## Sunrise Wind New York Cable Project

## Appendix 4-E Addendum

## **Onshore Ecological Desktop Assessment**

Prepared for:



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#### Sunrise Wind: Onshore Ecological Desktop Assessment – Addendum

Town of Brookhaven, New York

March 2021

Prepared for:

Sunrise Wind LLC

Prepared by:

Stantec Consulting Services Inc.

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## **Acronyms and Abbreviations**

ac acre

CEA Critical Environmental Area

FEMA Federal Emergency Management Agency

FIRM Flood Insurance Rate Maps

ft feet

GIS Geographic Information Systems

HDD horizontal directional drill

he hectare

IPaC Information for Planning and Conservation

km kilometer

m meter

mi mile

NWI National Wetland Inventory

NYECL New York Environment Conservation Law

NYNHP New York Natural Heritage Program

NYSDEC New York State Department of Environmental Conservation



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ROW right-of-way

RTE rare, threatened, and endangered

SCFWH Significant Coastal Fish and Wildlife Habitats

USFWS U.S. Fish and Wildlife Service



#### 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. (Stantec) 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) species<sup>1</sup>, significant natural communities or habitats, wetland and waterbody resources, and invasive plant species.

This supplemental report provides an initial desktop assessment of updated components of the Onshore Facilities (Figure 1 of Appendix A) that were not previously evaluated in Stantec's report titled Onshore Ecological Assessment and Field Survey Report dated December 2020. The December 2020 report will be updated following completion of field surveys for this additional segment, anticipated in spring 2021, and will be provided upon completion. This report has been prepared in support of 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).

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). RTE 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. Stantec sent a letter to New York Natural Heritage Program to request information regarding rare or listed species or significant natural communities in the vicinity of the updated components of the Onshore Facilities on March 4, 2021; a response was not received by the time this addendum was prepared for filing.

The updated components of the Onshore Facilities evaluated in this report include the following (Appendix A, Figure 1):

 A new segment of the Onshore Transmission Cable, (Victory Avenue Segment) turns north onto Francine Place from Mastic Avenue until the intersection with Montauk Highway. This segment crosses Montauk Highway and continues north along Revilo Avenue, crosses Sunrise Highway via trenchless methods to Revilo Avenue, continues north to the intersection with Victory Avenue and then west on Victory Avenue to Horseblock Road, crossing the Carmans River via horizontal direction drill (HDD).

<sup>&</sup>lt;sup>1</sup> Presence of avian and bat species, marine mammals, marine fisheries, and benthic species are addressed in separate reports.



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2. An updated interconnection cable (Revised Interconnection Cable) route, from the proposed onshore converter station on Union Avenue to the existing Holbrook Substation.

#### 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
- 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 30, 2021 (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 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 (NYSDOT 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.



### 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).

#### **Onshore Facilities**

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 (ac; 42,492-hectare [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 Victory Avenue Segment 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 Cable crosses along Victory Avenue with brackish conditions beginning approximately 2,100 feet (ft; 640 meters [m]) downstream where a railroad crossing is located.

The Victory Avenue Segment will traverse Southaven County Park for approximately 0.6 miles (mi; 1.0 kilometer [km]) along the north side of Victory Avenue. Southaven County Park is an approximately 1,348-ac (545.5 ha) parcel of public land surrounding the Carmans River. The park extends from State Route 27 to just north of the Long Island Expressway (Interstate 495 [I-495]) and contains recreational trails, several historical dwellings, and wetland and waterbody resources. HDD will be used to cross the Carmans River alongside Victory Ave; the HDD entry pit is located in Southaven County Park on the west side of Carmans River. The HDD entry pit is associated with an existing access road for the park and semi-open upland area adjacent to Victory Avenue.

The Revised Interconnection Cable route will begin at a set of termination structures located at the OnCS–DC and will be routed entirely underground along Union Avenue to either the existing driveway or existing utility-owned or controlled property up to 1 mi (1.6 km) in length and connect to the existing Holbrook Substation. The Revised Interconnection Cable will cross the Long Island Expressway (I-495) via trenchless crossing methods.

With the exceptions of the intersections described above, the Victory Avenue Segment and Revised Interconnection Cable route will generally be confined to established road and utility right-of-ways (ROWs).



#### 3.1.1.1 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 Victory Avenue Segment and the Revised Interconnection Cable route are proximal to NWI-mapped wetlands in two locations, as depicted in Appendix A, Figure 2:

- Inundated deepwater aquatic habitats and aquatic wetlands including riverine wetlands (R2UBHh), lacustrine wetlands (L1UBHh), and palustrine scrub-shrub (PSS3/1Ba) wetlands associated with the Victory Avenue Segment crossing of the Carmans River.
- Palustrine emergent persistent wetland (PEM1A) associated with the Revised Interconnection Cable route.

The Victory Avenue Segment is located approximately 30–50 ft (9.1–15.2 m) south of the NWI-mapped wetland complex which contains lacustrine (L1UBHh) and palustrine scrub-shrub (PSS3/1Ba) wetlands and aquatic habitats.

The single NWI-mapped wetland associated with the Revised Interconnection Cable route is a palustrine emergent persistent wetland (PEM1A) located approximately 170 ft (51.8 m) east of the Updated Interconnection Cable route and approximately 285 ft (86.8 m) east of the Union Avenue Site.

#### 3.1.1.2 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 ac (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 Victory Avenue Segment will traverse one area of mapped NYSDEC-regulated freshwater wetlands based on a review of spatial data available from the NYSDEC. This area is a Class I wetland associated with the crossing of the Carmans River.

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



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- 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

Based on a review of available spatial data, there are no mapped NYSDEC-regulated freshwater wetlands along other areas of the Victory Avenue Segment or along the Revised Interconnection Cable route.

Appendix A, Figure 2 depicts wetlands resources from desktop review in the vicinity of the Victory Avenue Segment and Revised Interconnection Cable route.

#### 3.1.2 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)<sup>2</sup> are collectively referred to as "protected streams". Additionally, small ponds and lakes with a surface area of 10 ac (4 ha) or less, located within the course of a stream, are considered to be part of a stream and are also subject to regulation under the stream protection category of Protection of Waters.

The Carmans River is the only waterbody intersected by the Victory Avenue Segment. Based on a review of available data, the Revised Interconnection Cable route does not intersect any mapped waterbodies.

Appendix A, Figure 2 depicts waterbody resources from desktop review in the vicinity of the Victory Avenue Segment and Revised Interconnection Cable route.

#### 3.1.3 Summary

Table 1 summarizes the wetland and waterbody resources associated with the updated Onshore Facilities. The location of the wetland and waterbody resources relative to the updated Onshore Facilities are provided in Appendix A, Figure 2. As expected, these resources are concentrated along the Carmans River and the Victory Avenue Segment. Wetland and waterbody delineations are expected to be conducted along the Victory Avenue Segment and Revised Interconnection Cable route in spring 2021.

<sup>&</sup>lt;sup>2</sup> 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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**Table 1. Summary of Wetland and Waterbody Resources** 

Onshore Facility	Wetland and Waterbody Resources Documented via Desktop Review				
Onshore Transmission Cable – Victory Avenue Segment	NYSDEC-mapped freshwater wetlands at and adjacent to Carmans River     NWI-mapped wetlands at Carmans River				
	Waterbodies  • Carmans River				
Revised Interconnection Cable Route	NWI-mapped wetland near Revised Interconnection Cable Route				

## 3.2 SIGNIFICANT AND CRITICAL NATURAL COMMUNITIES AND HABITATS

#### 3.2.1 Critical Environmental Areas

The Victory Avenue Segment traverses the Coastal Zone Area South CEA in an approximately 0.64-mi (1.03-km) segment at the Carmans River via HDD. 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 are entirely located within existing developed paved roadways along Victory Avenue.

#### 3.2.2 Significant Coastal Fish and Wildlife Habitats

There is one SCFWH associated with the Victory Avenue Segment, the Carmans River SCFWH, which intersects the route 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 2008). Impacts to this SCFWH are not anticipated as the Onshore Transmission Cable will be installed via HDD within the section of Victory Avenue that intersects the Carmans River.

#### 3.2.3 Significant Natural Communities

The Victory Avenue Segment and Revised Interconnection Cable route do not intersect any of the three significant natural community types identified near the proposed Onshore Facilities by the NYNHP (Appendix C). The Victory Avenue Segment is over 300 ft (91.4 m) north of the mapped Red Maple – Blackgum Swamp community and more than 0.5 mi (0.8 km) from the mapped Brackish Tidal Marsh and Marine Back-barrier Lagoon communities. The Revised Interconnection Cable Route is over 10 mi (16.0



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km) from these mapped significant communities. The Victory Avenue Segment and Revised Interconnection Cable route will not impact these communities.

#### 3.2.4 Central Pine Barrens

The Long Island Pine Barrens Protection Act established an approximately 105,000-ac (42,492-ha) region on Long Island in 1993. The region includes an approximately 52,500-ac (21246-ha) Core Preservation and an approximately 47,500-ac (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 Victory Avenue Segment traverses the Central Pine Barrens Core Preservation Area at and adjacent to the Carmans River crossing (Appendix A, Figure 3). Most of the Core Preservation Area at this location is mapped as wetland. 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 will minimize impacts to sensitive resources within the Core Preservation Area.

#### 3.2.5 Summary

The locations of CEAs, SCFWH, NYSHP Significant Natural Communities, and the Central Pine Barrens are associated with the Carmans River crossing. These locations relative to the updated Onshore Facilities are provided in Appendix A, Figure 3.

### 3.3 RARE, THREATENED, AND ENDANGERED SPECIES

#### 3.3.1 Plants

The NYNHP identified known occurrences of several RTE plant species within the vicinity of the Onshore Facilities (Appendix C). The USFWS IPaC query indicated known occurrences of two species of federally listed plant species proximal to the Onshore Facilities but neither are associated with the habitat types associated with the revised Onshore Facilities. Table 2 summarizes the known RTE plant occurrences and potential habitat for those species associated with the revised Onshore Facilities components based on desktop review and previous agency consultations.



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Table 2. RTE Plant and NYS Watch List Species Documented by NYSDEC or USFWS within the Vicinity of Updated Onshore Facilities

Species	State Listing	Federal Listing	Habitat Association	Approximate Location <sup>2</sup>	Potential at Updated Onshore Facilities		
Blunt-lobe Grape Fern <sup>2</sup> Botrychium oneidense	Threatened		Floodplain forest, Red Maple – Blackgum Swamp	Southaven County Park, within 0.25 mi (0.4 km) of previous Onshore Transmission Cable; in wet soil under shrubs and vines in red maple swamp	Suitable habitat not likely present		
Collins' Sedge <sup>2</sup> Carex collinsii  Endangered   Red Maple - Blackgum Swamp  mi ( Tran hate		Southaven County Park, within 0.25 mi (0.4 km) of previous Onshore Transmission Cable; abandoned fish hatchery (part of Suffolk County Park) in a red maple-tupelo swamp	Suitable habitat not likely present				
Water Pigmyweed <sup>2</sup> Crassula aquatica	Endangered		Freshwater intertidal mudflat, freshwater intertidal shore, and freshwater tidal marsh	Previous Onshore Transmission Cable at Carmans River, west side immediately south of Montauk Highway; bank of an intertidal section of river at a road embankment	Victory Avenue     Segment		
Sandplain Wild Flax <sup>2</sup> Linum intercursum	Threatened		Maritime dunes, maritime grassland, maritime shrubland, and pitch pine-scrub oak barrens	Within 0.5 mi (0.8 km) of previous Onshore Transmission Cable: Station Avenue roadside; plants are on a pine barrens roadside with very sparse vegetation, dominated by grasses and legumes	<ul> <li>Victory Avenue         Segment</li> <li>Revised         Interconnection         Cable Route</li> </ul>		

<sup>&</sup>lt;sup>1</sup> Source: U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC). Accessed March 30, 2021

<sup>&</sup>lt;sup>2</sup> Source: New York Natural Heritage Program Letter, March 27, 2020

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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 B). 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 review, the updated Onshore Facilities are largely confined to existing developed and impervious areas including road ROWs 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*).

Overall, the revised Onshore Facilities are associated with a developed and disturbed urban landscape. Although the potential for RTE species to occur in such areas is low, additional habitat may also be available for those species known from the surrounding landscape with affinities for open and disturbed areas, forest edges, and early successional communities.

#### 3.3.2 Inland Fisheries and Non-Avian Wildlife

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*) (Appendix C). A USFWS IPaC database query conducted on March 30, 2021, did not indicate occurrences of federally listed fish or non-avian or bat wildlife species proximal to the updated Onshore Facilities.

A query of the New York Nature Explorer database indicates that several other species of fish and non-avian wildlife species are known from the Town of Brookhaven (Appendix B). 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. As the majority of the revised Onshore Facilities are largely confined to existing developed and impervious areas including road ROWs, the likelihood for adverse impacts to RTE wildlife species, including loss or fragmentation of habitat, is negligible.

#### 3.4 INVASIVE SPECIES

Given the association of the updated Onshore Facilities with developed residential and industrial areas, widespread occurrences of invasive plant species are likely throughout the updated Onshore Facilities in a similar species diversity and frequency compared with the results of field assessments by Stantec of the Onshore Facilities in 2020.



#### 3.5 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), approximately 1,900 linear ft (745 m) of the Victory Ave Segment 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 Victory Avenue Segment and the Revised Interconnection Cable route are in areas of minimal flood hazard.

The Onshore Facilities are not expected to result in changes to the base flood elevation as the Victory Avenue Segment will be installed via HDD at crossings and installed below the existing grade via trenching and within the existing paved roadway ROWs along the Victory Avenue Segment. The floodplain resources are provided on Figure 4 (Appendix A).



#### 4.0 REFERENCES

- Bureau of Ocean Energy Management (BOEM). 2013. Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore Rhode Island and Massachusetts, Revised Environmental Assessment. Office of Renewable Energy Programs. OCS EIS/EA. BOEM 2013-1131. May.
- Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. US Fish and Wildlife Service. FWS/OBS-79/31. Washington, DC.
- Central Pine Barrens Joint Planning and Policy Commission. 2012. Central Pine Barrens Comprehensive Land Use Plan. Volume 1: Policies, Programs and Standards. November 21.
- Federal Geographic Data Committee (FGDC). 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and US Fish and Wildlife Service, Washington, DC.
- NYSDEC. 2008. Coastal Fish & Wildlife Habitat Assessment Form Carmans River. December 15. Accessed June 4, 2020. https://www.dos.ny.gov/opd/programs/consistency/Habitats/LongIsland/Carmans River.pdf.
- NYSDEC. 2020. Environmental Resource Mapper. Available at: https://gisservices.dec.ny.gov/gis/erm/. Accessed June 3, 2020.
- New York State Department of Transportation (NYSDOT). 2019. Transportation Project Report. Final Design Report / Environmental Assessment. Bridge Replacement / Highway Reconstruction Project. PIN 0759.79, BIN 3-30077-0, William Floyd Parkway, Route CR 46 over Narrow Bay, Town of Brookhaven, Suffolk County. March.
- Young, Stephen M. 2019. New York Rare Plant Status Lists. New York Natural Heritage Program, State University of New York College of Environmental Science and Forestry, Albany, NY. March 2019. 108 pp.



## **APPENDICES**



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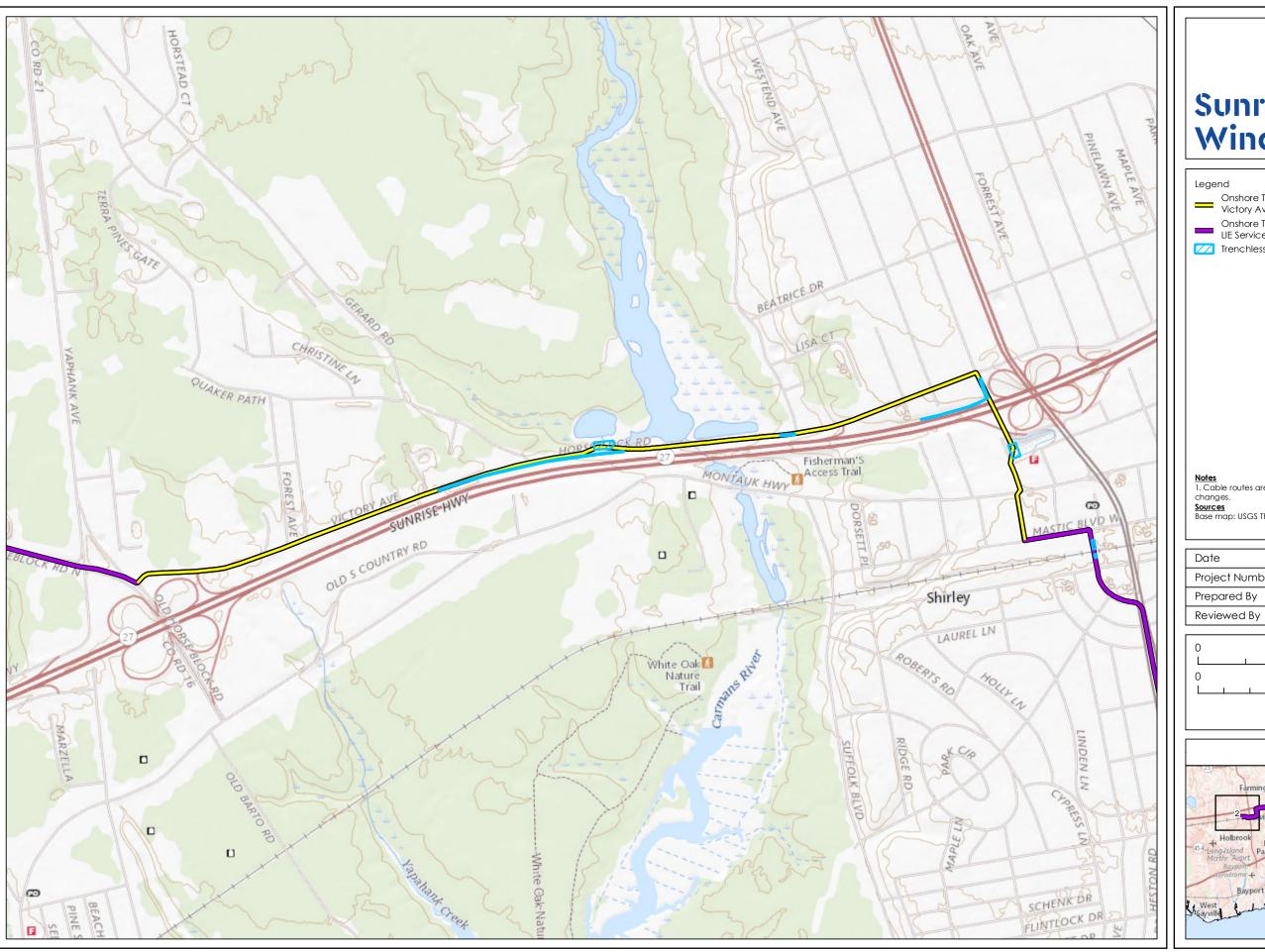
## Appendix A FIGURES



March 2021

- Figure 1. Onshore Facilities
- Figure 2. Wetlands and Waterbodies
- Figure 3. Significant and Critical Natural Communities and Habitat
- Figure 4. Floodplains





### Figure 1 **Onshore Facilities** Sheet 1 of 2

## Sunrise Wind

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#### Legend

- Onshore Transmission Cable
  Victory Avenue Segment
- Onshore Transmission Cable
  LIE Service Road Route
- Trenchless Crossing Work Area

Notes

1. Cable routes are indicative and subject to engineering design

## Sources Base map: USGS The National Map

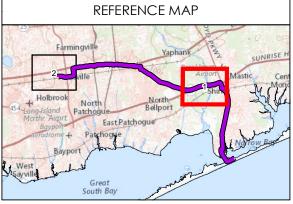
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Project Number	2028113199
Prepared By	PB

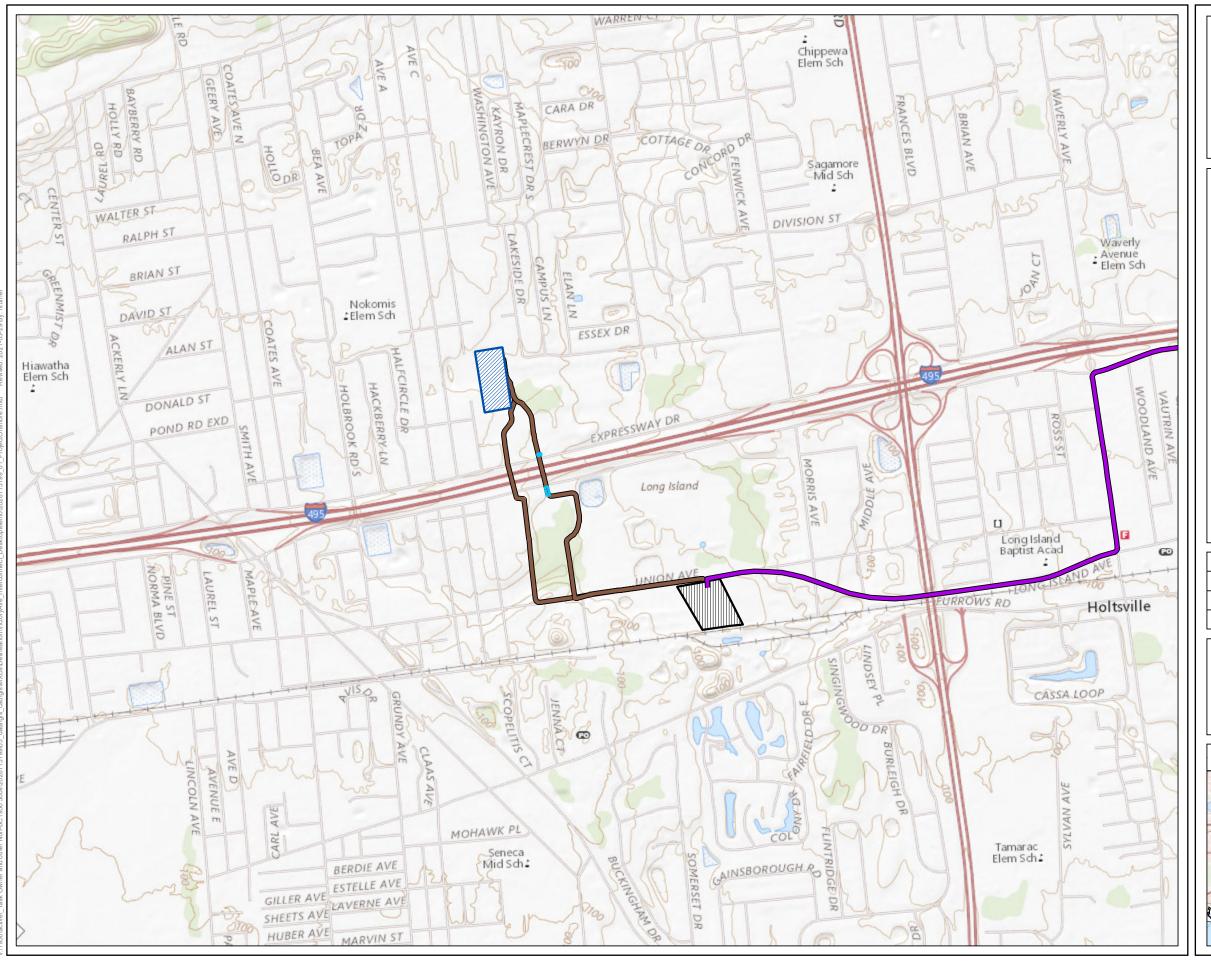
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0 1,200 Feet 400 Meters



Scale at 11x17: 1:14,400 NAD 1983 2011 UTM Zone 18N





#### Figure 1 **Onshore Facilities** Sheet 2 of 2

## Sunrise Wind

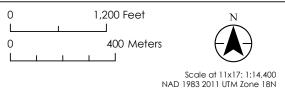
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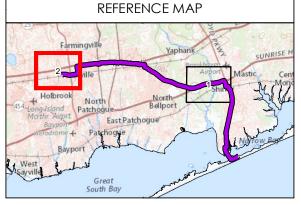


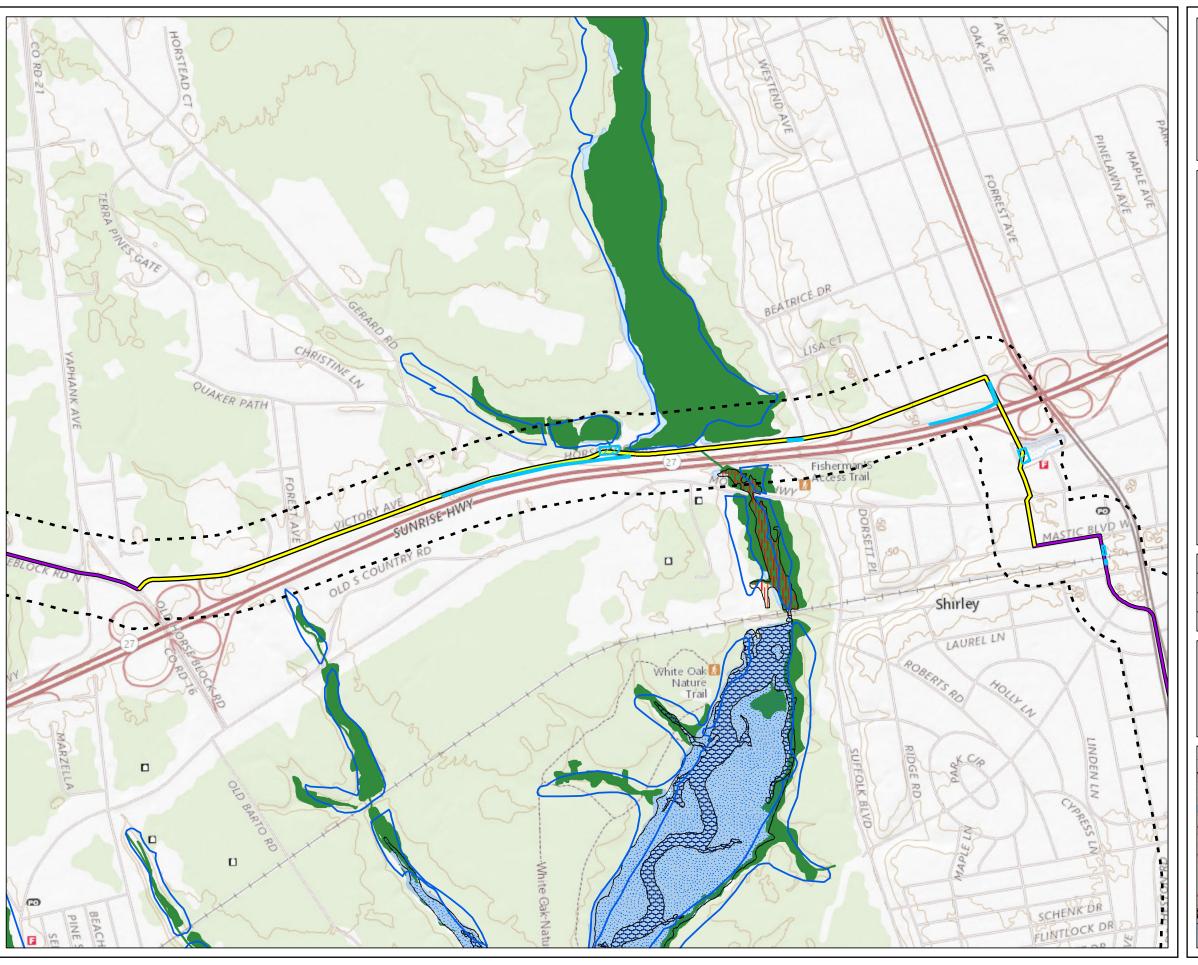
**Notes**1. Cable routes are indicative and subject to engineering design

Sources
Base map: USGS The National Map

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Project Number	2028113199
Prepared By	РВ
Reviewed Bv	GC







## Figure 2 **Wetlands and Waterbodies** Sheet 1 of 2

## Sunrise Wind

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Onshore Transmission Cable–Victory Avenue Segment

Onshore Transmission Cable–LIE Service Road Route

Trenchless Crossing Work Area
500 Feet from Project
Town Boundary
NYSDEC Wetlands

NYSDEC Tidal Wetlands–NYC and Long Island

Formally Connected

Fresh Marsh
Littoral Zone

NWI Wetlands

Estuarine and Marine Wetlands

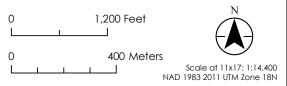
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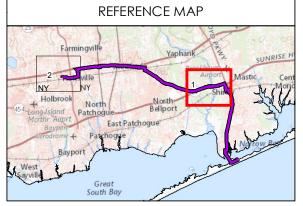
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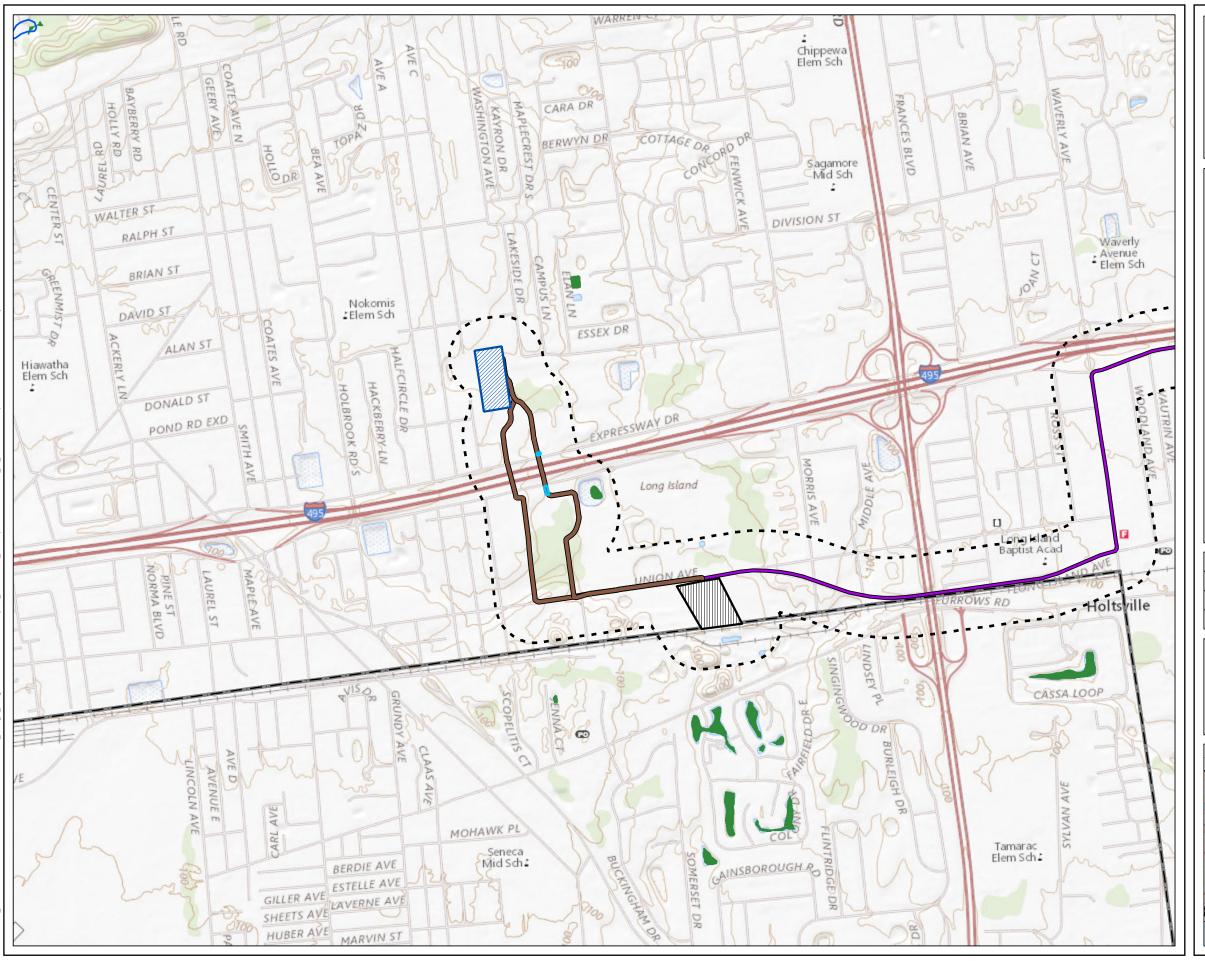
Cable routes are indicative and subject to engineering design changes.

Cable routes are indicative and subject to engineerin <u>Sources</u> NYSDEC Wetlands, 2018 USFWS NWI Wetlands, 2018 NYS Office of IT Services GPO, NYS Boundaries, 2018 USGS Topo Map

Date	3/11/2021
Project Number	2028113199
Prepared By	РВ
Reviewed By	GC



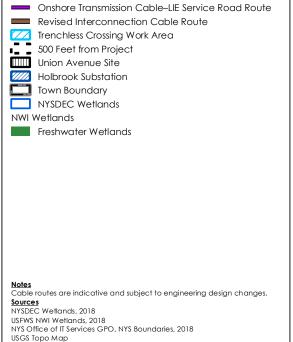




### Figure 2 Wetlands and Waterbodies Sheet 2 of 2

# Sunrise Wind

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0	1,200 Feet	N N
0	400 Meters	

Scale at 11x17: 1:14,400 NAD 1983 2011 UTM Zone 18N

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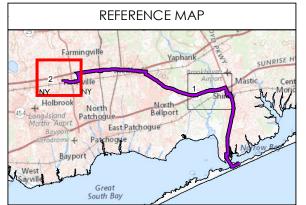
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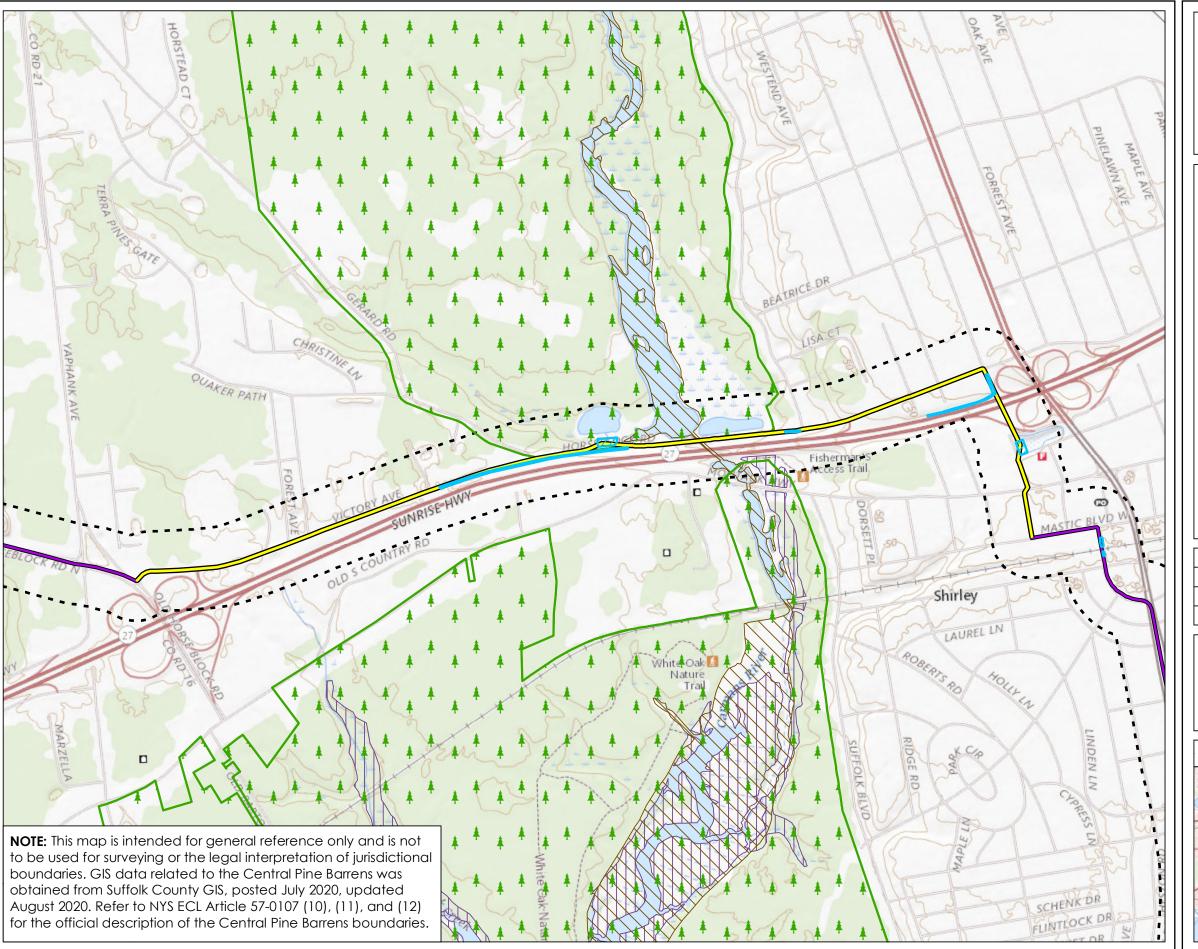
2028113199

Date

Project Number

Prepared By





## Figure 3 – Significant and Critical Natural Communities and Habitats Sheet 1 of 2

## Sunrise Wind

Powered by Ørsted & Eversource

Onshore Transmission Cable–Victory Avenue Segment Onshore Transmission Cable–LIE Service Road Route

Trenchless Crossing Work Area
500 Feet from Project
Town Boundary

Central Pine Barrens Core Preservation Area

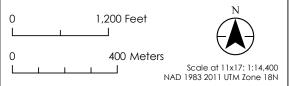
NYSDOS Significant Coastal Fish and Wildlife Habitats

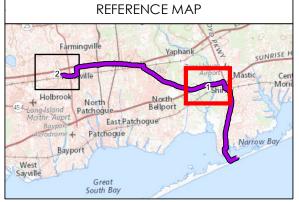
NYS Natural Heritage Community Occurrences

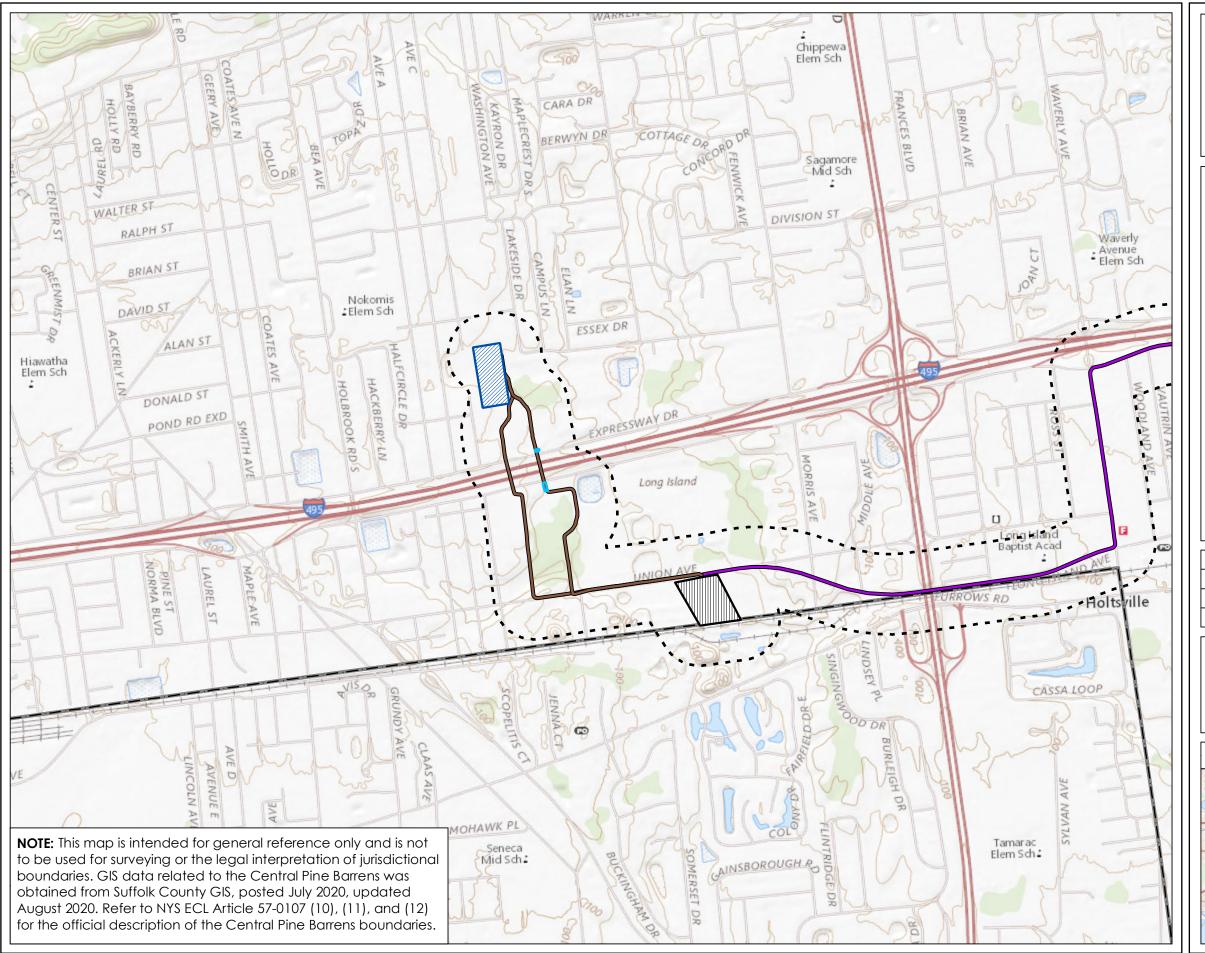
Cable routes are indicative and subject to engineering design changes. Sources

NYS Office of IT Services GPO, NYS Boundaries, 2018 USGS Topo Map

Date	3/10/2021
Project Number	2028113199
Prepared By	РВ
Reviewed By	GC



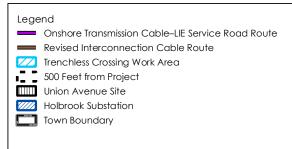




#### Figure 3 – Significant and Critical Natural Communities and Habitats Sheet 2 of 2

# Sunrise Wind

Powered by Ørsted & Eversource



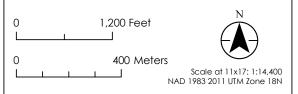
#### Not

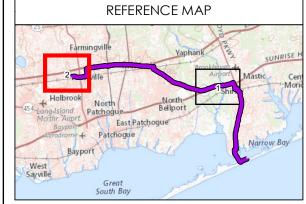
Cable routes are indicative and subject to engineering design changes.

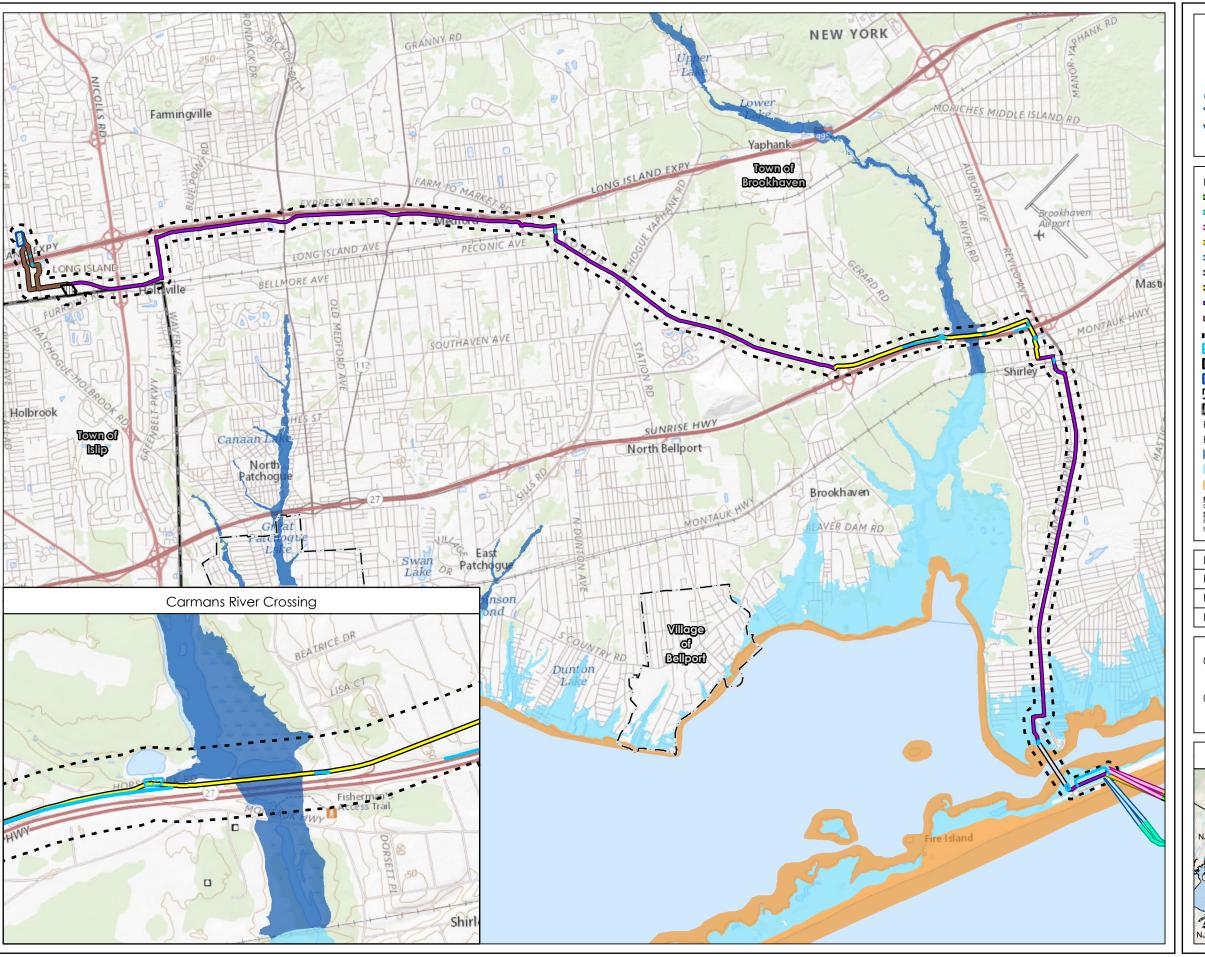
Sources

NYS Office of IT Services GPO, NYS Boundaries, 2018 USGS Topo Map

	Date	3/10/2021
	Project Number	2028113199
	Prepared By	РВ
İ	Reviewed By	GC







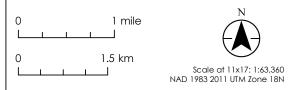
# Figure 4 Floodplains

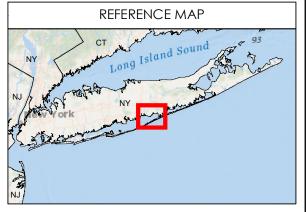
# Sunrise Wind

Powered by Ørsted & Eversource

	Sunrise Wind Export Cable (SRWEC-NYS)
	SRWEC-NYS (Western Landfall Option)
	Landfall HDD A
	Landfall HDD B
	Landfall HDD C
	Intracoastal Waterway HDD (ICW HDD)
	Onshore Transmission Cable–Victory Avenue Segmen
	Onshore Transmission Cable–LIE Service Road Route
	Revised Interconnection Cable Route
	500 Feet from Project
1//	Trenchless Crossing Work Area
	Union Avenue Site
	Holbrook Substation
	Village Boundary
	Town Boundary
Fede	eral Emergency Management Agency (FEMA)
Floor	d Zone
	Zone A
	Zone AE
	Zone VE
Notes Cable	routes are indicative and subject to engineering design changes.

Date	3/11/2021
Project Number	2028113199
Prepared By	PB
Reviewed By	GC





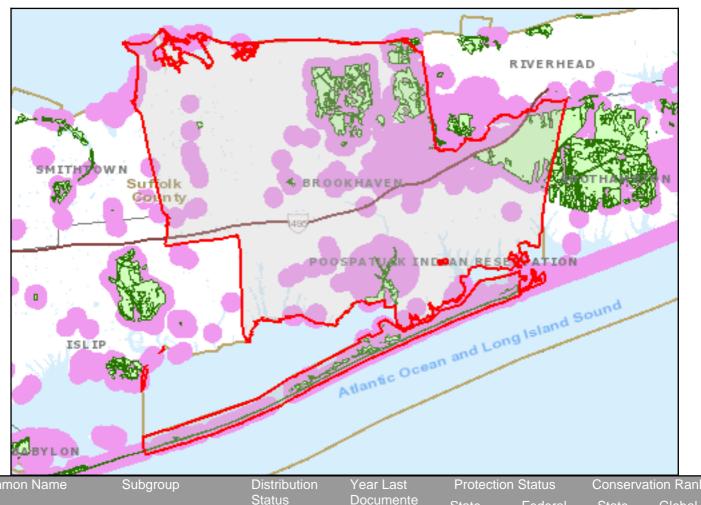
March 2021

## Appendix B NEW YORK NATURE EXPLORER



## Rare Species within Town of Brookhaven

Criteria: Town: Brookhaven



Common Name	Cabgroup	Distribution	Tour Last	1 1010011011	Ciaias	Conscivati	on raint
		Status	Documente	State	Federal	State	Global

## Town: Brookhaven

#### Animal: Birds

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		rvation 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	3					
Eastern Wormsnake	Snakes	Recently Confirmed	2015	Special Concern	S2	G5
Carphophis amoenus		Committee				
Animal: Amphib	ians					
Eastern Spadefoot	Frogs and Toads	Recently Confirmed	2008	Special Concern	S2S3	G5
Scaphiopus holbrookii						
Animal: Fish						
Atlantic Needlefish	Needlefishes	Recently Confirmed	1990		S2S3	G5
Strongylura marina						
Atlantic Silverside	Silversides	Recently Confirmed	1990		S2S3	G5
Menidia menidia						
Eastern Pirate Perch	Perches	Recently Confirmed	2016		S1S2	G5T5
Aphredoderus sayanus saya	nus					
Animal: Butterfli	es and Moths					
A Geometrid Moth	Moths	Recently Confirmed	2017		S1	G4
Euchlaena madusaria						
Barrens Itame	Moths	Recently Confirmed	2017		S1S3	G3G4
		COMMITTIEL				

Common Name	Subgroup	Distribution	Year Last	Protection		Conser	vation Rank
		Status	Documente	State	Federal	State	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	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							

	IACM	OIKING	aluie		CI		
Common Name	Subgroup	Distribution Status	Year Last Documente	Protection State	Status Federal	Conser State	vation Rank 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: Dragon	flies and Damse	Iflies					
Atlantic Bluet	Damselflies	Recently Confirmed	2009			S1S2	G5
Enallagma doubledayi							
Blue Corporal	Dragonflies	Recently Confirmed	2006			S2S3	G5
Ladona deplanata							
Comet Darner	Dragonflies	Recently Confirmed	2009			S2S3	G5
Anax longipes							
Common Sanddragon	Dragonflies	Recently Confirmed	2006	Special Concern		S1	G5
Progomphus obscurus							
Double-ringed Pennant	Dragonflies	Recently Confirmed	2009			S1	G5
Celithemis verna							
Golden-winged Skimmer	Dragonflies	Recently Confirmed	2006			S1S2	G5
Libellula auripennis							
Martha's Pennant	Dragonflies	Recently Confirmed	2009			S2	G4
Celithemis martha							
Rambur's Forktail	Damselflies	Recently Confirmed	2004			S2S3	G5
Ischnura ramburii							
Seaside Dragonlet	Dragonflies	Recently Confirmed	2004			S2	G5
Erythrodiplax berenice							
Southern Spreadwing	Damselflies	Recently Confirmed	2005			S2S3	G5
Lestes australis							
Spatterdock Darner	Dragonflies	Recently Confirmed	2005			S2	G4
Rhionaeschna mutata							
Yellow-sided Skimmer	Dragonflies	Historically Confirmed	1926			S1	G5
Libellula flavida							

Animal: Beetles

	Subgroup	Distribution	Year Last	Protection Status		Conser	vation Ran
		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 Cicindela dorsalis dorsalis	Tiger Beetles	Extirpated	1939	Threatened	Threatened	SX	G3G4T2
Animal: Animal A	Assemblages						
Gull Colony	Animal Assemblages	Recently Confirmed	2004			SNRB	GNR
Gull Colony							
American Ipecac  Euphorbia ipecacuanhae	Other Flowering Plants	Confirmed	1928	Endangered		S1	G5
	Other Flowering Plants	Historically Confirmed	1928	Endangered		S1	G5
· · · · · · · · · · · · · · · · · · ·							
	Asters, Goldenrods and Daisies	Recently Confirmed	2011	Threatened		S2S3	G5
Annual Saltmarsh Aster  Symphyotrichum subulatum var. subulatum			1927	Threatened		S2S3	G5 G5
Annual Saltmarsh Aster  Symphyotrichum subulatum var. subulatum  Autumnal Water-starwort  Callitriche hermaphroditica  Black-edge Sedge	Daisies	Confirmed  Historically					
Annual Saltmarsh Aster  Symphyotrichum subulatum var. subulatum  Autumnal Water-starwort  Callitriche hermaphroditica  Black-edge Sedge  Carex nigromarginata	Daisies  Other Flowering Plants  Sedges	Historically Confirmed  Recently Confirmed	1927 2008	Endangered		\$1 \$3	G5 G5
Annual Saltmarsh Aster  Symphyotrichum subulatum var. subulatum  Autumnal Water-starwort  Callitriche hermaphroditica  Black-edge Sedge  Carex nigromarginata	Daisies Other Flowering Plants	Confirmed  Historically Confirmed  Recently	1927	Endangered		S1	G5
Annual Saltmarsh Aster  Symphyotrichum subulatum var. subulatum  Autumnal Water-starwort  Callitriche hermaphroditica  Black-edge Sedge  Carex nigromarginata	Daisies  Other Flowering Plants  Sedges	Historically Confirmed  Recently Confirmed  Historically Confirmed	1927 2008	Endangered Threatened		\$1 \$3	G5 G5
Annual Saltmarsh Aster  Symphyotrichum subulatum var. subulatum  Autumnal Water-starwort  Callitriche hermaphroditica  Black-edge Sedge  Carex nigromarginata  Brown Bog Sedge  Carex buxbaumii	Daisies  Other Flowering Plants  Sedges	Historically Confirmed  Recently Confirmed  Historically	1927 2008	Endangered Threatened		\$1 \$3	G5 G5
Annual Saltmarsh Aster  Symphyotrichum subulatum var. subulatum  Autumnal Water-starwort  Callitriche hermaphroditica  Black-edge Sedge  Carex nigromarginata  Brown Bog Sedge  Carex buxbaumii	Daisies  Other Flowering Plants  Sedges  Sedges	Historically Confirmed  Recently Confirmed  Historically Confirmed  Recently	1927 2008 1986	Endangered Threatened Threatened		\$1 \$3 \$2	G5 G5 G5
Annual Saltmarsh Aster  Symphyotrichum subulatum var. subulatum  Autumnal Water-starwort  Callitriche hermaphroditica  Black-edge Sedge  Carex nigromarginata  Brown Bog Sedge  Carex buxbaumii  Button Sedge  Carex bullata	Daisies  Other Flowering Plants  Sedges  Sedges	Historically Confirmed  Recently Confirmed  Historically Confirmed  Recently	1927 2008 1986	Endangered Threatened Threatened		\$1 \$3 \$2	G5 G5 G5
Annual Saltmarsh Aster  Symphyotrichum subulatum var. subulatum  Autumnal Water-starwort  Callitriche hermaphroditica  Black-edge Sedge  Carex nigromarginata  Brown Bog Sedge  Carex buxbaumii  Button Sedge  Carex bullata	Daisies  Other Flowering Plants  Sedges  Sedges  Sedges	Historically Confirmed  Recently Confirmed  Historically Confirmed  Recently Confirmed  Recently Confirmed	1927 2008 1986 2001	Endangered  Threatened  Threatened  Endangered		\$1 \$3 \$2 \$1	G5 G5 G5
Annual Saltmarsh Aster  Symphyotrichum subulatum var. subulatum  Autumnal Water-starwort  Callitriche hermaphroditica  Black-edge Sedge  Carex nigromarginata  Brown Bog Sedge  Carex buxbaumii  Button Sedge  Carex bullata  Carey's Smartweed  Persicaria careyi	Daisies  Other Flowering Plants  Sedges  Sedges  Sedges	Historically Confirmed  Recently Confirmed  Historically Confirmed  Recently Confirmed  Recently Confirmed  Historically Confirmed	1927 2008 1986 2001	Endangered  Threatened  Threatened  Endangered		\$1 \$3 \$2 \$1	G5 G5 G5
Annual Saltmarsh Aster  Symphyotrichum subulatum var. subulatum  Autumnal Water-starwort  Callitriche hermaphroditica  Black-edge Sedge  Carex nigromarginata  Brown Bog Sedge  Carex buxbaumii  Button Sedge  Carex bullata  Carey's Smartweed	Daisies  Other Flowering Plants  Sedges  Sedges  Sedges  Other Flowering Plants	Historically Confirmed  Recently Confirmed  Historically Confirmed  Recently Confirmed  Recently Confirmed	1927 2008 1986 2001 2000	Endangered  Threatened  Threatened  Endangered  Endangered		\$1 \$3 \$2 \$1 \$1\$2	G5 G5 G5 G4
Annual Saltmarsh Aster  Symphyotrichum subulatum var. subulatum  Autumnal Water-starwort  Callitriche hermaphroditica  Black-edge Sedge  Carex nigromarginata  Brown Bog Sedge  Carex buxbaumii  Button Sedge  Carex bullata  Carey's Smartweed  Persicaria careyi  Carolina Redroot	Daisies  Other Flowering Plants  Sedges  Sedges  Sedges  Other Flowering Plants	Historically Confirmed  Recently Confirmed  Historically Confirmed  Recently Confirmed  Recently Confirmed  Historically Confirmed	1927 2008 1986 2001 2000	Endangered  Threatened  Threatened  Endangered  Endangered		\$1 \$3 \$2 \$1 \$1\$2	G5 G5 G5 G4

Common Name	Subgroup	Distribution	Year Last	Protection Status	Conse	vation 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						

Common Name	Subgroup	Distribution	Year Last	Protection Status	Conse	vation Rank
		Status	Documente	State Federal	State	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		Recently				
Globe-fruited Ludwigia	Other Flowering Plants	Confirmed	1995	Threatened	S2	G5
Ludwigia sphaerocarpa						
Golden Dock	Other Flowering Plants	Historically Confirmed	1984	Endangered	S1	G5
Rumex fueginus						
Great Plains Flatsedge	Sedges	Historically Confirmed	1966	Threatened	S1S2	G5T5?
Cyperus lupulinus ssp. lupulinus						
Large Yellow-eyed Grass	Other Flowering Plants	Historically Confirmed	1985	Threatened	S2	G5
Xyris smalliana						
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	Sedges	Extirpated	1932		SX	G5
Rhynchospora chalarocephala						
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						

O	0.1	Distribution	Year Lead	Destarting Otal	0	Davi
Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status State Federal		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						
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	<b>S</b> 3	G3
Coreopsis rosea						
Rough Hedge Nettle	Other Flowering Plants	Recently Confirmed	2004	Threatened	S2	G5T4T5
Stachys hyssopifolia var. hyssopifolia						

Common Neme	Cubaraus	Distribution	Voorlast	t Protection Status Conserva			otion Donle
Common Name	Subgroup	Distribution Status	Year Last Documente		Federal	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							
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	Conservation Rank	
		Status	Documente	State Federal	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		Committee				
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						

Subgroup	Distribution	Year Last	Protection Status	Consei	vation Rank
	Status	Documente	State Federa	l State	Global
Other Flowering Plants	Recently Confirmed	2005	Threatened	S2	G5
Other Flowering Plants	Historically Confirmed	1924	Endangered	S1	G5T5
Asters, Goldenrods and Daisies	Recently Confirmed	2004	Threatened	S2S3	G5T4
Other Flowering Plants	Recently Confirmed	2007	Threatened	S2	G4?
Other Flowering Plants	Historically Confirmed	1929	Endangered	SH	G5T5
Other Flowering Plants	Historically Confirmed	1988	Endangered	S1	G5
Rushes	Historically Confirmed	1936	Endangered	S1	G5
Sedges	Recently Confirmed	1991	Endangered	S1	G5
Other Flowering Plants	Historically Confirmed	1878	Endangered	S1	G5
Grasses	Historically Confirmed	1925	Endangered	S1S2	G4
Sedges	Possible but not Confirmed		Endangered	S1	G5
Conifers	Historically Confirmed	1923	Threatened	S2	G4
Conifers	Possible but not Confirmed	1878	Endangered	S1	G5
ity: Uplands					
Forested Uplands	Recently Confirmed	2007		S3	G4
	Other Flowering Plants  Asters, Goldenrods and Daisies  Other Flowering Plants  Other Flowering Plants  Other Flowering Plants  Rushes  Sedges  Other Flowering Plants  Grasses  Sedges  Conifers  Conifers	Other Flowering Plants  Other Flowering Plants  Other Flowering Plants  Asters, Goldenrods and Daisies  Other Flowering Plants  Historically Confirmed  Other Flowering Plants  Recently Confirmed  Historically Confirmed  Sedges  Recently Confirmed  Other Flowering Plants  Historically Confirmed  Other Flowering Plants  Flowering Plants  Historically Confirmed  Confirmed  Historically Confirmed  Confirmed  Confirmed  Confirmed  Confirmed  Confirmed  Confirmed  Recently Confirmed  Research Unlands  Forested Unlands  Recently  Recently  Recently  Recently  Recently  Recently  Recently  Recently	Other Flowering Plants  Recently Confirmed  Other Flowering Plants  Asters, Goldenrods and Daisies  Other Flowering Plants  Recently Confirmed  Other Flowering Plants  Historically Confirmed  Other Flowering Plants  Historically Confirmed  Plants  Recently Confirmed  The plants  Recently Confirmed  Other Flowering Plants  Historically Confirmed  The plants  Recently Confirmed  The plants  Recently Confirmed  The plants  Th	Other Flowering Plants Confirmed  Other Flowering Plants Confirmed  Other Flowering Plants Confirmed  Asters, Goldenrods and Daisies  Other Flowering Plants Confirmed  Other Flowering Plants Historically Confirmed  Thistorically Confirmed  Other Flowering Plants Confirmed  Other Flowering Plants Confirmed  Thistorically Confirmed  Thistorically Thistorically Confirmed  Thistorically Thistorically Thistorically Confirmed  Thistorically Thistorically Thistorically Confirmed  Thistorically Thistorica	Status         Documente         State         Federal         State           Other Flowering Plants         Recently Confirmed         2005         Threatened         \$2           Other Flowering Plants         Historically Confirmed         1924         Endangered         \$1           Asters, Goldenrods and Daisies         Recently Confirmed         2004         Threatened         \$283           Other Flowering Plants         Recently Confirmed         2007         Threatened         \$2           Other Flowering Plants         Historically Confirmed         1929         Endangered         \$1           Other Flowering Plants         Historically Confirmed         1988         Endangered         \$1           Rushes         Historically Confirmed         1996         Endangered         \$1           Sedges         Recently Confirmed         1878         Endangered         \$1           Other Flowering Plants         Historically Confirmed         1878         Endangered         \$1           Other Flowering Plants         Historically Confirmed         1925         Endangered         \$1           Grasses         Historically Confirmed         1925         Endangered         \$1           Conifers         Possible but not Confirmed         1878 </td

Common Name	Subgroup	Distribution	Year Last	Protection Status		Conservation 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 Maritime pitch pine dune	Barrens and Woodlands	Recently Confirmed	1998			S1	G2G3
woodland		Recently					
Pitch Pine-Oak Forest	Forested Uplands	Confirmed	2013			S2S3	G4G5
Pitch pine-oak forest		_					
Pitch Pine-Oak-Heath Woodland Pitch pine-oak-heath woodland	Barrens and Woodlands	Recently Confirmed	2013			S2S3	G3G4
Natural Commun	ity: Freshwater	Nontidal W	/etlands				
	Open Mineral Soil	Recently					
Coastal Plain Pond Shore	Wetlands	Confirmed	2005			S2	G3G4
Coastal plain pond shore	ol On on Minaral Call	December					
Maritime Freshwater Interduna Swales Maritime freshwater interdunal swales	al Open Mineral Soil Wetlands	Recently Confirmed	2006			S2	G3G4
Pine Barrens Shrub Swamp  Pine barrens shrub swamp	Open Mineral Soil Wetlands	Recently Confirmed	1998			S3	G5
Red Maple-Blackgum Swamp	Forested Mineral Soil Wetlands	Recently Confirmed	1998			S2	G3G4
Natural Commun	ity: Lakes and F	Ponds					
Coastal Plain Pond	Natural Lakes and Ponds	Historically Confirmed	1985			S2	G3G4
Coastal plain pond							
Natural Commun	ity: Tidal Wetla	nds					
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							
Salt panne							

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection State	n Status Federal	Conse State	rvation Rank Global
Salt Shrub	Intertidal Wetlands	Recently Confirmed	1998			S1	G5
Salt shrub							
Natural Commun	ity: Marine						
Marine Back-barrier Lagoon  Marine back-barrier lagoon	Marine Subtidal	Recently Confirmed	2016			S2	G5
Marine Eelgrass Meadow	Marine Subtidal	Recently 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.

#### SUNRISE WIND: ONSHORE ECOLOGICAL DESKTOP ASSESSMENT - ADDENDUM

March 2021

## **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 | F: (518) 402-8925 www.dec.nv.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

NEW YORK
STATE OF Environmental
Conservation

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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 Charadrius melodus Endangered Threatened

Breeding

Least Tern Sternula antillarum Threatened

Breeding

Common Tern Sterna hirundo Threatened

Breeding

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 Megaptera novaeangliae Endangered Endangered

Nonbreeding

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 Myotis septentrionalis Threatened Threatened

Maternity roosts and other summer locations

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.

3/27/2020 Page 1 of 1



#### Report on Rare Animals, Rare Plants, and Significant Natural Communities

# 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 Beach, 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.

COMMON NAME SCIENTIFIC NAME NY STATE LISTING HERITAGE CONSERVATION STATUS

Sandplain Wild Flax Linum intercursum Threatened Imperiled in NYS

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

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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.

COMMON NAME HERITAGE CONSERVATION STATUS

#### Red Maple-Blackgum Swamp

High Quality Occurrence of Rare Community Type

Carmans River Wetlands, extending north and south of Montauk Highway: The swamp is of moderate size with good 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 community have been documented south of the proposed cable route in or along the Carmans River in Wertheim National Wildlife Refuge.

COMMON NAME SCIENTIFIC NAME NY STATE LISTING HERITAGE CONSERVATION STATUS

Water Pigmyweed Crassula aquatica Endangered Critically Imperiled in NYS

Carmans River, west side immediately south of Montauk Highway, 1988-08-31: Bank of an intertidal section of river at a road embankment.

Eastern Pirate Perch Aphredoderus sayanus Unlisted Critically Imperiled in NYS sayanus

Carmans River within .3 mile south of Montauk Highway, also Yaphank Creek, 1990-11-15.

Atlantic Silverside Menidia menidia Unlisted Imperiled in NYS

Carmans River within .4 mile south of Montauk Highway, 1990-11-14.

Brackish Tidal Marsh

High Quality Occurrence of Uncommon Community Type

Carmans River Wetlands, within .4 mile south of Montauk Highway: This is a large marsh in good to fair condition, in a good landscape that is mostly protected.

The following species have been documented north of the proposed cable route in Southaven County Park.

COMMON NAME SCIENTIFIC NAME NY STATE LISTING HERITAGE CONSERVATION STATUS

Eastern Pirate Perch Aphredoderus sayanus Unlisted Critically Imperiled in NYS

sayanus

Carmans River just north of NYS Route 27, 2015-08-04.

Collins' Sedge Carex collinsii Endangered Critically Imperiled in NYS

Southaven County Park, within .25 mile of proposed cable route, 1986-11-04: Abandoned fish hatchery (part of Suffolk County Park) in a red maple-tupelo swamp.

Blunt-lobe Grape Fern Botrychium oneidense Threatened 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.

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## 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 HERITAGE CONSERVATION STATUS

#### Marine Eelgrass Meadow

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.

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### 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: March 11, 2020

Consultation Code: 05E1LI00-2020-SLI-0367

Event Code: 05E1LI00-2020-E-00839 Project Name: Confidential Project

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/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: <a href="https://www.google.com/maps/place/40.81649280425459N72.91040200081957W">https://www.google.com/maps/place/40.81649280425459N72.91040200081957W</a>



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 Fisheries<sup>1</sup>, 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.

NOAA Fisheries, 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 *Myotis septentrionalis*

Threatened

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>

#### **Birds**

NAME STATUS

#### Piping Plover Charadrius melodus

Threatened

Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.

those areas where fisted as endangered.

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/6039

#### Red Knot Calidris canutus rufa

Threatened

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1864">https://ecos.fws.gov/ecp/species/1864</a>

#### Roseate Tern Sterna dougallii dougallii

Endangered

Population: Northeast U.S. nesting population No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2083">https://ecos.fws.gov/ecp/species/2083</a>

### **Flowering Plants**

NAME

Sandplain Gerardia Agalinis acuta

Endangered

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8128">https://ecos.fws.gov/ecp/species/8128</a>

Seabeach Amaranth *Amaranthus pumilus* 

Threatened

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8549">https://ecos.fws.gov/ecp/species/8549</a>

#### **Critical habitats**

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

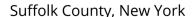
#### **IPaC**

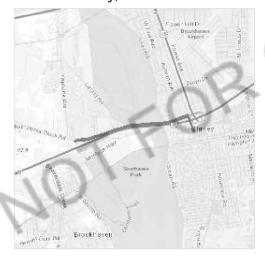
## IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

### Location





### Local office

Long Island Ecological Services Field Office

**4** (631) 286-0485

**(631)** 286-4003

340 Smith Road Shirley, NY 11967-2258

## Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

- 1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
- 2. <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.

The following species are potentially affected by activities in this location:

### **Mammals**

NAME STATUS

Northern Long-eared Bat Myotis septentrionalis

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/9045

**Threatened** 

Birds

NAME **STATUS** 

Piping Plover Charadrius melodus

**Threatened** There is final critical habitat for this species. The location of the

critical habitat is not available.

https://ecos.fws.gov/ecp/species/6039

Red Knot Calidris canutus rufa **Threatened** 

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1864

Endangered Roseate Tern Sterna dougallii dougallii

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/2083

Flowering Plants

NAME **STATUS** 

Sandplain Gerardia Agalinis acuta Endangered

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/8128

Seabeach Amaranth Amaranthus pumilus

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/8549

**Threatened** 

### Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty  $Act^{1}$  and the Bald and Golden Eagle Protection  $Act^{2}$ .

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <a href="http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php">http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php</a>
- Measures for avoiding and minimizing impacts to birds
   <a href="http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php">http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php</a>
- Nationwide conservation measures for birds <a href="http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf">http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf</a>

The birds listed below are birds of particular concern either because they occur on the <u>USFWS Birds of Conservation Concern</u> (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ <u>below</u>. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found <u>below</u>.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A
BREEDING SEASON IS INDICATED
FOR A BIRD ON YOUR LIST, THE
BIRD MAY BREED IN YOUR
PROJECT AREA SOMETIME WITHIN
THE TIMEFRAME SPECIFIED,
WHICH IS A VERY LIBERAL
ESTIMATE OF THE DATES INSIDE
WHICH THE BIRD BREEDS
ACROSS ITS ENTIRE RANGE.
"BREEDS ELSEWHERE" INDICATES

THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

#### American Oystercatcher Haematopus palliatus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8935">https://ecos.fws.gov/ecp/species/8935</a>

Breeds Apr 15 to Aug 31

#### Bald Eagle Haliaeetus leucocephalus

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Breeds Oct 15 to Aug 31

https://ecos.fws.gov/ecp/species/1626

#### Black Skimmer Rynchops niger

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/5234">https://ecos.fws.gov/ecp/species/5234</a>

Breeds May 20 to Sep 15

#### Black-billed Cuckoo Coccyzus erythropthalmus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9399">https://ecos.fws.gov/ecp/species/9399</a>

Breeds May 15 to Oct 10

#### **Bobolink** Dolichonyx oryzivorus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 20 to Jul 31

#### Canada Warbler Cardellina canadensis

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 20 to Aug 10

#### Clapper Rail Rallus crepitans

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds Apr 10 to Oct 31

#### Dunlin Calidris alpina arcticola

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds elsewhere

#### Eastern Whip-poor-will Antrostomus vociferus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 1 to Aug 20

#### **Evening Grosbeak** Coccothraustes vespertinus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

#### Least Tern Sterna antillarum

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds Apr 20 to Sep 10

#### **Lesser Yellowlegs** Tringa flavipes

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>

Breeds elsewhere

#### Prairie Warbler Dendroica discolor

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 1 to Jul 31

#### Red-throated Loon Gavia stellata

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

#### Ruddy Turnstone Arenaria interpres morinella

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds elsewhere

#### Rusty Blackbird Euphagus carolinus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

#### Seaside Sparrow Ammodramus maritimus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 10 to Aug 20

#### Semipalmated Sandpiper Calidris pusilla

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

#### Short-billed Dowitcher Limnodromus griseus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480

Breeds elsewhere

#### Snowy Owl Bubo scandiacus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

#### Whimbrel Numenius phaeopus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9483">https://ecos.fws.gov/ecp/species/9483</a>

Breeds elsewhere

Willet Tringa semipalmata

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Apr 20 to Aug 5

Breeds May 10 to Aug 31

Wood Thrush Hylocichla mustelina

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

## **Probability of Presence Summary**

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

#### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

#### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

#### Survey Effort (1)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

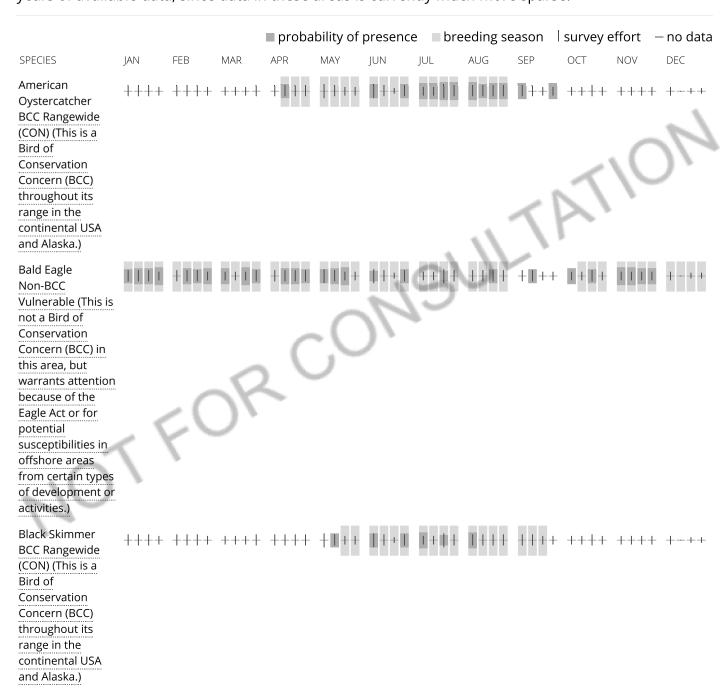
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

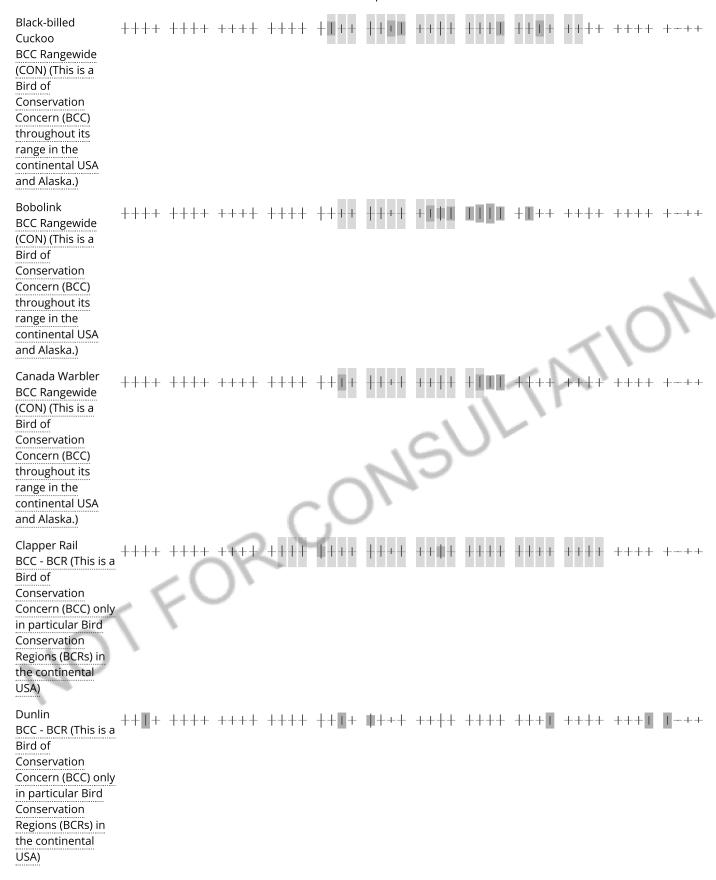
#### No Data (-)

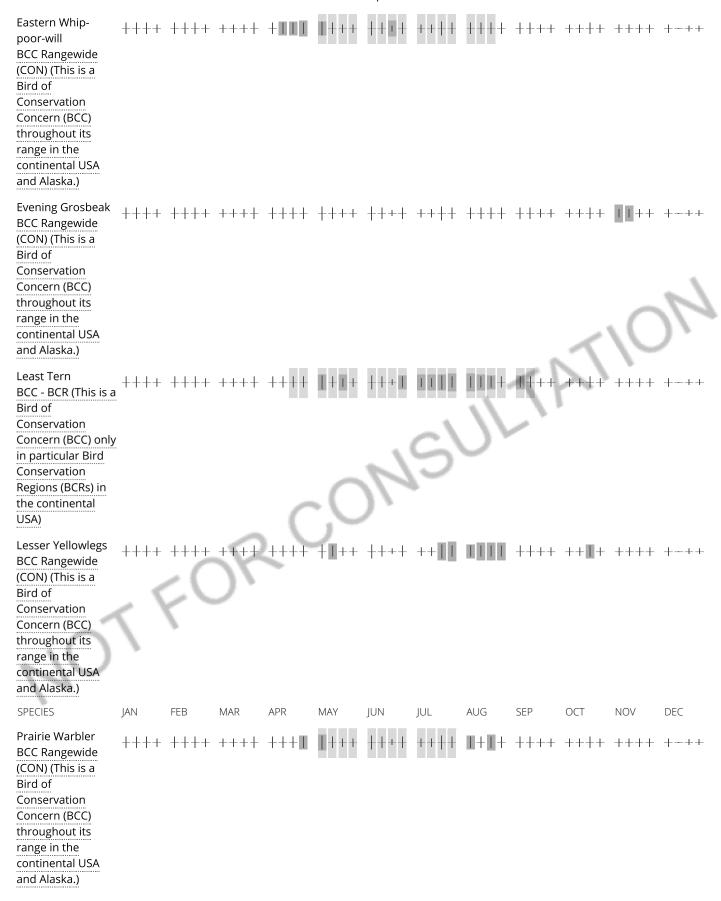
A week is marked as having no data if there were no survey events for that week.

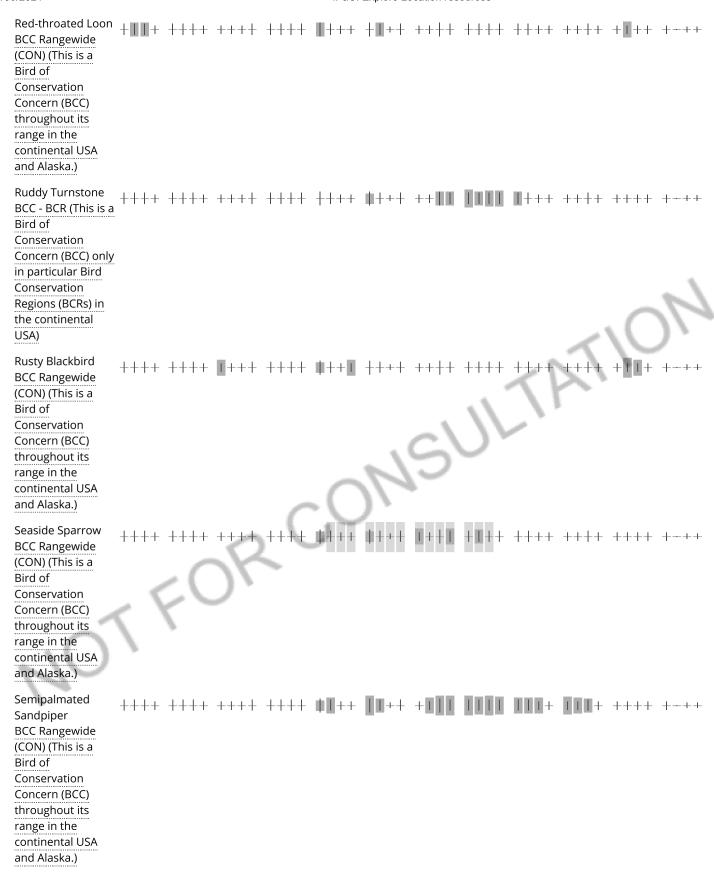
#### **Survey Timeframe**

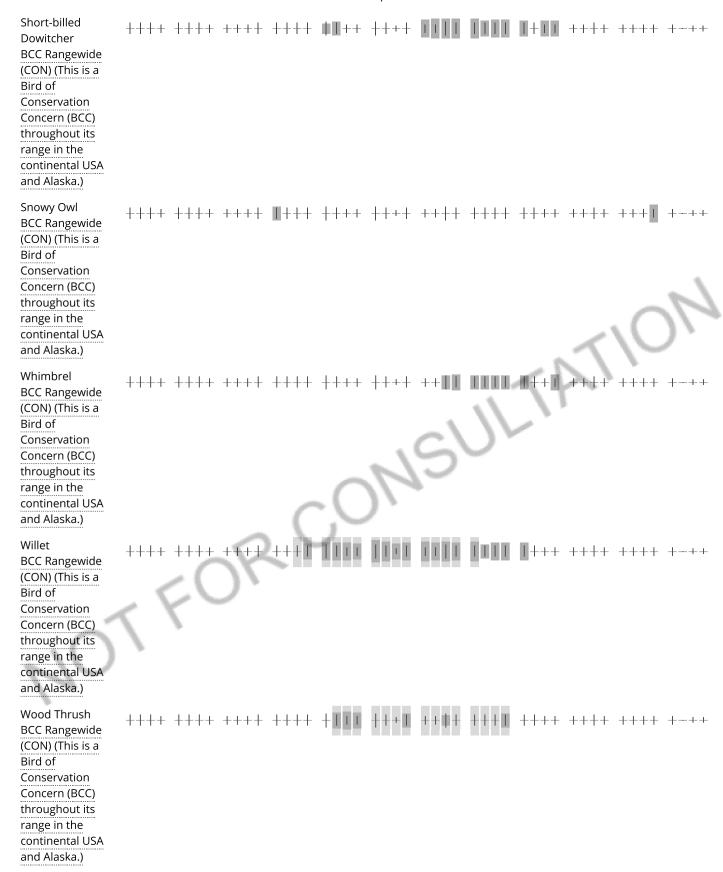
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.











#### Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

<u>Nationwide Conservation Measures</u> describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to

occur and be breeding in your project area, view the Probability of Presence Summary. <u>Additional measures</u> or <u>permits</u> may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

#### What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>AKN Phenology Tool</u>.

## What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

#### How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

#### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

#### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the <u>Northeast Ocean Data Portal</u>. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the <u>NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.</u>

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

#### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

#### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

### Facilities

## National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

### Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

## Wetlands in the National Wetlands Inventory

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of Engineers District</u>.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

**RIVERINE** 

R2UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

#### **Data limitations**

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### **Data exclusions**

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### **Data precautions**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

JT FOR CONSULTATIO

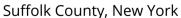
#### **IPaC**

## IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

### Location





## Local office

Long Island Ecological Services Field Office

**4** (631) 286-0485

**(631)** 286-4003

340 Smith Road Shirley, NY 11967-2258

## Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

- 1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
- 2. <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.

The following species are potentially affected by activities in this location:

### **Mammals**

NAME STATUS

Northern Long-eared Bat Myotis septentrionalis

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/9045

**Threatened** 

Birds

NAME **STATUS** 

Piping Plover Charadrius melodus

**Threatened** There is final critical habitat for this species. The location of the

critical habitat is not available.

https://ecos.fws.gov/ecp/species/6039

Red Knot Calidris canutus rufa **Threatened** 

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/1864

Endangered Roseate Tern Sterna dougallii dougallii

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/2083

Flowering Plants

NAME **STATUS** 

Sandplain Gerardia Agalinis acuta Endangered

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/8128

**Threatened** Seabeach Amaranth Amaranthus pumilus

Wherever found

No critical habitat has been designated for this species.

https://ecos.fws.gov/ecp/species/8549

### Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty  $Act^{1}$  and the Bald and Golden Eagle Protection  $Act^{2}$ .

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <a href="http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php">http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php</a>
- Measures for avoiding and minimizing impacts to birds
   <a href="http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php">http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php</a>
- Nationwide conservation measures for birds <a href="http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf">http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf</a>

The birds listed below are birds of particular concern either because they occur on the <u>USFWS Birds of Conservation Concern</u> (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ <u>below</u>. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found <u>below</u>.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A
BREEDING SEASON IS INDICATED
FOR A BIRD ON YOUR LIST, THE
BIRD MAY BREED IN YOUR
PROJECT AREA SOMETIME WITHIN
THE TIMEFRAME SPECIFIED,
WHICH IS A VERY LIBERAL
ESTIMATE OF THE DATES INSIDE
WHICH THE BIRD BREEDS
ACROSS ITS ENTIRE RANGE.
"BREEDS ELSEWHERE" INDICATES

THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

#### Bald Eagle Haliaeetus leucocephalus

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

https://ecos.fws.gov/ecp/species/1626

Breeds Oct 15 to Aug 31

#### Black-billed Cuckoo Coccyzus erythropthalmus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

https://ecos.fws.gov/ecp/species/9399

Breeds May 15 to Oct 10

#### **Bobolink** Dolichonyx oryzivorus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 20 to Jul 31

#### Canada Warbler Cardellina canadensis

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 20 to Aug 10

#### **Dunlin** Calidris alpina arcticola

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds elsewhere

### Golden-winged Warbler Vermivora chrysoptera

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8745">https://ecos.fws.gov/ecp/species/8745</a>

Breeds May 1 to Jul 20

#### Least Tern Sterna antillarum

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds Apr 20 to Sep 10

#### **Lesser Yellowlegs** Tringa flavipes

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>

Breeds elsewhere

#### Nelson's Sparrow Ammodramus nelsoni

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 15 to Sep 5

#### Prairie Warbler Dendroica discolor

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 1 to Jul 31

Red-throated Loon Gavia stellata

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Rusty Blackbird Euphagus carolinus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Snowy Owl Bubo scandiacus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Wood Thrush Hylocichla mustelina

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 10 to Aug 31

## **Probability of Presence Summary**

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

#### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

#### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

#### Survey Effort (1)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

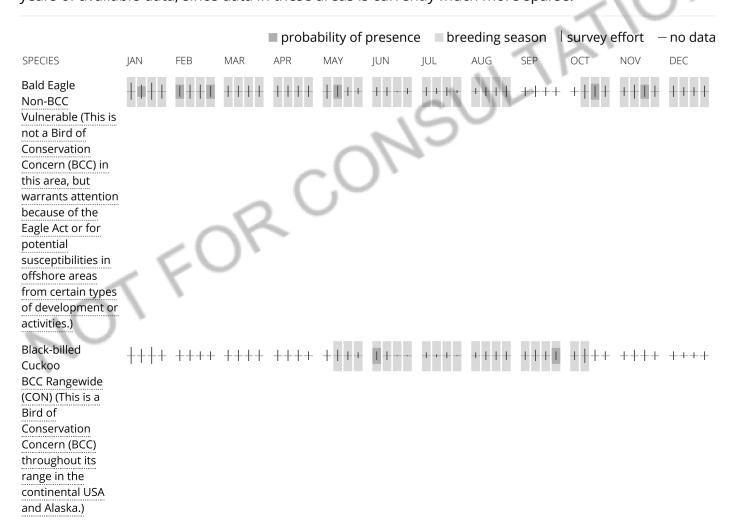
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

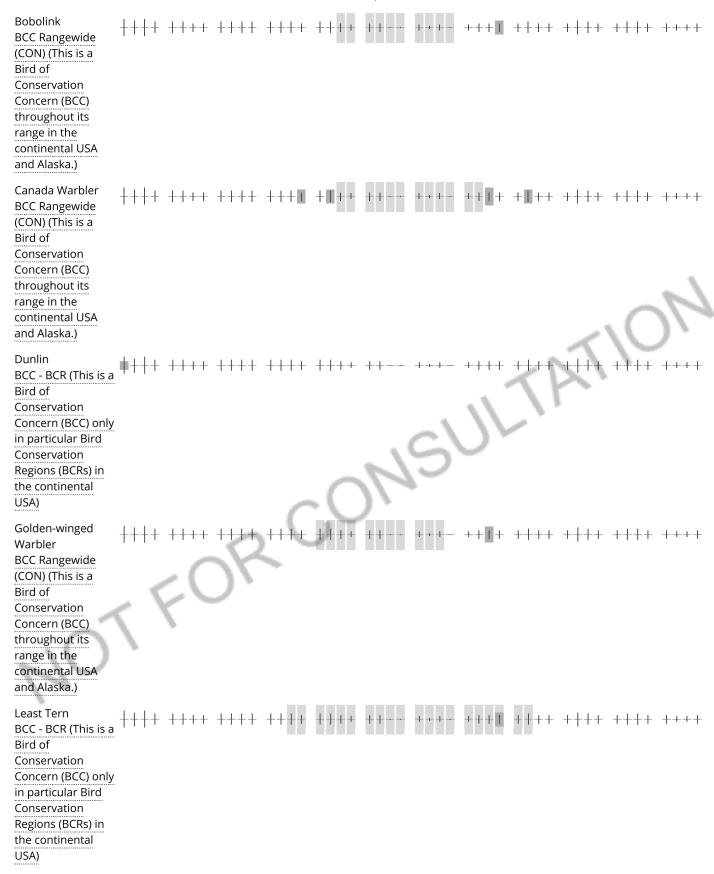
#### No Data (-)

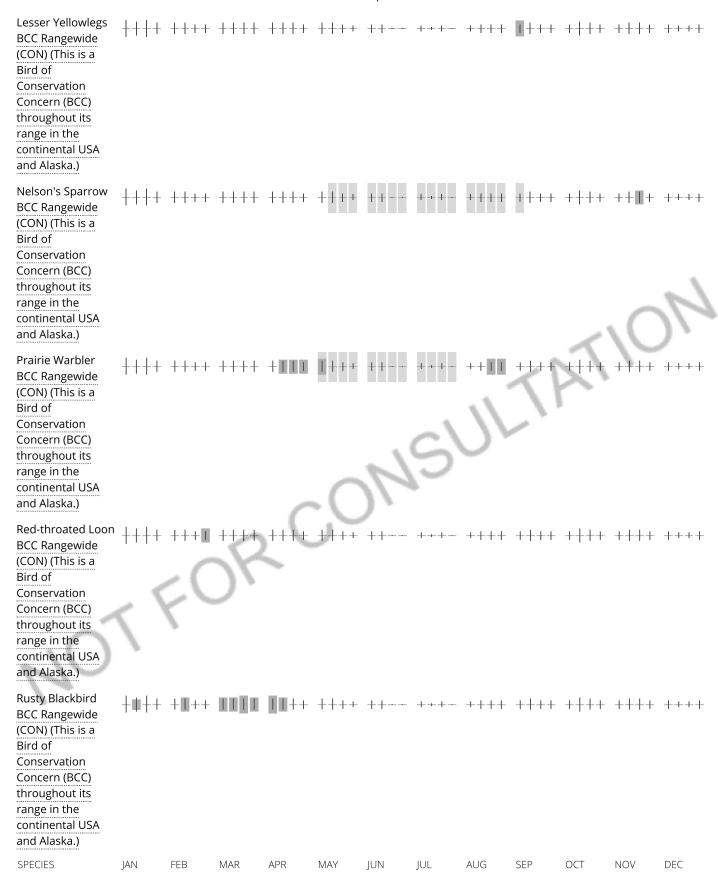
A week is marked as having no data if there were no survey events for that week.

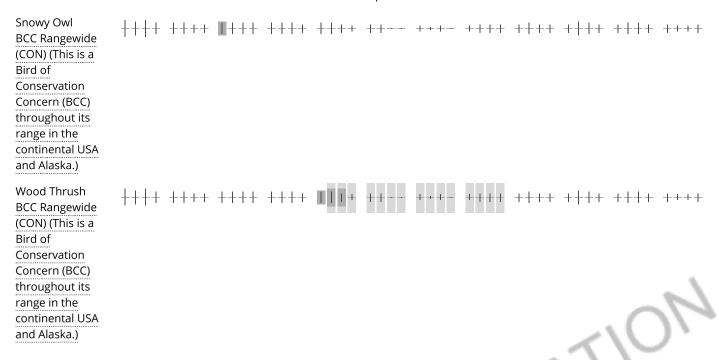
#### **Survey Timeframe**

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.









#### Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

#### What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>AKN Phenology Tool</u>.

## What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen</u> science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

#### How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

#### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

#### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the <u>Northeast Ocean Data Portal</u>. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the <u>NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.</u>

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

#### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

#### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting

point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## **Facilities**

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

# Wetlands in the National Wetlands Inventory

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of Engineers District</u>.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

#### **Data limitations**

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### **Data exclusions**

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### **Data precautions**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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