pensylvanica						
Swamp Sunflower	Asters, Goldenrods and Daisies	Recently Confirmed	2006	Threatened	S2	G5
Helianthus angustifolius						
Thickleaf Orach	Other Flowering Plants	Historically Confirmed	1920	Endangered	S1	G5
Atriplex dioica						
Three-ribbed Spike Rush	Sedges	Recently Confirmed	2005	Endangered	S1	G4
Eleocharis tricostata						

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Tooth Cup Rotala ramosiorOther Flowering PlantsRecently Confirmed2005ThreatenedS2G5Rotala ramosiorOther Flowering PlantsHistorically Confirmed1924EndangeredS1G5T5Sagina decumbers ssp. decumbersAsters, Goldenrods and DaisiesRecently Confirmed2004ThreatenedS223G5T4Expatorium subvenosumAsters, Goldenrods and DaisiesRecently Confirmed2004ThreatenedS22G47Velvety Bush CloverOther Flowering PlantsRecontly Confirmed2007ThreatenedS2G47Verygnia Ground Cherry Physalis virginiana var. virginianaOther Flowering PlantsHistorically Confirmed1929EndangeredSHG5T5Water Pignyweed Juncus debilisOther Flowering PlantsHistorically Confirmed1988EndangeredS1G5Virginia Ground Cherry VirginianaRushesConfirmed1988EndangeredS1G5Virginia Ground Cherry VirginianaRushesConfirmed1986EndangeredS1G5Virginia Ground Cherry VirginianaMushesConfirmed1986EndangeredS1G5Virginia Ground Cherry VirginianaWing Nut SedgeSedgesRecently Confirmed1991EndangeredS1G5Juncus debilisVirginia Gross ConfirmedGrassesMistorically Confirmed1878EndangeredS1G5Virginia StrategataGrassesGras					•		
Notifie Cup Other Flowering Plants Confirmed Confirmed 2003 Intreatened 32 G3 Rotala ramosior Trailing Pearlwort Other Flowering Plants Historically Confirmed 1924 Endangered S1 G5T5 Sigina decambers ssp. decambers decambers Asters, Goldenrods and Daisies Recently Confirmed 2004 Threatened S22 G4? Expatorium subvenosum Velvety Bush Clover Other Flowering Plants Recently Confirmed 2007 Threatened S2 G4? Velvety Bush Clover Other Flowering Plants Recently Confirmed 2007 Threatened S1 G5T5 Virginia Ground Cherry Physalts virginiana var. virginiana Other Flowering Plants Historically Confirmed 1929 Endangered S1 G5 Varginiana Water Pigmyweed Other Flowering Plants Historically Confirmed 1988 Endangered S1 G5 Juncus debilis Water Pigmyweed Other Flowering Plants Historically Confirmed 1936 Endangered S1 G5 Juncus debilis Wing Nut Sedge Sedges Recently Confirmed 1878 Endangered <th>Common Name</th> <th>Subgroup</th> <th></th> <th></th> <th></th> <th></th> <th>rvation Rank Global</th>	Common Name	Subgroup					rvation Rank Global
Trailing Pearlwort Sagina decumbers ssp. decumbers subvenosumOther Flowering Plants Recently Confirmed2004 ConfirmedThreatenedS1G5T5Velvety Bush Clover Uriginia Ground Cherry Physelis virginiana var. virginiana var. virginiana var. virginiana var.Other Flowering Plants ConfirmedRecently Confirmed1929EndangeredS1G5Crassula aquaticaUther Flowering Plants ConfirmedHistorically Confirmed1988EndangeredS1G5Uwa Rush Mus Nut Sedge SedgesSedgesRecently Confirmed1936EndangeredS1G5Virgin Kara Virginiana var.Vietoring Plants Confirmed1936EndangeredS1G5Umcus debilisVietoring Plants Confirmed1936EndangeredS1G5Virgin Kara 	Tooth Cup	Other Flowering Plants	Recently Confirmed	2005	Threatened	S2	G5
Training PearwortOther Plowering PlantsConfirmed1924EndangeredS1G51sSagina decumbers syn. decumbers syn. decumbers syn. decumbers syn. 	Rotala ramosior						
decumbensTrinerved White Boneset DaisiesAsters, Goldenrods and DaisiesRecently Confirmed2004Threatened\$2\$3G5T4Expactorium subvenosumVelvety Bush CloverOther Flowering PlantsRecently Confirmed2007Threatened\$2G4?Lespedeza stueveiVirginia Ground Cherry Virginiana var. virginianaOther Flowering PlantsRecently Confirmed1929Endangered\$HG5T5Water PigmyweedOther Flowering PlantsHistorically Confirmed1988Endangered\$1G5Crassula aquaticaHistorically Confirmed1936Endangered\$1G5Juncus debitisSedgesRecently Confirmed1936Endangered\$1G5Whip Nut SedgeSedgesRecently Confirmed1991Endangered\$1G5Scleria trigtomerataWright's Panic Grass Dicharthelium wrightianumGrassesHistorically Confirmed1878Endangered\$1G5Yellow FlatsedgeSedgesPossible but not Confirmed1925Endangered\$152G4	Trailing Pearlwort	Other Flowering Plants		1924	Endangered	S1	G5T5
Innerved while Boneset Daisies Confirmed 2004 Innealened S23 G614 Eupatorium subvenosum Velvety Bush Clover Other Flowering Plants Cecently Confirmed 2007 Threatened S2 G4? Lespedeza stuevei Virginia Ground Cherry Other Flowering Plants Physialis virginiana var. virgini							
Velvety Bush Clover Other Flowering Plants Recently Confirmed 2007 Threatened S2 G4? Lespedeza stuevei Virginia Ground Cherry Other Flowering Plants Historically Confirmed 1929 Endangered SH G5T5 Physalis virginiana var. virginiana Virginiana var. virginiana Historically Confirmed 1988 Endangered S1 G5 Water Pigmyweed Other Flowering Plants Historically Confirmed 1988 Endangered S1 G5 Crassula aquatica Historically Confirmed 1936 Endangered S1 G5 Juncus debilis Winp Nut Sedge Sedges Recently Confirmed 1991 Endangered S1 G5 Scleria triglomerata White Milkweed Other Flowering Plants Historically Confirmed 1878 Endangered S1 G5 Wright's Panic Grass Grasses Historically Confirmed 1925 Endangered S1S2 G4 Wright Platsedge Sedges Possible but not Confirmed Endangered S1 G5	Trinerved White Boneset			2004	Threatened	S2S3	G5T4
Ververy Busin Clovel Other Flowering Plants Confirmed 2007 Initiatened S2 G47 Lespedeza stuevei Virginia Ground Cherry Other Flowering Plants Historically Confirmed 1929 Endangered SH G5T5 Physalis virginiana var. virginiana Virginiana var. Virginiana SI G5 Water Pigmyweed Other Flowering Plants Historically Confirmed 1988 Endangered S1 G5 Weak Rush Rushes Historically Confirmed 1936 Endangered S1 G5 Juncus debilis Virglomerata Volver Flowering Plants Recently Confirmed 1991 Endangered S1 G5 Scleria triglomerata Virglomerata Vistorically Confirmed 1991 Endangered S1 G5 White Milkweed Other Flowering Plants Historically Confirmed 1878 Endangered S1 G5 Asclepias variegata Vistorically Confirmed 1925 Endangered S1S2 G4 Viellow Flatsedge Sedges Possible but not Confirmed Endangered S1 G5	Eupatorium subvenosum						
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Weak Rush Rushes Confirmed 1956 Endangered S1 G5 Juncus debilis Mip Nut Sedge Sedges Recently Confirmed 1991 Endangered S1 G5 Scleria triglomerata Mite Milkweed Other Flowering Plants Historically Confirmed 1878 Endangered S1 G5 Wright's Panic Grass Dichanthelium wrightianum Grasses Historically Confirmed 1925 Endangered S1S2 G4 Yellow Flatsedge Sedges Possible but not Confirmed Endangered S1 G5	Crassula aquatica						
Whip Nut Sedge Scleria triglomerataSedgesRecently Confirmed1991EndangeredS1G5Scleria triglomerataOther Flowering PlantsHistorically Confirmed1878EndangeredS1G5Asclepias variegataViright's Panic Grass Dichanthelium wrightianumGrassesHistorically Confirmed1925EndangeredS1S2G4Yellow FlatsedgeSedgesPossible but not ConfirmedEndangeredS1G5	Weak Rush	Rushes		1936	Endangered	S1	G5
While Null Sedge Sedges Confirmed 1991 Endangered S1 G5 Scleria triglomerata S1 Other Flowering Plants Historically Confirmed 1878 Endangered S1 G5 Asclepias variegata Vright's Panic Grass Dichanthelium wrightianum Grasses Historically Confirmed 1925 Endangered S1S2 G4 Yellow Flatsedge Sedges Possible but not Confirmed Endangered S1 G5	Juncus debilis						
White Milkweed Other Flowering Plants Historically Confirmed 1878 Endangered S1 G5 Asclepias variegata	Whip Nut Sedge	Sedges		1991	Endangered	S1	G5
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Wright's Panic Grass Grasses Historically Confirmed 1925 Endangered S1S2 G4 Vielow Flatsedge Sedges Possible but not Confirmed Endangered S1 G5	White Milkweed	Other Flowering Plants		1878	Endangered	S1	G5
Dichanthelium wrightianum Possible but not Confirmed Endangered S132 G4 Yellow Flatsedge Sedges Possible but not Confirmed Endangered S1 G5	Asclepias variegata						
Yellow Flatsedge Sedges Confirmed Endangered S1 G5	-	Grasses		1925	Endangered	\$1\$2	G4
	Yellow Flatsedge	Sedges			Endangered	S1	G5
Cyper as fractiseens	Cyperus flavescens						

Atlantic White Cedar	Conifers	Historically Confirmed	1923	Threatened	S2	G4
Chamaecyparis thyoides						
Virginia Pine	Conifers	Possible but not Confirmed	1878	Endangered	S1	G5
Pinus virginiana						

Natural Community: Uplands

Coastal Oak-Heath Forest	Forested Uplands	Recently Confirmed	2007	S3	G4
Coastal oak-heath forest					

Common Name	Subgroup	Distribution	Year Last	Protectio	n Status	Conse	rvation Rank
		Status	Documente	State	Federal	State	Global
Maritime Beach	Open Uplands	Recently Confirmed	2001			S3S4	G5
Maritime beach							
Maritime Dunes	Open Uplands	Recently Confirmed	2007			S3	G4
Maritime dunes							
Maritime Holly Forest	Forested Uplands	Recently Confirmed	2000			S1	G1G2
Maritime holly forest							
Maritime Pitch Pine Dune Woodland	Barrens and Woodlands	Recently Confirmed	1998			S1	G2G3
Maritime pitch pine dune woodland							
Pitch Pine-Oak Forest	Forested Uplands	Recently Confirmed	2013			S2S3	G4G5
Pitch pine-oak forest							
Pitch Pine-Oak-Heath Woodland	Barrens and Woodlands	Recently Confirmed	2013			S2S3	G3G4
Pitch pine-oak-heath woodle	ina						

Natural Community: Freshwater Nontidal Wetlands

Coastal Plain Pond Shore	Open Mineral Soil Wetlands	Recently Confirmed	2005	S2	G3G4
Coastal plain pond shore					
Maritime Freshwater Interduna Swales Maritime freshwater	al Open Mineral Soil Wetlands	Recently Confirmed	2006	\$2	G3G4
interdunal swales					
Pine Barrens Shrub Swamp	Open Mineral Soil Wetlands	Recently Confirmed	1998	S3	G5
Pine barrens shrub swamp					
Red Maple-Blackgum Swamp	Forested Mineral Soil Wetlands	Recently Confirmed	1998	S2	G3G4
Red maple-blackgum swamp					

Natural Community: Lakes and Ponds

Coastal Plain Pond	Natural Lakes and Ponds	Historically Confirmed	1985	S2	G3G4
Coastal plain pond					

Natural Community: Tidal Wetlands

Brackish Tidal Marsh	Intertidal Wetlands	Recently Confirmed	1998	:	S3S4	G4
Brackish tidal marsh						
High Salt Marsh	Intertidal Wetlands	Recently Confirmed	2016		S3S4	G4
High salt marsh						
Salt Panne	Intertidal Wetlands	Recently Confirmed	1998		S3	G3G4
Salt panne						

New York State Department of Environmental Conservation

Common Name	Subgroup	Distribution			Protection Status		Conservation Rank	
		Status	Documente	State	Federal	State	Global	
Salt Shrub	Intertidal Wetlands	Recently Confirmed	1998			S1	G5	
Salt shrub								
Natural Commu	nity: Marine							
	ity. Marine							
Marine Back-barrier Lagoon Marine back-barrier lagoon	Marine Subtidal	Recently Confirmed	2016			S2	G5	

Marine Eelgrass Meadow	Marine Subtidal	Confirmed	2004	S1S2 G5
Marine eelgrass meadow				
Marine Rocky Intertidal	Marine Intertidal	Recently Confirmed	2004	S1? G5
Marine rocky intertidal				

Note: Restricted plants and animals may also have also been documented in one or more of these Towns or Cities, but are not listed in these results. This application does not provide information at the level of Town or City on state-listed animals and on other sensitive animals and plants. A list of the restricted animals and plants documented in the corresponding county (or counties) can be obtained via the County link(s) on the original Town Search Results page. Any individual plant or animal on this county's restricted list may or may not occur in this particular Town or City.

This list only includes records of rare species and significant natural communities from the databases of the NY Natural Heritage Program. This list is not a definitive statement about the presence or absence of all plants and animals, including rare or state-listed species, or of all significant natural communities. For most areas, comprehensive field surveys have not been conducted, and this list should not be considered a substitute for on-site surveys.

Appendix C AGENCY COMMUNICATIONS



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program 625 Broadway, Fifth Floor, Albany, NY 12233-4757 P: (518) 402-8935 I F: (518) 402-8925 www.dec.ny.gov

March 27, 2020

Sarah Boucher Gravel Stantec 30 Park Drive Topsham, ME 04086

Re: Sunrise Offshore Wind Farm County: Suffolk Town/City: Brookhaven

Dear Ms. Boucher Gravel:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur along the proposed cable routes and landfall locations or in their vicinity. Note there are state-listed animal species documented from the proposed routes.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to 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 sources may be required to fully assess impacts on biological resources.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 1 Office, Division of Environmental Permits, at dep.r1@dec.ny.gov, (631) 444-0365.

Sincerely,

Nich Como

Nicholas Conrad Information Resources Coordinator New York Natural Heritage Program



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The following state-listed animals have been documented along the proposed cable routes and landfall locations or in their vicinity.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed.

For information about any permit considerations for the project, contact the NYSDEC Region x Office, Division of Environmental Permits, at dep.r1@dec.ny.gov, (631) 444-0365.

The following species have been documented on or very near the proposed cable routes and landfall locations at Fire Island and Smith Point County Park.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING
Piping Plover Breeding	Charadrius melodus	Endangered	Threatened
Least Tern Breeding	Sternula antillarum	Threatened	
Common Tern Breeding	Sterna hirundo	Threatened	

The following species have been documented in the offshore waters crossed by the proposed offshore cable route.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING
Humpback Whale Nonbreeding	Megaptera novaeangliae	Endangered	Endangered
Fin Whale	Balaenoptera physalus	Endangered	Endangered

The following species has been documented at several locations within .5 mile of much of the onshore cable routes, and several more locations are within 1.5 miles. Individual animals may travel 1.5 miles or more from documented locations.

The main impact of concern for bats is the removal of potential roost trees.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING
Northern Long-eared Bat Maternity roosts and other summer locations	Myotis septentrionalis	Threatened	Threatened

This report only includes records from the NY Natural Heritage database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.



The following rare plants, rare animals, and significant natural communities along the proposed cable routes and landfall locations or in their vicinity.

We recommend that potential impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process. Field surveys of the project site may be necessary to determine whether a species currently occurs at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The animals listed in this report, while not listed by New York State as Endangered or Threatened, are rare in New York and are of conservation concern.

The plants listed in this report are listed as Endangered or Threatened by New York State, and/or are rare in New York State, and so are a vulnerable natural resource of conservation concern.

The natural communities listed in this report are considered significant from a statewide perspective by the NY Natural Heritage Program. Each community is either an example of a community type that is rare in the state, or a high-quality example of a more common community type. By meeting specific, documented criteria, the NY Natural Heritage Program considers these community occurrences to have high ecological and conservation value.

The following species and communities have been documented at the proposed cable route and landfall on Fire Island.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS
Hairy-necked Tiger Beetle	Cicindela hirticollis	Unlisted	Critically Imperiled in NYS
Fire Island Great South Beac	h, 2017: Sand beach.		

Maritime Beach

High Quality Occurrence of Uncommon Community Type

Fire Island: A 32 mile long maritime beach along the south shore of Fire Island, 7 miles of which is designated as Federal Wilderness Area where driving is not allowed for most of the year. Natural processes are affected by stablization and nourishment in some areas.

The following species has been documented within .5 mile of the proposed cable route.

Sandplain Wild Flax	Linum intercursum	Threatened	Imperiled in NYS
COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS

Station Avenue roadside, 1996-08-08: The plants are on a pine barrens roadside with very sparse vegetation, dominated by grasses and legumes.

The following significant community is crossed by the proposed cable route at Carmans River, and also extends along Yaphank Creek to within 100 yards of the proposed cable route.

Carmans River Wetlands, extending north and south of Montauk Highway: The swamp is of moderate size with good

HERITAGE CONSERVATION STATUS

High Quality Occurrence of Rare Community Type

COMMON NAME

Red Maple-Blackgum Swamp

diversity and some large diameter trees. The swamp is minimally buffered and located at the edge of a locally intact landscape block.				
The following species and comr Carmans River in Wertheim Nati		I south of the proposed	cable route in or along the	
COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS	
Water Pigmyweed	Crassula aquatica	Endangered	Critically Imperiled in NYS	
Carmans River, west side in road embankment.	nmediately south of Montauk Highw	/ay, 1988-08-31: Bank of an	n intertidal section of river at a	
Eastern Pirate Perch	Aphredoderus sayanus sayanus	Unlisted	Critically Imperiled in NYS	
Carmans River within .3 mil	e south of Montauk Highway, also	Yaphank Creek, 1990-11-18	5.	
Atlantic Silverside	Menidia menidia	Unlisted	Imperiled in NYS	
Carmans River within .4 mil	e south of Montauk Highway, 1990	-11-14.		
Brackish Tidal Marsh		High Quality Occu	rrence of Uncommon Community Type	
Carmans River Wetlands, w landscape that is mostly pro	vithin .4 mile south of Montauk High otected.	way: This is a large marsh i	in good to fair condition, in a good	
The following species have beer	n documented north of the pro	posed cable route in Sc	outhaven County Park.	
COMMON NAME				
	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS	
Eastern Pirate Perch	<i>SCIENTIFIC NAME</i> Aphredoderus sayanus sayanus	<i>NY STATE LISTING</i> Unlisted	HERITAGE CONSERVATION STATUS Critically Imperiled in NYS	
	Aphredoderus sayanus			
	Aphredoderus sayanus sayanus			
Carmans River just north of Collins' Sedge	Aphredoderus sayanus sayanus NYS Route 27, 2015-08-04. Carex collinsii ithin .25 mile of proposed cable rou	Unlisted Endangered	Critically Imperiled in NYS Critically Imperiled in NYS	

Southaven County Park, within .25 mile of proposed cable route, 1986-11-04: In wet soil under shrubs and vines in red maple swamp.

The following communities are crossed by the proposed cable route in the waters between Fire Island and the mainland (Smith Point County Park).

COMMON NAME

Marine Eelgrass Meadow

HERITAGE CONSERVATION STATUS

High Quality Occurrence of Rare Community Type

Great South Bay and Moriches Bay: This is an expansive patch of eelgrass in good condition within a fair quality landscape.

Marine Back-barrier Lagoon

High Quality Occurrence of Rare Community Type

Great South Bay and Moriches Bay: This is a very large marine back-barrier lagoon that is in good condition within a fair quality, but mostly developed landscape.

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at www.natureserve.org/explorer, and from USDA's Plants Database at http://plants.usda.gov/index.html (for plants).

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to www.dec.ny.gov/animals/29384.html for Ecological Communities of New York State.



United States Department of the Interior

FISH AND WILDLIFE SERVICE Long Island Ecological Services Field Office 340 Smith Road Shirley, NY 11967-2258 Phone: (631) 286-0485 Fax: (631) 286-4003



In Reply Refer To: Consultation Code: 05E1LI00-2020-SLI-0367 Event Code: 05E1LI00-2020-E-00839 Project Name: Confidential Project March 11, 2020

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/ eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/correntBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Long Island Ecological Services Field Office

340 Smith Road Shirley, NY 11967-2258 (631) 286-0485

Project Summary

Consultation Code:	05E1LI00-2020-SLI-0367
Event Code:	05E1LI00-2020-E-00839
Project Name:	Confidential Project
Project Type:	POWER GENERATION

Project Description: Proposed wind energy project

Project Location:

Approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/place/40.81649280425459N72.91040200081957W</u>



Counties: Suffolk, NY

Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9045</u>	Threatened
Birds	
NAME	STATUS
 Piping Plover Charadrius melodus Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/6039</u> 	Threatened
Red Knot <i>Calidris canutus rufa</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/1864</u>	Threatened
Roseate Tern Sterna dougallii dougallii Population: Northeast U.S. nesting population No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/2083</u>	Endangered

Flowering Plants

NAME	STATUS
Sandplain Gerardia <i>Agalinis acuta</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/8128</u>	Endangered
Seabeach Amaranth Amaranthus pumilus No critical habitat has been designated for this species.	Threatened

Critical habitats

Species profile: <u>https://ecos.fws.gov/ecp/species/8549</u>

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix D USACE WETLAND DELINEATION FORMS AND SITE PHOTOGRAPHS



Project/Site:	Sunrise Wind	d/ Fire Island, NY					Stantec Project #:	2028113199		Date:	06/09/20
Applicant:	Sunrise Wind	1 LLC								County:	Suffolk
Investigator #1:	Andv Smith			Investi	gator #2:					State:	New York
Soil Unit:					J	NW	/I/WWI Classification:			Wetland ID:	W01ASA
Landform:	Rise			Loc	al Relief:					Sample Point:	Upland
	0-1%	Latituda				CONVEX		Datum:			•
Slope (%):		Latitude:			ongitude:				NI-	Community ID:	Upland
		ditions on the site typ				o, explain in			No		
		or Hydrology 🛛 sign					Are normal circumsta		:?		
Are Vegetation	🗆 , Soil 🔍 ,	or Hydrology 🗌 natu	irally proble	ematic?			Yes	□ No			
SUMMARY OF	FINDINGS										
Hydrophytic Veg	petation Pres	sent?		V Yes	🗌 No			Hydric Soils	Present?		🗌 Yes 🗹 No
Wetland Hydrol				□ Yes						Vithin A Wetland	
Remarks:	ogy i reserie	•			- 110			15 mis Camp	oning i onine v	vianii / vocian	
Remarks.											
HYDROLOGY											
Wetland Hydro	ology Indica	ators (Check here if	indicators :	are not r	resent)□					
Primary:			maioators	are not p	i coon				Secondary:		
	A1 - Surface	Water			B9 - Wate	r-Stained	eaves			B6 - Surface Soil (Cracks
	A2 - High Wa			Н	B13 - Aqu					B10 - Drainage Pa	
	A3 - Saturati			П	B15 - Mar					B16 - Moss Trim L	
					C1 - Hydro		de Odor			C2 - Dry-Season V	
	B2 - Sedimer	nt Deposits					spheres on Living Roots			C8 - Crayfish Burn	
	B3 - Drift De	posits					duced Iron				sible on Aerial Imagery
	B4 - Algal Ma	at or Crust			C6 - Rece	nt Iron Re	duction in Tilled Soils			D1 - Stunted or St	ressed Plants
	B5 - Iron Dep	posits			C7 - Thin	Muck Surf	ace			D2 - Geomorphic I	Position
		ion Visible on Aerial Imag			Other (Exp	olain in Re	marks)			D3 - Shallow Aquit	
	B8 - Sparsel	y Vegetated Concave Si	urface							D4 - Microtopogra	
										D5 - FAC-Neutral	Test
Field Observat	ions:										
Surface Water	Present?	🗆 Yes 🗵 No	Dopth		(in.)						
			Depth:		. ,			Wetland Hyd	drology Pro	esent?	Yes 🗹 No
Water Table Pre		🗌 Yes 🗹 No	Depth:		(in.)						
Saturation Pres	ent?	🗆 Yes 🗹 No	Depth:		(in.)						
Describe Record	ed Data (str	eam gauge, monitorin	a well aeria	al photos	provious	inenectio	ns) if available:		N/A		
	(
Pomarke			<u></u> , acric		previous	Inspectio					
Remarks:		5 5 /	<u>, aone</u>		previous	Inspection					
		3 3 7	<u>, aone</u>		previous	inspection					
SOILS			<u> , «ente</u>		previous						
SOILS Map Unit Name					previous		eries Drainage Class:				
SOILS Map Unit Name Taxonomy (Sub	group):		-			S	eries Drainage Class:				
SOILS Map Unit Name Taxonomy (Sub	group):		-			S	eries Drainage Class:			ining, M=Matrix)	
SOILS Map Unit Name Taxonomy (Sub Profile Descrip	group): tion (Describe to		cator or confirm the al	bsence of indica		S		ered/Coated Sand Grains;		ining, M=Matrix)	Texture
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top	group): tion (Describe to Bottom	the depth needed to document the indic	cator or confirm the at	ubsence of indica Matrix	tors.) (Type: C=C	S	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov	ered/Coated Sand Grains; Mottles	Location: PL=Pore L	1	-
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SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 NRCS Hydric S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	group): tion (Describe to Depth 2 18 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I	the depth needed to document the indic Horizon 1 2 	cator or confirm the at Color (N 10YR 10YR 	bisence of indications (Matrix Moist) 2/2 5/3 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Red0	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles % Indicator 	Lacation: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 NRCS Hydric S	group): tion (Describe to Depth 2 18 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A1 - Deplet A1 - Deplet S1 - Sandy N S4 - Sandy C	the depth needed to document the indic Horizon 1 2 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Dark Surface Dark Surface Dark Surface	cator or confirm the at Color (N 10YR 10YR 	bisence of indications (Matrix Moist) 2/2 5/3 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Red0	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles % Indicator 	Location: PL=Pore L Type s for Proble A10 - 2 cm I A10 - 2 cm I A10 - 2 cm I A10 - 2 cm I S3 - Scm Mu S7 - Dark St S8 - Polyval S9 - Thin Da F12 - Iron-M T46 - Mesic	Location	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 NRCS Hydric S	group): tion (Describe to Depth 2 18 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifiet A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Strippec	the depth needed to document the indi Horizon 1 2 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox i Matrix	cator or confirm the at Color (N 10YR 10YR 	bisence of indications (Matrix Moist) 2/2 5/3 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Red0	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles % Indicator 	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 NRCS Hydric S	group): tion (Describe to Depth 2 18 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifiet A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Strippec	the depth needed to document the indic Horizon 1 2 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox	cator or confirm the at Color (N 10YR 10YR 	bisence of indications (Matrix Moist) 2/2 5/3 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Red0	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles % 	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 NRCS Hydric S	group): tion (Describe to Depth 2 18 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifiet A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Strippec	the depth needed to document the indi Horizon 1 2 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox i Matrix	cator or confirm the at Color (N 10YR 10YR 	bisence of indications (Matrix Moist) 2/2 5/3 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Red0	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface		Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 NRCS Hydric S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	group): tion (Describe to Depth 2 18 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A1 - Hydroge S1 - Sandy M S4 - Sandy G S5 - Sandy F S6 - Strippec S7 - Dark Su	the depth needed to document the indic Horizon 1 2 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox J Matrix Irface (LRR R, MLRA 149B)	cator or confirm the at Color (N 10YR 10YR re if indicato	beence of indica Matrix Voist) 2/2 5/3 -	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Red0	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles %	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 NRCS Hydric S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	group): tion (Describe to Depth 2 18 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifiet A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Strippec	the depth needed to document the indic Horizon 1 2 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox J Matrix Irface (LRR R, MLRA 149B)	cator or confirm the at Color (N 10YR 10YR re if indicato	bisence of indications (Matrix Moist) 2/2 5/3 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Red0	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface		Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 NRCS Hydric S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	group): tion (Describe to Depth 2 18 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A1 - Hydroge S1 - Sandy M S4 - Sandy G S5 - Sandy F S6 - Strippec S7 - Dark Su	the depth needed to document the indic Horizon 1 2 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox J Matrix Irface (LRR R, MLRA 149B)	cator or confirm the at Color (N 10YR 10YR re if indicato	beence of indica Matrix Voist) 2/2 5/3 -	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Red0	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles %	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam -



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Fire Island, NY				Wetland ID: W01ASA Sample Point Uplane
VECETATION					
VEGETATION	(Species identified in all uppercase are non-native ot size: 10 meter radius)	e species.)			
	Species Name	% Cover D	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)
3.					
4.					Total Number of Dominant Species Across All Strata: 4 (B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp
1	Total Cover =	0			FACW spp. 0 x 2 = 0
					FAC spp. 105 x 3 = 315
Sapling/Shrub Str	ratum (Plot size: 5 meter radius)				FACU spp x 4 = 0
1.	Morella pensylvanica	50	Y	FAC	UPL spp. <u>15</u> x 5 = <u>75</u>
2.	Toxicodendron radicans	30	Y	FAC	
3.					Total <u>120</u> (A) <u>390</u> (B)
4.					
5.					Prevalence Index = B/A = <u>3.250</u>
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes I No Rapid Test for Hydrophytic Vegetation
10.					✓ Yes □ No Dominance Test is > 50%
1	Total Cover =	80			□ Yes \square No Prevalence Index is $\leq 3.0^{*}$
					□ Yes □ No Morphological Adaptations (Explain) *
	ot size: 2 meter radius)	25	V	FAC	☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *
1. 2.	Toxicodendron radicans	25 15	Y Y	FAC UPL	* Indicators of hydric soil and wetland hydrology must be
3.	Artemisia vulgaris				present, unless disturbed or problematic.
4.					Definitions of Vegetation Strata:
5.					Deminions of Vegetation Strata.
5. 6					Tree - Westerland of (70mm) and a firm that the
7.					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
10.					tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and
13.					woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	40			
	um (Plot size: 10 meter radius)				
1. 2.					
<u>3.</u> 4.					Hydrophytic Vegetation Present 🧹 Yes 🗌 No
4. 5.					
J.	 Total Cover =				
Remarks:	Prevelance index is > than 3.0, and no ind	0 licators of	hydric c	oil or wet	and hydrology present
Nomains.		1001015 01	nyune S	on or well	and hydrology present.



Project/Site: Sunrise Wind/ Fire Island, NY Stantec Project #: 2028113199 Date: 06/09/20 Applicant: County: Sunrise Wind LLC Suffolk Investigator #1: Andy Smith Investigator #2: State: New York NWI/WWI Classification: Soil Unit: Wetland ID: W01ASA Landform: Floodplain Local Relief: Concave Sample Point: Wetland 0-1% Latitude: Datum: Slope (%): Longitude: Community ID: E2SS/EM 🗹 Yes 🗌 No Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) Are Vegetation \Box , Soil \Box , or Hydrology \Box significantly disturbed? Are normal circumstances present? Are Vegetation \Box , Soil \Box , or Hydrology \Box naturally problematic? Yes □ No SUMMARY OF FINDINGS ✓ Yes✓ Yes Hydric Soils Present? Hydrophytic Vegetation Present? Yes □ No □ No No 🗹 Yes 🗌 No 🗹 Yes 🗏 No Is This Sampling Point Within A Wetland? Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators (Check here if indicators are not present) Secondary: Primary: A1 - Surface Water B9 - Water-Stained Leaves B6 - Surface Soil Cracks 1 A2 - High Water Table B10 - Drainage Patterns B13 - Aquatic Fauna B15 - Marl Deposits B16 - Moss Trim Lines A3 - Saturation B1 - Water Marks C1 - Hydrogen Sulfide Odor C2 - Dry-Season Water Table B2 - Sediment Deposits \checkmark C3 - Oxidized Rhizospheres on Living Roots C8 - Crayfish Burrows 1 B3 - Drift Deposits C4 - Presence of Reduced Iron C9 - Saturation Visible on Aerial Imagery B4 - Algal Mat or Crust C6 - Recent Iron Reduction in Tilled Soils D1 - Stunted or Stressed Plants B5 - Iron Deposits C7 - Thin Muck Surface D2 - Geomorphic Position B7 - Inundation Visible on Aerial Imagery Other (Explain in Remarks) D3 - Shallow Aquitard B8 - Sparsely Vegetated Concave Surface D4 - Microtopographic Relief D5 - FAC-Neutral Test Field Observations: Surface Water Present? 🗆 Yes 🗵 No Depth: (in.) Wetland Hydrology Present? 🗹 Yes 🗌 No Water Table Present? ✓ Yes □ No Depth: 10 (in.) Saturation Present? 🗆 Yes 🗹 No Depth: (in.) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A A wrack line was observed within the wetland Remarks: SOILS Map Unit Name: Series Drainage Class: Taxonomy (Subgroup): Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix) Bottom Mottles Texture Top Matrix (e.g. clay, sand, loam) Depth Depth Horizon Color (Moist) % Color (Moist) % Туре Location 10YR 2/2 100 sandy loam 0 2 2 16 2 10YR 5/2 85 7.5YR 5/6 3 С Μ sandy loam --___ ___ ------------___ ___ ------------NRCS Hydric Soil Field Indicators (check here if indicators are not present \square Indicators for Problematic Soils ¹ S8 - Polyvalue Below Surface (LRR R, MLRA 149B) A1- Histosol A10 - 2 cm Muck (LRR K, L, MLRA 149B) S9 - Thin Dark Surface (LRR R, MLRA 149B) A16 - Coast Prairie Redox (LRR K, L, R) A2 - Histic Epipedon F1 - Loamy Mucky Mineral (LRR K. L) S3 - 5cm Mucky Peat of Peat (LRR K. L. R) A3 - Black Histic A4 - Hydrogen Sulfide F2 - Loamy Gleyed Matrix S7 - Dark Surface (LRR K, L, M) A5 - Stratified Layers F3 - Depleted Matrix S8 - Polyvalue Below Surface (LRR к, L) A11 - Depleted Below Dark Surface F6 - Redox Dark Surface S9 - Thin Dark Surface (LRR к, L) A12 - Thick Dark Surface F7 - Depleted Dark Surface F12 - Iron-Manganese Masses (LRR к, L, R) F8 - Redox Depressions F19 - Piedmont Floodplain Soils (MLRA 149B) S1 - Sandy Muck Mineral S4 - Sandy Gleyed Matrix TA6 - Mesic Spodic (MLRA 144A, 145, 149B) S5 - Sandy Redox TF2 - Red Parent Material S6 - Stripped Matrix TF12 - Very Shallow Dark Surface S7 - Dark Surface (LRR R, MLRA 149B) Other (Explain in Remarks) ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problemation Restrictive Layer Depth: Hydric Soil Present? 🗹 Yes 🗌 No Type: (If Observed) Remarks:

Page 1 of 2



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Fire Island, NY				Wetland ID: W01ASA Sample Point Wetland
VEGETATION					
VEGETATION	(Species identified in all uppercase are non-nativ ot size: 10 meter radius)	e species.)			
	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)
3.					
4.					Total Number of Dominant Species Across All Strata:3(B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
7.					Dravalance Index Werksheet
8. 9.					Prevalence Index Worksheet
<u> </u>					Total % Cover of: Multiply by: OBL spp. 20 x 1 = 20
10.	Total Cover =				FACW spp. 30 x 2 = 60
		Ŭ			FAC spp. 0 $x 3 = 0$
Sapling/Shrub Stra	atum (Plot size: 5 meter radius)				FACU spp. $0 \times 4 = 0$
1.	Rosa palustris	20	Y	OBL	UPL spp. 0 $x 5 = 0$
2.	Iva frutescens	10	Y	FACW	
3.					Total <u>50</u> (A) <u>80</u> (B)
4.					
5.					Prevalence Index = B/A = <u>1.600</u>
6.					
7.					
<u>8.</u> 9.					Hydrophytic Vegetation Indicators:
<u> </u>					 Yes
10.	 Total Cover =				✓ res \Box No Dominance results > 50%
		50			✓ res ☐ No Prevalence intex is 3 5.0 ☐ Yes ☑ No Morphological Adaptations (Explain) *
Herb Stratum (Plo	t size: 2 meter radius)				Yes ✓ No Problem Hydrophytic Vegetation (Explain) *
1.	Phragmites australis	20	Y	FACW	
2.					 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3.					present, uniess distance of problematic.
4.					Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
7.					height (DDH), regardless of height.
8.	-				Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
9. 10.					tall.
11.					
11.					Herb - All herbaceous (non-woody) plants, regardless of size, and
13.					woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	20			
	um (Plot size: 10 meter radius)				
1.	-				
2.					
<u> </u>					Hydrophytic Vegetation Present Yes No
5.					
<u> </u>	 Total Cover =				
Remarks:		U			



Project/Site:	Sunrise Wind	d/ Fire Island, NY					Stantec Project #:	2028113199		Date:	06/09/20
Applicant:	Sunrise Wind	1 LLC								County:	Suffolk
Investigator #1:	Andy Smith			Investi	gator #2:					State:	New York
Soil Unit:					J	NW	/I/WWI Classification:			Wetland ID:	W01ASB
Landform:	Rise			Loc	al Relief:					Sample Point:	Upland
	0-1%	Latituda				CONVEX		Datum:			•
Slope (%):		Latitude:			ongitude:				NI-	Community ID:	Upland
		ditions on the site typ				o, explain in			No		
		or Hydrology 🛛 sign					Are normal circumsta		:?		
Are Vegetation	🗆 , Soil 🗋 ,	or Hydrology D natu	irally proble	matic?			Yes	🗆 No			
SUMMARY OF	FINDINGS										
Hydrophytic Veg	petation Pres	sent?		Yes	🗵 No			Hydric Soils	Present?		🗌 Yes 🗹 No
Wetland Hydrol				□ Yes						Vithin A Wetlan	
Remarks:	ogy i reserie	•			- 110			is mis damp	oning i onine v		
Remarks.											
HYDROLOGY											
Wetland Hydro	ology Indica	ators (Check here if	indicators :	are not n	resent)□					
Primary:			maioators	are not p	/ coon) _			Secondary:		
	A1 - Surface	Water			B9 - Wate	r-Stained	eaves			B6 - Surface Soil	Cracks
	A2 - High Wa				B13 - Aqu					B10 - Drainage Pa	
	A3 - Saturati			Π	B15 - Mar					B16 - Moss Trim I	
					C1 - Hydro		de Odor			C2 - Dry-Season	
	B2 - Sedimer	nt Deposits					spheres on Living Roots			C8 - Crayfish Burr	
	B3 - Drift De	posits					duced Iron				sible on Aerial Imagery
	B4 - Algal Ma	at or Crust			C6 - Rece	nt Iron Re	duction in Tilled Soils			D1 - Stunted or St	ressed Plants
	B5 - Iron Dep	posits			C7 - Thin I	Muck Surf	ace			D2 - Geomorphic	Position
		ion Visible on Aerial Imag			Other (Exp	olain in Re	marks)			D3 - Shallow Aqui	
	B8 - Sparsel	y Vegetated Concave Su	urface							D4 - Microtopogra	
										D5 - FAC-Neutral	Test
Field Observat	ions:										
Surface Water		🗆 Yes 🗵 No	Dopth		(in.)						
			Depth:		• •			Wetland Hyd	drology Pro	esent?	Yes 🗹 No
Water Table Pre		🗌 Yes 🗹 No	Depth:		(in.)						
Saturation Pres	ent?	🗆 Yes 🗹 No	Depth:		(in.)						
Describe Record	ed Data (str	eam gauge, monitorin	a well aeris	nhotos	provious	inonoctio	ns) if available:		N/A		
Pemarke:		oun gaago, montoni	ig weil, dent	ai priotos,	previous	Inspection			1.073		
Remarks:	· ·		ig wen, dene	ai priotos,	previous	Inspection	is), il avallable.				
	· · · ·			ar priotos,	previous	Inspection					
SOILS				ai priotos,	previous						
SOILS Map Unit Name					previous		eries Drainage Class:				
SOILS Map Unit Name Taxonomy (Sub	group):		-			S	eries Drainage Class:				
SOILS Map Unit Name Taxonomy (Sub	group):		-			S	eries Drainage Class:			ining, M=Matrix)	
SOILS Map Unit Name Taxonomy (Sub Profile Descrip	group):		cator or confirm the al			S				ining, M=Matrix)	Texture
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top	group): tion (Describe to Bottom	the depth needed to document the indic	cator or confirm the at	bsence of indica Matrix	itors.) (Type: C=C	S	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov	ered/Coated Sand Grains; Mottles	Location: PL=Pore L	1	-
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth	group): tion (Describe to Bottom Depth	the depth needed to document the indicement the indicement of the	cator or confirm the at	bsence of indica Matrix Moist)	itors.) (Type: C=C	Soncentration, D=	eries Drainage Class: Depletion, RM-Reduced Matrix, CS-Cov Color (Moist)	ered/Coated Sand Grains; Mottles %	Location: PL=Pore L	Location	(e.g. clay, sand, loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	group): tion (Describe to Bottom Depth 16	the depth needed to document the indicement the indicement of the	cator or confirm the at Color (N 10YR	bsence of indica Matrix Moist) 4/4	itors.) (Type: C=C % 100	Concentration, D	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist)	ered/Coated Sand Grains; Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 	group): tion (Describe to Bottom Depth 16 	the depth needed to document the indi Horizon 1 	cator or confirm the at Color (N 10YR 	bsence of indica Matrix Moist) 4/4 	tors.) (Type: C=C % 100 	Concentration, D	eries Drainage Class: Deplation, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	group): tion (Describe to Bottom Depth 16	the depth needed to document the indicement the indicement of the	cator or confirm the at Color (N 10YR	bsence of indica Matrix Moist) 4/4	itors.) (Type: C=C % 100	Concentration, D	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist)	ered/Coated Sand Grains; Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 	group): tion (Describe to Bottom Depth 16 	the depth needed to document the indi Horizon 1 	cator or confirm the at Color (N 10YR 	bsence of indica Matrix Moist) 4/4 	tors.) (Type: C=C % 100 	Concentration, D	eries Drainage Class: Deplation, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 	group): tion (Describe to Bottom Depth 16 	the depth needed to document the indi Horizon 1 	cator or confirm the at Color (N 10YR 	bsence of indica Matrix Moist) 4/4 	tors.) (Type: C=C % 100 	Soncentration, D=	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	ered/Coated Sand Grains; Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 	group): tion (Describe to Bottom Depth 16 	the depth needed to document the indi Horizon 1 	cator or confirm the as Color (N 10YR 	bsence of indicat Matrix Moist) 4/4 	tors.) (Type: C=C % 100 	S ioncentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	ered/Coated Sand Grains; Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 	group): tion (Describe to Depth 16 	the depth needed to document the indi Horizon 1 	cator or confirm the at Color (N 10YR 	bsence of indicar Matrix Moist) 4/4 	tors.) (Type: C=C % 100 	S ioncentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Depth 0 	group): tion (Describe to Bottom Depth 16 	the depth needed to document the indi Horizon 1 	cator or confirm the ab Color (N 10YR 	bsence of indicat Matrix Moist) 4/4 	tors.) (Type: C=C % 100 	S ioncentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles Mottles 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 	group): tion (Describe to Depth 16 	the depth needed to document the indi Horizon 1 	cator or confirm the at Color (N 10YR 	bsence of indica Matrix Moist) 4/4 	tors.) (Type: C=C % 100 	S concentration, D: 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 	group): tion (Describe to Depth 16 	the depth needed to document the indi Horizon 1 	cator or confirm the at Color (N 10YR 	bsence of indica Matrix Moist) 4/4 	tors.) (Type: C=C % 100 	S concentration, D: 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	ered/Coated Sand Grains; Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 	the depth needed to document the indi Horizon 1 	cator or confirm the at Color (N 10YR 	beence of indica Matrix Moist) 4/4 ors are n	tors.) (Type: C=C % 100 	S concentration, D: t	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	ered/Coated Sand Grains; Mottles % 	Location: PL=Pore L Type -	Location 	(e.g. clay, sand, loam) sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir	the depth needed to document the indicators (check her	cator or confirm the at Color (N 10YR 	beence of indicat Matrix 4/4 ors are n	tors.) (Type: C=C % 100 	S ioncentration, D: -	eries Drainage Class: Depleton, RM=Reduced Matrix, CS=Cov Color (Moist) 	ered/Coated Sand Grains; Mottles <u>Indicator</u>	Location: PL=Pore L Type s for Proble A10 - 2 cm I	Location matic Soils ¹	(e.g. clay, sand, loam) sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H	the depth needed to document the indic Horizon 1 ndicators (check her pipedon istic	cator or confirm the at Color (N 10YR 	beence of indicat Matrix 4/4 ors are n	tors.) (Type: C=C % 100 ot presen S8 - Polyy S9 - Thin I F1 - Loam	S concentration, D: t) alue Beloro Dark Surfa y Mucky N	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) ICP (LRR R, MLRA 149B) ICP (LRR R, MLRA 149B)	ered/Coated Sand Grains; Mottles % Indicator	Location: PL=Pore L Type s for Proble A10 - 2 cm If A16 - Coast S3 - 5cm Mu	Location matic Soils ¹ Vluck (LR K, L, MRA 1- Prairie Redox (JRR // LP at (JR Pat (JR - 1)))	(e.g. clay, sand, loam) sand 498) K, L, R)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic E] A3 - Black H A4 - Hydroge	the depth needed to document the indic Horizon 1 	cator or confirm the at Color (N 10YR 	beence of indicat Matrix Moist) 4/4 ors are n	tors.) (Type: C=C % 100 S8 - Polyv S9 - Thin I F1 - Loam F2 - Loam	S concentration, Dr t □ alue Belon Dark Surfa y Mucky N y Mucky N	eries Drainage Class: Depleton, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) ICP (LRR R, MLRA 149B) ICP (LRR R, MLRA 149B) Matrix	ered/Coated Sand Grains; Mottles % 	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sand 49B) K, L, R) LRR K, L, R)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier	the depth needed to document the indic Horizon 1 ndicators (check her pipedon istic en Sulfide d Layers	cator or confirm the at Color (N 10YR 	beence of indicat Matrix Moist) 4/4 ors are n	tors.) (Type: C=C % 100 	S incentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	ered/Coated Sand Grains; Mottles Indicator 	Location: PL=Pore L Type s for Proble A10 - 2 cm I A16 - Coast S3 - 5cm Mt S3 - Polyval	Location	(e.g. clay, sand, loam) sand 498) K, L, R) LRR K, L, R)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A11 - Deplet	the depth needed to document the indic Horizon 1 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface	cator or confirm the at Color (N 10YR 	beence of Indicat Matrix Moist) 4/4 ors are n	tors.) (Type: C=C % 100 	S incentration, D: t), alue Beloo Dark Surfa y Mucky M y Gleyed I ted Matrix x Dark Su	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) NCC (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix Kr	ered/Coated Sand Grains; Mottles % Indicator 	Location: PL=Pore L Type -	Location matic Soils 1 Vluck (LRR K, L, MLRA 1- Prairie Redox (LRR LGR K, L, M) Laface (LRR K, L, M) urface (LRR K, L, M)	(e.g. clay, sand, loam) sand 498) K, L, R) LRR K, L, R)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic E[A3 - Black H A4 - Hydroge A5 - Stratifie A12 - Thick I	the depth needed to document the indi Horizon 1 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface	cator or confirm the at Color (N 10YR 	bsence of indicat Matrix 4/4 ors are n	tors.) (Type: C=C % 100 	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles % Indicator 	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier A12 - Thick I S1 - Sandy M	the depth needed to document the indic Horizon 1 	cator or confirm the at Color (N 10YR 	bsence of indicat Matrix 4/4 ors are n	tors.) (Type: C=C % 100 	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles % Indicator 	Lacation: PL=Pore L Type -	Location	(e.g. clay, sand, loam) (e.g. clay, sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A12 - Thick C S1 - Sandy M S4 - Sandy O	the depth needed to document the indic Horizon 1 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Dark Surface Dark Surface Dark Surface	cator or confirm the at Color (N 10YR 	bsence of indicat Matrix 4/4 ors are n	tors.) (Type: C=C % 100 	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles Indicator Indicator	Location: PL=Pore L Type s for Proble A10 - 2 cm I A10 - 2 cm I A10 - 2 cm I A10 - 2 cm I A10 - 2 cm I S3 - Scm Mü S7 - Dark SI S8 - Polyval S9 - Thin Da F12 - Iron-M T46 - Mesic	Location	(e.g. clay, sand, loam) (e.g. clay, sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A12 - Thick I S1 - Sandy M S4 - Sandy G S5 - Sandy F	the depth needed to document the indic Horizon 1 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox	cator or confirm the at Color (N 10YR 	bsence of indicat Matrix 4/4 ors are n	tors.) (Type: C=C % 100 	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles % Indicator 	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sand 498) K, L, R) LRR K, L, R) LRR K, L, R) S (MLRA 149B) 45, 149B)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratified A1 - Deplet A1 - Deplet A1 - Sandy N S4 - Sandy F S5 - Sandy F S6 - Strippec	the depth needed to document the indi Horizon 1 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox i Matrix	cator or confirm the at Color (N 10YR 	bsence of indicat Matrix 4/4 ors are n	tors.) (Type: C=C % 100 	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles % Indicator 	Location: PL=Pore L Type 	Location	(e.g. clay, sand, loam) sand 498) K, L, R) LRR K, L, R) LRR K, L, R) S (MLRA 149B) 45, 149B)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratified A1 - Deplet A1 - Deplet A1 - Sandy N S4 - Sandy F S5 - Sandy F S6 - Strippec	the depth needed to document the indic Horizon 1 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox	cator or confirm the at Color (N 10YR 	bsence of indicat Matrix 4/4 ors are n	tors.) (Type: C=C % 100 	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles % 	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratified A1 - Deplet A1 - Deplet A1 - Sandy N S4 - Sandy F S5 - Sandy F S6 - Strippec	the depth needed to document the indi Horizon 1 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox i Matrix	cator or confirm the at Color (N 10YR 	bsence of indicat Matrix 4/4 ors are n	tors.) (Type: C=C % 100 	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface		Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A12 - Thick I S1 - Sandy M S4 - Sandy G S5 - Sandy F S6 - Strippec S7 - Dark Su	the depth needed to document the indic Horizon 1 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox J Matrix Irface (LRR R, MLRA 149B)	cator or confirm the at Color (N 10YR re if indicato	baence of indica Matrix 4/4 	tors.) (Type: C=C % 100 	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles % Indicator Indicator 0 0 0 0 0 0 0 0 0 0 0 0 0	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratified A1 - Deplet A1 - Deplet A1 - Sandy N S4 - Sandy F S5 - Sandy F S6 - Strippec	the depth needed to document the indic Horizon 1 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox J Matrix Irface (LRR R, MLRA 149B)	cator or confirm the at Color (N 10YR re if indicato	bsence of indicat Matrix 4/4 ors are n	tors.) (Type: C=C % 100 	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface		Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	group): tion (Describe to Depth 16 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A12 - Thick I S1 - Sandy M S4 - Sandy G S5 - Sandy F S6 - Strippec S7 - Dark Su	the depth needed to document the indic Horizon 1 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox J Matrix Irface (LRR R, MLRA 149B)	cator or confirm the at Color (N 10YR re if indicato	baence of indica Matrix 4/4 	tors.) (Type: C=C % 100 	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	ered/Coated Sand Grains; Mottles % Indicator Indicator 0 0 0 0 0 0 0 0 0 0 0 0 0	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sand -



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Fire Island, NY				Wetland ID: W01ASB Sample Point Upland
VEOFTATION					
VEGETATION Tree Stratum (Pl	(Species identified in all uppercase are non-native ot size: 10 meter radius)	e species.)			
	Species Name	% Cover Do	ominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)
3.					
4.					Total Number of Dominant Species Across All Strata: 2 (B)
5.					
6. 7.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp. 0 \times 1 = 0
	Total Cover =	0			FACW spp. 0 $x 2 = 0$
					FAC spp. 0 $x 3 = 0$
Sapling/Shrub Str	atum (Plot size: 5 meter radius)				FACU spp50 x 4 =200
1.	Rosa multiflora	30	Y	FACU	UPL spp. <u>0 </u>
2.	Prunus serotina	20	Y	FACU	
3.					Total <u>50</u> (A) <u>200</u> (B)
4.					
5.					Prevalence Index = B/A = 4.000
6. 7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes Von Rapid Test for Hydrophytic Vegetation
10.					✓ Yes □ No Dominance Test is > 50%
	Total Cover =	50			\square Yes \square No Prevalence Index is $\leq 3.0^*$
					Yes INO Morphological Adaptations (Explain) *
Herb Stratum (Plo	ot size: 2 meter radius)				☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *
1.					* Indicators of hydric soil and wetland hydrology must be
2.					present, unless disturbed or problematic.
3.					
4.					Definitions of Vegetation Strata:
5. 6					Troo
7.					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
8.					5 (), 5 5
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
10.					tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and
13.					woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	0			
	um (Plot size: 10 meter radius)				
1. 2.					
3.					Hydrophytic Vegetation Present Ves No
4.					
5.					
	Total Cover =	0			
Remarks:					



Project/Site: Sunrise Wind/ Fire Island, NY Stantec Project #: 2028113199 Date: 06/09/20 Applicant: County: Sunrise Wind LLC Suffolk Investigator #1: Andy Smith Investigator #2: State: New York NWI/WWI Classification: Soil Unit: Wetland ID: W01ASB Landform: Floodplain Local Relief: Concave Sample Point: Wetland 0-1% Latitude: Datum: Slope (%): Longitude: Community ID: E2SS/EM 🗹 Yes 🗌 No Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) Are Vegetation \Box , Soil \Box , or Hydrology \Box significantly disturbed? Are normal circumstances present? Are Vegetation \Box , Soil \Box , or Hydrology \Box naturally problematic? Yes □ No SUMMARY OF FINDINGS ✓ Yes✓ Yes Hydrophytic Vegetation Present? Yes □ No □ No No Hydric Soils Present? 🗹 Yes 🗌 No 🗹 Yes 🗏 No Is This Sampling Point Within A Wetland? Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators (Check here if indicators are not present) Secondary: Primary: A1 - Surface Water B9 - Water-Stained Leaves B6 - Surface Soil Cracks 1 A2 - High Water Table B10 - Drainage Patterns B13 - Aquatic Fauna B15 - Marl Deposits B16 - Moss Trim Lines A3 - Saturation B1 - Water Marks C1 - Hydrogen Sulfide Odor C2 - Dry-Season Water Table B2 - Sediment Deposits \checkmark C3 - Oxidized Rhizospheres on Living Roots C8 - Crayfish Burrows 1 B3 - Drift Deposits C4 - Presence of Reduced Iron C9 - Saturation Visible on Aerial Imagery B4 - Algal Mat or Crust C6 - Recent Iron Reduction in Tilled Soils D1 - Stunted or Stressed Plants B5 - Iron Deposits C7 - Thin Muck Surface D2 - Geomorphic Position B7 - Inundation Visible on Aerial Imagery Other (Explain in Remarks) D3 - Shallow Aquitard B8 - Sparsely Vegetated Concave Surface D4 - Microtopographic Relief D5 - FAC-Neutral Test Field Observations: Surface Water Present? 🗆 Yes 🗵 No Depth: (in.) Wetland Hydrology Present? 🗹 Yes 🗌 No Water Table Present? ✓ Yes □ No Depth: 10 (in.) Saturation Present? 🗆 Yes 🗹 No Depth: (in.) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A A wrack line was observed within the wetland Remarks: SOILS Map Unit Name: Series Drainage Class: Taxonomy (Subgroup): Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix) Bottom Mottles Texture Top Matrix (e.g. clay, sand, loam) Depth Depth Horizon Color (Moist) % Color (Moist) % Туре Location 10YR 2/2 100 sandy loam 0 2 2 9 2 10YR 4/1 100 7.5YR 5/6 3 С Μ sand --___ ___ ---------------___ ___ ------------NRCS Hydric Soil Field Indicators (check here if indicators are not present \square Indicators for Problematic Soils ¹ S8 - Polyvalue Below Surface (LRR R, MLRA 149B) A1- Histosol A10 - 2 cm Muck (LRR K, L, MLRA 149B) S9 - Thin Dark Surface (LRR R, MLRA 149B) A16 - Coast Prairie Redox (LRR K, L, R) A2 - Histic Epipedon F1 - Loamy Mucky Mineral (LRR K. L) S3 - 5cm Mucky Peat of Peat (LRR K. L. R) A3 - Black Histic A4 - Hydrogen Sulfide F2 - Loamy Gleyed Matrix S7 - Dark Surface (LRR K, L, M) A5 - Stratified Layers F3 - Depleted Matrix S8 - Polyvalue Below Surface (LRR к, L) A11 - Depleted Below Dark Surface F6 - Redox Dark Surface S9 - Thin Dark Surface (LRR к, L) A12 - Thick Dark Surface F7 - Depleted Dark Surface F12 - Iron-Manganese Masses (LRR к, L, R) F8 - Redox Depressions F19 - Piedmont Floodplain Soils (MLRA 149B) S1 - Sandy Muck Mineral S4 - Sandy Gleyed Matrix TA6 - Mesic Spodic (MLRA 144A, 145, 149B) S5 - Sandy Redox TF2 - Red Parent Material S6 - Stripped Matrix TF12 - Very Shallow Dark Surface S7 - Dark Surface (LRR R, MLRA 149B) Other (Explain in Remarks) ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problemation Restrictive Layer Depth: Hydric Soil Present? 🗹 Yes 🗌 No Type: (If Observed) Remarks:

Page 1 of 2



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Fire Island, NY				Wetland ID: W01ASB Sample Point Wetland
VEGETATION	(Species identified in all uppercase are non-native				
	(Species identified in all uppercase are non-nativity ot size: 10 meter radius)	e species.)		
· · · · · ·	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A)
3.					
4.					Total Number of Dominant Species Across All Strata:4(B)
5. 6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)
7.					Percent of Dominant Species That Are OBL, FACW, of FAC. 73.0% (AVB)
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					$OBL spp. \qquad 0 \qquad x \ 1 = 0$
	Total Cover =	0			FACW spp. 50 x 2 = 100
					FAC spp. 20 x $3 = 60$
Sapling/Shrub Str	atum (Plot size: 5 meter radius)				FACU spp x 4 =
1.	Baccharis halimifolia	30	Y	FACW	UPL spp. 10 $x 5 = 50$
2.	Morella pensylvanica	20	Y	FAC	
3.					Total <u>80</u> (A) <u>210</u> (B)
4. 5.					
5. 6.					Prevalence Index = B/A = 2.625
7.					
8.					Hydrophytic Vegetation Indicators:
9.					☐ Yes ☑ No Rapid Test for Hydrophytic Vegetation
10.					✓ Yes □ No Dominance Test is > 50%
	Total Cover =	50			✓ Yes
					Yes I No Morphological Adaptations (Explain) *
Herb Stratum (Plo	t size: 2 meter radius)				☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *
1.	Phragmites australis	20	Y	FACW	* Indicators of hydric soil and wetland hydrology must be
2.	Atropa beladonna	10	Y	UPL	present, unless disturbed or problematic.
3.					Definitions of Venetation Strates
4. 5.					Definitions of Vegetation Strata:
6					Tree - Westerlands Oline (7.0 mm) and an in the state of here st
7.					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
10.					tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.
13.					woody prarits less than 5.20 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	30			
Woody Vino Strat	um (Plot size: 10 meter radius)				
1.	um (Plot size: 10 meter radius)				
2.					
3.					Hydrophytic Vegetation Present 🧧 Yes 🗌 No
4.					
5.					
	Total Cover =	0			
Remarks:					



Project/Site: Sunrise Wind/ Long Island, NY Stantec Project #: 2028113199 Date: 06/09/20 Applicant: County: Sunrise Wind LLC Suffolk Investigator #1: Andy Smith Investigator #2: State: New York NWI/WWI Classification: Soil Unit: Wetland ID: W01ASC Landform: Side slope Local Relief: Convex Sample Point: Upland 0-1% Latitude: Datum: Slope (%): Longitude: Community ID: Upland 🗹 Yes 🗌 No Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) Are Vegetation , Soil , or Hydrology significantly disturbed? Are normal circumstances present? Are Vegetation \Box , Soil \Box , or Hydrology \Box naturally problematic? Yes ⊡ No SUMMARY OF FINDINGS ☑ No☑ No Hydrophytic Vegetation Present? Yes Hydric Soils Present? 🗌 Yes 🗹 No □ Yes Is This Sampling Point Within A Wetland? 🗏 Yes 🗹 No Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators (Check here if indicators are not present) Secondary: Primary: A1 - Surface Water B9 - Water-Stained Leaves B6 - Surface Soil Cracks A2 - High Water Table B10 - Drainage Patterns B13 - Aquatic Fauna B15 - Marl Deposits B16 - Moss Trim Lines A3 - Saturation B1 - Water Marks C1 - Hydrogen Sulfide Odor C2 - Dry-Season Water Table B2 - Sediment Deposits C3 - Oxidized Rhizospheres on Living Roots C8 - Crayfish Burrows B3 - Drift Deposits C4 - Presence of Reduced Iron C9 - Saturation Visible on Aerial Imagery B4 - Algal Mat or Crust C6 - Recent Iron Reduction in Tilled Soils D1 - Stunted or Stressed Plants B5 - Iron Deposits C7 - Thin Muck Surface D2 - Geomorphic Position B7 - Inundation Visible on Aerial Imagery Other (Explain in Remarks) D3 - Shallow Aquitard B8 - Sparsely Vegetated Concave Surface D4 - Microtopographic Relief D5 - FAC-Neutral Test Field Observations: Surface Water Present? 🗆 Yes 🗵 No Depth: (in.) Wetland Hydrology Present? 🗌 Yes 🗹 No Water Table Present? □ Yes ☑ No (in.) Depth: Saturation Present? 🗆 Yes 🗹 No Depth: (in.) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A Remarks: SOILS Map Unit Name: Series Drainage Class: Taxonomy (Subgroup): Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix) Bottom Mottles Texture Top Matrix (e.g. clay, sand, loam) Color (Moist) Depth Depth Horizon % Color (Moist) % Туре Location 7.5YR 3/3 100 sandy loam 0 6 ---6 16 2 7.5YR 4/3 100 -----sandy loam --___ ---------------___ ___ ------------NRCS Hydric Soil Field Indicators (check here if indicators are not present \square Indicators for Problematic Soils ¹ S8 - Polyvalue Below Surface (LRR R, MLRA 149B) A1- Histosol A10 - 2 cm Muck (LRR K, L, MLRA 149B) S9 - Thin Dark Surface (LRR R, MLRA 149B) A16 - Coast Prairie Redox (LRR K, L, R) A2 - Histic Epipedon F1 - Loamy Mucky Mineral (LRR K. L) S3 - 5cm Mucky Peat of Peat (LRR K. L. R) A3 - Black Histic A4 - Hydrogen Sulfide F2 - Loamy Gleyed Matrix S7 - Dark Surface (LRR K, L, M) A5 - Stratified Layers F3 - Depleted Matrix S8 - Polyvalue Below Surface (LRR к, L) A11 - Depleted Below Dark Surface F6 - Redox Dark Surface S9 - Thin Dark Surface (LRR к, L) A12 - Thick Dark Surface F7 - Depleted Dark Surface F12 - Iron-Manganese Masses (LRR к, L, R) F8 - Redox Depressions F19 - Piedmont Floodplain Soils (MLRA 149B) S1 - Sandy Muck Mineral S4 - Sandy Gleyed Matrix TA6 - Mesic Spodic (MLRA 144A, 145, 149B) S5 - Sandy Redox TF2 - Red Parent Material S6 - Stripped Matrix TF12 - Very Shallow Dark Surface S7 - Dark Surface (LRR R, MLRA 149B) Other (Explain in Remarks) ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problemation Restrictive Layer Depth: Hydric Soil Present? 🗌 Yes 🗹 No Type: (If Observed) Remarks:



Northeast and Northcentral Region

VEGETATION (Select Extend Exten Extend Extend Extend Extend Extend Extend Extend Exten	Project/Site:	Sunrise Wind/ Long Island, NY				Wetland ID: W01ASC Sample Point Upland	
These Statume (Periods: Allower actual) Success Dama Multiple of the status of t	VECETATION						
Secrets Joins Secrets Dominance Test Worksheet 1.			ive species.)				
1. -			% Cover	Dominant	Ind.Status	Dominance Test Worksheet	
3. -	1.						
4 -	2.					Number of Dominant Species that are OBL, FACW, or FAC:0 (A)	
5 Percent of Dominant Species That Are ORL, FACW, or FAC. 0.0% (AB) 7 <td>3.</td> <td></td> <td></td> <td></td> <td></td> <td></td>	3.						
6						Total Number of Dominant Species Across All Strata:1(B)	
7. -							
8						Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)	
9 - - <th -<="" <="" td=""><td></td><td></td><td></td><td></td><td></td><td>Developer to dev Wederloot</td></th>	<td></td> <td></td> <td></td> <td></td> <td></td> <td>Developer to dev Wederloot</td>						Developer to dev Wederloot
10	-						
Total Cover = 0 Saping/Shrub. Stratum (Plot size: 5 meter radius)							
Saping Shrub Stratum (Plot size: 5 meter radius) FAC type, 0 x 3 = 0 1. 0 2. 0 x 5 = 0 3. 0 x 5 = 0 4. 0 x 5 = 0 6. <td>10.</td> <td></td> <td></td> <td></td> <td></td> <td>$\frac{OBL \text{spp.}}{EACW(\text{spp.})} = \frac{0}{100} \text{ x} 2 = 0$</td>	10.					$\frac{OBL \text{spp.}}{EACW(\text{spp.})} = \frac{0}{100} \text{ x} 2 = 0$	
Saping/Shub Stratum (Plot size: 5 meter radius) -			- 0				
1. <t< td=""><td>Sapling/Shrub Str</td><td>atum (Plot size: 5 meter radius)</td><td></td><td></td><td></td><td>FACU spp. 0 $x 4 = 0$</td></t<>	Sapling/Shrub Str	atum (Plot size: 5 meter radius)				FACU spp. 0 $x 4 = 0$	
2						$UPL spp. \qquad 0 \qquad x \ 5 = 0$	
4 - <td>2.</td> <td></td> <td></td> <td></td> <td></td> <td></td>	2.						
5 Prevalence index = B/A =A 6 7 8 9 10	3.					Total (A) (B)	
6. 7. 8. 9. 10. 10. 10. 10. 10. 10. 10. 10. 2. 3. 4. 5. 6. 11. 12. 13. 14. 15.							
7. 8. 10. Total Cover = Heb Stratum (Plot size: 2 meter radius) 1. Panicum dichotom/florum 60 Y Yes No Morpholytic Vegetation (Explain)* 4. 6. 7. 6. Tere - Woody plants Sin (7.6m) or more in diameter at breast height (DBH), regardless of height. 8. Tere - Woody plants Sin (7.6m) or more in diameter at breast height (DBH), regardless of aize, and woody plants less than 3 in. DBH and greater than 3.28 ft. tuil. 10.						Prevalence Index = B/A = <u>NA</u>	
8 9 9 10 Total Cover = 0 Herb Stratum (Plot size: 2 meter radius) 1. Paricum dichotomifforum 60 Y 3 4 6 7 9 10 11 12 13 14 15 15 <	-						
9							
10 Total Cover = 0 Yes No Dominance Test is >50% Herb Stratum (Plot size: 2 meter radius) - - - 1. Panicum dichotomillorum 60 Y 3. - - - - 4. - - - - 5. - - - - 6. - - - - 7. - - - - 8. - - - - 9. - - - - 11. - - - - 12. - - - - 13. - - - - 14. - - - - 15. - - - - 15. - - - - 15. - - - - 16. - - -	-						
Total Cover = 0 Herb Stratum (Plot size: 2 meter radius)	-						
Herb Stratum (Plot size: 10 meter radius)	10.						
Herb Stratum (Plot size: 2 meter radius) □ Problem Hydrophytic Vegetation (Explain)* 1. Panicum dichotomifforum 60 Y 3. 4. 4. 6 6 7. 9. 10. 11. 13. 14. 15. 16. 17. 18. 19. 11. 14. 15. 2. <		Total Cover	- 0				
1. Panicum dichotomiflorum 60 Y 2.	Herb Stratum (Plo	size: 2 meter radius)					
2. <t< td=""><td></td><td></td><td>60</td><td>Y</td><td></td><td></td></t<>			60	Y			
3. Definitions of Vegetation Strata: 4.							
5. 6 7. 8. 9. 10. 11. 12. 13. 14. 15. 14. 15. 16. 1. 1. 2. 3. 3.	3.					present, unless disturbed of problematic.	
6 7. 8. 9. 10. 11. 12. 13. 14. 15. Total Cover = 60 Woody Vines Stratum (Plot size: 10 meter radius) 1. 2. 3. 3. 3. 3. 4. 5.	4.					Definitions of Vegetation Strata:	
7. height (DBH), regardless of height. 8. height (DBH), regardless of height. 9. height (DBH), regardless of height. 10. height (DBH), regardless of height. 11. height (DBH), regardless of height. 12. <td>5.</td> <td></td> <td></td> <td></td> <td></td> <td></td>	5.						
1. - 10. - - - - - - - - - - 11. - - - - - - 11. - - - - - - 11. - - - - - - - - 11. - <	-					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast	
9. 10. 11. 11. 11. 11. 11. 11. 11. 11. 11. 11. 11. 1. 1. 1. </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>height (DBH), regardless of height.</td>						height (DBH), regardless of height.	
10. <							
10. 11. 12. 13. 14. 15. 15. 16. 17. 17. 1. 2. 3. 3. 3. 3. 3. 4. 5. 5. 5. 5. 5.						Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.	
12. 10 <							
13. Woody Vines - All woody vines greater than 3.28 ft. in height. Woody Vines - All woody vines greater than 3.28 ft. in height. Woody Vine Stratum (Plot size: 10 meter radius)						Hank All harbanavia (non woodi)) planta ragardiasa ofaita and	
14. <							
15. Woody Vines - All woody vines greater than 3.28 ft. in height. Woody Vine Stratum (Plot size: 10 meter radius) <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>							
Total Cover = 60 Woody Vine Stratum (Plot size: 10 meter radius) 1. 2. 3. 4. 5. Total Cover = 0						Woody Vines - All woody vines areater than 3.28 ft. in height.	
Woody Vine Stratum (Plot size: 10 meter radius) 1. 2. 3. 4. 5. Total Cover = 0	10.					1100uy 11105 - , 5	
1. 2. 3. 4. 5. Total Cover = 0			00				
1. 2. 3. 4. 5. Total Cover = 0	Woody Vine Strat	um (Plot size: 10 meter radius)					
3. 4. 5. Total Cover = 0							
4 5 Total Cover = 0	2.						
5 Total Cover = 0	3.					Hydrophytic Vegetation Present Ves No	
Total Cover = 0							
	5.						
Remarks: Located on slope of earthen berm			= 0				
	Remarks:	Located on slope of earthen berm					



Project/Site: Sunrise Wind/ Long Island, NY Stantec Project #: 2028113199 Date: 06/09/20 Applicant: County: Sunrise Wind LLC Suffolk Investigator #1: Andy Smith Investigator #2: State: New York NWI/WWI Classification: Soil Unit: Wetland ID: W01ASC Landform: Depression Local Relief: Concave Sample Point: Wetland 0-1% Latitude: Datum: Slope (%): Longitude: Community ID: PEM 🗹 Yes 🗌 No Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) Are Vegetation , Soil , or Hydrology significantly disturbed? Are normal circumstances present? Are Vegetation \Box , Soil \Box , or Hydrology \Box naturally problematic? Yes ⊡ No SUMMARY OF FINDINGS Hydrophytic Vegetation Present? Yes □ No □ No No Hydric Soils Present? 🗹 Yes 🗌 No ✓ Yes 🗹 Yes 🗏 No Is This Sampling Point Within A Wetland? Wetland Hydrology Present? Remarks: Wetland is contained in a man-made basin HYDROLOGY Wetland Hydrology Indicators (Check here if indicators are not present) <u>...</u> B6 - Surface Soil Cracks B10 - Draines - □ Secondary: Primary: A1 - Surface Water B9 - Water-Stained Leaves A2 - High Water Table B13 - Aquatic Fauna B15 - Marl Deposits B16 - Moss Trim Lines \checkmark A3 - Saturation B1 - Water Marks C1 - Hydrogen Sulfide Odor C2 - Dry-Season Water Table B2 - Sediment Deposits C3 - Oxidized Rhizospheres on Living Roots C8 - Crayfish Burrows B3 - Drift Deposits C4 - Presence of Reduced Iron C9 - Saturation Visible on Aerial Imagery B4 - Algal Mat or Crust C6 - Recent Iron Reduction in Tilled Soils D1 - Stunted or Stressed Plants B5 - Iron Deposits C7 - Thin Muck Surface D2 - Geomorphic Position B7 - Inundation Visible on Aerial Imagery Other (Explain in Remarks) D3 - Shallow Aquitard B8 - Sparsely Vegetated Concave Surface D4 - Microtopographic Relief D5 - FAC-Neutral Test Field Observations: Surface Water Present? 🗆 Yes 🗵 No Depth: (in.) Wetland Hydrology Present? 🗹 Yes 🗌 No Water Table Present? □ Yes ☑ No Depth: (in.) Saturation Present? 🗹 Yes 🗌 No 0 Depth: (in.) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A Remarks: SOILS Map Unit Name: 0 Series Drainage Class: Taxonomy (Subgroup): Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix) Bottom Mottles Texture Top Matrix (e.g. clay, sand, loam) Depth Depth Horizon Color (Moist) % Color (Moist) % Туре Location 4/6 7.5YR 100 sand 0 2 2 16 2 7.5YR 5/1 95 7.5YR 5/6 3 С Μ sand ---___ ___ ------------___ ___ ------------NRCS Hydric Soil Field Indicators (check here if indicators are not present \square Indicators for Problematic Soils ¹ S8 - Polyvalue Below Surface (LRR R, MLRA 149B) A1- Histosol A10 - 2 cm Muck (LRR K, L, MLRA 149B) S9 - Thin Dark Surface (LRR R, MLRA 149B) A16 - Coast Prairie Redox (LRR K, L, R) A2 - Histic Epipedon F1 - Loamy Mucky Mineral (LRR K. L) S3 - 5cm Mucky Peat of Peat (LRR K. L. R) A3 - Black Histic A4 - Hydrogen Sulfide F2 - Loamy Gleyed Matrix S7 - Dark Surface (LRR K, L, M) A5 - Stratified Layers F3 - Depleted Matrix S8 - Polyvalue Below Surface (LRR к, L) A11 - Depleted Below Dark Surface F6 - Redox Dark Surface S9 - Thin Dark Surface (LRR к, L) A12 - Thick Dark Surface F7 - Depleted Dark Surface F12 - Iron-Manganese Masses (LRR к, L, R) F8 - Redox Depressions F19 - Piedmont Floodplain Soils (MLRA 149B) S1 - Sandy Muck Mineral S4 - Sandy Gleyed Matrix TA6 - Mesic Spodic (MLRA 144A, 145, 149B) S5 - Sandy Redox TF2 - Red Parent Material S6 - Stripped Matrix TF12 - Very Shallow Dark Surface S7 - Dark Surface (LRR R, MLRA 149B) Other (Explain in Remarks) ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problemation Restrictive Layer Depth: Hydric Soil Present? 🗹 Yes 🗌 No Type: (If Observed) Remarks:



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Long Island, NY				Wetland ID: W01ASC Sample Point Wetland
VEGETATION					
VEGETATION	(Species identified in all uppercase are non-root size: 10 meter radius)	native species.)			
	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)
3.					
4.					Total Number of Dominant Species Across All Strata: 2 (B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
7. 8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					$OBL spp. \qquad 0 \qquad x \ 1 = 0$
10.	Total Cov				FACW spp. 90 $x = 180$
					FAC spp. 10 $\times 3 = 30$
Sapling/Shrub Stra	atum (Plot size: 5 meter radius)				FACU spp. $0 \times 4 = 0$
1.	Iva frutescens	10	Y	FACW	UPL spp. 0 x 5 = 0
2.					
3.					Total <u>100</u> (A) <u>210</u> (B)
4.					
5.					Prevalence Index = B/A =
6.					
7. 8.					Iludua uku tia Vanatatian Indiaata ya
8. 9.					Hydrophytic Vegetation Indicators:
9. 10.					\checkmark Yes \square No Dominance Test is > 50%
10.	 Total Cov				✓ Tes \square No Dominance Test is 2.0%
	10121 000				Yes
Herb Stratum (Plo	t size: 2 meter radius)				Yes
1.	Phragmites australis	80	Y	FACW	
2.	Toxicodendron radicans	10	Ν	FAC	 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3.					present, uness disturbed of problematic.
4.					Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					Or a Herrority of Character Manda land than 2 in DPH and greater than 2 39 ft
9. 10.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.
10.					
11.					Herb - All herbaceous (non-woody) plants, regardless of size, and
12.					woody plants less than 3.28 ft. tall.
13.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cov				
Woody Vine Strate	um (Plot size: 10 meter radius)				
1.				1	
2.					
3.					Hydrophytic Vegetation Present 🛛 Yes 🗌 No
4.					
5.					
Remarks:	Total Cov	er = 0			
Nemarks.					
I					



Project/Site: Sunrise Wind/ Long Island, NY Stantec Project #: 2028113199 Date: 06/11/20 Applicant: County: Sunrise Wind LLC Suffolk Investigator #1: Andy Smith Investigator #2: State: New York NWI/WWI Classification: Soil Unit: Wetland ID: W01ASD Landform: Side slope Local Relief: Convex Sample Point: Upland 0-1% Latitude: Datum: Slope (%): Longitude: Community ID: Upland 🗹 Yes 🗌 No Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) Are Vegetation \Box , Soil \Box , or Hydrology \Box significantly disturbed? Are normal circumstances present? Are Vegetation \Box , Soil \Box , or Hydrology \Box naturally problematic? Yes □ No SUMMARY OF FINDINGS ☑ No☑ No Hydric Soils Present? Hydrophytic Vegetation Present? Yes 🗌 Yes 🗹 No □ Yes Is This Sampling Point Within A Wetland? 🗏 Yes 🗹 No Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators (Check here if indicators are not present) Secondary: Primary: A1 - Surface Water B9 - Water-Stained Leaves B6 - Surface Soil Cracks A2 - High Water Table B10 - Drainage Patterns B13 - Aquatic Fauna B15 - Marl Deposits B16 - Moss Trim Lines A3 - Saturation B1 - Water Marks C1 - Hydrogen Sulfide Odor C2 - Dry-Season Water Table B2 - Sediment Deposits C3 - Oxidized Rhizospheres on Living Roots C8 - Crayfish Burrows B3 - Drift Deposits C4 - Presence of Reduced Iron C9 - Saturation Visible on Aerial Imagery B4 - Algal Mat or Crust C6 - Recent Iron Reduction in Tilled Soils D1 - Stunted or Stressed Plants B5 - Iron Deposits C7 - Thin Muck Surface D2 - Geomorphic Position B7 - Inundation Visible on Aerial Imagery Other (Explain in Remarks) D3 - Shallow Aquitard B8 - Sparsely Vegetated Concave Surface D4 - Microtopographic Relief D5 - FAC-Neutral Test Field Observations: Surface Water Present? 🗆 Yes 🗵 No Depth: (in.) Wetland Hydrology Present? 🗌 Yes 🗹 No Water Table Present? □ Yes ☑ No (in.) Depth: Saturation Present? 🗆 Yes 🗹 No Depth: (in.) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A Remarks: SOILS Map Unit Name: Series Drainage Class: Taxonomy (Subgroup): Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix) Bottom Mottles Texture Top Matrix (e.g. clay, sand, loam) Depth Depth Horizon Color (Moist) % Color (Moist) % Туре Location 10YR 4/2 100 --gravelly road fill 0 6 ---6 15 2 10YR 4/3 100 -----sandy loam ---___ ------------------___ ___ ------------NRCS Hydric Soil Field Indicators (check here if indicators are not present \square Indicators for Problematic Soils ¹ S8 - Polyvalue Below Surface (LRR R, MLRA 149B) A1- Histosol A10 - 2 cm Muck (LRR K, L, MLRA 149B) S9 - Thin Dark Surface (LRR R, MLRA 149B) A16 - Coast Prairie Redox (LRR K, L, R) A2 - Histic Epipedon F1 - Loamy Mucky Mineral (LRR K. L) S3 - 5cm Mucky Peat of Peat (LRR K. L. R) A3 - Black Histic A4 - Hydrogen Sulfide F2 - Loamy Gleyed Matrix S7 - Dark Surface (LRR K, L, M) A5 - Stratified Layers F3 - Depleted Matrix S8 - Polyvalue Below Surface (LRR к, L) A11 - Depleted Below Dark Surface F6 - Redox Dark Surface S9 - Thin Dark Surface (LRR к, L) A12 - Thick Dark Surface F7 - Depleted Dark Surface F12 - Iron-Manganese Masses (LRR к, L, R) F8 - Redox Depressions F19 - Piedmont Floodplain Soils (MLRA 149B) S1 - Sandy Muck Mineral S4 - Sandy Gleyed Matrix TA6 - Mesic Spodic (MLRA 144A, 145, 149B) S5 - Sandy Redox TF2 - Red Parent Material S6 - Stripped Matrix TF12 - Very Shallow Dark Surface S7 - Dark Surface (LRR R, MLRA 149B) Other (Explain in Remarks) ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problemation Restrictive Layer Depth: Hydric Soil Present? 🗌 Yes 🗹 No Type: (If Observed) Remarks:



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Long Island, NY				Wetland ID: W01ASD Sample Point Upland
VEGETATION	(Species identified in all uppercase are non-na ot size: 10 meter radius)	tive species.)			
Tree Stratum (Pic	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.	Juglans nigra	15	Y	FACU	
2.					Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)
3.					
4.					Total Number of Dominant Species Across All Strata: 2 (B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
7.					• • • • • • • • •
8.					Prevalence Index Worksheet
9. 10.					$\frac{\text{Total \% Cover of:}}{\text{OBL spp.}} 0 \text{x 1} = 0$
10.	 Total Cover				$\begin{array}{ccc} OBL \text{ spp.} & 0 & x 1 = & 0 \\ FACW \text{ spp.} & 0 & x 2 = & 0 \end{array}$
	Total Cover	- 10			FACW spp. $0 x 2 - 0$ FAC spp. $0 x 3 = 0$
Sapling/Shrub Str	atum (Plot size: 5 meter radius)				FACU spp 15 x 4 = 60
1.					UPL spp. $60 \times 5 = 300$
2.					
3.					Total 75 (A) 360 (B)
4.					
5.					Prevalence Index = B/A = 4.800
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					☐ Yes ☑ No Rapid Test for Hydrophytic Vegetation
10.	 Total Cover				Yes
	Total Cover	- 0			 Yes No Prevalence Index is ≤ 3.0 * Yes No Morphological Adaptations (Explain) *
Herb Stratum (Plo	t size: 2 meter radius)				 Yes
1.	Artemisia vulgaris	60	Y	UPL	
2.					* Indicators of hydric soil and wetland hydrology must be
3.					present, unless disturbed or problematic.
4.					Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					• It (et al. We shall set here there 0 in DDU and we show there 0.00 ft
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.
10. 11.					
11.					Herb - All herbaceous (non-woody) plants, regardless of size, and
12.					woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
-	Total Cover	= 60			-
Woody Vine Strat	um (Plot size: 10 meter radius)				
1.				1	
2.					
3.					Hydrophytic Vegetation Present 🛛 Yes 🗹 No
4.					
5.	 Tetel Cover				
Remarks:	Total Cover	= 0			
Remarks.					



Project/Site: Sunrise Wind/ Long Island, NY Stantec Project #: 2028113199 Date: 06/11/20 Applicant: County: Sunrise Wind LLC Suffolk Investigator #1: Andy Smith Investigator #2: State: New York NWI/WWI Classification: Soil Unit: Wetland ID: W01ASD Landform: Floodplain Local Relief: Concave Sample Point: Wetland 0-3% Latitude: Datum: Slope (%): Longitude: Community ID: PSS 🗹 Yes 🗌 No Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) Are Vegetation \Box , Soil \Box , or Hydrology \Box significantly disturbed? Are normal circumstances present? Are Vegetation \Box , Soil \Box , or Hydrology \Box naturally problematic? Yes □ No SUMMARY OF FINDINGS ✓ Yes✓ Yes Hydric Soils Present? Hydrophytic Vegetation Present? Yes □ No □ No No 🗹 Yes 🗌 No 🗹 Yes 🗏 No Is This Sampling Point Within A Wetland? Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators (Check here if indicators are not present) Secondary: Primary: A1 - Surface Water B9 - Water-Stained Leaves B6 - Surface Soil Cracks 1 A2 - High Water Table B10 - Drainage Patterns B13 - Aquatic Fauna B15 - Marl Deposits B16 - Moss Trim Lines \checkmark A3 - Saturation B1 - Water Marks C1 - Hydrogen Sulfide Odor C2 - Dry-Season Water Table B2 - Sediment Deposits C3 - Oxidized Rhizospheres on Living Roots C8 - Crayfish Burrows B3 - Drift Deposits C4 - Presence of Reduced Iron C9 - Saturation Visible on Aerial Imagery B4 - Algal Mat or Crust C6 - Recent Iron Reduction in Tilled Soils D1 - Stunted or Stressed Plants B5 - Iron Deposits C7 - Thin Muck Surface D2 - Geomorphic Position B7 - Inundation Visible on Aerial Imagery Other (Explain in Remarks) D3 - Shallow Aquitard B8 - Sparsely Vegetated Concave Surface D4 - Microtopographic Relief D5 - FAC-Neutral Test Field Observations: Surface Water Present? 🗆 Yes 🗵 No Depth: (in.) Wetland Hydrology Present? 🗹 Yes 🗌 No Water Table Present? ✓ Yes □ No 8 (in.) Depth: Saturation Present? 🗹 Yes 🗌 No Depth: 0 (in.) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A Remarks: SOILS Map Unit Name: 0 Series Drainage Class: Taxonomy (Subgroup): Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix) Bottom Mottles Texture Top Matrix (e.g. clay, sand, loam) Depth Depth Horizon Color (Moist) % Color (Moist) % Туре Location 10YR 2/1 100 sandy loam 0 10 10 20 2 10YR 3/1 95 10YR 4/6 5 С Μ sand ---___ ___ ------------___ ___ ------------NRCS Hydric Soil Field Indicators (check here if indicators are not present \square Indicators for Problematic Soils ¹ S8 - Polyvalue Below Surface (LRR R, MLRA 149B) A1- Histosol A10 - 2 cm Muck (LRR K, L, MLRA 149B) S9 - Thin Dark Surface (LRR R, MLRA 149B) A16 - Coast Prairie Redox (LRR K, L, R) A2 - Histic Epipedon F1 - Loamy Mucky Mineral (LRR K. L) S3 - 5cm Mucky Peat of Peat (LRR K. L. R) A3 - Black Histic A4 - Hydrogen Sulfide F2 - Loamy Gleyed Matrix S7 - Dark Surface (LRR K, L, M) A5 - Stratified Layers F3 - Depleted Matrix S8 - Polyvalue Below Surface (LRR к, L) A11 - Depleted Below Dark Surface F6 - Redox Dark Surface S9 - Thin Dark Surface (LRR к, L) A12 - Thick Dark Surface F7 - Depleted Dark Surface F12 - Iron-Manganese Masses (LRR к, L, R) F8 - Redox Depressions F19 - Piedmont Floodplain Soils (MLRA 149B) S1 - Sandy Muck Mineral S4 - Sandy Gleyed Matrix TA6 - Mesic Spodic (MLRA 144A, 145, 149B) S5 - Sandy Redox TF2 - Red Parent Material S6 - Stripped Matrix TF12 - Very Shallow Dark Surface S7 - Dark Surface (LRR R, MLRA 149B) Other (Explain in Remarks) ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problemation Restrictive Layer Depth: Hydric Soil Present? 🗹 Yes 🗌 No Type: (If Observed) Remarks:



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Long Island, NY				Wetland ID: W01ASD Sample Point Wetland
VECETATION					
VEGETATION Tree Stratum (Plo	(Species identified in all uppercase are non-nat ot size: 10 meter radius)	ive species.)			
	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)
3.					
4.					Total Number of Dominant Species Across All Strata:5(B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp. 0 x 1 = 0
	Total Cover	= 0			FACW spp. 50 x $2 = 100$
					FAC spp. 50 x 3 = 150
Sapling/Shrub Str	atum (Plot size: 5 meter radius)				FACU spp. 20 x 4 = 80
1.	Rosa multiflora	20	Y	FACU	UPL spp. 0 x 5 = 0
2.	Viburnum recognitum	10	Y	FAC	
3.					Total <u>120</u> (A) <u>330</u> (B)
4.					
5.					Prevalence Index = B/A = 2.750
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					□ Yes □ No Rapid Test for Hydrophytic Vegetation
10.					✓ Yes □ No Dominance Test is > 50%
	Total Cover	= 30			Yes Vo Prevalence Index is ≤ 3.0 *
					□ Yes ☑ No Morphological Adaptations (Explain) *
Herb Stratum (Plo	t size: 2 meter radius) Impatiens capensis	50	Y	FACW	☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *
2.					* Indicators of hydric soil and wetland hydrology must be
3.					present, unless disturbed or problematic.
4.					Definitions of Vegetation Strata:
5.					Sommone of Vogotation official
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
10.					tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and
13.					woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover	= 50			
Woody Vine Strat	um (Plot size: 10 meter radius)				
1.	Vitis riparia	20	Y	FAC	
2.	Smilax hispida	20	Y	FAC	
3.					Hydrophytic Vegetation Present 🧧 Yes 🗌 No
4.					
5.					
	Total Cover	= 40			
Remarks:					



Project/Site:	Sunrise Wind	d/ Long Island, NY					Stantec Project #:	2028113199		Date:	06/11/20
Applicant:	Sunrise Wind	d LLC								County:	Suffolk
Investigator #1:	Andv Smith			Investi	gator #2:					State:	New York
Soil Unit:					0	NW	/I/WWI Classification:			Wetland ID:	W01ASE
Landform:	Floodplain			Loc	al Relief:					Sample Point:	Upland
Slope (%):	0-3%	Latitude:				Concav	6	Datum:			•
			·		ongitude:					Community ID:	Upland
		ditions on the site typ			year? (If no	o, explain in			No		
		or Hydrology 🛛 sigr					Are normal circumsta		ť?		
Are Vegetation	□, Soil □,	or Hydrology 🗌 natu	arally proble	ematic?			Yes	□ No			
SUMMARY OF	FINDINGS										
Hydrophytic Veg	netation Pre	sent?		Yes	⊡ No			Hydric Soils	Present?		🗌 Yes 🗹 No
Wetland Hydrol				☐ Yes						Vithin A Wetland	
Remarks:	ogy i resent	•			- 110			15 THIS Oalling	oning i onine v	vianii / vocian	
Remarks.											
HYDROLOGY											
Wetland Hydro	ology Indic:	ators (Check here if	indicators	are not n	resent)[]					
Primary:			maioatoro		looont	/			Secondary:		
	A1 - Surface	Water			B9 - Wate	r-Stained	Leaves			B6 - Surface Soil (Cracks
	A2 - High Wa				B13 - Aqu					B10 - Drainage Pa	
	A3 - Saturati			Π	B15 - Mar		-			B16 - Moss Trim L	
	B1 - Water M				C1 - Hydro		de Odor			C2 - Dry-Season V	
	B2 - Sedime	nt Deposits					spheres on Living Roots			C8 - Crayfish Burn	
	B3 - Drift De	posits			C4 - Prese	ence of Re	educed Iron			C9 - Saturation Vis	sible on Aerial Imagery
	B4 - Algal Ma	at or Crust			C6 - Rece	nt Iron Re	duction in Tilled Soils			D1 - Stunted or St	ressed Plants
		posits			C7 - Thin	Muck Surf	ace			D2 - Geomorphic I	
		on Visible on Aerial Ima			Other (Exp	plain in Re	marks)			D3 - Shallow Aquit	
	B8 - Sparsel	y Vegetated Concave S	urface							D4 - Microtopogra	
										D5 - FAC-Neutral	Test
Field Observat	ions:										
Surface Water	Present?	🗆 Yes 🗵 No	Depth:		(in.)						
Water Table Pre		⊡ Yes □ No			. ,			Wetland Hy	drology Pro	esent?	Yes 🗹 No
			Depth:		(in.)						
Saturation Pres	ent?	🗹 Yes 🔲 No	Depth:		(in.)						
Describe Record	ed Data (str	eam gauge, monitorin	a well aeria	al nhotos	provious	incroctio	ac) if available:		N/A		
				ii priotos,	previous	inspectio	is), il avaliable.		19/73		
Remarks:			ig won, done	a priotos,	previous	Inspection	is), il avallable.				
Remarks:			g won, done	ai priotos,	previous	Inspection	is), il avallable.				
	· · ·		g won, done	ai priotos,	previous	Inspection	15), II avaliadic.		N/A		
SOILS			g won, done	in priotos,	previous						
SOILS Map Unit Name				a protos,	previous		eries Drainage Class:				
SOILS Map Unit Name Taxonomy (Sub	group):		-			S	eries Drainage Class:				
SOILS Map Unit Name Taxonomy (Sub Profile Descrip	group):		-	bsence of indica		S		ered/Coated Sand Grains;		ining, M=Matrix)	
SOILS Map Unit Name Taxonomy (Sub	group):		_			S	eries Drainage Class:	ered/Coated Sand Grains; Mottles		ining, M=Matrix)	Texture
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top	group): tion (Describe to Bottom		cator or confirm the a	bsence of indica Matrix		S	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov		Location: PL=Pore L	ining, M=Matrix)	Texture (e.g. clay, sand, loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth	group): tion (Describe to Bottom Depth	the depth needed to document the indi	cator or confirm the a	bsence of indica Matrix Moist)	tors.) (Type: C=C	S	eries Drainage Class:	Mottles		1	(e.g. clay, sand, loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	group): tion (Describe to Bottom Depth 4	the depth needed to document the indi- Horizon	cator or confirm the a Color (1 10YR	bsence of indica Matrix Moist) 4/2	tors.) (Type: C=C % 100	Concentration, D=	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cow Color (Moist)	Mottles %	Location: PL=Pore L	Location	(e.g. clay, sand, loam) gravelly road fill
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth	group): tion (Describe to Bottom Depth	the depth needed to document the indi	cator or confirm the a	bsence of indica Matrix Moist)	tors.) (Type: C=C	Concentration, D-	Pepietion, RM=Reduced Matrix, CS=Cov Color (Moist)	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4	group): tion (Describe to Bottom Depth 4 14	the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (f 10YR 10YR	bsence of indica Matrix Moist) 4/2 3/2	tors.) (Type: C=C % 100 100	Concentration, D=	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) gravelly road fill fine sandy loam
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	group): tion (Describe to Bottom Depth 4	the depth needed to document the indi- Horizon	cator or confirm the a Color (1 10YR	bsence of indica Matrix Moist) 4/2	tors.) (Type: C=C % 100	Concentration, D-	Pepietion, RM=Reduced Matrix, CS=Cov Color (Moist)	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) gravelly road fill
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4	group): tion (Describe to Bottom Depth 4 14	the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (f 10YR 10YR	bsence of indica Matrix Moist) 4/2 3/2	tors.) (Type: C=C % 100 100	Concentration, D=	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) gravelly road fill fine sandy loam
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 	group): tion (Describe to Bottom Depth 4 14 	the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (f 10YR 10YR 	bsence of Indica Matrix Moist) 4/2 3/2	tors.) (Type: C=C % 100 100 	S Concentration, D: 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) gravelly road fill fine sandy loam
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 	group): tion (Describe to Bottom Depth 4 14 	the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (f 10YR 10YR 	bsence of indice Matrix Moist) 4/2 3/2 	tors.) (Type: C=C % 100 100 	S Concentration, D- 	Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) gravelly road fill fine sandy loam
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SOILS Map Unit Name Taxonomy (Sub Profile Descrip Depth 0 4 	group): tion (Describe to Depth 4 14 	the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (I 10YR 10YR 	bsence of indica Matrix Moist) 4/2 3/2 	tors.) (Type: C=C % 100 100 	S Concentration, D: 	Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) gravelly road fill fine sandy loam
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir	the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (I 10YR 10YR 	bsence of indica Matrix Moist) 4/2 3/2 ors are n	tors.) (Type: C=C % 100 100 ot presen	Soncentration, D-	Pepleton, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles % 	Location: PL=Pore L Type -	Location matic Soils ¹	(e.g. clay, sand, loam) gravelly road fill fine sandy loam
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol	the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (I 10YR 10YR 	beence of indica Matrix Moist) 4/2 3/2 -	tors.) (Type: C=C % 100 100 S8 - Polyv	S ioncentration, D- 	Pepteton, RM=Reduced Matrix, CS=Cov Color (Moist) -	Mottles % 	Location: PL=Pore L Type s for Proble A10 - 2 cm I	Location matic Solls ¹ Vluck (LRR K, L, MLRA 14	(e.g. clay, sand, loam) gravelly road fill fine sandy loam
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E	the depth needed to document the indi Horizon 1 2 ndicators (check hell pipedon	cator or confirm the a Color (I 10YR 10YR 	beence of Indica Matrix 4/2 3/2 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyv S9 - Thin I	Soncentration, D- 	Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) W Surface (LRR R, MLRA 1498) CP (LRR R, MLRA 1498)	Mottles %	Location: PL=Pore L Type -	Location matic Soils 1 Vluck (LRR L, LMLRA 14 Prairie Redox (LRR	(e.g. clay, sand, loam) gravelly road fill fine sandy loam 498) K, L, R)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H	the depth needed to document the indi Horizon 1 2 ndicators (check her pipedon istic	cator or confirm the a Color (I 10YR 10YR 	bsence of indications Matrix 4/2 3/2 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyy S9 - Thin I F1 - Loam	S Concentration, D: -	Pepletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) fineral (LRR K, L)	Mottles % <u></u> <u>Indicator</u> 	Location: PL=Pore L Type s for Proble A10 - 2 cm Hu A16 - Coast S3 - 5 cm Mu	Location matic Soils ¹ Vluck (LRR K, L, MLRA 14 Prairie Redox (LRR cky Peat of Peat (L	(e.g. clay, sand, loam) gravelly road fill fine sandy loam 498) K, L, R)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge	the depth needed to document the indi Horizon 1 2 ndicators (check her pipedon istic en Sulfide	cator or confirm the a Color (I 10YR 10YR 	beence of indica Matrix Moist) 4/2 3/2 ors are n	tors.) (Type: C=C % 100 100 s8 - Pohy S9 - Pohy S9 - Pohy S9 - Pohy F1 - Loam F2 - Loam	S Concentration, D- t T arlue Beloo Dark Surfa y Mucky N y Gleyed	Pepieton, RM=Reduced Matrix, CS=Cov Color (Moist) -	Mottles % 	Location: PL=Pore L Type rs for Proble A10 - 2 cm I A10 - Coast S3 - 5 cm Mt S3 - 5 cm Mt	Location	(e.g. clay, sand, loam) gravelly road fill fine sandy loam 49B) K, L, R) LRR K, L, R)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier	the depth needed to document the indi Horizon 1 2 ndicators (check her pipedon istic en Sulfide d Layers	cator or confirm the a Color (I 10YR 10YR 	beence of indica Matrix Moist) 4/2 3/2 ors are n	tors.) (Type: C=C % 100 100 S8 - Polyv S9 - Thin I F1 - Loam F3 - Deple F2 - Loam	S ioncentration, D- tt pralue Belov Dark Surfa py Mucky M y Gleyed Matrix	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) AGE (LRR R, MLRA 149B) Africa (LRR K, L) Matrix (Mottles % <u></u> <u>Indicator</u> 	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) gravelly road fill fine sandy loam 498) K, L, R) LRR K, L, R)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A11 - Deplet	the depth needed to document the indi Horizon 1 2 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface	cator or confirm the a Color (I 10YR 10YR 	baance of indica Matrix 4/2 3/2 -	tors.) (Type: C=C % 100 100 	Soncentration, D: 	Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) ACE (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix K	Mottles %	Location: PL=Pore L Type -	Location matic Soils 1 Vluck (LRR K, L, MLRA 14 Prairie Redox (LRR LGky Peat of Peat (L Jrface (LRR K, L, M) urface (LRR K, L, M) urface (LRR K, L)	(e.g. clay, sand, loam) gravelly road fill fine sandy loam -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I	the depth needed to document the indi Horizon 1 2 ndicators (check her pipedon istic an Sulfide d Layers ed Below Dark Surface Dark Surface	cator or confirm the a Color (I 10YR 10YR 	bsence of indications (Moist) 4/2 3/2 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple	S Concentration, D: -	Pepleton, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ATP (LRR R, L) Matrix (rface Surface	Mottles %	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) gravelly road fill fine sandy loam -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier A12 - Thick I S1 - Sandy M	the depth needed to document the indi Horizon 1 2 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral	cator or confirm the a Color (I 10YR 10YR 	baance of indica Matrix 4/2 3/2 -	tors.) (Type: C=C % 100 100 S8 - Polyu S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Redo	S Concentration, D: -	Pepleton, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ATP (LRR R, L) Matrix (rface Surface	Mottles %	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) gravelly road fill fine sandy loam 49B) K, L, R) LRR K, L, R) LRR K, L, R) S (MLRA 149B)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C	the depth needed to document the indi Horizon 1 2 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Dark Surface Dark Surface Dark Surface	cator or confirm the a Color (I 10YR 10YR 	bsence of indications (Moist) 4/2 3/2 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple	S Concentration, D: -	Pepleton, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ATP (LRR R, L) Matrix (rface Surface	Mottles % <u>Indicator</u> 	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) gravelly road fill fine sandy loam 49B) K, L, R) LRR K, L, R) LRR K, L, R) S (MLRA 149B)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I S1 - Sandy M S4 - Sandy G S5 - Sandy F	the depth needed to document the indi Horizon 1 2 ndicators (check here pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox	cator or confirm the a Color (I 10YR 10YR 	bsence of indications (Moist) 4/2 3/2 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple	S Concentration, D: -	Pepleton, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ATP (LRR R, L) Matrix (rface Surface	Mottles %	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) gravelly road fill fine sandy loam 498) K, L, R) LRR K, L, R) LRR K, L, R) (LRR K, L, R) S (MLRA 149B) 45, 149B)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Strippec	the depth needed to document the indi Horizon 1 2 ndicators (check here pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox I Matrix	cator or confirm the a Color (I 10YR 10YR 	bsence of indications (Moist) 4/2 3/2 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple	S Concentration, D: -	Pepleton, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ATP (LRR R, L) Matrix (rface Surface	Mottles %	Location: PL=Pore L Type 	Location	(e.g. clay, sand, loam) gravelly road fill fine sandy loam 498) K, L, R) LRR K, L, R) LRR K, L, R) (LRR K, L, R) S (MLRA 149B) 45, 149B)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Strippec	the depth needed to document the indi Horizon 1 2 ndicators (check here pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox	cator or confirm the a Color (I 10YR 10YR 	bsence of indications (Moist) 4/2 3/2 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple	S Concentration, D: -	Pepleton, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ATP (LRR R, L) Matrix (rface Surface	Mottles %	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) gravelly road fill fine sandy loam 49B) K, L, R) LRR K, L, R) LRR K, L, R) S (MLRA 149B) 45, 149B) ace
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Strippec	the depth needed to document the indi Horizon 1 2 ndicators (check here pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox I Matrix	cator or confirm the a Color (I 10YR 10YR 	bsence of indications (Moist) 4/2 3/2 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple	S Concentration, D: -	Pepleton, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ATP (LRR R, L) Matrix (rface Surface	Mottles %	Location: PL=Pore L	Location	(e.g. clay, sand, loam) gravelly road fill fine sandy loam 49B) K, L, R) LRR K, L, R) LRR K, L, R) S (MLRA 149B) 45, 149B) ace
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Strippec	the depth needed to document the indi Horizon 1 2 ndicators (check here pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox I Matrix	cator or confirm the a Color (I 10YR 10YR 	bsence of indications (Moist) 4/2 3/2 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple	S Concentration, D: -	Pepleton, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ATP (LRR R, L) Matrix (rface Surface	Mottles %	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) gravelly road fill fine sandy loam 49B) K, L, R) LRR K, L, R) LRR K, L, R) S (MLRA 149B) 45, 149B) ace
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric S	group): tion (Describe to Depth 4 14 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I S1 - Sandy M S4 - Sandy C S5 - Sandy F S6 - Strippec S7 - Dark Su	the depth needed to document the indi Horizon 1 2 ndicators (check here pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox I Matrix	cator or confirm the a Color (I 10YR 10YR 	baence of indice Matrix Moist) 4/2 3/2 	tors.) (Type: C=C % 100 100 ot presen S8 - Polyu S9 - Thin I F1 - Loam F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple F3 - Deple	S Concentration, D: -	Pepleton, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ATP (LRR R, L) Matrix (rface Surface	Mottles %	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) gravelly road fill fine sandy loam 498) K, L, R) LRR K, L, R) LRR K, L, R) (LRR K, L, R) S (MLRA 1498) 45, 1498) acce nust be present, unless



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Long Island, NY				Wetland ID: W01ASE Sample Point Upland
VEGETATION	(Species identified in all uppercase are non-nat	ivo oposios)			
	(Species identified in all uppercase are non-natility) lot size: 10 meter radius)	ive species.			
	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC:(A)
3. 4.					Total Number of Deminant Creation Across All Strates 2 (D)
4. 5.					Total Number of Dominant Species Across All Strata: <u>3</u> (B)
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp. 0 x 1 = 0
	Total Cover	= 0			FACW spp. 0 $x 2 = 0$
					FAC spp. 75 x 3 = 225
	ratum (Plot size: 5 meter radius)	40	X	FAOL	FACU spp. 70 x 4 = 280
<u> </u>	Rosa multiflora	10	Y 	FACU	UPL spp. 0 x 5 = 0
3.					Total 145 (A) 505 (B)
4.					Total <u>145</u> (A) <u>505</u> (B)
5.					Prevalence Index = B/A = 3.483
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes I No Rapid Test for Hydrophytic Vegetation
10.					☑ Yes □ No Dominance Test is > 50%
	Total Cover	= 10			\bigcirc Yes \Box No Prevalence Index is ≤ 3.0 *
					Yes I No Morphological Adaptations (Explain) *
	ot size: 2 meter radius)	00	V	FACU	☐ Yes
<u> </u>	Artemisia vulgaris	60	Y	FACU	* Indicators of hydric soil and wetland hydrology must be
3.					present, unless disturbed or problematic.
4.					Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.
10.					tan.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.
13.					
14. 15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
13.	 Total Cover	= 60			TOOLY TINGS
		- 00			
Woody Vine Strat	tum (Plot size: 10 meter radius)				
1.	Smilax hispida	75	Y	FAC	
2.					
3.					Hydrophytic Vegetation Present 🛛 Yes 🗹 No
4.					
5.					
Demendent	Total Cover	= 75			
Remarks:					
Additional Re	marke				

Road side, road fill



Project/Site: Sunrise Wind/ Long Island, NY Stantec Project #: 2028113199 Date: 06/11/20 Applicant: County: Sunrise Wind LLC Suffolk Investigator #1: Andy Smith Investigator #2: State: New York NWI/WWI Classification: Soil Unit: Wetland ID: W01ASE Landform: Floodplain Local Relief: Concave Sample Point: Wetland 0-3% Latitude: Datum: Slope (%): Longitude: Community ID: PSS 🗹 Yes 🗌 No Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) Are Vegetation \Box , Soil \Box , or Hydrology \Box significantly disturbed? Are normal circumstances present? Are Vegetation \Box , Soil \Box , or Hydrology \Box naturally problematic? Yes □ No SUMMARY OF FINDINGS ✓ Yes✓ Yes Hydric Soils Present? Hydrophytic Vegetation Present? Yes □ No □ No No 🗹 Yes 🗌 No 🗹 Yes 🗏 No Is This Sampling Point Within A Wetland? Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators (Check here if indicators are not present) Secondary: Primary: A1 - Surface Water B9 - Water-Stained Leaves B6 - Surface Soil Cracks 1 A2 - High Water Table B10 - Drainage Patterns B13 - Aquatic Fauna B16 - Moss Trim Lines \checkmark A3 - Saturation B15 - Marl Deposits B1 - Water Marks C1 - Hydrogen Sulfide Odor C2 - Dry-Season Water Table B2 - Sediment Deposits C3 - Oxidized Rhizospheres on Living Roots C8 - Crayfish Burrows B3 - Drift Deposits C4 - Presence of Reduced Iron C9 - Saturation Visible on Aerial Imagery B4 - Algal Mat or Crust C6 - Recent Iron Reduction in Tilled Soils D1 - Stunted or Stressed Plants B5 - Iron Deposits C7 - Thin Muck Surface D2 - Geomorphic Position B7 - Inundation Visible on Aerial Imagery Other (Explain in Remarks) D3 - Shallow Aquitard B8 - Sparsely Vegetated Concave Surface D4 - Microtopographic Relief D5 - FAC-Neutral Test Field Observations: Surface Water Present? 🗆 Yes 🗵 No Depth: (in.) Wetland Hydrology Present? 🗹 Yes 🗌 No Water Table Present? ✓ Yes □ No 8 (in.) Depth: Saturation Present? 🗹 Yes 🗌 No Depth: 0 (in.) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A Remarks: SOILS Map Unit Name: Series Drainage Class: Taxonomy (Subgroup): Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix) Bottom Mottles Texture Top Matrix (e.g. clay, sand, loam) Depth Depth Horizon Color (Moist) % Color (Moist) % Туре Location 10YR 2/1 100 fine sandy loam 0 2 2 8 2 10YR 3/2 95 10YR 4/6 5 С Μ fine sandy loam 8 18 3 10YR 5/1 100 sand ---___ ___ ___ ---------___ ___ ------------NRCS Hydric Soil Field Indicators (check here if indicators are not present \square Indicators for Problematic Soils ¹ S8 - Polyvalue Below Surface (LRR R, MLRA 149B) A1- Histosol A10 - 2 cm Muck (LRR K, L, MLRA 149B) S9 - Thin Dark Surface (LRR R, MLRA 149B) A16 - Coast Prairie Redox (LRR K, L, R) A2 - Histic Epipedon F1 - Loamy Mucky Mineral (LRR K. L) S3 - 5cm Mucky Peat of Peat (LRR K. L. R) A3 - Black Histic A4 - Hydrogen Sulfide F2 - Loamy Gleyed Matrix S7 - Dark Surface (LRR K, L, M) A5 - Stratified Layers F3 - Depleted Matrix S8 - Polyvalue Below Surface (LRR к, L) A11 - Depleted Below Dark Surface F6 - Redox Dark Surface S9 - Thin Dark Surface (LRR к, L) A12 - Thick Dark Surface F7 - Depleted Dark Surface F12 - Iron-Manganese Masses (LRR к, L, R) F8 - Redox Depressions F19 - Piedmont Floodplain Soils (MLRA 149B) S1 - Sandy Muck Mineral S4 - Sandy Gleyed Matrix TA6 - Mesic Spodic (MLRA 144A, 145, 149B) S5 - Sandy Redox TF2 - Red Parent Material S6 - Stripped Matrix TF12 - Very Shallow Dark Surface S7 - Dark Surface (LRR R, MLRA 149B) Other (Explain in Remarks) ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problemation Restrictive Layer Depth: Hydric Soil Present? 🗹 Yes 🗌 No Type: (If Observed) Remarks:



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Long Island, NY				Wetland ID: W01ASE Sample Point Wetland
VEGETATION					
VEGETATION	(Species identified in all uppercase are non-nativ ot size: 10 meter radius)	e species.)		
	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)
3.					
4.					Total Number of Dominant Species Across All Strata:4 (B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: <u>Multiply by:</u>
10.	 Total Cause -				OBL spp. 80 x 1 = 80
	Total Cover =	= 0			FACW spp. 30 X 2 = 60 FAC spp. 75 X 3 = 225
Sopling/Shrub Str	atum (Plot size: 5 meter radius)				FAC spp. 75 x 3 = 225 FACU spp. 10 x 4 = 40
1.	Rosa multiflora	10	Y	FACU	UPL spp. 0 $x = 0$
2.					
3.					Total 195 (A) 405 (B)
4.					
5.					Prevalence Index = B/A = 2.077
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					☐ Yes ☑ No Rapid Test for Hydrophytic Vegetation
10.					✓ Yes □ No Dominance Test is > 50%
	Total Cover =	= 10			
					☐ Yes ☑ No Morphological Adaptations (Explain) *
	t size: 2 meter radius)				☐ Yes
1.	Symplocarpus foetidus	80	Y	OBL	* Indicators of hydric soil and wetland hydrology must be
2.	Impatiens capensis	30	Y	FACW	present, unless disturbed or problematic.
3. 4.					Definitions of Vegetation Strata:
<u>4.</u> 5.					Deminions of vegetation Strata.
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
10.					tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and
13.					woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	110			
	um (Plot size: 10 meter radius)	75	Y	EAC	
1. 2.	Smilax hispida	75 	Y 	FAC	
<u> </u>					Hydrophytic Vegetation Present Ves No
4.					
5.					
	Total Cover =				
Remarks:					



Project/Site:	Sunrise Wind	d/ Fire Island, NY					Stantec Project #:	2028113199		Date:	06/09/20
Applicant:	Sunrise Wind	1 LLC								County:	Suffolk
Investigator #1:	Charles Ferri	is		Investi	gator #2:					State:	New York
Soil Unit:		<u></u>			J	NW	/I/WWI Classification:			Wetland ID:	W01CFA
Landform:	Rise			Loc	al Relief:					Sample Point:	Upland
	0-1%	Latituda				CONVEX		Datum:			•
Slope (%):		Latitude:	·		ongitude:					Community ID:	Upland
		ditions on the site typ			year? (If no	o, explain in			No		
		or Hydrology 🛛 sign					Are normal circumsta		ť?		
Are Vegetation	🗆 , Soil 🔍 ,	or Hydrology 🛛 natu	irally proble	matic?			Yes	□ No			
SUMMARY OF	FINDINGS										
Hydrophytic Veg	petation Pres	sent?		V Yes	🗆 No			Hydric Soils	Present?		🗌 Yes 🗹 No
Wetland Hydrol				☐ Yes						Vithin A Wetland	
Remarks:	ogy i reserie	•			- 110			15 mis oump	oning i onine v	vitanii / vootano	
Remarks.											
HYDROLOGY											
Wetland Hydro	ology Indica	ators (Check here if	indicators :	are not n	resent)□					
Primary:			maloators	are not p	lesent				Secondary:		
	A1 - Surface	Water			B9 - Wate	r-Stained	eaves			B6 - Surface Soil (Cracks
				H	B13 - Aqu					B10 - Drainage Pa	
	A3 - Saturati			П	B15 - Mar					B16 - Moss Trim L	
					C1 - Hydro		de Odor			C2 - Dry-Season V	
	B2 - Sedimer	nt Deposits					spheres on Living Roots			C8 - Crayfish Burn	
	B3 - Drift De	posits					duced Iron				sible on Aerial Imagery
	B4 - Algal Ma	at or Crust			C6 - Rece	nt Iron Re	duction in Tilled Soils			D1 - Stunted or St	ressed Plants
	B5 - Iron Dep	posits			C7 - Thin I	Muck Surf	ace			D2 - Geomorphic I	Position
		ion Visible on Aerial Imag			Other (Exp	olain in Re	marks)			D3 - Shallow Aquit	tard
	B8 - Sparsel	y Vegetated Concave Su	urface							D4 - Microtopogra	
										D5 - FAC-Neutral	Test
Field Observat	ions:										
Surface Water		🗆 Yes 🖂 No	Denth		(in)						
			Depth:		(in.)			Wetland Hyd	drology Pro	esent?	Yes 🗵 No
Water Table Pre		🗌 Yes 🗹 No	Depth:		(in.)			•	•••		
Saturation Pres	ent?	🗌 Yes 🗹 No	Depth:		(in.)						
Doscribo Rocord	od Data (str	eam gauge, monitorin	a woll poric	l photos	provious	incroctio	as) if available:		N/A		
	eu Data (Sili										
		30030, 1101110111	3 , aone	a priotos,	previous	Inspection			19/73		
Remarks:			3 1101, 40110	i priotos,	previous	Inspection					
		34439, 110110111	g tron, done	a priotos,	previous	inspection					
SOILS				a protos,	previous	inspection					
	:				previous		eries Drainage Class:				
SOILS					previous						
SOILS Map Unit Name Taxonomy (Sub	group):		-		-	S	eries Drainage Class:			ining M=Matrix)	
SOILS Map Unit Name Taxonomy (Sub Profile Descrip	group): tion (Describe to		cator or confirm the at	bsence of indica	-	S		vered/Coated Sand Grains;		ning, M=Matrix)	Texture
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top	group): tion (Describe to Bottom	the depth needed to document the indic	cator or confirm the at	bsence of indica	tors.) (Type: C=C	S	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov	vered/Coated Sand Grains; Mottles	Location: PL=Pore L		Texture
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth	group): tion (Describe to Bottom Depth	the depth needed to document the indic	cator or confirm the at	bsence of indica Matrix Moist)	tors.) (Type: C=C	Soncentration, D=	eries Drainage Class: Depletion, RM-Reduced Matrix, CS-Cov Color (Moist)	rered/Coated Sand Grains; Mottles %	Location: PL=Pore L	Location	(e.g. clay, sand, loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	group): tion (Describe to Bottom Depth 2	the depth needed to document the indic Horizon	cator or confirm the at	bsence of indica Matrix Moist) 4/2	tors.) (Type: C=C	S	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov	vered/Coated Sand Grains; Mottles	Location: PL=Pore L		-
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth	group): tion (Describe to Bottom Depth	the depth needed to document the indic	cator or confirm the at	bsence of indica Matrix Moist)	tors.) (Type: C=C	Soncentration, D=	eries Drainage Class: Depletion, RM-Reduced Matrix, CS-Cov Color (Moist)	rered/Coated Sand Grains; Mottles %	Location: PL=Pore L	Location	(e.g. clay, sand, loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	group): tion (Describe to Bottom Depth 2	the depth needed to document the indic Horizon	cator or confirm the at Color (N 10YR	bsence of indica Matrix Moist) 4/2	tors.) (Type: C=C % 100	Concentration, D	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist)	Mottles	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5	group): tion (Describe to Bottom Depth 2 5 20	the depth needed to document the indic Horizon 1 2 3	cator or confirm the at Color (N 10YR 2.5Y 2.5Y	bsence of indica Matrix Moist) 4/2 4/3 5/4	tors.) (Type: C=C % 100 100 100	Soncentration, D=	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sandy loam sand sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 	group): tion (Describe to Bottom Depth 2 5 20 	the depth needed to document the indic Horizon 1 2 3 	cator or confirm the at Color (N 10YR 2.5Y 2.5Y 	bsence of indica Matrix Moist) 4/2 4/3 5/4 	tors.) (Type: C=C % 100 100 100 	Soncentration, D=	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sandy loam sand sand
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SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 	group): tion (Describe to Bottom Depth 2 5 20 	the depth needed to document the indic Horizon 1 2 3 	cator or confirm the at Color (N 10YR 2.5Y 2.5Y 	bsence of indica Matrix Moist) 4/2 4/3 5/4 	tors.) (Type: C=C % 100 100 100 	Soncentration, D=	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sandy loam sand sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 	group): tion (Describe to Bottom Depth 2 5 20 	the depth needed to document the indic Horizon 1 2 3 	cator or confirm the at Color (N 10YR 2.5Y 2.5Y 	bsence of indica Matrix Moist) 4/2 4/3 5/4 	tors.) (Type: C=C % 100 100 100 	S ioncentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sandy loam sand sand
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SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 	group): tion (Describe to Depth 2 5 20 	the depth needed to document the india Horizon 1 2 3 	Color (N 10YR 2.5Y 	beence of indica Matrix Moist) 4/2 4/3 5/4 	tors.) (Type: C=C % 100 100 100 	S concentration, D: 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Wottles %	Location: PL=Pore L Type -	Location 	(e.g. clay, sand, loam) sandy loam sand sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field Ir	the depth needed to document the indic Horizon 1 2 3 	Color (N 10YR 2.5Y 	beence of indica Matrix Moist) 4/2 4/3 5/4 pors are n	tors.) (Type: C=C % 100 100 100 <t< td=""><td>S concentration, D: t</td><td>eries Drainage Class: Depleton, RM=Reduced Matrix, CS=Cov Color (Moist) </td><td>Mottles % </td><td>Location: PL=Pore L Type -</td><td>Location matic Soils ¹</td><td>(e.g. clay, sand, loam) sandy loam sand </td></t<>	S concentration, D: t	eries Drainage Class: Depleton, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles % 	Location: PL=Pore L Type -	Location matic Soils ¹	(e.g. clay, sand, loam) sandy loam sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol	the depth needed to document the indic Horizon 1 2 3 ndicators (check her	Color (N 10YR 2.5Y 	beence of indica Matrix 4/2 4/3 5/4 Drs are n	tors.) (Type: C=C % 100 100 100 	S ioncentration, D: -	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles % 	Location: PL=Pore L Type -	Location -	(e.g. clay, sand, loam) sandy loam sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field In A1- Histosol A2 - Histic E	the depth needed to document the indic Horizon 1 2 3 ndicators (check her pipedon	Color (N 10YR 2.5Y 	beence of indica Matrix 4/2 4/3 5/4 ors are n	with the second secon	S concentration, D- t L D- talue Beloo Dark Surfa	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) ICP (LRR R, MLRA 149B)	Mottles Mottles 	Location: PL=Pore L Type -	Location matic Soils ¹ Vluck (LRR K, L, MLRA 14 Prairie Redox (LRR	(e.g. clay, sand, loam) sandy loam sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic E[A3 - Black H	the depth needed to document the india Horizon 1 2 3 ndicators (check her pipedon istic	Color (N 10YR 2.5Y 	beence of indicators Matrix 4/2 4/3 5/4 pors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyv S9 - Thin I F1 - Loam	S concentration, D: t) alue Beloro Dark Surfa y Mucky N	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) ICP (LRR R, MLRA 149B) ICP (LRR R, MLRA 149B)	Mottles %	Location: PL=Pore L Type s for Proble A10 - 2 cm If A16 - Coast S3 - 5cm Mu	Location matic Soils ¹ Muck (LRR K, L, MLRA 14 Prairie Redox (LRR) Loky Peat of Peat (L	(e.g. clay, sand, loam) sandy loam sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic E] A3 - Black H A4 - Hydroge	the depth needed to document the indi Horizon 1 2 3 ndicators (check her pipedon istic en Sulfide	Color (N 10YR 2.5Y 	beence of indica Matrix 4/2 4/3 5/4 pors are n	tors.) (Type: C=C % 100 100	S concentration, Dr t □ -	eries Drainage Class: Depleton, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) ICP (LRR R, MLRA 149B) ICP (LRR R, MLRA 149B) Matrix	Mottles Mottles 	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier	the depth needed to document the indic Horizon 1 2 3 ndicators (check her pipedon istic en Sulfide d Layers	Color (N 10YR 2.5Y 	beence of indica Matrix 4/2 4/3 5/4 Drs are n	tors.) (Type: C=C % 100 100 100 s8 - Polyv S9 - Thin I F1 - Loam F3 - Deple F3 - Deple	S incentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles Mottles Mottles	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A11 - Deplet	the depth needed to document the indic Horizon 1 2 3 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface	Color (N 10YR 2.5Y 	beance of indica Matrix 4/2 4/3 5/4 	tors.) (Type: C=C % 100 100 100 100 100 1100 1100 1100 1100 1100 1100 1100 1100	S incentration, D: t), alue Beloo Dark Surfa y Mucky M y Gleyed I ted Matrix x Dark Su	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) NCC (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix Kr	Mottles Mottles 	Location: PL=Pore L Type -	Location matic Soils 1 Muck (LRR K, L, MLRA 14 Prairie Redox (LRR Inface (LRR K, L, M) Les Below Surface ((LRR K, L)	(e.g. clay, sand, loam) sandy loam sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I	the depth needed to document the india Horizon 1 2 3 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface	Color (N 10YR 2.5Y 	beence of indicat Matrix 4/2 4/3 5/4 ors are n	tors.) (Type: C=C % 100 100 100 s8 - Polyv S9 - Thin I F1 - Loam F3 - Deple F3 - Deple	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	Mottles Mottles 	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic EI A3 - Black H A4 - Hydroge A5 - Stratifier A12 - Thick I S1 - Sandy M	the depth needed to document the indi Horizon 1 2 3 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral	Color (N 10YR 2.5Y 	beence of indicat Matrix 4/2 4/3 5/4 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyv S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Redo	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface		Location: PL=Pore L Type -	Location matic Soils 1 Muck (LRR K, L, MLRA 14 Prairie Redox (LRR Inface (LRR K, L, M) Les Below Surface ((LRR K, L)	(e.g. clay, sand, loam) sandy loam sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy O	the depth needed to document the indic Horizon 1 2 3 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Dark Surface Dark Surface Dark Surface	Color (N 10YR 2.5Y 	beence of indicat Matrix 4/2 4/3 5/4 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyv S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Redo	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	Mottles Mottles Mottles	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A1 - Deplet A1 - Deplet A1 - Sandy N S1 - Sandy N S4 - Sandy C	the depth needed to document the indic Horizon 1 2 3 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox	Color (N 10YR 2.5Y 	beence of indicat Matrix 4/2 4/3 5/4 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyv S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Redo	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	Mottles Mottles Mottles Mottles Mottles	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifiet A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Strippec	the depth needed to document the india Horizon 1 2 3 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox d Matrix	Color (N 10YR 2.5Y 	beence of indicat Matrix 4/2 4/3 5/4 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyv S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Redo	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	Mottles Mottles Mottles N	Location: PL=Pore L Type 	Location	(e.g. clay, sand, loam) sandy loam sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifiet A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Strippec	the depth needed to document the indic Horizon 1 2 3 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox	Color (N 10YR 2.5Y 	beence of indicat Matrix 4/2 4/3 5/4 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyv S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Redo	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	Pered/Coated Sand Grains; Mottles %	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) sandy loam sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifiet A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Strippec	the depth needed to document the india Horizon 1 2 3 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox d Matrix	Color (N 10YR 2.5Y 	beence of indicat Matrix 4/2 4/3 5/4 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyv S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Redo	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	Pered/Coated Sand Grains; Mottles %	Location: PL=Pore L Type <t< td=""><td>Location</td><td>(e.g. clay, sand, loam) sandy loam sand -</td></t<>	Location	(e.g. clay, sand, loam) sandy loam sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifiet A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Strippec	the depth needed to document the indic Horizon 1 2 3 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox J Matrix Irface (LRR R, MLRA 149B)	cator or confirm the at Color (N 10YR 2.5Y 2.5Y re if indicato	beence of indicat Matrix 4/2 4/3 5/4 ors are n	tors.) (Type: C=C % 100 100 ot presen S8 - Polyv S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Redo	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface	Pered/Coated Sand Grains; Mottles %	Location: PL=Pore L Type -	Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Lo	(e.g. clay, sand, loam) sandy loam sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 2 5 NRCS Hydric S	group): tion (Describe to Depth 2 5 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A1 - Hydroge S1 - Sandy M S4 - Sandy G S5 - Sandy F S6 - Strippec S7 - Dark Su	the depth needed to document the indic Horizon 1 2 3 ndicators (check her pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Muck Mineral Sleyed Matrix Redox J Matrix Irface (LRR R, MLRA 149B)	cator or confirm the at Color (N 10YR 2.5Y 2.5Y re if indicato	beence of indica Matrix 4/2 4/3 5/4 -	tors.) (Type: C=C % 100 100 ot presen S8 - Polyv S9 - Thin I F1 - Loam F2 - Loam F3 - Deple F6 - Redo	S concentration, D- 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) v Surface (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ide (LRR R, MLRA 149B) Ideral (LRR K, L) Matrix frace Surface		Location: PL=Pore L Type -	Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Location Loc	(e.g. clay, sand, loam) sandy loam sand -



Northeast and Northcentral Region

Cell FATUN (Species identified in all approaces are non-value species) Test Bitmann (Theta data: 10 main marks and the species is that and OBL_FACW, or FAC:	Project/Site:	Sunrise Wind/ Fire Island,	NY				Wetland ID: W01CFA Sample Point Uplan
Total Cover = 0 Suggetty During (Plat size: 10 meter radius) Deminance Test Worksheet 1.							
Secrets Jume % com Derivation for the section of the sectin of the section of the sectin of the section of the se	VEGETATION		ase are non-native	species.)		
1.	Tree Stratum (P			0/ 0	Deminent	la d Otata	Dominance Test Worksheet
2	1						Dominance rest worksneet
3. -							Number of Deminent Species that are ODL $FACW$ or FAC (A)
4. -							Number of Dominant Species that are OBL, FACW, of FAC(A)
5 - - - - 6. - - - - 7. - - - - 8. - - - - - 10. - - - - - - - 10. -							
6. -							I otal Number of Dominant Species Across All Strata:
7. <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
8. → Prevalence Index Worksheet 9. → OBL spp. 0 x 1 = 0 10. → DBL spp. 0 x 1 = 0 10. → FACW spp. 0 x 2 = 0 1. Morella pensylvarica 75 Y FAC FAC FACW spp. 0 x 2 = 0 2. Toulcodendron radicars 30 Y FAC							Percent of Dominant Species That Are OBL, FACW, or FAC: <u>00.0%</u> (A/B)
9 Multiple br 10. OBI spp. 0 x 1 = 0 saging/Shrub Stratum (Ptot size: 5 meter radius) OBI spp. 0 x 2 = 0 3. Provise matrixma 5 N N N <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Drevelance Index Workshoet</td>							Drevelance Index Workshoet
10							
Total Cover = 0 iapping/Shrub Stratum (Plot size: 5 matter radius) - 1. Morella persylvanica 75 Y FAC 2. 70xicodendrom radicans 30 Y FAC 3. Prunus maritima 5 N NI 4. - - - - 5. - - - - 6. - - - - 7. - - - - 9. - - - - 10. - - - - 11. Avena sativa 25 Y UPL 11. Avena sativa 25 Y UPL 2. Toxicodendrom radicans 15 Y UPL 3. Artemisja vulgaris 15 Y UPL 4. Artemisja vulgaris 15 Y UPL 3. - - - - 7. - - - - 1.							
gaing/Structur (Plot size: 5 metter radius)	10.		T 1 1 0				
signing/Shrub: Stratum (Plot size: 5 meter radius)			Total Cover =	0			
1. Morella pensylvanica 75 Y FAC 2. Toxicocdendron radicans 30 Y FAC 3. Prunus maritima 5 N NI 4. 6. 7. 8. 10. 10. 10. 10. 10. Total Cover = 10 2. Toxicodendron radicans 15 Y UPL 3. Artemisa vulgaris 15 Y UPL 4. Artemisa vulgaris 15 Y UPL 5. 7. 10.							FAC spp. 120 X 3 = 360
2. Toxicodendrion radicans 30 Y FAC 3. Prunues mantima 5 N N 4. - - - 5. - - - 6. - - - 7. - - - 9. - - - 10. - - - 10. - - - 7. Toxicodendron radicans 15 Y UPL 1 Avena sativa 25 Y UPL 2. Toxicodendron radicans 15 Y UPL 4. Artemisia vulgaris 15 Y UPL 5. - - - - 6. - - - - 7. - - - - - 6. - - - - - 7. - - - <							FACU spp X $4 = 0$
3. Prunus mantima 5 N NI 4. 5. 6. 7. 8. 9. 10. 110. 110. 111. Avena sativa 25 Y UPL 2. Toxicodendron radicans 15 Y EVA 3. Artemisia vulgaris 15 Y UPL 4. 7. 10. 11. 12. <							UPL spp52 X 5 =260
4. Prevalence Index = B/A =							
5 Prevalence Index = B/A =							Total <u>172</u> (A) <u>620</u> (B)
6. 7. 8. 9. 10. Total Cover = 110 10. 10. 10. 10. 10. 11. Avena sativa 25 Y UPL 2. Toxicodendron radicans 15 Y VPL 4. Arnensia vuigaris 15 Y VPL 5. 6 7. 9. 10. 12. </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
7. 8. 9. 10. Total Cover = 10 10. Total Cover = 10 10. Total Cover = 10 10. 11. Avena sativa 25 Y UPL 2. Toxicodendron radicans 15 Y EVEN 3. Artemisia vulgaris 15 Y UPL 5. 6 9. 10. 11. 12. 12. <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>Prevalence Index = B/A = <u>3.605</u></td></td<>							Prevalence Index = B/A = <u>3.605</u>
8 9 9 10 Total Cover = 110 Image: statum (Plot size: 2 meter radius) 1. Avera sativa 25 Y UPL 2. Toxicodendorn radicans 15 Y FAC 3. Artemisia vulgaris 15 Y UPL 4. Armophila brevilgulata 7 N UPL 6 7 9 10 11 12 13 14 15							
9 10 Total Cover = 10 Total Cover = 1. Avena sativa 25 Y UPL 2. Toxicodendron radicans 15 Y FAC 3. Artemisia vulgaris 15 Y UPL 4. Ammophila breviligulata 7 N UPL 6 7 8 9 11 8 9 11 12 13 14 15							
10 Total Cover = 110 10. Avera sativa 25 Y UPL 11. Avera sativa 25 Y UPL 2. Toxicodendron radicans 15 Y UPL 4. Artemisia vulgaris 15 Y UPL 5 6 7 8 9 11 12 13 14 15 14 15 14 15 14	8.						Hydrophytic Vegetation Indicators:
Total Cover = 110 Interview Interview Interview Interview 1. Avena sativa 2. Toxicodendron radicans 1. Artemisia vulgaris 1. Artemisia vulgaris 3. Artemisia vulgaris 6. 7. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 10. 11. 12. <td>9.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Yes I No Rapid Test for Hydrophytic Vegetation</td>	9.						Yes I No Rapid Test for Hydrophytic Vegetation
in Avena sativa 25 Y UPL in Avena sativa 15 Y FAC in Aremisia vulgaris 15 Y UPL in Ammophila breviligulata 7 N UPL in Ammophila breviligulata 7 N UPL in	10.						Yes Dominance Test is > 50%
terb Stratum (Plot size: 2 meter radius)			Total Cover =	110			☐ Yes
1. Avena sativa 25 Y UPL 2. Toxicodendron radicans 15 Y FAC 3. Artemisia vulgaris 15 Y UPL 4. Armophila breviligulata 7 N UPL 5. 6 6 7. 8. 9. 10. 11. 12. 13. 15. 15. 14. 15. <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>Yes I No Morphological Adaptations (Explain) *</td></td<>							Yes I No Morphological Adaptations (Explain) *
2. Toxicodendron radicans 15 Y FAC 3. Artemisia vulgaris 15 Y UPL 4. Ammophila breviligulata 7 N UPL 5. 6 7. 8. 10. 11. 12. 13. 15. 14. 15. 16. 15. 16. 17. <	Herb Stratum (Pl	ot size: 2 meter radius)					Yes I No Problem Hydrophytic Vegetation (Explain) *
2. Noteobernion Pacificans 15 Y UPL 3. Artemisia vulgaris 15 Y UPL 4. Ammophila breviligulata 7 N UPL 5. 6 7. 8. 9. 10. 11. 12. 13. 14. 15. 15. 16 15. 16. 16. 17. 18.	1.	Avena sativa		25	Y	UPL	t Indicators of hydric soil and watland hydrology must be
3. Artemisia vulgaris 15 Y UPL 4. Ammophila breviligulata 7 N UPL 5. 6 7. 8. 9. 10. 11. 12. 13. 14. 15. Total Cover = 62 Voody Vine Stratum (Plot size: 10 meter radius) 1. 2. 3. 3.	2.	Toxicodendron radicans		15	Y	FAC	
5. <t< td=""><td>3.</td><td>Artemisia vulgaris</td><td></td><td>15</td><td>Y</td><td>UPL</td><td></td></t<>	3.	Artemisia vulgaris		15	Y	UPL	
6 7. 8. 9. 10. 11. 12. 13. 14. 15. Total Cover = 62 Voody Vines Stratum (Plot size: 10 meter radius) 1. 3. 3. 3. 3. 3. 5. 5. <tr< td=""><td>4.</td><td>Ammophila breviligulata</td><td></td><td>7</td><td>N</td><td>UPL</td><td>Definitions of Vegetation Strata:</td></tr<>	4.	Ammophila breviligulata		7	N	UPL	Definitions of Vegetation Strata:
7. height (DBH), regardless of height. 8. 9. 10. tall. 11. tall. tall. </td <td>5.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	5.						
7. height (DBH), regardless of height. 8. 9. 10. tall. 11. tall. tall. </td <td>6</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast</td>	6						Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
9. 10. 11. 11. 11. 11. 11.	7.						height (DBH), regardless of height.
10. 11. 12. 12. 13. 13. 14. 14. 15.	8.						
10. 11. 12. 13. 14. 15. 15. 15. 16. 17. 10. 10. 10. 1. 2. 3. 4. 5. 5. <	9.						Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
12. 13. 14. 14. 15.	10.						i tali.
13. <	11.						
13131415Total Cover =62Woody Vines Stratum (Plot size: 10 meter radius)12345Total Cover =0	12.						Herb - All herbaceous (non-woody) plants, regardless of size, and
14. Woody Vines - All woody vines greater than 3.28 ft. in height. 15.	13.						woody plants less than 3.28 ft. tall.
15. Woody Vines - All woody vines greater than 3.28 ft. in height. Woody Vines Stratum (Plot size: 10 meter radius) 1. 2. 3. 4. 5. Total Cover = 0							
Total Cover = 62 Voody Vine Stratum (Plot size: 10 meter radius) 1. 2. 3. 4. 5. Total Cover = 0							Woody Vines - All woody vines greater than 3.28 ft. in height.
Woody Vine Stratum (Plot size: 10 meter radius) 1. 2. 3. 4. 5. Total Cover = 0			Total Cover =	62			
1. 2. 3. 4. 5. Total Cover =				<u> </u>			
1. 2. 3. 4. 5. Total Cover =	Woody Vine Stra	tum (Plot size: 10 meter radius)					
2. 3. 4. 5. Total Cover = 0							
3. 4. 5. Total Cover = 0							
4 5 Total Cover = 0							Hydrophytic Vegetation Present Ves No
5 Total Cover = 0							
Total Cover = 0							
	5.		Total Cover -				
	Remarks:	Prevelance index is > than			f hydric e	soil or wet	tland hydrology present
	Komarka.		5.0, and no mu	1001013	a riyuno s		aana nyarology prosent.



Project/Site: Sunrise Wind/ Fire Island, NY Stantec Project #: 2028113199 Date: 06/09/20 Applicant: County: Sunrise Wind LLC Suffolk Investigator #1: Charles Ferris Investigator #2: State: New York NWI/WWI Classification: Soil Unit: Wetland ID: W01CFA Landform: Floodplain Local Relief: Concave Sample Point: Wetland 0-1% Latitude: Datum: Slope (%): Longitude: Community ID: E2SS/EM 🗹 Yes 🗌 No Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) Are Vegetation \Box , Soil \Box , or Hydrology \Box significantly disturbed? Are normal circumstances present? Are Vegetation \Box , Soil \Box , or Hydrology \Box naturally problematic? Yes □ No SUMMARY OF FINDINGS ✓ Yes✓ Yes Hydric Soils Present? Hydrophytic Vegetation Present? Yes □ No □ No No 🗹 Yes 🗌 No 🗹 Yes 🗏 No Is This Sampling Point Within A Wetland? Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators (Check here if indicators are not present) Secondary: Primary: A1 - Surface Water B9 - Water-Stained Leaves B6 - Surface Soil Cracks 1 A2 - High Water Table B10 - Drainage Patterns B13 - Aquatic Fauna B15 - Marl Deposits B16 - Moss Trim Lines \checkmark A3 - Saturation B1 - Water Marks C1 - Hydrogen Sulfide Odor C2 - Dry-Season Water Table B2 - Sediment Deposits C3 - Oxidized Rhizospheres on Living Roots C8 - Crayfish Burrows 1 B3 - Drift Deposits C4 - Presence of Reduced Iron C9 - Saturation Visible on Aerial Imagery B4 - Algal Mat or Crust C6 - Recent Iron Reduction in Tilled Soils D1 - Stunted or Stressed Plants B5 - Iron Deposits C7 - Thin Muck Surface D2 - Geomorphic Position B7 - Inundation Visible on Aerial Imagery Other (Explain in Remarks) D3 - Shallow Aquitard B8 - Sparsely Vegetated Concave Surface D4 - Microtopographic Relief D5 - FAC-Neutral Test Field Observations: Surface Water Present? 🗆 Yes 🗵 No Depth: (in.) Wetland Hydrology Present? 🗹 Yes 🗌 No Water Table Present? ✓ Yes □ No 8 Depth: (in.) Saturation Present? ☑ Yes □ No 0 Depth: (in.) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A A wrack line was observed within the wetland Remarks: SOILS Map Unit Name: Series Drainage Class: Taxonomy (Subgroup): Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix) Bottom Mottles Texture Top Matrix (e.g. clay, sand, loam) Depth Depth Horizon Color (Moist) % Color (Moist) % Туре Location 10YR 2/2 100 sandy loam 0 2 2 9 2 2.5Y 5/2 85 7.5YR 5/6 3 С Μ sandy loam 9 20 3 2.5Y 5/1 85 7.5YR 5/6 5 Μ С sandy loam --___ ------------___ ___ ------------NRCS Hydric Soil Field Indicators (check here if indicators are not present \square Indicators for Problematic Soils ¹ S8 - Polyvalue Below Surface (LRR R, MLRA 149B) A1- Histosol A10 - 2 cm Muck (LRR K, L, MLRA 149B) S9 - Thin Dark Surface (LRR R, MLRA 149B) A16 - Coast Prairie Redox (LRR K, L, R) A2 - Histic Epipedon F1 - Loamy Mucky Mineral (LRR K. L) S3 - 5cm Mucky Peat of Peat (LRR K. L. R) A3 - Black Histic A4 - Hydrogen Sulfide F2 - Loamy Gleyed Matrix S7 - Dark Surface (LRR K, L, M) A5 - Stratified Layers F3 - Depleted Matrix S8 - Polyvalue Below Surface (LRR к, L) A11 - Depleted Below Dark Surface F6 - Redox Dark Surface S9 - Thin Dark Surface (LRR к, L) A12 - Thick Dark Surface F7 - Depleted Dark Surface F12 - Iron-Manganese Masses (LRR к, L, R) F8 - Redox Depressions F19 - Piedmont Floodplain Soils (MLRA 149B) S1 - Sandy Muck Mineral S4 - Sandy Gleyed Matrix TA6 - Mesic Spodic (MLRA 144A, 145, 149B) S5 - Sandy Redox TF2 - Red Parent Material S6 - Stripped Matrix TF12 - Very Shallow Dark Surface S7 - Dark Surface (LRR R, MLRA 149B) Other (Explain in Remarks) ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problemation Restrictive Layer Depth: Hydric Soil Present? 🗹 Yes 🗌 No Type: (If Observed) Remarks:

Page 1 of 2



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Fire Island, NY				Wetland ID: W01CFA Sample Point Wetland
VEOETATION					
VEGETATION	(Species identified in all uppercase are nor ot size: 10 meter radius)	n-native species.)			
	<u>Species Name</u>	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)
3.					
4.					Total Number of Dominant Species Across All Strata:3(B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
7.					
8.					Prevalence Index Worksheet
9. 10.					$\frac{\text{Total \% Cover of:}}{\text{OBL spp.}} 0 \text{x 1} = 0$
10.	 Total Co				
	Total CC				FACW spp. 115 x $2 =$ 230 FAC spp. 15 x $3 =$ 45
Sanling/Shrub Str	atum (Plot size: 5 meter radius)				FACU spp X $d = A d =A d $
1.	Iva frutescens	40	Y	FACW	$\begin{array}{c c} \hline & & & \\ \hline & & & \\ \hline \\ \hline$
2.	Morella pensylvanica	15	Ý	FAC	
3.					Total 130 (A) 275 (B)
4.					
5.					Prevalence Index = B/A = 2.115
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes I No Rapid Test for Hydrophytic Vegetation
10.					✓ Yes □ No Dominance Test is > 50%
	Total Co	over = 55			$rightarrow$ Yes \Box No Prevalence Index is ≤ 3.0 *
					□ Yes □ No Morphological Adaptations (Explain) *
Herb Stratum (Plo 1.	ot size: 2 meter radius) Phragmites australis	75	Y	FACW	Yes I No Problem Hydrophytic Vegetation (Explain) *
2.					* Indicators of hydric soil and wetland hydrology must be
3.					present, unless disturbed or problematic.
4.					Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.
10.					uan.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.
13.					
14.					Woody Vines - All woody vines greater than 3.28 ft. in height.
15.	 Total Ca	75			WOOUS VILLES - / W WOOUS VILLES GREATER WAT 5.20 FL IT HEIGHT.
	Total Co	over = 75			
Woody Vine Strat	um (Plot size: 10 meter radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present 🛛 Yes 🗌 No
4.					
5.					
	Total Co	over = 0			
Remarks:					



Northeast and Northcentral Region

Project/Site:		I/ Long Island, NY					Stantec Project #:	2028113199		Date:	06/09/20
Applicant: Investigator #1:	Sunrise Wind			Invecti	gator #2:					County: State:	Suffolk New York
Soil Unit:	Charles Ferri	5		IIIVESU	yator #2.		/I/WWI Classification:			Wetland ID:	W01CFB
Landform:	Side slope			Loc	al Relief:					Sample Point:	Upland
Slope (%):	3-5%	Latitude:			ongitude:			Datum:		Community ID:	Upland
		litions on the site typ	vical for this				romorka)	⊻ Yes	No	Community ID.	Opialiu
		or Hydrology 🖾 sign				o, explain in	Are normal circumst				
Are Vegetation	\Box , Soil \Box , \bullet	or Hydrology 🗆 sign	urally proble	ematic?				⊠ No	.:		
SUMMARY OF	FINDINGS										
Hydrophytic Ve	getation Pres	sent?		Yes	🗌 No			Hydric Soils	Present?		🗌 Yes 🗹 No
Wetland Hydrol	ogy Present	?		Yes	🗹 No			Is This Samp	ling Point V	Vithin A Wetland	d? 📃 Yes 🗹 No
Remarks:	Upland plot	t located on the slop	e of a man	-made ea	arthen be	rm conta	ining W01CFB.				
HYDROLOGY											
		ators (Check here if	indicators	are not p	oresent)□			Q		
Primary	A1 - Surface	Water			B9 - Wate	ar-Stained			Secondary:	B6 - Surface Soil (Cracks
	A2 - High Wa			H	B13 - Aqu					B10 - Drainage Pa	
	A3 - Saturatio	on			B15 - Mar	I Deposits				B16 - Moss Trim L	lines
	B1 - Water N				C1 - Hydr					C2 - Dry-Season \	
	B2 - Sedimer						spheres on Living Roots			C8 - Crayfish Burr	
	B3 - Drift Dep B4 - Algal Ma						educed Iron eduction in Tilled Soils			C9 - Saturation Vi D1 - Stunted or St	sible on Aerial Imagery
	B5 - Iron Dec			H	C0 - Rece C7 - Thin					D2 - Geomorphic	
		on Visible on Aerial Ima	gery	ū	Other (Ex					D3 - Shallow Aquit	
	B8 - Sparsely	Vegetated Concave S	urface				,			D4 - Microtopogra	
										D5 - FAC-Neutral	Test
Field Observat	ions:										
Surface Water	Present?	🗆 Yes 🗹 No	Depth:		(in.)			Watland Uv			Yes 🗹 No
Water Table Pr	esent?	🗆 Yes 🗹 No	Depth:		(in.)			Wetland Hyd	arology Pr	esent?	res 🗹 No
Saturation Pres	ent?	🗌 Yes 🗹 No	Depth:		(in.)						
Describe Record	od Data (atr	eam gauge, monitorin		al photos	proviouo	inonoctio	na) if available:		N/A		
Describe Record	eu Dala (Sir	zani yauye, monitorin	וע שכוו, מכוומ								
Demendent		8 8 9	0 ,		protiouo	пэресио	ns), il avaliable.				
Remarks:			<u> </u>	<u> </u>	protiouo	inspectio	ns), il avaliable.				
				<u> </u>	promouo	паресно	115), il avaliadie.		107		
SOILS					protiouo	•	,				
SOILS Map Unit Name				<u> </u>	providue	•	eries Drainage Class:				
SOILS Map Unit Name Taxonomy (Sub	group):					S	eries Drainage Class:				
SOILS Map Unit Name Taxonomy (Sub Profile Descrip	group): tion (Describe to			bsence of indica		S	,	vered/Coated Sand Grains;		ining, M=Matrix)	Tautura
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top	ogroup): otion (Describe to Bottom	the depth needed to document the indi	cator or confirm the a	ubsence of indica Matrix	itors.) (Type: C=C	S	Series Drainage Class:	ered/Coated Sand Grains; Mottles	Location: PL=Pore L	I	Texture
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth	pgroup): tion (Describe to Bottom Depth	the depth needed to document the india Horizon	cator or confirm the a	bsence of indica Matrix Vioist)	itors.) (Type: C=C	Concentration, D	Series Drainage Class: -Depletion, RM=Reduced Matrix, CS=Cov Color (Moist)	rered/Coated Sand Grains; Mottles %	Location: PL=Pore L	Location	(e.g. clay, sand, loam)
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0	bgroup): tion (Describe to Bottom Depth 20	the depth needed to document the india Horizon 1	cator or confirm the a Color (I 2.5Y	bsence of indica Matrix Moist) 4/3	itors.) (Type: C=C % 100	Concentration, D	Series Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles %	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) loamy sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 	pgroup): tion (Describe to Bottom Depth 20 	the depth needed to document the india Horizon 1 	cator or confirm the a Color (I 2.5Y 	bsence of indica Matrix Moist) 4/3 	tors.) (Type: C=C % 100 	Concentration, D	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) loamy sand
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 	pgroup): tion (Describe to Bottom Depth 20 	the depth needed to document the india Horizon 1 	cator or confirm the a Color (I 2.5Y 	bsence of indica Matrix Voist) 4/3 	ttors.) (Type: C=C % 100 	Concentration, D	Eeries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	rered/Coated Sand Grains; Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) loamy sand
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 	group): tion (Describe to 1) Bottom Depth 20 	the depth needed to document the india Horizon 1 	cator or confirm the a Color (I 2.5Y 	bisence of indica Matrix Moist) 4/3 	.tors.) (Type: C=C % 100 	Concentration, D	Eeries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) loamy sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 	group): tion (Describe to Bottom Depth 20 	the depth needed to document the india Horizon 1 	cator or confirm the a Color (I 2.5Y 	bsence of indications indications in the second sec	tors.) (Type: C=C % 100 	Concentration, D	Everies Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) loamy sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 	proup): tion (Describe to: Bottom Depth 20 	the depth needed to document the india Horizon 1 	cator or confirm the a Color (I 2.5Y 	bsence of indica Matrix Moist) 4/3 	.tors.) (Type: C=C % 100 	Concentration, D	Everies Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) -	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) loamy sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 	group): tion (Describe to Bottom Depth 20 	the depth needed to document the india Horizon 1 	cator or confirm the a Color (I 2.5Y 	bsence of indications indications in the second sec	tors.) (Type: C=C % 100 	Concentration, D	Everies Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) loamy sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 	proup): tion (Describe to: Bottom Depth 20 	the depth needed to document the india Horizon 1 	cator or confirm the a Color (I 2.5Y 	bsence of indica Matrix Moist) 4/3 	tors.) (Type: C=C % 100 	Concentration, D	Everies Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) -	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) loamy sand
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric	group): tion (Describe to: Depth 20 Soil Field In	the depth needed to document the india Horizon 1 	cator or confirm the a Color (I 2.5Y	bsence of indica Matrix Moist) 4/3 ors are n	- ttors.) (Type: C=C % 100 	Soncentration, D	Eeries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) -	Mottles % 	Location: PL=Pore L Type -	Location matic Soils ¹	(e.g. clay, sand, loam) loamy sand
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 NRCS Hydric	group): btion (Describe to: Depth 20 Soil Field In A1- Histosol	the depth needed to document the india Horizon 1 dicators (check her	cator or confirm the a Color (I 2.5Y	beence of indica Matrix Moist) 4/3 ors are n		Soncentration, D	Series Drainage Class: Depletion, RM-Reduced Matrix, CS-Cov Color (Moist) -	Mottles Mottles 	Location: PL=Pore L Type s for Proble A10 - 2 cm l	Location	(e.g. clay, sand, loam) loamy sand -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 NRCS Hydric	group): tion (Describe to Depth 20 Soil Field In A1- Histosol A2 - Histic Ep	the depth needed to document the india Horizon 1 idicators (check here bipedon	cator or confirm the a Color (I 2.5Y	bisence of Indica Matrix Moist) 4/3 ors are n	- tors.) (Type: C=C % 100 	S Concentration, D tt Dark Surf:	Series Drainage Class: =Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B)	Mottles Mottles 	Location: PL=Pore L Type s for Proble A10 - 2 cm A16 - Coast	Location matic Soils ¹ Vluck (LRR K, L, MLRA 14 Prairie Redox (LRR	(e.g. clay, sand, loam) loamy sand -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 NRCS Hydric	group): tion (Describe to Depth 20 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi	the depth needed to document the india Horizon 1 dicators (check her bipedon stic	cator or confirm the a Color (I 2.5Y	bisence of indica Matrix Moist) 4/3 ors are n		Concentration, D	Series Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) W Surface (LRR R, MLRA 149B) ACE (LRR R, MLRA 149B) Mineral (LRR K, L)	Mottles %	Location: PL=Pore L Type s for Proble A10 - 2 cm Mi A16 - Coast S3 - 5cm Mi	Location Muck (LRR K, L, MLRA 14 Prairie Redox (LRR , Loky Peat of Peat (L	(e.g. clay, sand, loam) loamy sand -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 NRCS Hydric	group): btion (Describe to Depth 20 Soil Field In A1- Histosol A2 - Histic Ef A3 - Black Hi	the depth needed to document the india Horizon 1 	cator or confirm the a Color (I 2.5Y	beence of Indica Matrix Moist) 4/3 ors are n		Concentration, D	Color (Moist) Co	Mottles Mottles 	Location: PL=Pore L Type s for Proble A10 - 2 cm I A16 - Coast S3 - 5 cm Mt S3 - 5 cm Mt	Location Muck (LRR K, L, MLRA 1/2 Prairie Redox (LRR Prairie Redox (LRR L) (Juck (LRR K, L, MLRA 1/2	(e.g. clay, sand, loam) loamy sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric	group): btion (Describe to: Depth 20 Soil Field In A1- Histosol A2 - Histic Ej A3 - Black HI	the depth needed to document the india Horizon 1 	cator or confirm the a Color (I 2.5Y	beence of Indica Matrix Moist) 4/3 ors are n		Concentration, D	Enciperation RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 1496) AGE (LRR R, MLRA 1496) Mineral (LRR K, L) Matrix (Mottles %	Location: PL=Pore L Type s for Proble A10 - 2 cm I A16 - Coast S3 - 5cm Mi S3 - Polyval	Location Muck (LRR K, L, MLRA 14 Prairie Redox (LRR , Loky Peat of Peat (L	(e.g. clay, sand, loam) loamy sand -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 NRCS Hydric	group): tion (Describe to: Depth 20 Soil Field In A1- Histosol A2 - Histic Ef A3 - Black Hi A4 - Hydroge A5 - Stratifice A12 - Thick IC	the depth needed to document the india Horizon 1 dicators (check her bipedon stic en Sulfide 1 Layers ed Below Dark Surface Dark Surface	cator or confirm the a Color (I 2.5Y	beence of Indica Matrix Moist) 4/3 ors are n	tors.) (Type: C=C % 100 S8 - Polyv S9 - Thin F1 - Loarr F3 - Deple F2 - Loarr	Concentration, D -	Series Drainage Class: =Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) ACE (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix C rface	Mottles Mottles 	Location: PL=Pore L Type -	Location matic Soils ¹ Vluck (LRR K, L, MLRA 1/ Prairie Redox (LRR Jcky Peat of Peat (II Tface (LRR K, L, M) ue Below Surface (I	(e.g. clay, sand, loam) loamy sand 498) K, L, R) LRR K, L, R)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric	group): btion (Describe to: Depth 20 Soil Field In A1- Histosol A2 - Histic Ef A3 - Black Hi A4 - Hydroge A5 - Stratified A11 - Deplete A12 - Thick E S1 - Sandy M	the depth needed to document the india Horizon 1 	cator or confirm the a Color (I 2.5Y	beence of Indica Matrix Moist) 4/3 ors are n		Concentration, D -	Color (Moist) C	Mottles %	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) loamy sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric	group): tion (Describe to: Depth 20 Soil Field In A1- Histosol A2 - Histic Ef A3 - Black HI A4 - Hydroge A5 - Stratifier A1 - Deplett A1 - Deplett A1 - Deplett A1 - Sandy M S4 - Sandy G	the depth needed to document the india Horizon 1 	cator or confirm the a	bisence of indications in the second		Concentration, D -	Color (Moist) C	Mottles %	Location: PL=Pore L Type s for Proble A10 - 2 cm I A10 - 2 cm I A10 - 2 cm I A10 - 2 cm I A10 - 2 cm I S3 - 5cm M S3 - 5cm M S7 - Dark S S8 - Polyval S9 - Thin Da F12 - Iron-M T46 - Mesic	Location	(e.g. clay, sand, loam) loamy sand -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 NRCS Hydric	group): tion (Describe to Depth 20 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A11 - Deplett A12 - Thick D S1 - Sandy M S4 - Sandy G S5 - Sandy R	the depth needed to document the india Horizon 1 	cator or confirm the a	bisence of indications in the second		Concentration, D -	Color (Moist) C		Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) loamy sand -
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric	group): tion (Describe to Depth 20 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifice A11 - Deplet A12 - Thick ID S1 - Sandy M S4 - Sandy R S5 - Sandy R S6 - Stripped	the depth needed to document the india Horizon 1	cator or confirm the a	bisence of indications in the second		Concentration, D -	Color (Moist) C	Mottles Mottles Mottles Note: State Sta	Location: PL=Pore L Type s for Proble A10 - 2 cm 1 A16 - Coast S3 - 5cm Mi S7 - Dark Si S8 - Polyval S9 - Thin Da S9	Location	(e.g. clay, sand, loam) loamy sand -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 NRCS Hydric	group): tion (Describe to Depth 20 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifice A11 - Deplet A12 - Thick ID S1 - Sandy M S4 - Sandy R S5 - Sandy R S6 - Stripped	the depth needed to document the india Horizon 1 	cator or confirm the a	bisence of indications in the second		Concentration, D -	Color (Moist) C	Pered/Coated Sand Grains; Mottles %	Location: PL=Pore L Type s for Proble A10 - 2 cm I A16 - Coast S3 - Scm Mu S7 - Dark Si S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm F19 - Piedm F19 - Piedm F12 - Very Other (Expla	Location	(e.g. clay, sand, loam) loamy sand 49B) K, L, R) LRR K, L, R) LRR K, L, R) (LRR K, L, R) S (MLRA 149B) 45, 149B) ace
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 NRCS Hydric	group): tion (Describe to: Depth 20 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifier A11 - Deplett A12 - Thick ID S1 - Sandy M S4 - Sandy G S5 - Sandy R S6 - Stripped S7 - Dark Su	the depth needed to document the india Horizon 1	cator or confirm the a	beence of Indica Matrix Moist) 4/3		Concentration, D -	Color (Moist) C		Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) loamy sand 498) K, L, R) LRR K, L, R) LRR K, L, R) (LRR K, L, R) S (MLRA 149B) 45, 149B) acce
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 NRCS Hydric	group): tion (Describe to Depth 20 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifice A11 - Deplet A12 - Thick ID S1 - Sandy M S4 - Sandy R S5 - Sandy R S6 - Stripped	the depth needed to document the india Horizon 1	cator or confirm the a	bisence of indications in the second		Concentration, D -	Color (Moist) C	Pered/Coated Sand Grains; Mottles %	Location: PL=Pore L Type -	Location	(e.g. clay, sand, loam) loamy sand 49B) K, L, R) LRR K, L, R) LRR K, L, R) (LRR K, L, R) S (MLRA 149B) 45, 149B) ace



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Long Island, NY				Wetland ID: W01CFB Sample Point Upland
VEGETATION	(Provide identified in all unperseed are non rati				
	(Species identified in all uppercase are non-nati ot size: 10 meter radius)	ve species.)		
	<u>Species Name</u>	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC:(A)
3.					
4.					Total Number of Dominant Species Across All Strata:1 (B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp. 0 $x 1 = 0$
	Total Cover	= 0			FACW spp. 90 x $2 = 180$
					FAC spp. 5 x 3 = 15
	atum (Plot size: 5 meter radius)				FACU spp $x = 0$
1.					UPL spp. <u>3</u> X 5 = <u>15</u>
2.					T () 00 (A) 010 (C)
3.					Total <u>98</u> (A) <u>210</u> (B)
4. 5.					
-					Prevalence Index = B/A = 2.143
6. 7.					
8.					Hudronbutic Vagatation Indicators
<u> </u>					Hydrophytic Vegetation Indicators:
<u> </u>					Yes
10.	 Total Cover				yes □ No Dominance Test is > 50% vec □ No □ Drevelance Index is < 2.0.*
	Total Cover	- 0			\bigcirc Yes \square No Prevalence Index is ≤ 3.0 *
Harb Stratum (Dia	t aiza. 2 mater radiua)				 ☐ Yes ☑ No ☑ Morphological Adaptations (Explain) * ☑ Yes ☑ No ☑ Problem Hydrophytic Vegetation (Explain) *
	t size: 2 meter radius) Phragmites australis	90	Y	FACW	☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *
2.	Solidago rugosa	5	N	FAC	* Indicators of hydric soil and wetland hydrology must be
3.	Artemisia vulgaris	3	N	UPL	present, unless disturbed or problematic.
4.					Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
10.					tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and
13.					woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover	= 98			
	um (Plot size: 10 meter radius)				
1.	-				
2.					
3.					Hydrophytic Vegetation Present Ves No
4.					
5.	 Total Cover				
Remarks:	Total Cover	= 0			
ixemarks.	Located on slope of earthern berni				



Project/Site: Sunrise Wind/ Long Island, NY Stantec Project #: 2028113199 Date: 06/09/20 Applicant: County: Sunrise Wind LLC Suffolk Investigator #1: Charles Ferris Investigator #2: State: New York NWI/WWI Classification: Soil Unit: Wetland ID: W01CFB Landform: Depression Local Relief: Concave Sample Point: Wetland 0-1% Latitude: Datum: Slope (%): Longitude: Community ID: PEM 🗹 Yes 🗌 No Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) Are Vegetation , Soil , or Hydrology significantly disturbed? Are normal circumstances present? Are Vegetation \Box , Soil \Box , or Hydrology \Box naturally problematic? Yes ⊡ No SUMMARY OF FINDINGS Hydrophytic Vegetation Present? Yes □ No □ No No Hydric Soils Present? 🗹 Yes 🗌 No ✓ Yes 🗹 Yes 🗏 No Is This Sampling Point Within A Wetland? Wetland Hydrology Present? Remarks: Wetland is contained in a man-made basin HYDROLOGY Wetland Hydrology Indicators (Check here if indicators are not present) <u>...</u> B6 - Surface Soil Cracks B10 - Draines - □ Secondary: Primary: A1 - Surface Water B9 - Water-Stained Leaves A2 - High Water Table B13 - Aquatic Fauna B15 - Marl Deposits B16 - Moss Trim Lines \checkmark A3 - Saturation B1 - Water Marks C1 - Hydrogen Sulfide Odor C2 - Dry-Season Water Table B2 - Sediment Deposits C3 - Oxidized Rhizospheres on Living Roots C8 - Crayfish Burrows B3 - Drift Deposits C4 - Presence of Reduced Iron C9 - Saturation Visible on Aerial Imagery B4 - Algal Mat or Crust C6 - Recent Iron Reduction in Tilled Soils D1 - Stunted or Stressed Plants B5 - Iron Deposits C7 - Thin Muck Surface D2 - Geomorphic Position B7 - Inundation Visible on Aerial Imagery Other (Explain in Remarks) D3 - Shallow Aquitard B8 - Sparsely Vegetated Concave Surface D4 - Microtopographic Relief D5 - FAC-Neutral Test Field Observations: Surface Water Present? 🗆 Yes 🗵 No Depth: (in.) Wetland Hydrology Present? 🗹 Yes 🗌 No Water Table Present? □ Yes ☑ No Depth: (in.) Saturation Present? 🗹 Yes 🗌 No 8 Depth: (in.) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A Remarks: SOILS Map Unit Name: 0 Series Drainage Class: Taxonomy (Subgroup): Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix) Bottom Matrix Mottles Texture Top (e.g. clay, sand, loam) Depth Depth Horizon Color (Moist) % Color (Moist) % Туре Location 1 2.5Y 4/2 90 7.5YR 5/6 10 Μ fine sandy loam 0 20 С ---___ ---------------------------------------___ ------------------___ ------------NRCS Hydric Soil Field Indicators (check here if indicators are not present \square Indicators for Problematic Soils ¹ S8 - Polyvalue Below Surface (LRR R, MLRA 149B) A1- Histosol A10 - 2 cm Muck (LRR K, L, MLRA 149B) S9 - Thin Dark Surface (LRR R, MLRA 149B) A16 - Coast Prairie Redox (LRR K, L, R) A2 - Histic Epipedon F1 - Loamy Mucky Mineral (LRR K. L) S3 - 5cm Mucky Peat of Peat (LRR K. L. R) A3 - Black Histic A4 - Hydrogen Sulfide F2 - Loamy Gleyed Matrix S7 - Dark Surface (LRR K, L, M) A5 - Stratified Layers F3 - Depleted Matrix S8 - Polyvalue Below Surface (LRR к, L) A11 - Depleted Below Dark Surface F6 - Redox Dark Surface S9 - Thin Dark Surface (LRR к, L) A12 - Thick Dark Surface F7 - Depleted Dark Surface F12 - Iron-Manganese Masses (LRR к, L, R) F8 - Redox Depressions F19 - Piedmont Floodplain Soils (MLRA 149B) S1 - Sandy Muck Mineral S4 - Sandy Gleyed Matrix TA6 - Mesic Spodic (MLRA 144A, 145, 149B) S5 - Sandy Redox TF2 - Red Parent Material S6 - Stripped Matrix TF12 - Very Shallow Dark Surface S7 - Dark Surface (LRR R, MLRA 149B) Other (Explain in Remarks) ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problemation Restrictive Layer Depth: Hydric Soil Present? 🗹 Yes 🗌 No Type: (If Observed) Remarks:

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Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Long Island, NY				Wetland ID: W01CFB Sample Point Wetland
VEGETATION	(Species identified in all uppercase are non-nat ot size: 10 meter radius)	tive species.)			
	<u>Species Name</u>	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)
3.					
4.					Total Number of Dominant Species Across All Strata:1(B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
7.	-				Dravalance Index Markeheet
8. 9.					Prevalence Index Worksheet
<u> </u>					Total % Cover of: Multiply by: OBL spp. 0 x 1 = 0
10.	Total Cover				FACW spp. 100 x 2 = 200
		Ŭ			FAC spp. 0 $x 3 = 0$
Sapling/Shrub Str	atum (Plot size: 5 meter radius)				FACU spp x 4 =
1.					UPL spp. 0 x 5 = 0
2.	-				
3.					Total <u>100</u> (A) <u>200</u> (B)
4.					
5.					Prevalence Index = B/A =
6. 7.					
7. 8.					Hydrophytic Vegetation Indicators:
9.					Yes No Rapid Test for Hydrophytic Vegetation
10.					\checkmark Yes \square No Dominance Test is > 50%
10.	Total Cover				✓ Yes \Box No Prevalence Index is ≤ 3.0 *
		Č.			☐ Yes ☑ No Morphological Adaptations (Explain) *
Herb Stratum (Plo	t size: 2 meter radius)				☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *
1.	Phragmites australis	100	Y	FACW	
2.					 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3.					
4.					Definitions of Vegetation Strata:
5. 6					Tree
7.					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
10.					tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and
13.					woody plants less than 3.28 ft. tall.
14.					
15.	-				Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover	= 100			
	um (Plot size: 10 meter radius)				
1. 2.					
3.					Hydrophytic Vegetation Present 🧧 Yes 🗌 No
4.					
5.					
	Total Cover	-= 0			
Remarks:					



Project/Site: Sunrise Wind/ Long Island, NY Stantec Project #: 2028113199 Date: 06/11/20 Applicant: County: Sunrise Wind LLC Suffolk Investigator #1: Charles Ferris Investigator #2: State: New York NWI/WWI Classification: Soil Unit: Wetland ID: W01CFC Landform: Side slope Local Relief: Convex Sample Point: Upland 0-1% Latitude: Datum: Slope (%): Longitude: Community ID: Upland 🗹 Yes 🗌 No Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) Are Vegetation \Box , Soil \Box , or Hydrology \Box significantly disturbed? Are normal circumstances present? Are Vegetation \Box , Soil \Box , or Hydrology \Box naturally problematic? Yes □ No SUMMARY OF FINDINGS ☑ No☑ No Hydrophytic Vegetation Present? Yes Hydric Soils Present? 🗌 Yes 🗹 No □ Yes Is This Sampling Point Within A Wetland? 🗏 Yes 🗹 No Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators (Check here if indicators are not present) Secondary: Primary: A1 - Surface Water B9 - Water-Stained Leaves B6 - Surface Soil Cracks A2 - High Water Table B10 - Drainage Patterns B13 - Aquatic Fauna B15 - Marl Deposits B16 - Moss Trim Lines A3 - Saturation B1 - Water Marks C1 - Hydrogen Sulfide Odor C2 - Dry-Season Water Table B2 - Sediment Deposits C3 - Oxidized Rhizospheres on Living Roots C8 - Crayfish Burrows B3 - Drift Deposits C4 - Presence of Reduced Iron C9 - Saturation Visible on Aerial Imagery B4 - Algal Mat or Crust C6 - Recent Iron Reduction in Tilled Soils D1 - Stunted or Stressed Plants B5 - Iron Deposits C7 - Thin Muck Surface D2 - Geomorphic Position B7 - Inundation Visible on Aerial Imagery Other (Explain in Remarks) D3 - Shallow Aquitard B8 - Sparsely Vegetated Concave Surface D4 - Microtopographic Relief D5 - FAC-Neutral Test Field Observations: Surface Water Present? 🗆 Yes 🗵 No Depth: (in.) Wetland Hydrology Present? 🗌 Yes 🗹 No Water Table Present? □ Yes ☑ No (in.) Depth: Saturation Present? 🗆 Yes 🗹 No Depth: (in.) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A Remarks: SOILS Map Unit Name: Series Drainage Class: Taxonomy (Subgroup): Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix) Bottom Mottles Texture Top Matrix (e.g. clay, sand, loam) Depth Depth Horizon Color (Moist) % Color (Moist) % Туре Location 10YR 3/1 100 sandy loam 0 2 ---2 10 2 10YR 4/3 80 -----sand 10 20 3 10YR 5/3 85 sand ---___ ___ ------------___ ___ ------------NRCS Hydric Soil Field Indicators (check here if indicators are not present \square Indicators for Problematic Soils ¹ S8 - Polyvalue Below Surface (LRR R, MLRA 149B) A1- Histosol A10 - 2 cm Muck (LRR K, L, MLRA 149B) S9 - Thin Dark Surface (LRR R, MLRA 149B) A16 - Coast Prairie Redox (LRR K, L, R) A2 - Histic Epipedon F1 - Loamy Mucky Mineral (LRR K. L) S3 - 5cm Mucky Peat of Peat (LRR K. L. R) A3 - Black Histic A4 - Hydrogen Sulfide F2 - Loamy Gleyed Matrix S7 - Dark Surface (LRR K, L, M) A5 - Stratified Layers F3 - Depleted Matrix S8 - Polyvalue Below Surface (LRR к, L) A11 - Depleted Below Dark Surface F6 - Redox Dark Surface S9 - Thin Dark Surface (LRR к, L) A12 - Thick Dark Surface F7 - Depleted Dark Surface F12 - Iron-Manganese Masses (LRR к, L, R) F8 - Redox Depressions F19 - Piedmont Floodplain Soils (MLRA 149B) S1 - Sandy Muck Mineral S4 - Sandy Gleyed Matrix TA6 - Mesic Spodic (MLRA 144A, 145, 149B) S5 - Sandy Redox TF2 - Red Parent Material S6 - Stripped Matrix TF12 - Very Shallow Dark Surface S7 - Dark Surface (LRR R, MLRA 149B) Other (Explain in Remarks) ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problemation Restrictive Layer Depth: Hydric Soil Present? 🗌 Yes 🗹 No Type: (If Observed) Remarks:



Northeast and Northcentral Region

	(Species identified in all uppercase are n t size: 10 meter radius) <u>Species Name</u>	on-native specie	s.)		
Tree Stratum (Plot 1. 2.	t size: 10 meter radius)				
2.	Species Name				
2.		<u>% Cov</u>	er Dominant	Ind.Status	Dominance Test Worksheet
	Quercus velutina	80	Y	UPL	
3.	Nyssa sylvatica	30	Y	FAC	Number of Dominant Species that are OBL, FACW, or FAC:3(A)
	Acer rubrum	25	Y	FAC	
4.					Total Number of Dominant Species Across All Strata:5(B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: <u>Multiply by:</u>
10.					OBL spp 0 x 1 = 0
	Total C	Cover = 135			FACW spp. 0 $x 2 = 0$
					FAC spp. 133 x 3 = 399
Sapling/Shrub Stra	tum (Plot size: 5 meter radius)				FACU spp26 x 4 =104
1.	Clethra alnifolia	65	Y	FAC	UPL spp. $\frac{1}{80}$ x 5 = $\frac{1}{400}$
	Nyssa sylvatica	10	N	FAC	
	Acer rubrum	3	N	FAC	Total 239 (A) 903 (B)
5.					Prevalence Index = B/A = 3.778
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					
<u> </u>					
10.					yes □ No Dominance Test is > 50% vec □ No □ Dominance Index is < 2.0.4
	Total C	Cover = 78			□ Yes \square No Prevalence Index is $\leq 3.0^{*}$
					□ Yes □ No Morphological Adaptations (Explain) *
	size: 2 meter radius)	20	V	FACU	☐ Yes
1.	Celastrus scandens	20	Y	FACU	* Indicators of hydric soil and wetland hydrology must be
2.	Maianthemum canadense	3	N	FACU	present, unless disturbed or problematic.
3.	Maianthemum racemosum	3	N	FACU	
4.					Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.
10.					kun.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and
13.					woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total 0	Cover = 26			
	m (Plot size: 10 meter radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present 🛛 Yes 🗹 No
4.					
5.					
		Cover = 0			
Remarks:	Prevelance index is > than 3.00, and	nd no indicato	s of hydric	c soil or we	etland hydrology present.



Northeast and Northcentral Region

Drain at/Cita	0 : 147						Ctantas Dusiast #	2020442400		Deter	00/44/00
Project/Site: Applicant:	Sunrise Wind	d/ Long Island, NY					Stantec Project #:	2028113199		Date: County:	06/11/20 Suffolk
Investigator #1:				Invest	igator #2:					State:	New York
Soil Unit:					.j		/I/WWI Classification:	PFO		Wetland ID:	W01CFC
Landform:	Floodplain			Loc	al Relief:	Concav	e			Sample Point:	Wetland
Slope (%):	0-1%	Latitude:			ongitude:			Datum:		Community ID:	PFO
		ditions on the site typ				o, explain in			No		
		or Hydrology					Are normal circumsta		?		
		or Hydrology 🛛 nati	urally proble	ematic?			Ľ⊐ Yes	No			
SUMMARY OF Hydrophytic Ve		aant?		Vee				Hydric Soils	Dreeent?		🗹 Yes 🗌 No
Wetland Hydro					; □ No ; □ No					Within A Wetland	
Remarks:	logy i losent			- 103				13 This Oamp	ing rome v		
HYDROLOGY											
Wetland Hydr	oloav Indic	ators (Check here if	indicators	are not r	present)[]					
Primary			maioatoro		nooont	,			Secondary:		
	A1 - Surface			~	B9 - Wate					B6 - Surface Soil (
✓ ✓	A2 - High Wa A3 - Saturati						1			B10 - Drainage Pa B16 - Moss Trim L	
	B1 - Water M						de Odor			C2 - Dry-Season V	
							spheres on Living Roots			C8 - Crayfish Burr	
	B3 - Drift De B4 - Algal Ma						educed Iron duction in Tilled Soils			C9 - Saturation Vis D1 - Stunted or St	sible on Aerial Imagery
	B5 - Iron Dep					Muck Sur				D2 - Geomorphic I	
		on Visible on Aerial Ima			Other (Ex	plain in Re	marks)			D3 - Shallow Aquit	
	B8 - Sparsel	y Vegetated Concave S	urface							D4 - Microtopogra D5 - FAC-Neutral	
Field Observat	tione									Bo - I AO-Neulia	1031
Surface Water		🗆 Yes 🗹 No	Donthi		(in.)						
Water Table Pr		⊡ Yes □ No	Depth: Depth:		(in.) (in.)			Wetland Hyd	drology Pr	esent?	Yes 🗌 No
Saturation Pres		⊻ Yes □ No	Depth:		(in.)						
					. ,		.		N1/A		
Describe Record	Jeu Dala (Sli										
Bomarka:		cam gauge, monitorii	iy well, aelia	ai priotos	, previous	inspectio	ns), if available:		N/A		
Remarks:		cam gauge, monitori	ig well, aelia		, previous	inspectio	ns), if available:		N/A		
		can gauge, monitori	iy well, aelia	ar priotos,	, previous	Inspectio	ns), if available:		N/A		
SOILS	2:	0		ar priotos,	, previous				N/A		
				ar priotos,	, previous		ns), if available: veries Drainage Class:		N/A		
SOILS Map Unit Name Taxonomy (Sut Profile Descrip	bgroup):	0		• • •		S	eries Drainage Class:			ining, M=Matrix)	
SOILS Map Unit Name Taxonomy (Sub	bgroup):	0		• • •		S				ining, M=Matrix)	Texture
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth	bgroup): ption (Describe to Bottom Depth	0 the depth needed to document the ind Horizon	icator or confirm the a	absence of indica Matrix Moist)	ators.) (Type: C=0	Concentration, D	eries Drainage Class:	ered/Coated Sand Grains; Mottles %		uning, M=Matrix)	(e.g. clay, sand, loam)
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0	bgroup): ption (Describe to Bottom Depth 10	0 The depth needed to document the ind Horizon 1	cator or confirm the a	absence of indica Matrix Moist) 3/1	ators.) (Type: C=0 % 100	Concentration, D	Peries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cow Color (Moist)	ered/Coated Sand Grains; Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10	bgroup): ption (Describe to Bottom Depth 10 20	0 the depth needed to document the ind Horizon 1 2	cator or confirm the a Color (I 10YR 10YR	absence of indica Matrix Moist) 3/1 4/2	ators.) (Type: C=(% 100 95	Concentration, D	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6	ered/Coated Sand Grains; Mottles % 5	Location: PL=Pore L Type C	Location M	(e.g. clay, sand, loam) sandy loam sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 	bgroup): ption (Describe to Bottom Depth 10 20 	0 the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (I 10YR 10YR 	Matrix Moist) 3/1 4/2 	ators.) (Type: C=0 % 100 95 	Concentration, D	Peries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 	Mottles % 5 	Location: PL=Pore L Type C 	Location M 	(e.g. clay, sand, loam) sandy loam sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 	bgroup): ption (Describe to Bottom Depth 10 20 	0 the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (I 10YR 10YR 	absence of indica Matrix Moist) 3/1 4/2 	ators.) (Type: C=0 % 100 95 	Concentration, D 7.5YR 	Eeries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 5/6 	Mottles % 5 	Location: PL=Pore L Type C 	Location M 	(e.g. clay, sand, loam) sandy loam sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 	bgroup): ption (Describe to Bottom Depth 10 20 	0 the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (I 10YR 10YR 	Absence of Indica Matrix Moist) 3/1 4/2 	ntors.) (Type: C=0 % 100 95 	Concentration, D	Peries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 	Mottles % 5 	Location: PL=Pore L Type C 	Location M 	(e.g. clay, sand, loam) sandy loam sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 	bgroup): ption (Describe to Bottom Depth 10 20 	0 the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (I 10YR 10YR 	absence of indica Matrix Moist) 3/1 4/2 	ators.) (Type: C=0 % 100 95 	Concentration, D	Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 5/6 	Mottles % 5 	Location: PL=Pore L Type C 	Location M 	(e.g. clay, sand, loam) sandy loam sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 	bgroup): ption (Describe to Bottom Depth 10 20 	0 the depth needed to document the ind Horizon 1 2	cator or confirm the a Color (I 10YR 10YR 	absence of Indica Matrix Moist) 3/1 4/2 	ators.) (Type: C=0 % 100 95 	Concentration, D	Eeries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 5/6 	Mottles % 5 	Location: PL=Pore L Type C 	Location M 	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 	bgroup): ption (Cescribe to Bottom Depth 10 20 	0 the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (I 10YR 	absence of Indica Matrix Moist) 3/1 4/2 	ators.) (Type: C=0 % 100 95 	Concentration, D 7.5YR 	Eeries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 5/6 	Mottles % 5 	Location: PL=Pore L Type C 	Location M 	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	bogroup): ption (Describe to Bottom Depth 10 20 Soil Field Ir A1- Histosoi	0 the depth needed to document the ind Horizon 1 2 	cator or confirm the a Color (I 10YR 	Absence of Indica Matrix Moist) 3/1 4/2 ors are r	ators) (Type: C=0 % 100 95 S8 - PolyN	Concentration, D 7.5YR -	Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B)	Mottles % 5 <u>Indicator</u>	Location: PL=Pore L Type C s for Proble A10 - 2 cm l	Location M matic Soils ¹ Muck (LRR K, L, MLRA 12	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	bgroup): ption (Describe to Bottom Depth 10 20 Soil Field Ir A1- Histosol A2 - Histic E	0 the depth needed to document the ind Horizon 1 2 ndicators (check he pipedon	cator or confirm the a Color (I 10YR 	Absence of Indica Matrix Moist) 3/1 4/2 ors are r	ators.) (Type: C= % 100 95 S8 - Polyn S9 - Thin	Concentration, D 7.5YR -	Peries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) CC (LRR R, MLRA 149B)	Mottles % 5 Indicator	Location: PL=Pore L Type C s for Proble A10 - 2 cm I A16 - Coast	Location M matic Soils ¹ Muck (LRR K, L, MLRA 14 Prairie Redox (LRR 1	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	percup): ption (Describe to Bottom Depth 10 20 Soil Field In A1- Histosol A2 - Histic El A3 - Black H	0 the depth needed to document the indi Horizon 1 2 ndicators (check he pipedon istic	cator or confirm the a Color (I 10YR 	Absence of Indication Matrix Moist) 3/1 4/2 ors are r 	ators.) (Type: C=0 % 100 95 S8 - Polyn S9 - Thin S9 - Thin F1 - Loan	Concentration, D 7.5YR -	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) filneral (LRR K, L)	Mottles % 5 5 Indicator	Location: PL=Pore L Type C s for Proble A10 - 2 cm M A16 - Coast S3 - 5cm M	Location M matic Soils ¹ Muck (LRR K, L, MLRA 14 Prairie Redox (LRR 14 Prairie Redox (LRR 14)	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	byroup): ption (Describe to Bottom Depth 10 20 Soil Field Ir A1- Histosol A2 - Histic E A3- Black H A4 - Hydroge A5 - Stratifie	0 the depth needed to document the ind Horizon 1 2 ndicators (check he pipedon istic en Sulfide	cator or confirm the a Color (I 10YR 	Absence of Indica Matrix Moist) 3/1 4/2 ors are r	ators) (Type: C= % 100 95 -	Concentration, D	Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 v Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) filteral (LRR K, L) Matrix C	Mottles % 5 Indicator	Lacation: PL=Pore L Type C 	Location M matic Soils ¹ Muck (LRR K, L, MLRA 14 Prairie Redox (LRR 1	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	by comparison of the second se	0 the depth needed to document the ind Horizon 1 2 	cator or confirm the a	absence of indica Matrix Moist) 3/1 4/2 ors are r	tors) (Type: C= % 100 95 S8 - Polyn S9 - Thin F1 - Loan F2 - Loan F3 - Deply F6 - Redo	Concentration, D 7.5YR -	Peries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACE (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix c rface	Mottles % 5 Indicator	Location: PL=Pore L Type C 	Location M matic Soils ¹ Muck (LRR K, L, MLRA 14 Prairie Redox (LRR Lucky Peat of Peat (L urface (LRR K, L, M) ue Below Surface (LR K, L, M) arK Surface (LRR K, L, M)	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	byroup): ption (Describe to Bottom Depth 10 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A10 - Deplet A12 - Thick I	0 the depth needed to document the ind Horizon 1 2 ndicators (check he pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface	cator or confirm the a	Absence of indica Matrix Moist) 3/1 4/2 ors are r	ators.) (Type: C=0 % 100 95	Concentration, D 7.5YR	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface	Mottles % 5 Indicator	Location: PL=Pore L Type C s for Proble A10 - 2 cm I A16 - Coast S3 - 5cm Mi S7 - Dark Si S8 - Polyval S9 - Thin Da S9 - Thin Da	Location M 	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	borroup): ption (Describe to Bottom Depth 10 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier A12 - Thick [S1 - Sandy M	0 the depth needed to document the ind Horizon 1 2 ndicators (check he pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Jack Mineral	cator or confirm the a	absence of indica Matrix Moist) 3/1 4/2 ors are r	tors) (Type: C= % 100 95 S8 - Polyn S9 - Thin F1 - Loan F2 - Loan F3 - Deply F6 - Redo	Concentration, D 7.5YR	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface	Mottles % 5 Indicator	Lacation: PL=Pore L Type -	Location M 	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	byroup): ption (Cescribe to Bottom Depth 10 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I S1 - Sandy M S4 - Sandy C S5 - Sandy F	0 the depth needed to document the ind Horizon 1 2 ndicators (check he pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox	cator or confirm the a	Absence of indica Matrix Moist) 3/1 4/2 ors are r	ators.) (Type: C=0 % 100 95	Concentration, D 7.5YR	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface	Mottles % 5 Indicator	Location: PL=Pore L Type C 	Location M 	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	byroup): ption (Describe to Bottom Depth 10 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A12 - Thick I S1 - Sandy N S4 - Sandy N S4 - Sandy P S5 - Sandy F S6 - Stripped	0 the depth needed to document the ind Horizon 1 2 ndicators (check he pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox d Matrix	cator or confirm the a	Absence of indica Matrix Moist) 3/1 4/2 ors are r	ators.) (Type: C=0 % 100 95	Concentration, D 7.5YR	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface	Mottles % 5	Location: PL=Pore L Type C -	Location M 	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	byroup): ption (Describe to Bottom Depth 10 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A12 - Thick I S1 - Sandy N S4 - Sandy N S4 - Sandy P S5 - Sandy F S6 - Stripped	0 the depth needed to document the ind Horizon 1 2 ndicators (check he pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox	cator or confirm the a	Absence of indica Matrix Moist) 3/1 4/2 ors are r	ators.) (Type: C=0 % 100 95	Concentration, D 7.5YR	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface	Mottles % 5	Location: PL=Pore L Type C s for Proble A10 - 2 cm I A10 - 2 cm I A10 - 2 cm I A10 - 2 cm I A10 - 2 cm I S3 - 5 cm Mt S3 - 5 cm Mt S7 - Dark SI S8 - Polyval S9 - Thin Da F12 - Iron-M F12 - Iron-M F12 - Very Other (Expla	Location M 	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	byroup): ption (Describe to Bottom Depth 10 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A12 - Thick I S1 - Sandy N S4 - Sandy N S4 - Sandy P S5 - Sandy F S6 - Stripped	0 the depth needed to document the ind Horizon 1 2 ndicators (check he pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox d Matrix	cator or confirm the a	Absence of indica Matrix Moist) 3/1 4/2 ors are r	ators.) (Type: C=0 % 100 95	Concentration, D 7.5YR	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface	Mottles % 5 Indicator	Location: PL=Pore L Type C 	Location	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	byroup): ption (Describe to Bottom Depth 10 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifie A12 - Thick I S1 - Sandy N S4 - Sandy N S4 - Sandy P S5 - Sandy F S6 - Stripped	0 the depth needed to document the ind Horizon 1 2 ndicators (check he pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox J Matrix Irface (LRR R, MLRA 149B)	cator or confirm the a	Absence of indica Matrix Moist) 3/1 4/2 ors are r	ators.) (Type: C=0 % 100 95	Concentration, D 7.5YR	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface	Mottles % 5	Location: PL=Pore L Type C 	Location	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 10 NRCS Hydric	byroup): ption (Describe to Bottom Depth 10 20 Soil Field Ir A1- Histosol A2 - Histic E A3- Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I S1 - Sandy M S4 - Sandy C S5 - Sandy F S6 - Strippec S7 - Dark Su	0 the depth needed to document the ind Horizon 1 2 ndicators (check he pipedon istic en Sulfide d Layers ed Below Dark Surface Dark Surface Auck Mineral Sleyed Matrix Redox J Matrix Irface (LRR R, MLRA 149B)	cator or confirm the a	absence of indica Matrix Moist) 3/1 4/2 ors are r -	ators.) (Type: C=0 % 100 95	Concentration, D 7.5YR	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface	Mottles % 5 Indicator	Location: PL=Pore L Type C 	Location	(e.g. clay, sand, loam) sandy loam -



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Long Island, N	IY				Wetland ID: W01CFC Sample Point Wetland
VECETATION		(·	. ,			
VEGETATION Tree Stratum (P	(Species identified in all uppercase ot size: 10 meter radius)	e are non-native	species.)		
	<u>Species Name</u>		% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.	Acer rubrum		60	Y	FAC	
2.	Nyssa sylvatica		30	Y	FAC	Number of Dominant Species that are OBL, FACW, or FAC:(A)
3.						
4.						Total Number of Dominant Species Across All Strata: <u>5</u> (B)
5.						
6. 7.						Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
8.						Prevalence Index Worksheet
9.						Total % Cover of: Multiply by:
10.						$\frac{1}{\text{OBL spp.}} \frac{1}{40} \text{x } 1 = 40$
		otal Cover =	90			FACW spp. 35 x 2 = 70
						FAC spp. 150 $\times 3 = 450$
Sapling/Shrub Str	atum (Plot size: 5 meter radius)					FACU spp. 25 x 4 = 100
1.	Clethra alnifolia		60	Y	FAC	UPL spp. 0 x 5 = 0
2.	Lindera benzoin		25	Y	FACW	
3.	Rosa multiflora		10	N	FACU	Total <u>250</u> (A) <u>660</u> (B)
4.						
5.						Prevalence Index = B/A =
6.						
7. 8.						Hydrophytic Vegetation Indicators:
<u> </u>						Yes No Rapid Test for Hydrophytic Vegetation
10.						\checkmark Yes \square No Dominance Test is > 50%
10.		otal Cover =	95			✓ Yes \square No Prevalence Index is ≤ 3.0 *
						Yes ☑ No Morphological Adaptations (Explain) *
Herb Stratum (Pl	ot size: 2 meter radius)					☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *
1.	Symplocarpus foetidus		40	Y	OBL	
2.	Onoclea sensibilis		10	N	FACW	 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3.	Celastrus scandens		10	N	FACU	
4.	Maianthemum canadense		5	N	FACU	Definitions of Vegetation Strata:
5.						
6						Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
7.						
<u>8.</u> 9.						Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
<u> </u>						
11.						
12.						Herb - All herbaceous (non-woody) plants, regardless of size, and
13.						woody plants less than 3.28 ft. tall.
14.						
15.						Woody Vines - All woody vines greater than 3.28 ft. in height.
	T	otal Cover =	65			
Woody Vine Strat	um (Plot size: 10 meter radius)					
1. 2.						
3.						Hydrophytic Vegetation Present 🛛 Yes 🗌 No
4.						
5.						
	Т	otal Cover =	0			
Remarks:						



Project/Site: Sunrise Wind/ Long Island, NY Stantec Project #: 2028113199 Date: 06/11/20 Applicant: County: Sunrise Wind LLC Suffolk Investigator #1: Charles Ferris Investigator #2: State: New York NWI/WWI Classification: Soil Unit: Wetland ID: W01CFD Landform: Side slope Local Relief: Convex Sample Point: Upland 0-1% Latitude: Datum: Slope (%): Longitude: Community ID: Upland 🗹 Yes 🗌 No Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) Are Vegetation \Box , Soil \Box , or Hydrology \Box significantly disturbed? Are normal circumstances present? Are Vegetation \Box , Soil \Box , or Hydrology \Box naturally problematic? Yes □ No SUMMARY OF FINDINGS ☑ Yes☑ Yes Hydric Soils Present? Hydrophytic Vegetation Present? □ No ☑ No No 🗌 Yes 🗹 No Is This Sampling Point Within A Wetland? 🗏 Yes 🗹 No Wetland Hydrology Present? Remarks: HYDROLOGY Wetland Hydrology Indicators (Check here if indicators are not present) Secondary: Primary: A1 - Surface Water B9 - Water-Stained Leaves B6 - Surface Soil Cracks A2 - High Water Table B10 - Drainage Patterns B13 - Aquatic Fauna B15 - Marl Deposits B16 - Moss Trim Lines A3 - Saturation B1 - Water Marks C1 - Hydrogen Sulfide Odor C2 - Dry-Season Water Table B2 - Sediment Deposits C3 - Oxidized Rhizospheres on Living Roots C8 - Crayfish Burrows B3 - Drift Deposits C4 - Presence of Reduced Iron C9 - Saturation Visible on Aerial Imagery B4 - Algal Mat or Crust C6 - Recent Iron Reduction in Tilled Soils D1 - Stunted or Stressed Plants B5 - Iron Deposits C7 - Thin Muck Surface D2 - Geomorphic Position B7 - Inundation Visible on Aerial Imagery Other (Explain in Remarks) D3 - Shallow Aquitard B8 - Sparsely Vegetated Concave Surface D4 - Microtopographic Relief D5 - FAC-Neutral Test Field Observations: Surface Water Present? 🗆 Yes 🗵 No Depth: (in.) Wetland Hydrology Present? 🗌 Yes 🗹 No Water Table Present? □ Yes ☑ No (in.) Depth: Saturation Present? 🗆 Yes 🗹 No Depth: (in.) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A Remarks: SOILS Map Unit Name: Series Drainage Class: Taxonomy (Subgroup): Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix) Bottom Mottles Texture Top Matrix (e.g. clay, sand, loam) Depth Depth Horizon Color (Moist) % Color (Moist) % Туре Location 10YR 3/1 100 sandy loam 0 10 ---10 16 2 10YR 5/3 100 -----sandy loam 16 20 3 10YR 4/4 100 sandy loam ---___ ___ ------------___ ___ ------------NRCS Hydric Soil Field Indicators (check here if indicators are not present \square Indicators for Problematic Soils ¹ S8 - Polyvalue Below Surface (LRR R, MLRA 149B) A1- Histosol A10 - 2 cm Muck (LRR K, L, MLRA 149B) S9 - Thin Dark Surface (LRR R, MLRA 149B) A16 - Coast Prairie Redox (LRR K, L, R) A2 - Histic Epipedon F1 - Loamy Mucky Mineral (LRR K. L) S3 - 5cm Mucky Peat of Peat (LRR K. L. R) A3 - Black Histic A4 - Hydrogen Sulfide F2 - Loamy Gleyed Matrix S7 - Dark Surface (LRR K, L, M) A5 - Stratified Layers F3 - Depleted Matrix S8 - Polyvalue Below Surface (LRR к, L) A11 - Depleted Below Dark Surface F6 - Redox Dark Surface S9 - Thin Dark Surface (LRR к, L) A12 - Thick Dark Surface F7 - Depleted Dark Surface F12 - Iron-Manganese Masses (LRR к, L, R) F8 - Redox Depressions F19 - Piedmont Floodplain Soils (MLRA 149B) S1 - Sandy Muck Mineral S4 - Sandy Gleyed Matrix TA6 - Mesic Spodic (MLRA 144A, 145, 149B) S5 - Sandy Redox TF2 - Red Parent Material S6 - Stripped Matrix TF12 - Very Shallow Dark Surface S7 - Dark Surface (LRR R, MLRA 149B) Other (Explain in Remarks) ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problemation Restrictive Layer Depth: Hydric Soil Present? 🗌 Yes 🗹 No Type: (If Observed) Remarks:



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Long Island, NY				Wetland ID: W01CFD Sample Point Upland
VECETATION		• 、			
VEGETATION Tree Stratum (Pl	(Species identified in all uppercase are non-native ot size: 10 meter radius)	species.)			
	<u>Species Name</u>	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.	Acer rubrum	75	Υ	FAC	
2.	Nyssa sylvatica	25	Y	FAC	Number of Dominant Species that are OBL, FACW, or FAC:(A)
3.					
4.					Total Number of Dominant Species Across All Strata: <u>5</u> (B)
5.					
6. 7.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60.0%</u> (A/B)
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					$OBL spp. _ 0 x 1 = _ 0$
	Total Cover =	100			FACW spp. 10 x 2 = 20
					FAC spp. 180 x $3 = 540$
Sapling/Shrub Str	ratum (Plot size: 5 meter radius)				FACU spp. <u>17</u> x 4 = <u>68</u>
1.	Clethra alnifolia	80	Y	FAC	UPL spp x 5 =
2.	Lindera benzoin	10	N	FACW	
3.					Total <u>207</u> (A) <u>628</u> (B)
4.					
5.					Prevalence Index = B/A = <u>3.034</u>
6. 7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes Vo Rapid Test for Hydrophytic Vegetation
10.					\checkmark Yes \square No Dominance Test is > 50%
	Total Cover =	90			\square Yes \square No Prevalence Index is $\leq 3.0^*$
					Yes I No Morphological Adaptations (Explain) *
Herb Stratum (Ple	ot size: 2 meter radius)				□ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *
1.	Maianthemum canadense	10	Y	FACU	* Indicators of hydric soil and wetland hydrology must be
2.	Parthenocissus quinquefolia	7	Y	FACU	present, unless disturbed or problematic.
3.					Definitions of Manufation Official
4.					Definitions of Vegetation Strata:
6					
7.					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
10.					tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.
13.					woody praitits less than 3.20 ft. tall.
14.					· · · · · · · · · · · · · · · · · · ·
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	17			
Woody Vine Strat	tum (Plot size: 10 meter radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present Yes No
4.					
5.					
	Total Cover =	0			
Remarks:					



Northeast and Northcentral Region

Project/Site:	Oursein - Miles						Stantas Draiget #:	2020112100		Date:	00/44/00
Applicant:	Sunrise Wind	l/ Long Island, NY					Stantec Project #:	2020113199		County:	06/11/20 Suffolk
Investigator #1:				Invest	igator #2:					State:	New York
Soil Unit:	Change Fern				igator //2.		/I/WWI Classification:	PFO		Wetland ID:	W01CFD
Landform:	Floodplain			Loc	al Relief:					Sample Point:	Wetland
Slope (%):	0-1%	Latitude:			ongitude:		•	Datum:		Community ID:	PFO
		litions on the site typ					remarks)		No		
-		or Hydrology			<u> </u>		Are normal circumsta	ances present	?		
		or Hydrology 🗌 nati						□No			
SUMMARY OF		er rijarelegij — naa	andiny propri	onnauor							
Hydrophytic Ve		sent?		. ✓ Yes	No			Hydric Soils I	Present?		🗹 Yes 🗌 No
Wetland Hydrol										Nithin A Wetland	
Remarks:	legy i leeelik	•							ing i oniti		
HYDROLOGY											
		ators (Check here if	indicatore	are not r	present)[]					
Primary		ators (Check here h	Indicators	are not p	Jeseni)			Secondary:		
	A1 - Surface	Water		~	B9 - Wate	er-Stained	Leaves			B6 - Surface Soil (Cracks
1	A2 - High Wa				B13 - Aqu		1			B10 - Drainage Pa	
	A3 - Saturati										
	B1 - Water M B2 - Sedimer				- ,		spheres on Living Roots			C2 - Dry-Season V C8 - Crayfish Burn	
	B2 - Sedimer B3 - Drift De						educed Iron				sible on Aerial Imagery
	B4 - Algal Ma						duction in Tilled Soils			D1 - Stunted or St	
	B5 - Iron Dep									D2 - Geomorphic I	
		on Visible on Aerial Ima v Vegetated Concave S			Other (Ex	plain in Re	marks)			D3 - Shallow Aquit D4 - Microtopogra	
	Do - Oparser	y vegetated concave o	unacc							D5 - FAC-Neutral	
Field Observat	tions:										
Surface Water		🗆 Yes 🖂 No	Depth:		(in.)						
Water Table Pr		✓ Yes □ No	Depth:		(in.)			Wetland Hyd	drology Pr	esent?	Yes 🗌 No
Saturation Pres		I Yes □ No	Depth:		(in.)						
			•		()				N/A		
Describe Record	ied Data (str	eam daude monitorin	na well aeria								
		eam gaage, mernem	ig won, done	ai priotos	, previous	Inspectio	ns), if available:		IN/A		
Remarks:		ani gaage, mennen	ig won, done	ai priotos,	, previous	Inspectio	ns), if available:		N/A		
		oan gaage, nomen	ig won, done	ar priotos,	, previous	Inspection	ns), it available:		N/A		
SOILS		an gaage, no no no n			, previous				N/A		
SOILS Map Unit Name		an gaage, no no n			, previous		eries Drainage Class:		N/A		
SOILS Map Unit Name Taxonomy (Sub	ogroup):				· ·	S	eries Drainage Class:				
SOILS Map Unit Name Taxonomy (Sut Profile Descrip	ogroup): otion (Describe to			absence of indica	· ·	S		ered/Coated Sand Grains;		_ining, M=Matrix)	Taytura
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top	ogroup): otion (Describe to Bottom	the depth needed to document the indi	cator or confirm the a	absence of indica Matrix	ators.) (Type: C=0	S	Peries Drainage Class:	ered/Coated Sand Grains; Mottles	Location: PL=Pore L		Texture
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth	ogroup): otion (Describe to Bottom Depth	the depth needed to document the indi Horizon	cator or confirm the a	absence of indica Matrix Moist)	ators.) (Type: C=0	Concentration, D	Peries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cow Color (Moist)	ered/Coated Sand Grains; Mottles %	Location: PL=Pore L	Location	(e.g. clay, sand, loam)
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0	bgroup): otion (Describe to Bottom Depth 6	the depth needed to document the indi Horizon	cator or confirm the a Color (1 10YR	absence of indica Matrix Moist) 3/1	ators.) (Type: C=0 % 100	Concentration, D-	Pepietion, RM=Reduced Matrix, CS=Cow Color (Moist)	ered/Coated Sand Grains; Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6	bgroup): btion (Describe to Bottom Depth 6 20	the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (1 10YR 10YR	absence of indica Matrix Moist) 3/1 4/1	ators.) (Type: C=0 % 100 95	Concentration, D:	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6	Mottles % 5	Location: PL=Pore L Type C	Location M	(e.g. clay, sand, loam) sandy loam sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 	bgroup): btion (Describe to Bottom Depth 6 20 	the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (I 10YR 10YR 	Matrix Moist) 3/1 4/1 	ators.) (Type: C=0 % 100 95 	Concentration, D	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 	Mottles % 5 	Location: PL=Pore L Type C 	Location M 	(e.g. clay, sand, loam) sandy loam sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 	pgroup): ption (Describe to Bottom Depth 6 20 	the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (I 10YR 10YR 	absence of indica Matrix Moist) 3/1 4/1 	ators.) (Type: C=0 % 100 95 	Concentration, D 7.5YR 	Eeries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 5/6 	ered/Coated Sand Grains; Mottles % 5 	Location: PL=Pore L Type C 	Location M 	(e.g. clay, sand, loam) sandy loam sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 	by the second se	the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (I 10YR 10YR 	Absence of Indica Matrix Moist) 3/1 4/1 	ators.) (Type: C=C % 100 95 	Concentration, D	Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 5/6 	ered/Coated Sand Grains; Mottles % 5 	Location: PL=Pore L Type C 	Location M 	(e.g. clay, sand, loam) sandy loam sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 	pgroup): Difon (Describe to Bottom Depth 6 20 	the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (I 10YR 10YR 	absence of Indica Matrix Moist) 3/1 4/1 	ators.) (Type: C=0 % 100 95 	Concentration, D 7.5YR 	Eeries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 5/6 	ered/Coated Sand Grains; Mottles % 5 	Location: PL=Pore L Type C 	Location M 	(e.g. clay, sand, loam) sandy loam sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 	by the second se	the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (I 10YR 10YR 	Absence of Indica Matrix Moist) 3/1 4/1 	ators.) (Type: C=C % 100 95 	Concentration, D 7.5YR 	Eeries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 5/6 	ered/Coated Sand Grains; Mottles % 5 	Location: PL=Pore L Type C 	Location 	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 	pgroup): ption (Describe to Bottom Depth 6 20 	the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (I 10YR 10YR	absence of Indica Matrix Moist) 3/1 4/1 	ators.) (Type: C=C % 100 95 	S Concentration, D 7.5YR 	Eeries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 5/6 	ered/Coated Sand Grains; Mottles % 5 	Location: PL=Pore L Type C 	Location M 	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	pgroup): ption (Describe to Bottom Depth 6 20 	the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (I 10YR 10YR	absence of Indica Matrix Moist) 3/1 4/1 	ators.) (Type: C=0 % 100 95	Soncentration, D 7.5YR nt	Eeries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 5/6 	ered/Coated Sand Grains: Mottles % 5 	Location: PL=Pore L Type C s for Proble	Location M 	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	pgroup): ption (Describe to Depth 6 20 Soil Field In A1- Histosol A2 - Histic El	the depth needed to document the indi Horizon 1 2 idicators (check he pipedon	cator or confirm the a Color (I 10YR 10YR	Absence of indica Matrix Moist) 3/1 4/1 ors are r □	ators.) (Type: C= % 100 95 S8 - Polyn S9 - Thin	S Concentration, D 7.5YR alue Belor Dark Surfa	Peries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) CC (LRR R, MLRA 149B)	ered/Coated Sand Grains; Mottles % 5 Indicator	Location: PL=Pore I Type C s for Proble A10 - 2 cm A16 - Coast	Location M matic Soils ¹ Muck (LRR K, L, MLRA 14 Prairie Redox (LRR 1	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	by constant of the second seco	the depth needed to document the indi Horizon 1 2 ndicators (check he pipedon istic	cator or confirm the a Color (I 10YR 10YR	Absence of Indica Matrix Moist) 3/1 4/1 ors are r	ators.) (Type: C=C % 100 95 ot preser S8 - Poly S9 - Thin F1 - Loarr	S Concentration, D 7.5YR t]⊐ alue Belor Dark Surfa	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) filineral (LRR K, L)	ered/Coated Sand Grains; Mottles % 5 Indicator	Location: PL=Pore L Type C s for Proble A10 - 2 cm M A16 - Coast S3 - 5cm M	Location M 	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	by comparison of the second se	the depth needed to document the indi Horizon 1 2 ndicators (check he pipedon istic an Sulfide	cator or confirm the a Color (I 10YR 10YR	absence of Indica Matrix Moist) 3/1 4/1 ors are r 	**************************************	Concentration, D 7.5YR nt Dark Surfa vy Mucky N y Gleyed	eries Drainage Class: Depleton, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) Alineral (LRR K, L) Matrix	Mottles % 5 Indicator	Location: PL=Pore L Type C s for Proble A10 - 2 cm I A16 - Coast S3 - 5 cm MI S3 - 5 cm MS	Location M 	(e.g. clay, sand, loam) sandy loam
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	group): ption (Describe to Depth 6 20 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifier	the depth needed to document the indi Horizon 1 2 	cator or confirm the a Color (I 10YR 10YR	Absence of Indica Matrix Moist) 3/1 4/1 ors are r	ators) (Type: C=C % 100 95 s8 - Polyo S9 - Thin F1 - Loarr F2 - Loarr F3 - Deple	Concentration, D 7.5YR -	Peries Drainage Class: Depletion, RM-Reduced Matrix, CS-Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix	Mottles % 5 Indicator	Location: PL=Pore I Type C s for Proble A10 - 2 cm A10 - 2 cm A10 - 2 cm S3 - 5 cm M S3 - 5 cm K S8 - Polyval	Location M matic Soils ¹ Muck (LRR K, L, MLRA 14 Prairie Redox (LRR Ucky Peat of Peat (LURFACE(LRR K, L, M)) ue Below Surface (I	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	group): ption (Describe to Depth 6 20 Soil Field Ir A1- Histosol A2 - Histic El A3- Black H A4 - Hydroge A5- Stratifier A11 - Deplet	the depth needed to document the indi Horizon 1 2 idicators (check he pipedon istic on Sulfide d Layers ed Below Dark Surface	cator or confirm the a Color (I 10YR 10YR	absence of indica Matrix Moist) 3/1 4/1 ors are r 	**************************************	Concentration, D Concentration, D Concentrati	Peries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACE (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix c rface		Location: PL=Pore I Type C s for Proble A10 - 2 cm A16 - Coast S3 - 5cm Mi S7 - Dark S S8 - Polyval S9 - Thin Da	Location M 	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	group): ption (Describe to Depth 6 20 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydrogg A5 - Stratifier A1- Deplet A1 - Deplet S1 - Sandy M	the depth needed to document the indi Horizon 1 2 ndicators (check he pipedon istic an Sulfide d Layers ed Below Dark Surface Dark Surface fuck Mineral	cator or confirm the a Color (I 10YR 10YR	absence of indica Matrix Moist) 3/1 4/1 ors are r 0 s are r	tors) (Type: C=C % 100 95 S8 - Polyn S9 - Thin F1 - Loan F2 - Loan F3 - Deply F6 - Redo	S Concentration, D 7.5YR 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface	Mottles % 5	Location: PL=Pore L Type C s for Proble A10 - 2 cm I A10 - 2 cm I A10 - 2 cm S S3 - 5 cm MI S3 - 5 cm MI S3 - 5 cm MI S4 - Coast S8 - Polyval S9 - Thin Da S8 - Polyval S9 - Thin D4 F12 - Iron-M F19 - Piedm	Location M matic Soils 1 Muck (LRR K, L, MLRA 14 Prairie Redox (LRR I, L, MLRA 14 Unday Peat of Peat (u urface (LRR K, L, M) Ue Below Surface (tark K, L) anganese Masses ont Floodplain Soils	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	group): ption (Describe to Depth 6 20 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A11 - Deplet A12 - Thick Cl S1 - Sandy N S4 - Sandy C	the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (I 10YR 10YR	Absence of indica Matrix Moist) 3/1 4/1 ors are r	ators.) (Type: C=C % 100 95	S Concentration, D 7.5YR 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface	Mottles % 5 Indicator	Location: PL=Pore I Type C s for Proble A10 - 2 cm A10 - 2 cm A10 - 2 cm A10 - 2 cm S3 - 5 cm M S3 - 5 cm M S9 - Thin Da S9 - Thin Da S9 - Thin Da F12 - Iron-M T46 - Mesic	Location	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	group): Difon (Describe to Depth 6 20 Soil Field In A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A12 - Thick I S1 - Sandy M S4 - Sandy C S5 - Sandy F	the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (I 10YR 10YR	Absence of indica Matrix Moist) 3/1 4/1 ors are r	ators.) (Type: C=C % 100 95	S Concentration, D 7.5YR 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface		Location: PL=Pore I Type C s for Proble A10 - 2 cm A16 - Coast S3 - 5cm M S7 - Dark S S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm F19 - Piedm TA6 - Mesic TF2 - Red F	Location M matic Soils 1 Muck (LRR K, L, MLRA 14 Prairie Redox (LRR ucky Peat of Peat (L urface (LRR K, L, M) ue Below Surface (I ark Surface (LRR K, L, M) tanganese Masses ont Floodplain Soils Spodic (MLRA 144A, 14 arent Material	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	group): ption (Describe to Depth 6 20 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifiet A12 - Thick I S1 - Sandy M S4 - Sandy M S4 - Sandy M S4 - Sandy P S5 - Sandy F S6 - Stripped	the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (I 10YR 10YR	Absence of indica Matrix Moist) 3/1 4/1 ors are r	ators.) (Type: C=C % 100 95	S Concentration, D 7.5YR 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface		Location: PL=Pore L Type C s for Proble A10 - 2 cm I A16 - Coast S3 - 5cm Mi S7 - Dark S S8 - Polyval S9 - Thin Da S9 - Thin Da S9 - Thin Da F12 - Iron-M F19 - Piedm TA6 - Mesic TF2 - Red F TF12 - Very	Location M -	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	group): ption (Describe to Depth 6 20 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifiet A12 - Thick I S1 - Sandy M S4 - Sandy M S4 - Sandy M S4 - Sandy P S5 - Sandy F S6 - Stripped	the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (I 10YR 10YR	Absence of indica Matrix Moist) 3/1 4/1 ors are r	ators.) (Type: C=C % 100 95	S Concentration, D 7.5YR 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface		Location: PL=Pore I Type C s for Proble A10 - 2 cm A16 - Coast S3 - Scm Mi S7 - Dark S S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm F19 - Piedm F12 - Very Other (Expla	Location M matic Soils 1 Muck (LRR K, L, MLRA 14 Prairie Redox (LRR ucky Peat of Peat (L urface (LRR K, L, M) ue Below Surface (I ark Surface (LRR K, L, M) tanganese Masses ont Floodplain Soils Spodic (MLRA 144A, 14 arent Material	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	group): ption (Describe to Depth 6 20 Soil Field Ir A1- Histosol A2 - Histic El A3- Black H A4 - Hydroge A5 - Stratifier A1- Deplet A1 - Deplet A1 - Deplet A1 - Deplet A5 - Stratifier S1 - Sandy M S4 - Sandy G S5 - Sandy F S6 - Strippec S7 - Dark Su	the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (I 10YR 10YR	absence of indice Matrix Moist) 3/1 4/1 ors are r	ators.) (Type: C=C % 100 95	S Concentration, D 7.5YR 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface		Location: PL=Pore I Type C s for Proble A10 - 2 cm A16 - Coast S3 - Scm M S7 - Dark S S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm F19 - Piedm F19 - Piedm F12 - Very Other (Expla	Location Location Location	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	group): ption (Describe to Depth 6 20 Soil Field Ir A1- Histosol A2 - Histic El A3 - Black H A4 - Hydroge A5 - Stratifiet A12 - Thick I S1 - Sandy M S4 - Sandy M S4 - Sandy M S4 - Sandy P S5 - Sandy F S6 - Stripped	the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (I 10YR 10YR	Absence of indica Matrix Moist) 3/1 4/1 ors are r	ators.) (Type: C=C % 100 95	S Concentration, D 7.5YR 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface		Location: PL=Pore I Type C s for Proble A10 - 2 cm A16 - Coast S3 - Scm M S7 - Dark S S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm F19 - Piedm F19 - Piedm F12 - Very Other (Expla	Location Location Location	(e.g. clay, sand, loam) sandy loam -
SOILS Map Unit Name Taxonomy (Sut Profile Descrip Top Depth 0 6 NRCS Hydric	group): ption (Describe to Depth 6 20 Soil Field Ir A1- Histosol A2 - Histic El A3- Black H A4 - Hydroge A5 - Stratifier A1- Deplet A1 - Deplet A1 - Deplet A1 - Deplet A5 - Stratifier S1 - Sandy M S4 - Sandy G S5 - Sandy F S6 - Strippec S7 - Dark Su	the depth needed to document the indi Horizon 1 2	cator or confirm the a Color (I 10YR 10YR	absence of indice Matrix Moist) 3/1 4/1 ors are r	ators.) (Type: C=C % 100 95	S Concentration, D 7.5YR 	eries Drainage Class: Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) 5/6 w Surface (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) ACP (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix (rface Surface		Location: PL=Pore I Type C s for Proble A10 - 2 cm A16 - Coast S3 - Scm M S7 - Dark S S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm F19 - Piedm F19 - Piedm F12 - Very Other (Expla	Location Location Location	(e.g. clay, sand, loam) sandy loam -



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Long Island,	NY				Wetland ID: W01CFD Sample Point Wetland
VEOFTATION						
VEGETATION	(Species identified in all upperca ot size: 10 meter radius)	ase are non-native	species.)		
	Species Name		% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.	Nyssa sylvatica	-	50	Y	FAC	
2.	Acer rubrum		40	Y	FAC	Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)
3.						
4.						Total Number of Dominant Species Across All Strata: 6 (B)
5.						
6.						Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B)
7.						
8.						Prevalence Index Worksheet
9.						Total % Cover of: Multiply by:
10.						OBL spp. 60 x 1 = 60
		Total Cover =	90			FACW spp. 5 x $2 = 10$
						FAC spp. 175 x $3 = 525$
	ratum (Plot size: 5 meter radius)					FACU spp. <u>8</u> x 4 = <u>32</u>
1.	Clethra alnifolia		60	Y	FAC	UPL spp $x 5 = 0$
2.	Lindera benzoin		5	N	FACW	
3.	Sassafras albidum		3	N	FACU	Total <u>248</u> (A) <u>627</u> (B)
4.						
5.						Prevalence Index = B/A = 2.528
6.						
7.						
8.						Hydrophytic Vegetation Indicators:
9.						□ Yes ☑ No Rapid Test for Hydrophytic Vegetation
10.		T () O				✓ Yes □ No Dominance Test is > 50%
		Total Cover =	68			✓ Yes
						□ Yes □ No Morphological Adaptations (Explain) *
Herb Stratum (Plo	ot size: 2 meter radius) Symplocarpus foetidus		60	Y	OBL	Yes Yes No Problem Hydrophytic Vegetation (Explain) *
2.	Maianthemum canadense		5	Y	FACU	* Indicators of hydric soil and wetland hydrology must be
3.						present, unless disturbed or problematic.
4.						Definitions of Vegetation Strata:
5.						
6						Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.						height (DBH), regardless of height.
8.						
9.						Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
10.						tall.
11.						
12.						Herb - All herbaceous (non-woody) plants, regardless of size, and
13.						woody plants less than 3.28 ft. tall.
14.						
15.						Woody Vines - All woody vines greater than 3.28 ft. in height.
		Total Cover =	65			
Woody Vine Strat	tum (Plot size: 10 meter radius)					
1.	Smilax hispida		25	Y	FAC	
2.						
3.						Hydrophytic Vegetation Present - Yes 🗌 No
4.						
5.						
		Total Cover =	25			
Remarks:						



Are Vegetation	Sunrise Wind Matt Arsenau Terrace 0-1% drologic cond 0, Soil 0, (5, Soil 0, (FINDINGS getation Pres	tt Latitude: itions on the site typ or Hydrology □ sigr or Hydrology □ natu sent?	ificantly dis	Loc L time of sturbed?	s 🗌 No	N\ Linear -72.8825	WI/WWI Classification:	: UPL Datum: ☑ Yes □ ances present □ No Hydric Soils	No t? Present?	Date: County: State: Wetland ID: Sample Point: Community ID: Within A Wetland	10/19/20 Suffolk New York W01JRA Upland Upland Upland Yes ⊻ No
	A1 - Surface A2 - High Wa A3 - Saturatic B1 - Water M B2 - Sedimer B3 - Drift Dep B4 - Algal Ma B5 - Iron Dep B7 - Inundatic B8 - Sparsely	ter Table on arks t Deposits posits t or Crust	gery	are not ; 	B9 - Wate B13 - Aqu B15 - Mar C1 - Hydro C3 - Oxidi C4 - Prese C6 - Rece C7 - Thin	atic Faun I Deposits ogen Sulf zed Rhizo ence of R ent Iron Ro Muck Sur	a s ide Odor ospheres on Living Roots ieduced Iron eduction in Tilled Soils fface			B6 - Surface Soil (B10 - Drainage Pa B16 - Moss Trim L C2 - Dry-Season V C8 - Crayfish Burr C9 - Saturation Vis D1 - Stunted or St D2 - Geomorphic I D3 - Shallow Aquit D4 - Microtopogra D5 - FAC-Neutral	atterns .ines Water Table ows sible on Aerial Imagery ressed Plants Position tard phic Relief
Field Observat Surface Water Water Table Pr Saturation Pres Describe Record Remarks:	Present? resent? sent?	☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No eam gauge, monitorin	Depth: Depth: Depth: g well, aeria		(in.) (in.) (in.)	inspectio	ons), if available:	Wetland Hy	drology Pr	esent? 🗆	Yes 🗹 No
SOILS											
Top	Bottom	he depth needed to document the indi	cator or confirm the a		ators.) (Type: C=C	Concentration, [D=Depletion, RM=Reduced Matrix, CS=Cov	vered/Coated Sand Grains; Mottles	Location: PL=Pore L	ining, M=Matrix)	Texture
Depth	Depth	Horizon	Color (I	Matrix	%		Color (Moist)	%	Туре	Location	(e.g. clay, sand, loam)
	3	1	2.5Y	3/1	100						peat
3	8	2	10YR	5/3	100						sand
8	16	3	7.5YR	4/4	100						sand
16	20	4	7.5YR	4/3	100						sand
NRCS Hydric Soil Field Indicators (check here if indicators are not present >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>							bw Surface (LRR R, MLRA 149B) face (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix		A10 - 2 cm I A16 - Coast S3 - 5cm Mi S7 - Dark Si	matic Soils ¹ Muck (LRR K, L, MLRA 14 Prairie Redox (LRR / Jcky Peat of Peat (L Jrface (LRR K, L, M) ue Below Surface (I	K, L, R) .RR K, L, R)
	A5 - Stratified A11 - Deplete A12 - Thick D S1 - Sandy M S4 - Sandy G S5 - Sandy R S6 - Stripped	I Layers ed Below Dark Surface lark Surface luck Mineral leyed Matrix edox Matrix			F6 - Redo F7 - Deple	eted Dark	urface Surface		F12 - Iron-M F19 - Piedm TA6 - Mesic TF2 - Red P TF12 - Very Other (Expla	ark Surface (LRR K, L) langanese Masses iont Floodplain Soils Spodic (MLRA 144A, 14 arent Material Shallow Dark Surfa ain in Remarks) tion and wetland hydrology m	(LRR K, L, R) S (MLRA 149B) 15, 149B) 3CCE
	A5 - Stratified A11 - Deplete A12 - Thick E S1 - Sandy M S4 - Sandy G S5 - Sandy R S6 - Stripped S7 - Dark Su	I Layers ed Below Dark Surface lark Surface luck Mineral leyed Matrix edox Matrix			F6 - Redo F7 - Deple	eted Dark	urface Surface	Indicators of disturbed or	F12 - Iron-M F19 - Piedm TA6 - Mesic TF2 - Red P TF12 - Very Other (Expla of hydrophytic vegeta or problematic.	langanese Masses ont Floodplain Soils Spodic (MLRA 144A, 14 Parent Material Shallow Dark Surfa in in Remarks) ition and wetland hydrology m	(LRR K, L, R) S (MLRA 149B) 15, 149B) aCC ust be present, unless
	A5 - Stratified A11 - Deplete A12 - Thick D S1 - Sandy M S4 - Sandy G S5 - Sandy R S6 - Stripped	I Layers ed Below Dark Surface lark Surface luck Mineral leyed Matrix edox Matrix			F6 - Redo F7 - Deple	eted Dark	urface Surface		F12 - Iron-M F19 - Piedm TA6 - Mesic TF2 - Red P TF12 - Very Other (Expla of hydrophytic vegeta or problematic.	langanese Masses ont Floodplain Soils Spodic (MLRA 144A, 14 Parent Material Shallow Dark Surfa in in Remarks) ition and wetland hydrology m	(LRR K, L, R) S (MLRA 149B) 15, 149B) 3CCE



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Fire Island, NY				Wetland ID: W01JRA Sample Point Upland
VECETATION		. 、			
VEGETATION Tree Stratum (Pl	(Species identified in all uppercase are non-native ot size: 10 meter radius)	e species.)			
	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.	Acer rubrum	55	Y	FAC	
2.					Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)
3.					
4.					Total Number of Dominant Species Across All Strata: 4 (B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp
	Total Cover =	55			FACW spp. $0 x 2 = 0$
					FAC spp. 150 $x 3 = 450$
	atum (Plot size: 5 meter radius)				FACU spp $x 4 = 0$
1.	Clethra alnifolia	85	Y	FAC	UPL spp. 0 x 5 = 0
2.					
3.					Total <u>150</u> (A) <u>450</u> (B)
4.					
5.					Prevalence Index = B/A = <u>3.000</u>
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					□ Yes ☑ No Rapid Test for Hydrophytic Vegetation
10.					✓ Yes □ No Dominance Test is > 50%
	Total Cover =	85			✓ Yes □ No Prevalence Index is ≤ 3.0 *
					□ Yes □ No Morphological Adaptations (Explain) *
Herb Stratum (Plo 1.	ot size: 2 meter radius) Clethra alnifolia	5	Y	FAC	☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *
2.					* Indicators of hydric soil and wetland hydrology must be
3.					present, unless disturbed or problematic.
4.					Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
10.					tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and
13.					woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	5			
Woody Vine Strat	um (Plot size: 10 meter radius) Smilax rotundifolia	5	Y	FAC	
2.				FAC	
3.					Hydrophytic Vegetation Present 🛛 Yes 🗌 No
<u> </u>					
<u>4.</u> 5.					
ວ.	 Total Cover =	5			
Remarks:	Prevelance index is > than 3.0, and no ind		hvdric s	soil or wet	land hydrology present
Komarka.		1001013 01	inyuno s		iana nyarology prosent.



Are Vegetation Are Vegetation SUMMARY OF Hydrophytic Veg Wetland Hydrol	Sunrise Wind Matt Arsenau Floodplain 0-1% Irologic cond 0, Soil 0, 0 FINDINGS getation Pres	Latitude: Latitude: litions on the site typ or Hydrology □ sigr or Hydrology □ natu sent?	ificantly dis	Loc s time of sturbed? ematic? Ves		NV Linear -72.8829 p, explain in	VI/WWI Classification: I I I I I Are normal circumsta I Yes	PFO Datum: ✓ Yes □ ances present ○ No Hydric Soils	No ?? Present?	Date: County: State: Wetland ID: Sample Point: Community ID: Within A Wetland	10/19/20 Suffolk New York W01JRA Wetland PFO ✓ Yes □ No
Remarks:											
HYDROLOGY											
Primary:	A1 - Surface A2 - High Wa A3 - Saturatii B1 - Water M B2 - Sedimer B3 - Drift Dep B4 - Algal Ma B5 - Iron Dep B7 - Inundatii	ater Table on larks nt Deposits posits at or Crust	gery		B9 - Wate B13 - Aqu B15 - Mar C1 - Hydro C3 - Oxidi C4 - Prese C6 - Rece C7 - Thin	atic Faun I Deposits ogen Sulfi ized Rhizc ence of R ent Iron Re Muck Sur	a s ide Odor ospheres on Living Roots educed Iron eduction in Tilled Soils face			 B6 - Surface Soil B10 - Drainage Pa B16 - Moss Trim L C2 - Dry-Seasor C3 - Crayfish Burr C9 - Saturation Vii D1 - Stunted or St D2 - Geomorphic D3 - Shallow Aquii D4 - Microtopogra D5 - FAC-Neutral 	atterns .ines Water Table ows sible on Aerial Imagery ressed Plants Position tard phic Relief
Field Observat Surface Water Water Table Pro Saturation Pres	Present? esent? ent?	 ✓ Yes ◯ No ✓ Yes ◯ No ✓ Yes ◯ No 	Depth: Depth: Depth:	0 0	(in.) (in.) (in.)			Wetland Hy		esent? ☑	Yes 🗆 No
Remarks:	ed Data (stre	eam gauge, monitorin	g well, aeria	ai pnotos	, previous	Inspectio	ns), if available:		N/A		
	tion (Describe to)	the depth needed to document the indi	ator or confirm the a	absence of indic	ators.) (Type: C=C	Concentration, D	=Depletion, RM=Reduced Matrix, CS=Cove	ered/Coated Sand Grains;	Location: PL=Pore L	ining, M=Matrix)	
Тор	Bottom			Matrix				Mottles	1		Texture
Depth	Depth	Horizon	Color (1 /	%		Color (Moist)	%	Туре	Location	(e.g. clay, sand, loam)
0	30	1	2.5Y	2.5/1	100						muck
	A1- Histosol A2 - Histic Er A3 - Black H A4 - Hydroge A5 - Stratifier A11 - Deplete A12 - Thick E S1 - Sandy M S4 - Sandy G S5 - Sandy R S6 - Stripped	stic en Sulfide d Layers ed Below Dark Surface Dark Surface Juck Mineral Gleyed Matrix tedox	e if indicat		S8 - Polyv S9 - Thin F1 - Loam F2 - Loam F3 - Deple	value Belo Dark Surf ny Mucky I ny Gleyed eted Matri ox Dark Su eted Dark	x urface Surface		A10 - 2 cm I A16 - Coast S3 - 5cm Mu S7 - Dark S0 S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm TA6 - Mesic TF2 - Red P TF12 - Very Other (Expla	matic Soils 1 Vluck (LRR K, L, MLRA 11 Prairie Redox (LRR Jacky Peat of Peat (I Urface (LRR K, L, M) ue Below Surface (I ark Surface (LRR K, L) langanese Masses sont Floodplain Soil: Spodic (MLRA 14A, 14 tarent Material Shallow Dark Surf; ain in Remarks) tion and wetlan hydrogy n	K, L, R) .RR K, L, R) (LRR K, L, R) S (MLRA 149B) 15, 149B)
Restrictive Layer	Type:			Depth:				Hydric Soil	r problematic.		Yes No
(If Observed)	,							,			



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Fire Island, N	IY				Wetland ID: W01JRA Sample Point Netland
VEGETATION	(Species identified in all uppercase	se are non native	species	\		
	ot size: 10 meter radius)	se are non-native	species.)		
	Species Name	_	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.	Acer rubrum		45	Y	FAC	
2.	Nyssa sylvatica		25	Y	FAC	Number of Dominant Species that are OBL, FACW, or FAC:4 (A)
3.						
4.						Total Number of Dominant Species Across All Strata:4(B)
5.						
6.						Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
7.						
8.						Prevalence Index Worksheet
9.						Total % Cover of: <u>Multiply by:</u>
10.						OBL spp. 10 $x = 10$
		Total Cover =	70			FACW spp. 3 $x 2 = 6$
						FAC spp. 175 x 3 = 525
	atum (Plot size: 5 meter radius)					FACU spp 2 x $4 = $ 8
1.	Clethra alnifolia		75	Y	FAC	UPL spp
2.	Viburnum recognitum		10	N	FAC	
3.						Total <u>190</u> (A) <u>549</u> (B)
4.						
5.						Prevalence Index = B/A =
6.						
7.						
8.						Hydrophytic Vegetation Indicators:
9.						Yes No Rapid Test for Hydrophytic Vegetation
10.						✓ Yes □ No Dominance Test is > 50%
		Total Cover =	85			$rightarrow$ Yes \Box No Prevalence Index is ≤ 3.0 *
						Yes I No Morphological Adaptations (Explain) *
	t size: 2 meter radius)		00	V	540	□ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *
1.	Clethra alnifolia		20	Y	FAC	* Indicators of hydric soil and wetland hydrology must be
2.	Carex trisperma		5	N	OBL	present, unless disturbed or problematic.
3.	Glyceria striata		5	N	OBL	Definitions of Venetation Otestas
4.	Pilea pumila		1	N	FACW	Definitions of Vegetation Strata:
5.	Thalictrum pubescens		2	N	FACW	Tour
6	Rosa multiflora		2	Ν	FACU	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
7.						noight (BBH), regardlood of hoight
8.						Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
9.						tall.
10.						
11.						Herb - All herbaceous (non-woody) plants, regardless of size, and
12.						woody plants less than 3.28 ft. tall.
13.						
14.						Woody Vines - All woody vines greater than 3.28 ft. in height.
15.		Tatal Course				woody vines - An woody vines greater than 0.20 fc in height.
		Total Cover =	35			
Woody Vine Strat	um (Plot size: 10 meter radius)					
2.						
3.						Hydrophytic Vegetation Present 🧧 Yes 🗌 No
<u> </u>						nyurophytic vegetation Present 🗠 res 🗆 No
4. 5.						
э.		Total Cover =	0			
Remarks:			U			



Project/Site:		/ Fire Island, NY					Stantec Project #:	2028113199		Date:	10/19/20
Applicant:	Sunrise Wind			1						County:	Suffolk
Investigator #1: Soil Unit:	Matt Arsenau	llt		Invest	igator #2:		y VI/WWI Classification:	DEO		State: Wetland ID:	New York W01JRA
Landform:	Floodplain				al Relief:		WI/WWWI Classification.	PFU		Sample Point:	Wetland
Slope (%):	0-1%	Latitude:	40.801275		ongitude:		56	Datum:		Community ID:	PFO
	-	litions on the site typ							No		FFU
		or Hydrology Sign					Are normal circumsta				
		or Hydrology 🗆 natu					⊻ Yes				
SUMMARY OF						1					
Hydrophytic Ve		sent?		🗹 Yes	s 🗌 No			Hydric Soils	Present?		🗹 Yes 🗌 No
Wetland Hydrol				🗹 Yes	s 🗆 No					Vithin A Wetland	
Remarks:											
HYDROLOGY											
Wetland Hvdr	oloav Indica	ators (Check here if	indicators	are not r	oresent)[]					
Primary)			Secondary:		
	A1 - Surface				B9 - Wate					B6 - Surface Soil (
	A2 - High Wa A3 - Saturati									B10 - Drainage Pa B16 - Moss Trim L	
	B1 - Water M									C2 - Dry-Season V	
	B2 - Sedimer						ospheres on Living Roots			C8 - Crayfish Burr	
	B3 - Drift De						educed Iron				sible on Aerial Imagery
	B4 - Algal Ma						eduction in Tilled Soils			D1 - Stunted or St	
	B5 - Iron Dep B7 - Inundati	osits on Visible on Aerial Ima	aerv							D2 - Geomorphic I D3 - Shallow Aquit	
		Vegetated Concave S		닌		plainin	emarkay			D4 - Microtopogra	
										D5 - FAC-Neutral	Test
Field Observat	tions:										
Surface Water	Present?	🗆 Yes 🗵 No	Depth:		(in.)						
Water Table Pr	esent?	🗆 Yes 🗹 No	Depth:		(in.)			Wetland Hy	arology Pr	esent?	Yes 🗌 No
Saturation Pres	ent?	Yes Vo	Depth:		• •						
		i res i ino	Depui.		(in.)						
Describe Record					()	inspectic	ons) if available:		N/A		
	led Data (str	eam gauge, monitorin			()	inspectic	ons), if available:		N/A		
Describe Record Remarks:	led Data (str				()	inspectio	ons), if available:		N/A		
Remarks:	led Data (str	eam gauge, monitorin			()	inspectic	ons), if available:		N/A		
Remarks: SOILS	led Data (stro Subtle indio	eam gauge, monitorin cators of hydrology	ng well, aeria	al photos	, previous			ered/Crated Sand Grains:		ining M=Matrix)	
Remarks: SOILS Profile Descrip	led Data (stru Subtle india	eam gauge, monitorin cators of hydrology	ng well, aeria	al photos	, previous		Dependence of the second secon			ining, M=Matrix)	Texture
Remarks: SOILS Profile Descrip Top	led Data (stro Subtle indio Dition (Describe to Bottom	eam gauge, monitorin cators of hydrology	ng well, aeria	al photos absence of indic Matrix	, previous		Depletion, RM=Reduced Matrix, CS=Cow	Mottles	Location: PL=Pore L	I	Texture (e.g. clay, sand, loam)
Remarks: SOILS Profile Descrip Top Depth	led Data (stra Subtle india Detion (Describe to Bottom Depth	eam gauge, monitorin cators of hydrology	ag well, aeria	al photos absence of indic Matrix Moist)	, previous ators.) (Type: C=C %					ining, M=Matrix)	(e.g. clay, sand, loam)
Remarks: SOILS Profile Descrip Top Depth 0	btion (Describe to Bottom Depth 3	eam gauge, monitorin cators of hydrology the depth needed to document the indi- Horizon 1	cator or confirm the a	al photos absence of indic Matrix Moist) 3/1	, previous ators.) (Type: C=C % 100	Concentration, E	D=Depletion, RM=Reduced Matrix, CS=Cov	Mottles %	Location: PL=Pore L	Location	(e.g. clay, sand, loam) peat
Remarks: SOILS Profile Descrip Top Depth	led Data (stra Subtle india Detion (Describe to Bottom Depth	eam gauge, monitorin cators of hydrology the depth needed to document the indi- Horizon	ag well, aeria	al photos absence of indic Matrix Moist)	, previous ators.) (Type: C=C %	Concentration, E	D=Depletion, RM=Reduced Matrix, CS=Cov Color (Moist)	Mottles % 	Location: PL=Pore L	Location 	(e.g. clay, sand, loam)
Remarks: SOILS Profile Descrip Top Depth 0 3	bition (Describe to Bottom Depth 3 9	the depth needed to document the indi Horizon	cator or confirm the a	al photos absence of indic Matrix Moist) 3/1 5/1	, previous ators.) (Type: C=C % 100 100	Concentration, E	D=Depletion, RM=Reduced Matrix, CS=Cow Color (Moist)	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) peat sand
Remarks: SOILS Profile Descrip Top Depth 0 3 9	ted Data (str Subtle indice tion (Describe to Bottom Depth 3 9 12	the depth needed to document the indi Horizon	cator or confirm the a	al photos absence of indic Matrix Moist) 3/1 5/1 5/3	, previous ators.) (Type: C=C % 100 100 100	Concentration, E	D=Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) peat sand sand
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12	bition (Describe to Bottom Depth 3 9 12 18	the depth needed to document the indi Horizon 1 2 3 4	cator or confirm the a Color (1 10YR 2.5Y 2.5Y 7.5YR	al photos absence of indic Matrix Moist) 3/1 5/1 5/3 4/4/	, previous ators.) (Type: C=C % 100 100 100 100	Concentration, E	D=Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) peat sand sand sand sand
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 	ted Data (str Subtle indice bition (Describe to Bottom Depth 3 9 12 18 	the depth needed to document the indi Horizon 1 2 3 4	cator or confirm the a Color (1 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of Indic Matrix Moist) 3/1 5/1 5/3 4/4/ 	, previous ators.) (Type: C=C % 100 100 100 100 	Concentration, D	D=Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) peat sand sand sand
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 	tion (Describe to Bottom Depth 3 9 12 18 	the depth needed to document the indi Horizon 1 2 3 4	cator or confirm the a Color (10YR 2.5Y 2.5Y 7.5YR 	al photos absence of Indic Matrix Moist) 3/1 5/1 5/3 4/4/ 	, previous ators.) (Type: C=C % 100 100 100 100 	Concentration, D	D=Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) 	Mottles % 	Location: PL=Pore L Type 	Location 	(e.g. clay, sand, loam) peat sand sand sand
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 	bition (Describe to Bottom Depth 3 9 12 18 	the depth needed to document the indi Horizon 1 2 3 4	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos basence of indic Matrix Moist) 3/1 5/1 5/3 4/4/ 	(Type: C=C 9% 100 100 100 100 	Concentration, E	D=Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) -	Mottles % 	Location: PL=Pore I Type 	Location 	(e.g. clay, sand, loam) peat sand sand sand
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric	bion (Describe to Bottom (Describe to Bottom Depth 3 9 12 18 Soil Field Ir A1- Histosol	the depth needed to document the indi- Horizon 1 2 3 4 dicators (check here	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of indic Matrix Moist) 3/1 5/3 4/4/ ors are r	ators.) (Type: C=C % 100 100 100 100 S8 - Polyw	Concentration, D	D=Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) -	Mottles % <u>Indicator</u>	Location: PL=Pore L Type s for Proble A10 - 2 cm	Location matic Soils ¹ Muck (LRR K, L, MLRA 12	(e.g. clay, sand, loam) peat sand sand
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric	ted Data (str Subtle indice Bottom Depth 3 9 12 18 Soil Field Ir A1- Histosol A2 - Histic E	the depth needed to document the indi Horizon 1 2 3 4 indicators (check here pipedon	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of indic Matrix Moist) 3/1 5/1 5/3 4/4/ ors are r □	with the second secon	Concentration, C	D=Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) -	Mottles %	Location: PL=Pore L Type s for Proble A10 - 2 cm A16 - Coast	Location matic Soils ¹ Vluck (LRR K, L, MLRA 14 Prairie Redox (LRR	(e.g. clay, sand, loam) peat sand sand see see
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric	ted Data (str Subtle indice bottom Depth 3 9 12 18 Soil Field In A1- Histosol A2 - Histic El A3 - Black H	the depth needed to document the indi Horizon 1 2 3 4 endicators (check here pipedon istic	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of indic Matrix Moist) 3/1 5/1 5/3 4/4/ ors are r 	with the second secon	Concentration, C	D=Depletion, RM=Reduced Matrix, CS=Cow Color (Moist) w Surface (LRR R, MLRA 149B) Mineral (LRR K, L)	Mottles % <u></u> <u></u> <u></u>	Location: PL=Pore L Type s for Proble A10 - 2 cm A16 - Coast S3 - 5cm M	Location	(e.g. clay, sand, loam) peat sand sand see see
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric	tied Data (str Subtle indice Bottom Depth 3 9 12 18 Soil Field Ir A1- Histosoi A2 - Histic El A3- Black H A4 - Hydroge	the depth needed to document the indi Horizon 1 2 3 4 indicators (check here pipedon istic on Sulfide	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos basence of indic Matrix Moist) 3/1 5/3 4/4/ ors are r 	ators.) (Type: C=C % 100 100 100 100 S8 - Polyv S9 - Thin F1 - Loam F2 - Loam	Concentration, D	D=Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) -	Mottles % <u></u> <u>Indicator</u> 	Location: PL=Pore I Type -	Location	(e.g. clay, sand, loam) peat sand sand
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric	Ided Data (str Subtle indice Data (str Subtle indice Depth 3 9 12 18 Soil Field Ir A1- Histosol A2 - Histic E A3 - Black H A4 - Hydroge A5 - Stratifier	the depth needed to document the indi Horizon 1 2 3 4 indicators (check here pipedon istic on Sulfide	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of Indic Matrix Moist) 3/1 5/1 5/3 4/4/ ors are r	ators.) (Type: C=C % 100 100 100 100 	Concentration, D	D=Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix X	Mottles % <u></u> <u></u> <u></u> <u>Indicator</u> 	Location: PL=Pore L Type s for Proble A10 - 2 cm A10 - 2 cm A10 - Coast S3 - 5cm M S7 - Dark S S8 - Polyval	Location	(e.g. clay, sand, loam) peat sand sand
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric 0 12 NRCS Hydric	tion (Describe to Bottom Depth 3 9 12 18 Soil Field In A1- Histosol A2- Histic EI A3- Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I	the depth needed to document the indi- Horizon 1 2 3 4 ndicators (check here pipedon istic pipedon istic d Layers ed Below Dark Surface Dark Surface	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of indic Matrix Moist) 3/1 5/1 5/3 4/4/ ors are r 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	with the second secon	Concentration, C	D=Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix X Jrface Surface	Mottles %	Location: PL=Pore I Sold Sold Sold <td>Location</td> <td>(e.g. clay, sand, loam) peat sand sand -</td>	Location	(e.g. clay, sand, loam) peat sand sand -
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric	tied Data (str Subtle indice Bottom Depth 3 9 12 18 Soil Field Ir A1- Histosol A2 - Histo EI A3 - Black H A4 - Hydroge A5 - Stratifier A12 - Thick I S1 - Sandy M	the depth needed to document the indi Horizon 1 2 3 4 indicators (check here pipedon istic on Sulfide d Layers ed Below Dark Surface Dark Surface fuck Mineral	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of indic Matrix Moist) 3/1 5/1 5/3 4/4/ ors are r 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	with the second secon	Concentration, C	D=Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix X Jrface Surface	Mottles %	Location: PL=Pore I Type S10 S2 S5 S10 S10 S2 S2 S3 S3 S4 S4 S10 <tr< td=""><td>Location</td><td>(e.g. clay, sand, loam) peat sand sand -</td></tr<>	Location	(e.g. clay, sand, loam) peat sand sand -
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric	ted Data (strr Subtle indicession of the second sec	the depth needed to document the indicators of hydrology the depth needed to document the indicators Horizon 1 2 3 4 Indicators (check here pipedon istic n Sulfide Layers ed Below Dark Surface Dark Surface Dark Surface Dark Surface Beloyed Matrix	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of indic Matrix Moist) 3/1 5/1 5/3 4/4/ ors are r 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	with the second secon	Concentration, C	D=Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix X Jrface Surface	Mottles %	Location: PL=Pore I Type s for Proble A10 - 2 cm A10 - 2 cm A10 - 2 cm A10 - 2 cm S3 - 5cm M S7 - Dark S S8 - Polyval S9 - Thin D2 F12 - Iron-N F19 - Piedm TA6 - Mesic	Location matic Soils ¹ Muck (LRR K, L, MLRA 14 Prairie Redox (LRR I Loky Peat of Peat (LI Urface (LRR K, L, M) ue Below Surface (L Irface (LRR K, L) anganese Masses ont Floodplain Soil: Spodic (MLRA 1444, 4C)	(e.g. clay, sand, loam) peat sand sand -
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric	ted Data (str Subtle indice Bottom Depth 3 9 12 18 5 Soil Field Ir A1- Histosol A2 - Histic El A3- Black H A4- Hydroge A5- Stratifier A12 - Thick I S1 - Sandy M S4 - Sandy M S4 - Sandy M	the depth needed to document the indicators of hydrology the depth needed to document the indi Horizon 1 2 3 4 ndicators (check hele pipedon istic on Sulfide d Layers ed Below Dark Surface Dark Surface Nuck Mineral Sleyed Matrix tedox	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of indic Matrix Moist) 3/1 5/1 5/3 4/4/ ors are r 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	with the second secon	Concentration, C	D=Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix X Jrface Surface	Mottles %	Location: PL=Pore L Type -	Location matic Soils ¹ Muck (LRR K, L, MLRA 14 Prairie Redox (LRR JCKy Peat of Peat (L urface (LRR K, L, M) ue Below Surface (LRR K, L, M) ue Below Surface (LRR K, L, M) tanganese Masses ont Floodplain Soils Spodic (MLRA 144, 14 tarent Material	(e.g. clay, sand, loam) peat sand sand
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric NRCS Hydric	tion (Describe to Bottom Depth 3 9 12 18 Soil Field In A1- Histosol A2- Histic EI A3- Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick II S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Stripped	the depth needed to document the indicators of hydrology the depth needed to document the indi Horizon 1 2 3 4 ndicators (check hele pipedon istic on Sulfide d Layers ed Below Dark Surface Dark Surface Nuck Mineral Sleyed Matrix tedox	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of indic Matrix Moist) 3/1 5/1 5/3 4/4/ ors are r 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	with the second secon	Concentration, C	D=Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix X Jrface Surface	Mottles %	Location: PL=Pore I Type -	Location	(e.g. clay, sand, loam) peat sand sand -
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric NRCS Hydric	tion (Describe to Bottom Depth 3 9 12 18 Soil Field In A1- Histosol A2- Histic EI A3- Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick II S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Stripped	the depth needed to document the indi Horizon 1 2 3 4 adicators (check here pipedon istic istic ad Layers ed Below Dark Surface Dark Surface Auck Mineral Beleyed Matrix Redox I Matrix	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of indic Matrix Moist) 3/1 5/1 5/3 4/4/ ors are r 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	with the second secon	Concentration, C	D=Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix X Jrface Surface	Mottles %	Location: PL=Pore I S9 - Thin Da F12 - Iron-M F12 - Ned F TF12 - Very Other (Expla) Mydrophytic veget	Location	(e.g. clay, sand, loam) peat sand sand -
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric NRCS Hydric	ted Data (str Subtle indice Bottom Depth 3 9 12 18 Soil Field Ir A1- Histosol A2 - Histic El A3- Black H A4 - Hydroge A5 - Stratifier A11 - Deplet A5 - Stratifier A11 - Deplet A5 - Stratifier S1 - Sandy M S4 - Sandy G S5 - Sandy F S6 - Strippec S7 - Dark Su	the depth needed to document the indi Horizon 1 2 3 4 adicators (check here pipedon istic istic ad Layers ed Below Dark Surface Dark Surface Auck Mineral Beleyed Matrix Redox I Matrix	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of indic Matrix Moist) 3/1 5/1 5/3 4/4/ ors are r 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	with the second secon	Concentration, C	D=Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix X Jrface Surface	Mottles %	Location: PL=Pore L Type -	Location matic Soils 1 Muck (LRR K, L, MLRA 14 Prairie Redox (LRR Jucky Peat of Peat (L Urface (LRR K, L, M) ue Below Surface (LRR K, L) anganese Masses ont Floodplain Soils Spodic (MLRA 144, 14 Parent Material Shallow Dark Surfa in in Remarks) tion and wetland hydrology m	(e.g. clay, sand, loam) peat sand sand sand
Remarks: SOILS Profile Descrip Top Depth 0 3 9 12 NRCS Hydric 0 0 0 0 0 0 0 0 0 0 0 0 0	ted Data (str Subtle indic Bottom Depth 3 9 12 18 Soil Field Ir A1- Histosol A2- Histic E A3- Black H A4 - Hydroge A5 - Stratifie A11 - Deplet A12 - Thick I S1 - Sandy N S4 - Sandy C S5 - Sandy F S6 - Stripped	the depth needed to document the indi Horizon 1 2 3 4 adicators (check here pipedon istic istic ad Layers ed Below Dark Surface Dark Surface Auck Mineral Beleyed Matrix Redox I Matrix	cator or confirm the a Color (I 10YR 2.5Y 2.5Y 7.5YR 	al photos absence of indic Matrix Moist) 3/1 5/1 5/3 4/4/ ors are r 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	with the second secon	Concentration, C	D=Depletion, RM=Reduced Matrix, CS=Cov Color (Moist) w Surface (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix X Jrface Surface	Mottles %	Location: PL=Pore L Type -	Location matic Soils 1 Muck (LRR K, L, MLRA 14 Prairie Redox (LRR Jucky Peat of Peat (L Urface (LRR K, L, M) ue Below Surface (LRR K, L) anganese Masses ont Floodplain Soils Spodic (MLRA 144, 14 Parent Material Shallow Dark Surfa in in Remarks) tion and wetland hydrology m	(e.g. clay, sand, loam) peat sand sand -



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Fire Island, NY				Wetland ID: W01JRA Sample Point Netla
VEGETATION	(Species identified in all uppercase are non-nativ	ve species)		
	ot size: 10 meter radius)	ve species.)		
•	<u>Species Name</u>	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.	Acer rubrum	60	Y	FAC	
2.	Nyssa sylvatica	20	Y	FAC	Number of Dominant Species that are OBL, FACW, or FAC:4 (A)
3.					
4.					Total Number of Dominant Species Across All Strata:4 (B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: <u>Multiply by:</u>
10.					OBL spp. 0 x 1 = 0
	Total Cover	= 80			FACW spp. 0 $x 2 = 0$
					FAC spp. 186 X 3 = 558
	atum (Plot size: 5 meter radius)	00	X	540	FACU spp. 0 x 4 = 0 UPL spp. 0 x 5 = 0
1.	Clethra alnifolia	80	Y	FAC	UPL spp x 5 =0
2.	Nyssa sylvatica	20	N	FAC	
<u>3.</u> 4.					Total <u>186</u> (A) <u>558</u> (B)
4. 5.					Dravelance index = $D/h = -0.000$
5. 6.					Prevalence Index = B/A = <u>3.000</u>
7.					
8.					Hydrophytic Vogotation Indicators:
0. 9.					Hydrophytic Vegetation Indicators:
9. 10.					 Yes No Rapid Test for Hydrophytic Vegetation ∀ Yes No Dominance Test is > 50%
10.	 Total Cover				 ✓ Yes No Dominance Test is > 50% ✓ Yes No Prevalence Index is ≤ 3.0 *
		- 100			_
Horb Stratum (Dk	ot size: 2 meter radius)				 ✓ Yes ↓ No Morphological Adaptations (Explain) * ↓ Yes ✓ No Problem Hydrophytic Vegetation (Explain) *
1.	Clethra alnifolia	5	Y	FAC	
2.					* Indicators of hydric soil and wetland hydrology must be
3.					present, unless disturbed or problematic.
4.					Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft.
10.					tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and
13.					woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover	= 5			
Woody Vine Strat	um (Plot size: 10 meter radius)				
1.	Smilax rotundifolia	1	N	FAC	
2.					
3.					Hydrophytic Vegetation Present 🧧 Yes 🗌 No
4.					
5.					
0.	Total Cover				
				l shallow r	



Project/Site:		I/ Fire Island, NY					Stantec Project #:	2028113199		Date:	10/20/20
Applicant:	Sunrise Wind			lavent						County:	Suffolk
Investigator #1: Soil Unit:	Matt Arsenau	llt		Invest	igator #2:		y VI/WWI Classification:			State: Wetland ID:	New York W01JRB
Landform:	Terrace				al Relief:		vi/vvvvi Classification.	UPL			
Slope (%):	0-1%	Latituda:	40.800517				ICE	Datum:		Sample Point:	Upland
	-	litions on the site typ			ongitude:				No	Community ID:	Upland
						o, explain in I	Are normal circumsta				
		or Hydrology □sigr or Hydrology □natu					Are normal circumsta	□ No	. (
		or ⊓yurology ⊡nau	arally proble	ematic?							
SUMMARY OF								Libuditi e O e ile	Due e e u 40		
Hydrophytic Veg Wetland Hydrol				☑ Yes				Hydric Soils			□ Yes ☑ No d? ■ Yes ☑ No
	ogy Present	<i>!</i>			i 🗅 NO			is this Samp	biing Point v	Vithin A Wetland	a? ∎ res ¤ no
Remarks:											
HYDROLOGY											
	alagu India	tere (Chaok hara if	indiactora	oro not r	rocont						
Primary:		ators (Check here if	indicators	are not p	bresent)⊡			Secondary:		
<u>r ninary</u> .		Water			B9 - Wate	r-Stained	Leaves			B6 - Surface Soil (Cracks
	A2 - High Wa									B10 - Drainage Pa	
	A3 - Saturatio	on			B15 - Mar					B16 - Moss Trim L	
	B1 - Water N				- ,					C2 - Dry-Season \	
	B2 - Sedimer B3 - Drift Der						spheres on Living Roots			C8 - Crayfish Burr	
	B4 - Algal Ma						educed Iron eduction in Tilled Soils			D1 - Stunted or St	sible on Aerial Imagery
	B5 - Iron Dep									D2 - Geomorphic	
		on Visible on Aerial Ima	gery		Other (Ex	plain in Re	emarks)			D3 - Shallow Aquit	
	B8 - Sparsely	y Vegetated Concave S	urface							D4 - Microtopogra	
										D5 - FAC-Neutral	Test
Field Observat	ions:										
Surface Water I	Present?	🗆 Yes 🗵 No	Depth:		(in.)			Wetland Hy		sont?	Yes 🗵 No
Water Table Pre	esent?	🗆 Yes 🗹 No	Depth:		(in.)			Wettand Hy	arology i h		
Saturation Pres	ent?	🗌 Yes 🗹 No	Depth:		(in.)						
Describe Record	ed Data (str	eam gauge, monitorin	n well aeria	al nhotos	nrevious	inspectio	ns) if available:		N/A		
Remarks:		oam gaago, monitorii	ig won, done		, proviouo	nopoolie					
Remarks.											
SOILS											
	tion						=Depletion, RM=Reduced Matrix, CS=Cove				
Тор	Bottom	ine depin needed to document the indi	cator or confirm the a	Matrix	ators.) (Type: C=C	oncentration, L	=Depletion, RM=Reduced Matrix, CS=Cov	Mottles	Location: PL=Pore L	ning, m=mainx)	Texture
		Harizon	Color /I		%		Color (Maint)	%	Turne	Location	(e.g. clay, sand, loam)
Depth 0	Depth	Horizon 1	Color (I		100		Color (Moist)	70	Туре	Location	, , ,
	3		10YR	3/3							peat
3	4	2	10YR	3/1	100						sand
4	8	3	10YR	5/3	100						sand
8	16	4	7.5YR	4/6	100						sand
16	20	5	7.5YR	5/6	100						
				 ors are r	 not preser	 nt)⊠					
 NRCS Hydric	 Soil Field In A1- Histosol	 ndicators (check he		 ors are r	 not preser S8 - Polyv	 it)☑ ralue Belo	 W Surface (LRR R, MLRA 149B)	 Indicator	 s for Proble A10 - 2 cm l	 matic Soils ¹ Muck (lrr k, l, mlra 14	
 NRCS Hydric	 Soil Field In A1- Histosol A2 - Histic Ep	 ndicators (check he pipedon		 ors are r	 not preser S8 - Polyv S9 - Thin	 nt)⊡ value Belo Dark Surf	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B)	 Indicator	 A10 - 2 cm I A16 - Coast	 matic Soils ¹ Muck (LRR K, L, MLRA 14 Prairie Redox (LRR	 19B) K, L, R)
 NRCS Hydric :	 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi	 idicators (check he pipedon istic		 ors are r	 not preser S8 - Polyv S9 - Thin F1 - Loar	 value Belo Dark Surf ny Mucky	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) Mineral (LRR K, L)	 Indicator	 rs for Proble A10 - 2 cm I A16 - Coast S3 - 5cm Mu	 <u></u> Muck (LRR K, L, MLRA 14 Prairie Redox (LRR JCky Peat of Peat (J	 19B) K, L, R)
 NRCS Hydric	 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi	 Idicators (check he pipedon istic n Sulfide		 ors are r	 not preser S8 - Polyv S9 - Thin	 ralue Belo Dark Surf ny Mucky ny Gleyed	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix	 Indicator	 A10 - 2 cm I A16 - Coast S3 - 5cm Mu S7 - Dark St	 matic Soils ¹ Muck (LRR K, L, MLRA 14 Prairie Redox (LRR	 19B) K, L, R) .RR K, L, R)
 NRCS Hydric IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	 Soil Field In A1- Histosol A2 - Histic E _I A3 - Black Hi A4 - Hydroge A5 - Stratified A11 - Deplete	 Idicators (check he pipedon istic n Sulfide		 ors are r	 not preser S8 - Polyv S9 - Thin F1 - Loarr F2 - Loarr	 t)⊐ ralue Belo Dark Surf ny Mucky ny Gleyed ated Matri	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix x	Indicator	 <u>s for Proble</u> A10 - 2 cm I A16 - Coast S3 - 5cm Mu S7 - Dark Si S8 - Polyvali S9 - Thin Da		 II9B) K, L, R) .RR K, L, R) LRR K, L)
 NRCS Hydric : 	 Soil Field In A1- Histosol A2 - Histic Er A3 - Black Hi A4 - Hydroge A5 - Stratified A11 - Deplete A12 - Thick I	 		 ors are r	 sot preser S8 - Polyo S9 - Thin F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	 t ralue Belo Dark Surf ny Mucky ny Gleyed ted Matri x Dark Su ted Dark	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix x urface Surface		 s for Proble A10 - 2 cm I A16 - Coast S3 - 5cm Mu S7 - Dark St S8 - Polyval S9 - Thin Da F12 - Iron-M		 198) K, L, R) LRR K, L, R) (LRR K, L, R)
 NRCS Hydric : 	 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A11 - Deplett A12 - Thick I S1 - Sandy M	 idicators (check he pipedon istic an Sulfide d Layers ed Below Dark Surface Dark Surface fuck Mineral		 ors are r	 sot preser S8 - Polyo S9 - Thin F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	 t ralue Belo Dark Surf ny Mucky ny Gleyed ted Matri x Dark Su ted Dark	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix x urface Surface		 S for Proble A10 - 2 cm I A16 - Coast S3 - 5cm Mu S7 - Dark St S8 - Polyvall S9 - Thin Da S9 - Thin Da F12 - Iron-M F19 - Piedm		 198) K, L, R) LRR K, L, R) LLRR K, L, R) (LRR K, L, R) S (MLRA 149B)
 NRCS Hydric : 	 Soil Field In A1- Histosol A2 - Histic E _I A3 - Black Hi A4 - Hydrogg A5 - Stratifier A11 - Deplet A12 - Thick D S1 - Sandy M S4 - Sandy G	 		 ors are r	 sot preser S8 - Polyo S9 - Thin F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	 t ralue Belo Dark Surf ny Mucky ny Gleyed ted Matri x Dark Su ted Dark	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix x urface Surface	 	 s for Proble A10 - 2 cm I A16 - Coast S3 - 5cm Mi S7 - Dark SI S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm TA6 - Mesic		 198) K, L, R) LRR K, L, R) LLRR K, L, R) (LRR K, L, R) S (MLRA 149B)
 NRCS Hydric : 	 Soil Field In A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratifier A11 - Deplett A12 - Thick E S1 - Sandy M S4 - Sandy G S5 - Sandy R	 		 ors are r	 sot preser S8 - Polyo S9 - Thin F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	 t ralue Belo Dark Surf ny Mucky ny Gleyed ted Matri x Dark Su ted Dark	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix x urface Surface	 	 s for Proble A10 - 2 cm I A16 - Coast S3 - Scm Mu S7 - Dark St S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm TA6 - Mesic TF2 - Red P		 I9B) K, L, R) LRR K, L, R) LRR K, L, R) (LRR K, L, R) S (MLRA 149B) 15, 149B)
 NRCS Hydric:	 Soil Field In A1- Histosol A2 - Histic E; A3 - Black Hi A4 - Hydroge A5 - Stratified A11 - Deplett A12 - Thick I S1 - Sandy M S4 - Sandy R S5 - Sandy R S6 - Stripped	 		 ors are r	 sot preser S8 - Polyo S9 - Thin F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	 t ralue Belo Dark Surf ny Mucky ny Gleyed ted Matri x Dark Su ted Dark	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix x urface Surface	Indicator	 s for Proble A10 - 2 cm I A16 - Coast S3 - 5cm Mu S7 - Dark St S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm T46 - Mesic TF2 - Red P TF12 - Very		 I9B) K, L, R) LRR K, L, R) LRR K, L, R) S (MLRA 149B) 15, 149B)
 NRCS Hydric:	 Soil Field In A1- Histosol A2 - Histic E; A3 - Black Hi A4 - Hydroge A5 - Stratified A11 - Deplett A12 - Thick I S1 - Sandy M S4 - Sandy R S5 - Sandy R S6 - Stripped	 		 ors are r	 sot preser S8 - Polyo S9 - Thin F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	 t ralue Belo Dark Surf ny Mucky ny Gleyed ted Matri x Dark Su ted Dark	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix x urface Surface		 s for Proble A10 - 2 cm I A16 - Coast S3 - Scm Mu S7 - Dark St S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm TA6 - Mesic TF2 - Red P TF12 - Veryl Other (Expla		 I9B) K, L, R) .RR K, L, R) LRR K, L, R) (LRR K, L, R) S (MLRA 149B) 15, 149B) 3CE
 NRCS Hydric:	 Soil Field In A1- Histosol A2 - Histic E; A3 - Black Hi A4 - Hydroge A5 - Stratifier A12 - Thick I S1 - Sandy M S4 - Sandy G S5 - Sandy G S6 - Stripped S7 - Dark Su	 		 ors are r	 sot preser S8 - Polyo S9 - Thin F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	 t ralue Belo Dark Surf ny Mucky ny Gleyed ted Matri x Dark Su ted Dark	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix x urface Surface		 s for Proble A10 - 2 cm I A16 - Coast S3 - 5cm Mi S7 - Dark St S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm TA6 - Mesic TF2 - Red P TF12 - Very Other (Expla) thydrophytic wegetar problematic.		 I9B) K, L, R) LRR K, L, R) LRR K, L, R) S (MLRA 149B) 15, 149B) 3CCE
 NRCS Hydric:	 Soil Field In A1- Histosol A2 - Histic E; A3 - Black Hi A4 - Hydroge A5 - Stratified A11 - Deplett A12 - Thick I S1 - Sandy M S4 - Sandy R S5 - Sandy R S6 - Stripped	 		 ors are r	 sot preser S8 - Polyo S9 - Thin F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	 t ralue Belo Dark Surf ny Mucky ny Gleyed ted Matri x Dark Su ted Dark	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix x urface Surface		 s for Proble A10 - 2 cm I A16 - Coast S3 - 5cm Mi S7 - Dark St S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm TA6 - Mesic TF2 - Red P TF12 - Very Other (Expla) thydrophytic wegetar problematic.		 ISB) K, L, R) LRR K, L, R) (LRR K, L, R) S (MLRA 149B) 15, 149B) 3CE
NRCS Hydric:	 Soil Field In A1- Histosol A2 - Histic E; A3 - Black Hi A4 - Hydroge A5 - Stratifier A12 - Thick I S1 - Sandy M S4 - Sandy G S5 - Sandy G S6 - Stripped S7 - Dark Su	 		 ors are r	 sot preser S8 - Polyo S9 - Thin F1 - Loam F2 - Loam F3 - Deple F6 - Redo F7 - Deple	 t ralue Belo Dark Surf ny Mucky ny Gleyed ted Matri x Dark Su ted Dark	 w Surface (LRR R, MLRA 149B) ace (LRR R, MLRA 149B) Mineral (LRR K, L) Matrix x urface Surface		 s for Proble A10 - 2 cm I A16 - Coast S3 - 5cm Mi S7 - Dark St S8 - Polyval S9 - Thin Da F12 - Iron-M F19 - Piedm TA6 - Mesic TF2 - Red P TF12 - Very Other (Expla) thydrophytic wegetar problematic.		



Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Fire Island, NY				Wetland ID: W01JRB Sample Point Upland
VEGETATION	(Species identified in all uppercase are non-native	species)			
	lot size: 10 meter radius)	species.)			
	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.	Acer rubrum	55	Y	FAC	
2.	Nyssa sylvatica	20	Y	FAC	Number of Dominant Species that are OBL, FACW, or FAC:(A)
3.	Quercus rubra	10	N	FACU	
4.					Total Number of Dominant Species Across All Strata: 5 (B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp x 1 = 0
	Total Cover =	85			FACW spp. 10 \times 2 = 20
0 1 /01 1 0/					FAC spp. 120 X $3 = 360$
	ratum (Plot size: 5 meter radius)	35	Y	FAC	FACU spp. 10 X 4 = 40 UPL spp. 0 X 5 = 0
<u> </u>	Clethra alnifolia Vaccinium corymbosum		Y	FAC FACW	UPL spp $x 5 = 0$
3.			T	FACVV	Total 140 (A) 420 (B)
4.					10tal 140 (A) 420 (B)
5.					Prevalence Index = B/A = 3.000
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					☐ Yes ☑ No Rapid Test for Hydrophytic Vegetation
10.					\checkmark Yes \square No Dominance Test is > 50%
	Total Cover =	45			\checkmark Yes \square No Prevalence Index is $\leq 3.0^*$
					☑ Yes □ No Morphological Adaptations (Explain) *
Herb Stratum (Pl	ot size: 2 meter radius)				☐ Yes ☑ No Problem Hydrophytic Vegetation (Explain) *
1.	Clethra alnifolia	10	Y	FAC	
2.					 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3.					present, aniess distarbed of problematic.
4.					Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.
10.					kan.
11.					
12.	-				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.
13.					
14.					
15.	-				Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	10			
Woody Vine Stra	tum (Plot size: 10 meter radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present 🧧 Yes 🗌 No
4.					
5.					
	Total Cover =	0			
Remarks:	Buttressing on Acer rubrum and Nyssa sylv	vatica			



Are Vegetation	Sunrise Wind Matt Arsenau Floodplain 0-1% drologic cond 0, Soil 0, c FINDINGS getation Pres	Latitude: Latitude: litions on the site typ or Hydrology □ sigr or Hydrology □ natu sent?	ificantly dis	Loc <u>time of</u> sturbed? ematic? Yes		NV Linear -72.8824 o, explain in	VI/WWI Classification:	PFO Datum: ⊻ Yes □ ances present □ No Hydric Soils	No t? Present?	Date: County: State: Wetland ID: Sample Point: Community ID:	10/20/20 Suffolk New York W01JRB Wetland PFO ✓ Yes □ No d? ☑ Yes ■ No
	A1 - Surface A2 - High Wa A3 - Saturatic B1 - Water M B2 - Sedimer B3 - Drift Dep B4 - Algal Ma B5 - Iron Dep B7 - Inundatic B8 - Sparsely	ater Table on larks nt Deposits posits at or Crust	gery		B9 - Wate B13 - Aqu B15 - Mai C1 - Hydr C3 - Oxid C4 - Pres C6 - Rece C7 - Thin	atic Fauna I Deposits ogen Sulfi ized Rhizc ence of Ro ent Iron Re Muck Suri	a de Odor spheres on Living Roots educed Iron sduction in Tilled Soils face			B6 - Surface Soil (B10 - Drainage Pa B16 - Moss Trim L C2 - Dry-Season V C8 - Crayfish Burr C9 - Saturation Vi: D1 - Stunted or St D2 - Geomorphic D3 - Shallow Aqui D4 - Microtopogra D5 - FAC-Neutral	atterns .ines Water Table ows sible on Aerial Imagery ressed Plants Position tard phic Relief
Field Observat Surface Water Water Table Pr Saturation Pres Describe Record Remarks:	Present? esent? eent?	 ✓ Yes ✓ Yes ✓ No ✓ Yes ✓ No ✓ eam gauge, monitorin 	Depth: Depth: Depth: g well, aeria	0 0	(in.) (in.) (in.) , previous	inspectio	ns), if available:	Wetland Hy	drology Pr N/A	esent? ☑	Yes 🗆 No
SOILS											
Top	Bottom (Describe to t	he depth needed to document the indi	ator or confirm the a	Matrix	ators.) (Type: C=	Concentration, D	=Depletion, RM=Reduced Matrix, CS=Cov	Mottles	Location: PL=Pore L	ining, M=Matrix)	Texture
Depth	Depth	Horizon	Color (I		%		Color (Moist)	%	Туре	Location	(e.g. clay, sand, loam)
0	3	1	10YR	3/2	100						peaty muck
3	4	2	10YR	2/1	100						sand
4	5	3	10YR	5/2	97	7.5YR	4/4	3	С	М	sand
5	10	4	7.5YR	5/2	95	7.5YR	4/4	5	С	М	sand
10	16	5	10YR	4/3	95	7.5YR	4/4	5	С	М	sand
16	20	6	10YR	4/5	97	7.5YR	4/4	3	С	М	sand
Image: constraint of the second straint of the se							Mineral (LRR K, L) Matrix x Irface Surface		A10 - 2 cm A16 - Coast S3 - 5cm Mi S7 - Dark S S8 - Polyval S9 - Thin Dz F12 - Iron-N F19 - Piedm TA6 - Mesic TF2 - Red F TF12 - Very Other (Expla	 matic Soils ¹ Muck (LRR K, L, MLRA 1 Prairie Redox (LRR ucky Peat of Peat (urface (LRR K, L, M) ue Below Surface (ark Surface (LRR K, L) langanese Masses Spodic (MLRA 144A, 10 Parent Material Shallow Dark Surfa ain in Remarks) ation and wetland hydrology n	K, L, R) LRR K, L, R) (LRR K, L, R) S (MLRA 149B) 15, 149B)
Restrictive Layer				Deet							
(If Observed)	Type:			Depth:				Hydric Soil	Present?		Yes 🗌 No
Remarks:											

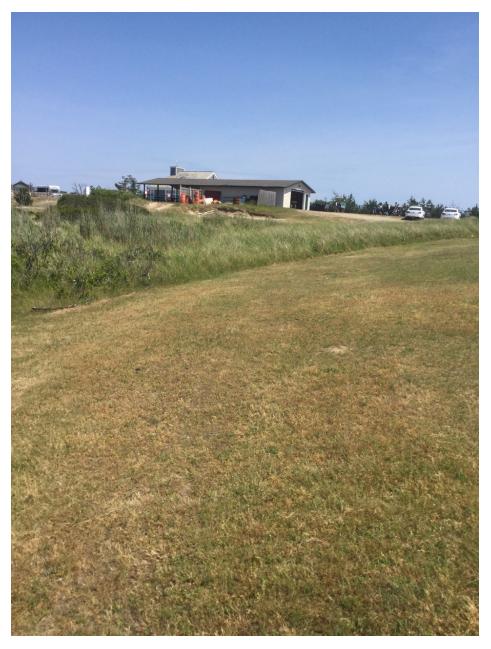


Northeast and Northcentral Region

Project/Site:	Sunrise Wind/ Fire Island, NY				Wetland ID: W01JRB Sample Point Netland
VEGETATION	(Species identified in all uppercase are non-native	species)			
	ot size: 10 meter radius)	species.)			
	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.	Acer rubrum	65	Y	FAC	
2.	Nyssa sylvatica	35	Y	FAC	Number of Dominant Species that are OBL, FACW, or FAC:(A)
3.					
4.					Total Number of Dominant Species Across All Strata:4(B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: <u>Multiply by:</u>
10.					OBL spp 0 X 1 = 0
	Total Cover =	100			FACW spp. 0 x $2 = 0$
					FAC spp. 195 $x 3 = 585$
Sapling/Shrub Str 1.	atum (Plot size: 5 meter radius) Clethra alnifolia	80	Y	FAC	FACU spp. 0 x 4 = 0 UPL spp. 0 x 5 = 0
1. 2.			Y	FAC	0PL spp. <u>0</u> X 0 - <u>0</u>
3.					Total 195 (A) 585 (B)
4.					
5.					Prevalence Index = B/A = 3.000
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					☐ Yes ☑ No Rapid Test for Hydrophytic Vegetation
10.					✓ Yes □ No Dominance Test is > 50%
	Total Cover =	80			✓ Yes \square No Prevalence Index is $\leq 3.0^{*}$
					Yes No Morphological Adaptations (Explain) *
Herb Stratum (Plo	ot size: 2 meter radius)				☐ Yes
1.	Clethra alnifolia	15	Y	FAC	
2.					 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3.					
4.					Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.
10.					
11.					Herb - All herbaceous (non-woody) plants, regardless of size, and
12.					woody plants less than 3.28 ft. tall.
13. 14.					
14.					Woody Vines - All woody vines greater than 3.28 ft. in height.
15.	 Total Cover =	15			WOOUY VIIIes
	Total Cover =	10			
Woody Vine Strat	um (Plot size: 10 meter radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present 🧧 Yes 🗌 No
4.					
5.					
-	Total Cover =	0			
Remarks:	Acer rubrum and Nyssa sylvatica with buttr	ressing a	nd expo	sed roots	



Photograph 1. Wetland 01ASA – Wetland View looking east. Stantec. June 2020.



Photograph 2. Wetland 01ASA – Upland View looking south. Stantec. June 2020.



Photograph 3. Wetland 01CFA – Wetland View looking northeast. Stantec. June 2020.



Photograph 4. Wetland 01CFA – Upland View looking southwest. Stantec. June 2020.



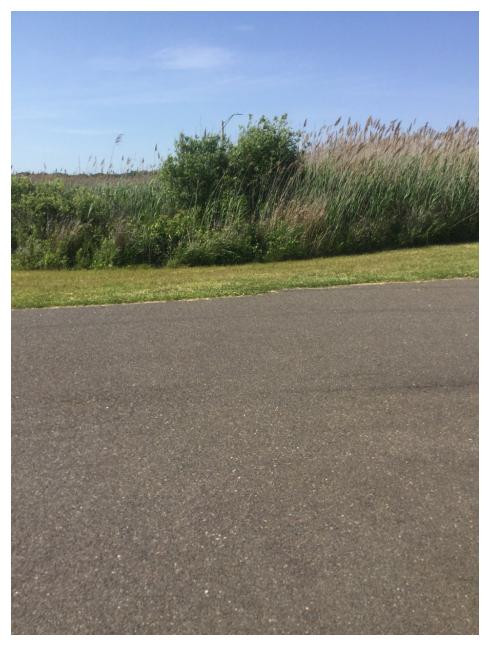
Photograph 5. Wetland 01ASB – Wetland View looking west. Stantec. June 2020.



Photograph 6. Wetland 01ASB – Upland View looking south. Stantec. June 2020.



Photograph 7. Wetland 01ASC – Wetland View looking north. Stantec. June 2020.



Photograph 8. Wetland 01ASC – Upland View looking north. Stantec. June 2020.



Photograph 9. Wetland 01CFB – Upland and Wetland View looking west. Stantec. June 2020.



Photograph 10. Wetland 01CFC/01JRB – Wetland View looking west across Carmans River from public right-of-way. Stantec. June 2020.



Photograph 11. Wetland 01CFC/01JRB – Upland View looking east across Carmans River from public right-of-way. Stantec. June 2020.



Photograph 12. Wetland 01CFD/01JRA – Wetland View looking north. Stantec. October 2020.



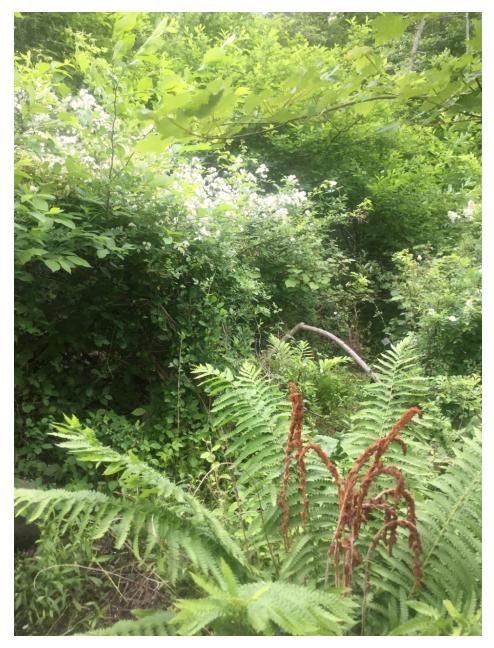
Photograph 13. Wetland 01CFD/01JRA – Upland View looking east. Stantec. October 2020.



Photograph 14. Wetland 01ASD – Wetland View looking south towards Montauk Highway. Stantec. June 2020.



Photograph 15. Wetland 01ASD – Upland View looking west across Montauk Highway from public right-of-way. Yaphank Creek runs south through culvert in image. Stantec. June 2020.



Photograph 16. Wetland 01ASE – Wetland View looking south from public right-of-way. Stantec. June 2020.



Photograph 17. Wetland 01ASE – Upland View looking east across Montauk Highway from public right-of-way. Stantec. June 2020.



Photograph 18. Watercourse S-01CF – Carmans River looking south from public right-of-way. Stantec. June 2020.



Photograph 19. Watercourse S-02MA – Tributary to Carmans River looking east. Stantec. October 2020.



Photograph 20. Watercourse S-01AS – Yaphank Creek looking south towards Montauk Highway from public right-of-way. Stantec. June 2020.