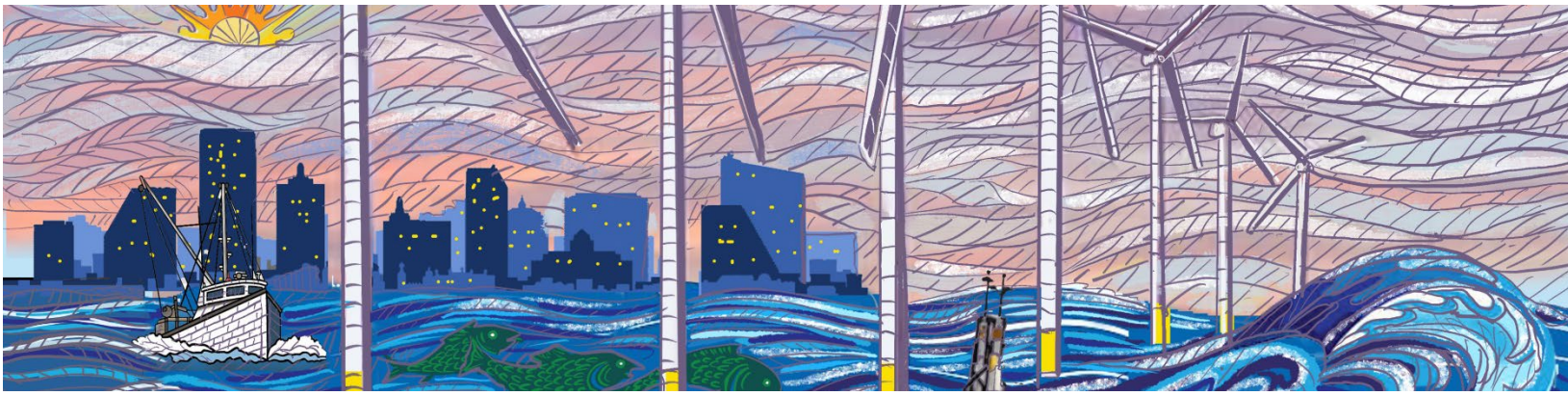

# Appendix II-A7b

## Natural Resources Conservation Service Mapped Soils Report
## Larrabee Study Area

**May 2024**

# Natural Resources Conservation Service Mapped Soils Report

## Larrabee Study Area

## Borough of Sea Girt, Township of Wall, and Township of Howell, Monmouth County, New Jersey

Prepared for:

ATLANTIC SHORES offshore wind

Atlantic Shores
1 Dock 72, Floor 7
Brooklyn, NY 11205

Prepared by:

EDR

Environmental Design & Research, D.P.C.
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Syracuse, New York 13202
www.edrdpc.com

**December 2020**
**Revised November 2021, August 2022 and March 2024**

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## LIST OF APPENDICES

# 1.0 INTRODUCTION

Atlantic Shores Offshore Wind, LLC (Atlantic Shores) is a 50/50 joint venture between EDF-RE Offshore Development, LLC (a wholly owned subsidiary of EDF Renewables, Inc. [EDF Renewables]) and Shell New Energies US LLC (Shell). Atlantic Shores is developing a Construction and Operations Plan (COP) for submittal to the Bureau of Ocean Energy Management (BOEM) for two offshore wind energy generation projects within the southern portion of Lease Area OCS-A 0499 (the Lease Area) off the coast of New Jersey with onshore interconnections in two areas of New Jersey.

Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C., (EDR) was contracted by Atlantic Shores to identify the Natural Resources Conservation Service (NRCS) soils types mapped within an approximate 100-foot area of the proposed Larrabee Study Area which consists of the landfall location, onshore interconnection cable routes (cable routes), and point of interconnection from the from the Monmouth Landfall of the submarine export cable at the Army National Guard training facility in the Borough of Sea Girt to the Point of Interconnection (POI) at the Larrabee Substation located in Howell Township, herein referred to as the Study Area (Figure 1).

## 1.1 Purpose

The purpose of this report is to identify NRCS soil units that are mapped within the Study Area and describe specific characteristics such as: physical characteristics, soil inclusions, hydric status, acidity, construction suitability, and other notable characteristics.

This report is intended to provide the information necessary to guide the identification of onshore geotechnical investigation locations within the Study Area.

## 1.2 Data Sources

Information supporting this report was largely obtained from the Natural Resources Conservation Service (NRCS) Web Soil Survey (Soil Survey Staff, 2020) with supplemental information used from the NRCS List of Hydric Soils of the State of New Jersey (NRCS, 2018).

## 2.0 SOIL DESCRIPTIONS

The Study Area are located within the Coastal Plain physiographic province of the state of New Jersey. The geography in this province consists of unconsolidated deposits that dip gently to the southeast. The drainage divide between the Delaware River and the Atlantic Ocean contains mostly flat land with a maximum elevation of 391 feet. The streams and waterbodies that flow northwest to the Delaware River consist of narrow valleys and have steeper gradients than the streams that flow to the southeast. Elevations within the Study Area range from 0 to 132 feet above mean sea level (see Figure 1).

Section 2.1 and 2.2 identifies the soil types mapped within the Study Area, provides a physical description and summary of other soil characteristics such as hydric rating, acidity, and construction limitations.

### 2.1 Soil Types

A total of 27 soils are mapped within the Study Area as shown in Figure 2. Table 1 provides a list of the soil types, inclusions, and acres within the Study Area.

**Table 1. Study Area Mapped Soils**

| Mapping Unit Symbol | Series | Slope (%) | Area in Study Area (Acres) | Soil Series Inclusions |
|---|---|---|---|---|
| AtsAO | Atsion sand | 0 to 2 | 11.2 | Berryland, occasionally flooded (5%), Lakehurst (5%) |
| BerAt | Berryland sand | 0 to 2 | 2.5 | Mullica, rarely flooded (5%), Atsion (5%), and Manahawkin, frequently flooded (5%) |
| DocBO | Downer loamy sand | 0 to 5 | 1.4 | Hammonton (10%), Atsion (5%), and Evesboro (5%) |
| DocCO | Downer loamy sand | 5 to 10 | 12.4 | Galestown (10%), Ingleside (5%), and Hammonton (5%) |
| DoeAO | Downer sandy loam | 0 to 2 | 2.0 | Galestown (10%), Ingleside (5%), and Hammonton (5%) |
| DoeBO | Downer sandy loam | 2 to 5 | 68.4 | Galestown (10%), Ingleside (5%), and Hammonton (5%) |
| DouB | Downer-Urban land complex | 0 to 5 | 47.7 | Sassafras (5%) and Woodstown (5%) |

| Mapping Unit Symbol | Series | Slope (%) | Area in Study Area (Acres) | Soil Series Inclusions |
|---|---|---|---|---|
| EveB | Evesboro sand | 0 to 5 | 7.6 | Lakehurst (5%), Atsion (5%), Mullica, rarely flooded (5%), and Downer (5%) |
| EveC | Evesboro sand | 5 to 10 | 9.2 | Downer (5%) |
| EveD | Evesboro sand | 10 to 15 | 2.5 | Downer (5%) |
| EveE | Evesboro sand | 15 to 25 | 8.2 | Westphalia (5%) |
| FapA | Fallsington loams | 0 to 2 | 1.4 | Woodstown (8%), Hammonton (7%), Mullica, undrained (5%), and Othello (5%) |
| HboB | Hammonton sandy loam | 2 to 5 | 1.6 | Glassboro (5%), Fallsington (5%), and Downer (5%) |
| HumAt | Humaquepts | 0 to 3 | 18.1 | Atsion (5%), Manahawkin, frequently flooded (5%), and Mullica, occasionally flooded (5%) |
| KkgB | Klej loamy sand | 0 to 5 | 87.6 | Atsion (5%) and Humaquepts, frequently flooded (5%) |
| LakB | Lakehurst sand | 0 to 5 | 4.9 | Quakerbridge (5%), Atsion, rarely flooded (5%), and Berryland, rarely flooded (5%) |
| LasB | Lakewood sand | 0 to 5 | 16.9 | Quakerbridge (5%), Atsion, rarely flooded (5%), and Lakehurst (5%) |
| PHG | Pits sand and gravel | -- | 27.6 | None |
| SacBO | Sassafras sandy loam | 2 to 5 | 17.0 | Ingleside (9%), Woodstown (4%), Downer (4%), and Aura (3%) |
| SacC | Sassafras sandy loam | 5 to 10 | 1.5 | Ingleside (4%), Woodstown (4%), Downer (4%), Fallsington, drained (4%) and Aura (4%) |
| SacD | Sassafras sandy loam | 10 to 15 | 4.0 | Aura (5%), Downer (5%), and Westphalia (5%) |

| Mapping Unit Symbol | Series | Slope (%) | Area in Study Area (Acres) | Soil Series Inclusions |
|---|---|---|---|---|
| SacE | Sassafras sandy loam | 15 to 25 | 5.4 | Evesboro (5%), Freehold (5%), and Tinton (5%) |
| SadC | Sassafras gravelly sandy loam | 5 to 10 | 1.2 | Aura (5%) |
| SafA | Sassafras loam | 0 to 2 | 1.3 | Ingleside (4%), Woodstown (4%), Downer (4%), Fallsington, drained (4%) and Aura (4%) |
| UdaB | Udorthents | 0 to 8 | 9.5 | None |
| USBROA | Urban land-Brockatonnorton complex | 0 to 2 | 15.5 | Psamments, wet substratum, occasionally flooded (10%) |
| WATERs | Water, saline | -- | 0.2 | None |

## 2.2 Soil Types

**Atsion sand –** This soil series consists of sandy eolian deposits and/or fluviomarine deposits typically located in flats, drainageways, depressions and deflation flats. A typical profile ranges from peat (0 to 2 inches) to sand (2 to 80 inches), is poorly drained, and this soil is classified as a Farmland of unique importance. This soil series is designated as hydric and has the following inclusions: Berryland, occasionally flooded, five percent, hydric; and Lakehurst, five percent, not hydric.

**Berryland sand –** This soil series consists of sandy fluviomarine deposits located in flats and depressions. A typical profile ranges from sand (0 to 15 inches) to loamy sand (15 to 22 inches) to sand (22 to 35 inches) to stratified sand to sandy loam (35 to 60 inches), is very poorly drained and is not classified as prime farmland. This soil series is classified as hydric and has the following inclusions: Mullica, rarely flooded, five percent, hydric; Atsion, five percent, hydric; and Manahawkin, frequently flooded, five percent, hydric.

**Downer loamy sand –** This soil series consists of loamy fluviomarine deposits and is typically located in knolls and low hills. A typical profile ranges from loamy sand (0 to 16 inches) to sandy loam (16 to 28 inches) to loamy sand (28 to 48 inches) to sand (48 to 80 inches), is well drained, and is designated as Farmland of statewide importance. This soil series is not designated as hydric and contains the following inclusions: Hammonton, ten percent, not hydric; Atsion, five percent, hydric; and Evesboro, five percent, not hydric.

**Downer sandy loam –** This soil series consists of loamy fluvial marine deposits found in low hills, knolls, and flats. The soil profile ranges from sandy loam (0 to 10 inches) to loamy sand (10 to 16 inches) to sandy loam (16 to 28 inches) to loamy sand (28 to 48 inches) to sand (48 to 80 inches), is well drained, and is classified in all areas as prime farmland. This soil series is not designated as hydric and has the following inclusions: Galestown, ten percent, not hydric; Ingleside, five percent, not hydric; and Hammonton, five percent, not hydric.

**Downer-Urban land complex –** This soils series consists of loamy fluviomarine deposits and/or gravelly fluviomarine deposits located in knolls and low hills. The soil profile ranges from sandy loam (0 to 36 inches) to loamy sand (36 to 48 inches) to stratified sand to sandy loam (48 to 80 inches), is well drained, and is not classified as prime farmland. This soil series is not designated as hydric and has the following inclusions: Sassafras, five percent, not hydric; and Woodstown, five percent, not hydric.

**Evesboro sand –** This soil series consists sandy eolian deposits and/or sandy fluviomarine deposits and is located in low hills. The soil profile consists of sand (0 to 31 inches) to stratified loamy sand to sand (31 to 80 inches), is excessively drained, and is not classified as prime farmland. This soil series is not designated as hydric and has the following inclusions: Lakehurst, five percent, not hydric; Atsion, five percent, hydric; Mullica, rarely flooded, five percent, hydric; and Downer, five percent, not hydric.

**Fallsington loams –** This soil series consists of loamy fluviomarine deposits that is located in depressions, swales, flats, and drainageways. The soil profile consists of mucky peat (0 to 2 inches) to loam (2 to 10 inches) to sandy clay loam (10 to 32 inches) to loamy sand (32 to 39 inches) to sandy clay loam (39 to 46 inches) to sand (46 to 80 inches), is poorly drained, and if drained, is designated as farmland of statewide importance. This soil series is designated as hydric and has the following inclusions: Woodstown, eight percent, not hydric; Hammonton, seven percent, not hydric; Mullica, undrained, five percent, hydric, and Othello, five percent, hydric.

**Hammonton sandy loam –** This soil series consists of coarse-loamy fluviomarine deposits found in flats and depressions. A typical profile ranges from sandy loam (0 to 48 inches) to sand (48 to 72 inches), it is moderately well drained, and is classified as prime Farmland. This soil series is not designated as hydric and contains the following inclusions: Glassboro, five percent, not hydric; Fallsington, five percent, hydric; and Downer, five percent, not hydric.

**Humaquepts –** This soil series consists of loamy alluvium and is found in floodplains. The profile ranges from loam (0 to 18 inches) to sand (18 to 60 inches), it is poorly drained, and is not classified as prime farmland. This soil series is designated as hydric and has the following inclusions: Atsion, five percent, hydric; Manahawkin, frequently flooded, five percent, hydric; and Mullica, occasionally flooded, five percent, hydric.

**Klej loamy sand –** This soil series consists of unconsolidated sandy marine deposits and is located in dunes. The soil profile ranges from slightly decomposed plant material (0 to 4 inches) to loamy sand (4 to 40 inches) to sand (40 to 64 inches), is somewhat poorly drained, and is designated as farmland of statewide importance. This soil series is not hydric and has the following inclusions: Atsion, five percent, hydric; and Humaquepts, frequently flooded, five percent, hydric.

**Lakehurst sand –** This soil series consists of sandy fluviomarine deposits located in flats and dunes. The profile ranges from slightly decomposed plant material (0 to 2 inches) to sand (2 to 80 inches), is moderately well drained, and is classified as not prime farmland. This soils series is not designated as hydric and has the following inclusions: Quakerbridge, five percent, not hydric; Astion, rarely flooded, five percent, hydric; and Berryland, rarely flooded, five percent, hydric.

**Lakewood sand –** This soil series consists of sandy fluviomarine deposits found in flats and knolls. The soil profile ranges from sand (0 to 11 inches) to loamy sand (11 to 13 inches) to sand (13 to 80 inches), it is excessively drained, and it is not considered to be prime farmland. This soils series is not considered hydric and has the following inclusions: Quakerbridge, five percent, not hydric; Lakehurst, five percent, not hydric; Astion, rarely flooded, five percent, hydric.

**Pits, sand and gravel –** This soil series consists of sandy material distributed by human activity. There is not a full profile description regarding this series due to the manmade-nature of the soil. This soil series is not designated as hydric and does not contain any inclusions.

**Sassafras sandy loam –** This soil series consists of loamy fluviomarine deposits located in flats and fluviomarine terraces. The profile ranges from sandy loam (0 to 18 inches) to sandy clay loam (18 to 28 inches) to loamy sand (28 to 40 inches) to sand (40 to 80 inches), is well drained, and is classified for all areas as prime farmland. This soil series is not designated as hydric and contains the following inclusions ingleside, nine percent, not hydric; Woodstown, four percent, not hydric; Downer, four percent, not hydric; and Aura, three percent, not hydric.

**Sassafras gravelly sandy loam –** This soil series consists of loamy and/or gravelly fluviomarine deposits found in knolls and low hills. The soil profile ranges from gravelly sandy loam (0 to 17 inches) to sandy clay loam (17 to 37 inches) to gravelly sandy loam (37 to 60 inches), is well drained, and is considered to be a farmland of statewide importance. This soil series is not designated as hydric and has the following inclusions: Aura, five percent, not hydric.

**Sassafras loam –** This soil series consists of loamy fluviomarine deposits located in flats and fluviomarine terraces. The profile ranges from loam (0 to 12 inches) to sandy loam (12 to 18 inches) to sandy clay loam (18 to 28 inches) to loamy sand (28 to 40 inches) to sand (40 to 80 inches), is well drained, and is classified as prime farmland in all areas. This soil series is not designated as hydric and has the following inclusions: Aura, four percent, not hydric; Ingleside, four percent, not hydric; Woodstown, four percent, not hydric; Downer, four percent, not hydric; and Fallsington, drained, four percent, hydric.

**Udorthents –** This soil series consists of fill and/or distributed original soil matter located in low hills. The soil profile ranges from loam (0 to 12 inches) to loamy sand (12 to 72 inches), is well drained, and is not designated as prime farmland. This soil series is not designated as hydric and does not have any inclusions.

**Urban land-Brockatonorton complex –** This soil series consists of sandy eolian deposits and/or sandy marine deposits found in dunes, and dune fields. The soil profile ranges from sand (0 to 50 inches) to mucky peat (50 to 60 inches) to sand (60 to 80 inches), is moderately well drained, and is not classified as prime farmland. This soil series is not designated as hydric and has the following inclusions: Psamments, wet substratum, occasionally flooded, ten percent, not hydric.

Additional physical characteristics of these mapped soils such as slope, acidity, construction limitations and hydric ratings are summarized in Table 2.

**Table 2. Soil Series Characteristics**

| Mapping Unit Symbol | Series | Slope (%) | pH (Acidity) | Construction Limitations/Suitability[1] | Hydric[2] |
|---|---|---|---|---|---|
| AtsAO | Atsion sand | 0 to 2 | 3.6 | Severe/Wetness, Sandiness, Flooding | Yes |
| BerAt | Berryland sand | 0 to 2 | 4.0 | Slight/Dusty | Yes |
| DocBO | Downer loamy sand | 0 to 5 | 6.3 | Slight/Dusty | Partially |
| DocCO | Downer loamy sand | 5 to 10 | 6.3 | Slight/Dusty | No |
| DoeAO | Downer sandy loam | 0 to 2 | 6.3 | Slight/Dusty | No |
| DoeBO | Downer sandy loam | 2 to 5 | 6.3 | Slight/Dusty | No |
| DouB | Downer-Urban land complex | 0 to 5 | 5.8 | Moderate/Sandiness | No |
| EveB | Evesboro sand | 0 to 5 | 4.3 | Moderate/Sandiness | Partially |
| EveC | Evesboro sand | 5 to 10 | 4.3 | Slight | No |
| EveD | Evesboro sand | 10 to 15 | 4.3 | Moderate/Slope, Sandiness, Dusty | No |
| EveE | Evesboro sand | 15 to 25 | 4.3 | Slight/Dusty | No |
| FapA | Fallsington loams | 0 to 2 | 5.2 | Slight/Dusty | Yes |
| HboB | Hammonton sandy loam | 2 to 5 | 4.5 | Severe/Flooding, Low Strength, Wetness, Dusty | Partially |
| HumAt | Humaquepts | 0 to 3 | 4.6 | Moderate/Wetness | Yes |
| KkgB | Klej loamy sand | 0 to 5 | N/A | Slight | Partially |
| LakB | Lakehurst sand | 0 to 5 | 3.6 | Moderate/Sandiness | Partially |
| LasB | Lakewood sand | 0 to 5 | 4.3 | Moderate/Sandiness | Partially |
| PHG | Pits sand and gravel | -- | N/A | Slight/Dusty | No |
| SacBO | Sassafras sandy loam | 2 to 5 | 6.3 | Slight/Dusty | No |
| SacC | Sassafras sandy loam | 5 to 10 | 6.3 | Slight/Dusty | Partially |
| SacD | Sassafras sandy loam | 10 to 15 | 6.3 | Concrete Corrosion High | No |
| SacE | Sassafras sandy loam | 15 to 25 | 6.3 | Concrete Corrosion High | No |
| SadC | Sassafras gravelly sandy loam | 5 to 10 | 4.6 | Slight/Dusty | No |
| SafA | Sassafras loam | 0 to 2 | 5.3 | Moderate/Low strength, Dusty | Partially |
| UdaB | Udorthents | 0 to 8 | 5.5 | Severe/Flooding, Sandiness | No |
| USBROA | Urban land-Brockatonnorton complex | 0 to 2 | N/A | Not Rated | No |
| WATERs | Water, saline | -- | 5.3 | Slight/Dusty | N/A |

[1] Construction suitability and limitations criteria are derived from NRCS Web Soil Survey.

[2] Hydric soil determined using the New Jersey Portion of the 2018 National Hydric Soil List. Partially Hydric Status indicates that the major soil component is classified as not hydric but includes minor soil components that are classified as hydric

The location and extent of the mapped soils within the Study Area are shown in Figure 2.

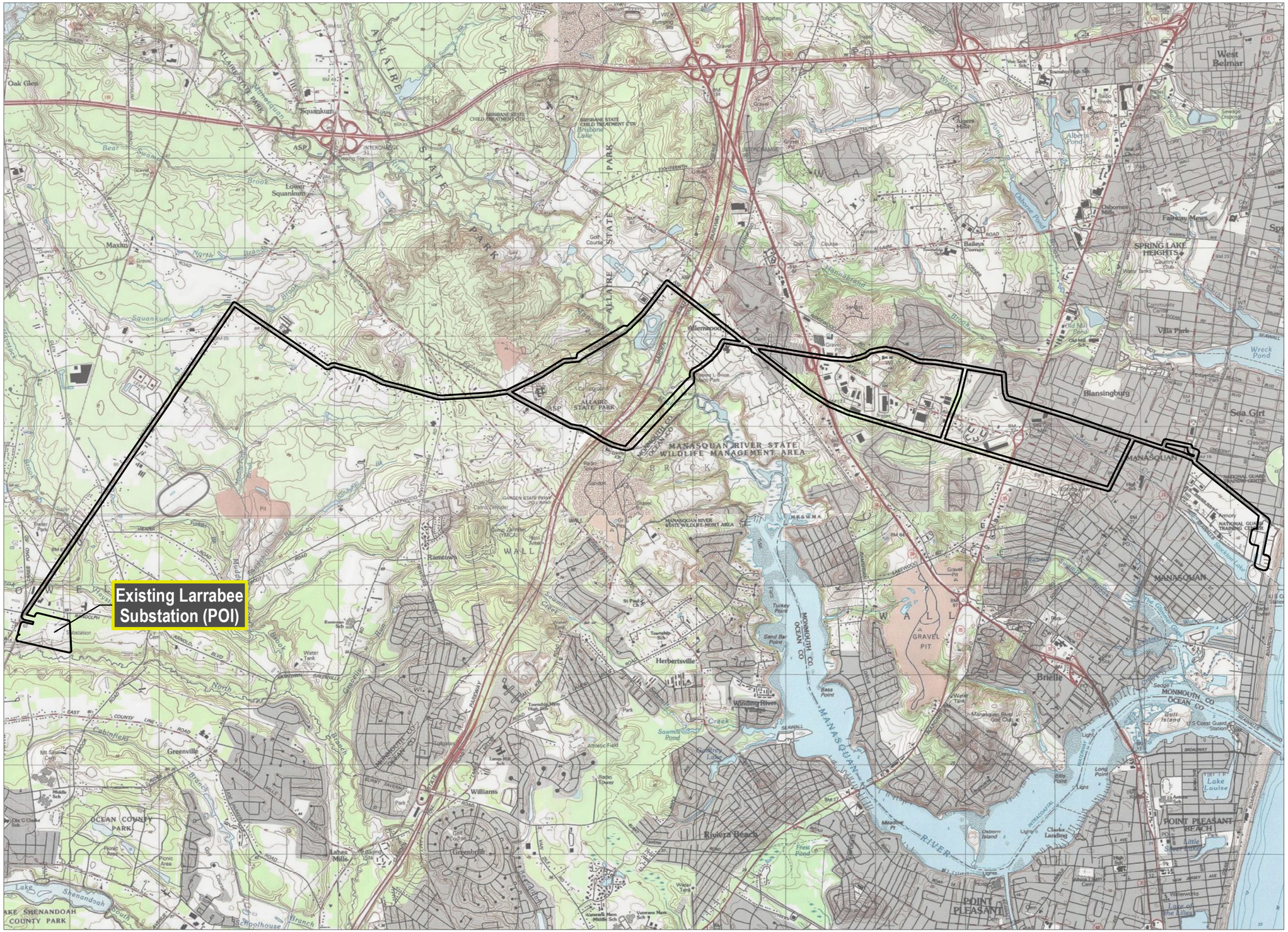
## 3.0 CONCLUSIONS

There is a total of 27 soil units mapped within the Study Area. The information provided in this report is based on publicly available NRCS soils data and is provided for the purpose of guiding the determination of geotechnical investigation locations within the Study Area to support onshore design.

# Appendix A

Figures

## Figure 1. USGS Project Location Map




# Atlantic Shores Offshore Wind – Larrabee Study Area

Borough of Sea Girt, Township of Wall, and Township of Howell
Monmouth County, New Jersey

***Natural Resources Conservation Service Soils Report***

Study Area


0 1,000 2,000 4,000
Feet

Prepared August 8, 2022
Basemap: ESRI ArcGIS Online "USA Topo Maps" map service.

ATLANTIC SHORES offshore wind

EDR

## Figure 2. Soils Map




| Soil Symbol | Soil Name |
|---|---|
| DouB | Downer-Urban land complex, 0 to 5 percent slopes |
| USBROA | Urban land-Brockatonorton complex, 0 to 2 percent slopes, occasionally flooded |

# Atlantic Shores Offshore Wind – Larrabee Onshore Project Design Envelope

Borough of Sea Girt, Township of Wall, and Township of Howell
Monmouth County, New Jersey

***Natural Resources Conservation Service Soils Report***

Project Area

NRCS (SSURGO) Soils

- Hydric
- Partially Hydric*
- Water
- Not Hydric


0 100 200 400

Feet

Prepared August 8, 2022

Basemap: NJ Office of GIS 2015 Natural Color Imagery

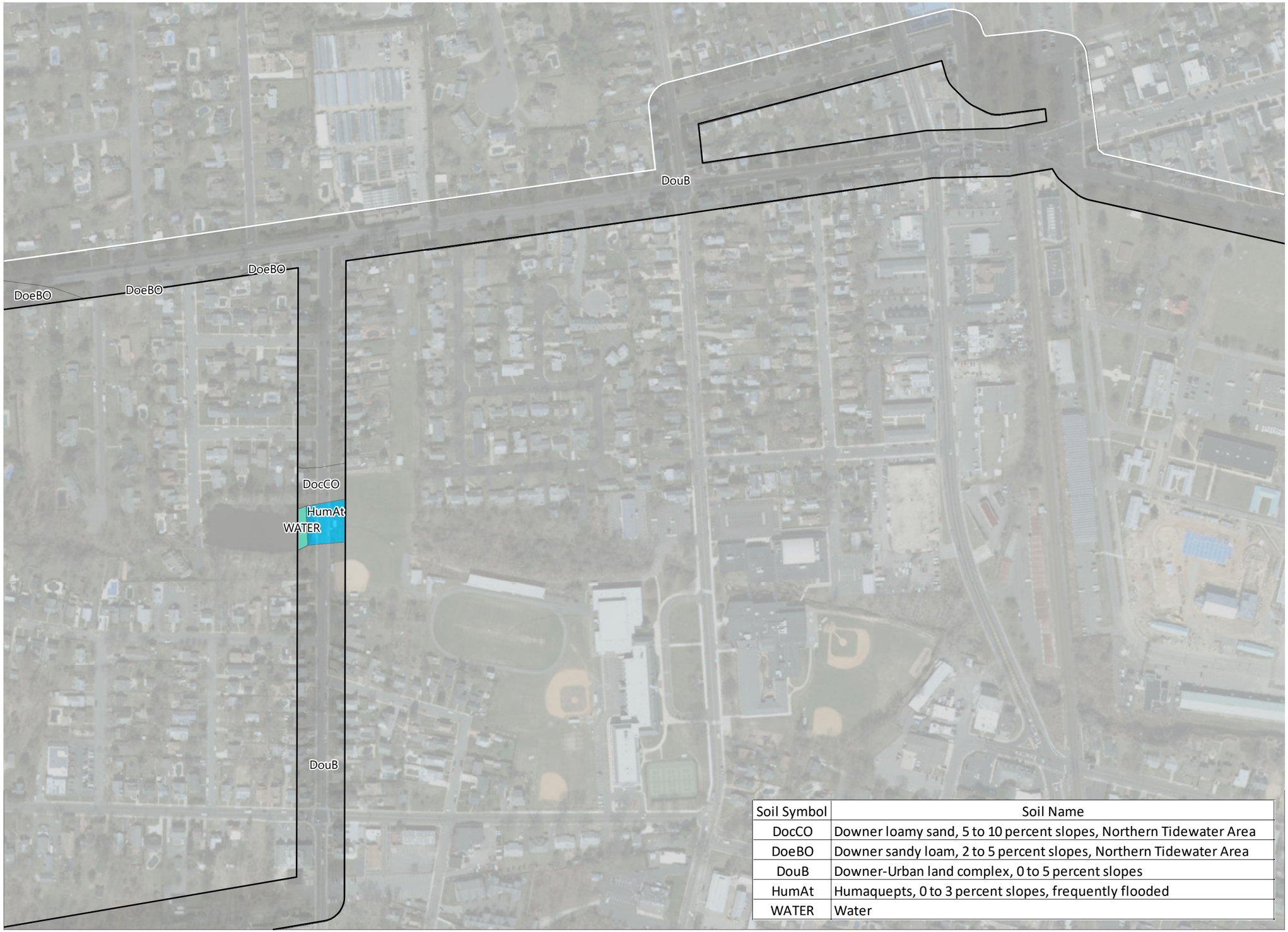
*Partially Hydric Status indicates that the major soil component is classified as not hydric but includes minor soil components that are classified as hydric

ATLANTIC SHORES offshore wind

EDR

# Figure 2. Soils Map






| Soil Symbol | Soil Name |
|---|---|
| DocCO | Downer loamy sand, 5 to 10 percent slopes, Northern Tidewater Area |
| DoeBO | Downer sandy loam, 2 to 5 percent slopes, Northern Tidewater Area |
| DouB | Downer-Urban land complex, 0 to 5 percent slopes |
| HumAt | Humaquepts, 0 to 3 percent slopes, frequently flooded |
| WATER | Water |

## Atlantic Shores Offshore Wind – Larrabee Onshore Project Design Envelope

Borough of Sea Girt, Township of Wall, and Township of Howell
Monmouth County, New Jersey

***Natural Resources Conservation Service Soils Report***

Project Area

NRCS (SSURGO) Soils

- Hydric
- Partially Hydric*
- Water
- Not Hydric


0 100 200 400

Feet

Prepared August 8, 2022

Basemap: NJ Office of GIS 2015 Natural Color Imagery

*Partially Hydric Status indicates that the major soil component is classified as not hydric but includes minor soil components that are classified as hydric

ATLANTIC SHORES offshore wind

EDR

## Figure 2. Soils Map




| Soil Symbol | Soil Name |
|---|---|
| DocCO | Downer loamy sand, 5 to 10 percent slopes, Northern Tidewater Area |
| DoeBO | Downer sandy loam, 2 to 5 percent slopes, Northern Tidewater Area |
| DouB | Downer-Urban land complex, 0 to 5 percent slopes |
| SacBO | Sassafras sandy loam, 2 to 5 percent slopes, Northern Tidewater Area |
| UdaB | Udorthents, 0 to 8 percent slopes |

# Atlantic Shores Offshore Wind – Larrabee Onshore Project Design Envelope

Borough of Sea Girt, Township of Wall, and Township of Howell
Monmouth County, New Jersey

***Natural Resources Conservation Service Soils Report***

Project Area

NRCS (SSURGO) Soils

- Hydric
- Partially Hydric*
- Water
- Not Hydric


0 100 200 400

Feet

Prepared August 8, 2022

Basemap: NJ Office of GIS 2015 Natural Color Imagery

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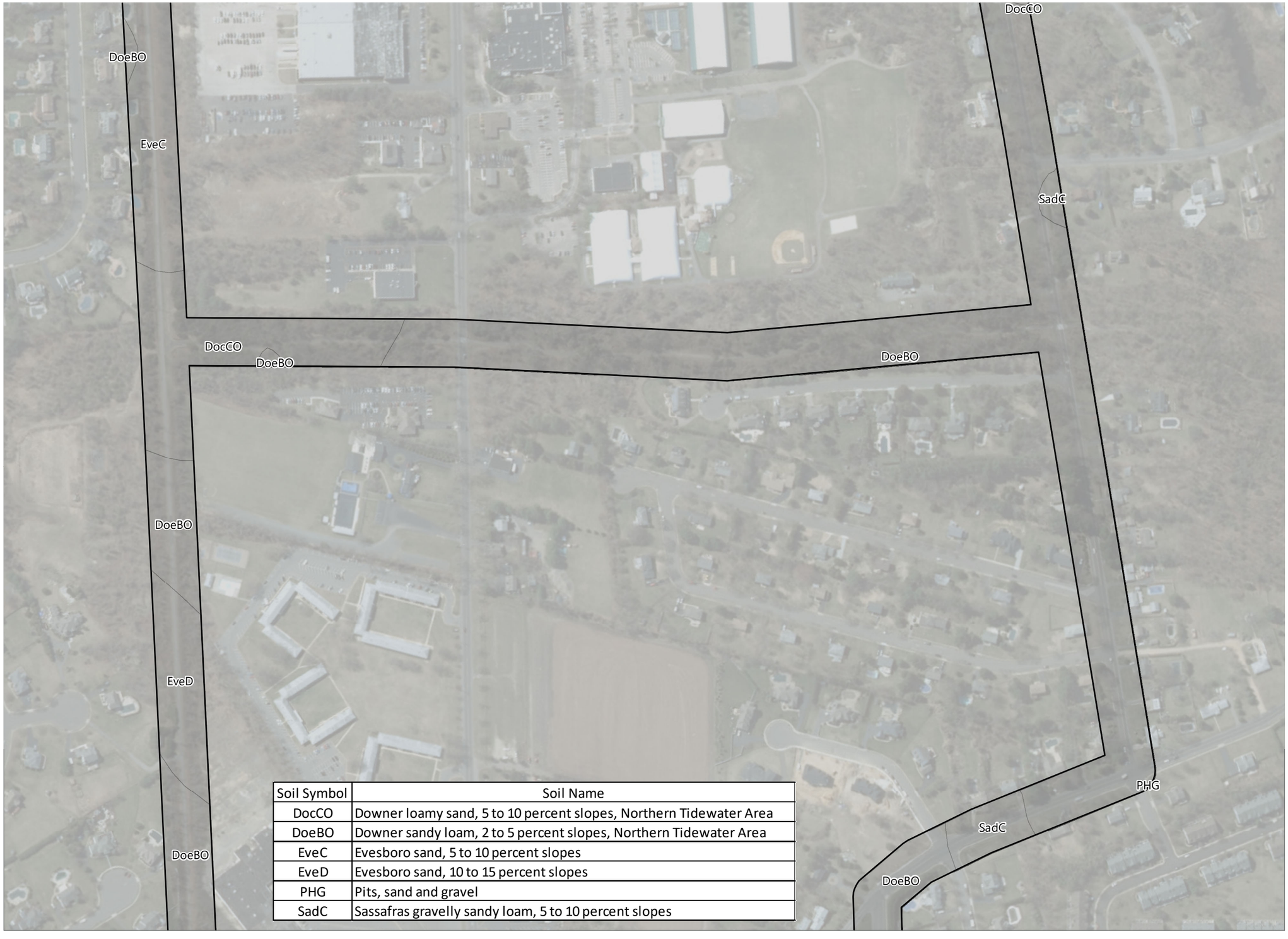
ATLANTIC SHORES offshore wind

EDR

## Figure 2. Soils Map






| Soil Symbol | Soil Name |
|---|---|
| DocCO | Downer loamy sand, 5 to 10 percent slopes, Northern Tidewater Area |
| DoeBO | Downer sandy loam, 2 to 5 percent slopes, Northern Tidewater Area |
| EveC | Evesboro sand, 5 to 10 percent slopes |
| EveD | Evesboro sand, 10 to 15 percent slopes |
| PHG | Pits, sand and gravel |
| SadC | Sassafras gravelly sandy loam, 5 to 10 percent slopes |

# Atlantic Shores Offshore Wind – Larrabee Onshore Project Design Envelope

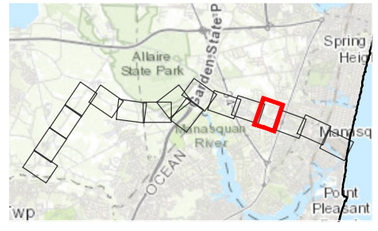
Borough of Sea Girt, Township of Wall, and Township of Howell
Monmouth County, New Jersey

***Natural Resources Conservation Service Soils Report***

Project Area

NRCS (SSURGO) Soils

- Hydric
- Partially Hydric*
- Water
- Not Hydric




0 100 200 400

Feet

Prepared August 8, 2022

Basemap: NJ Office of GIS 2015 Natural Color Imagery

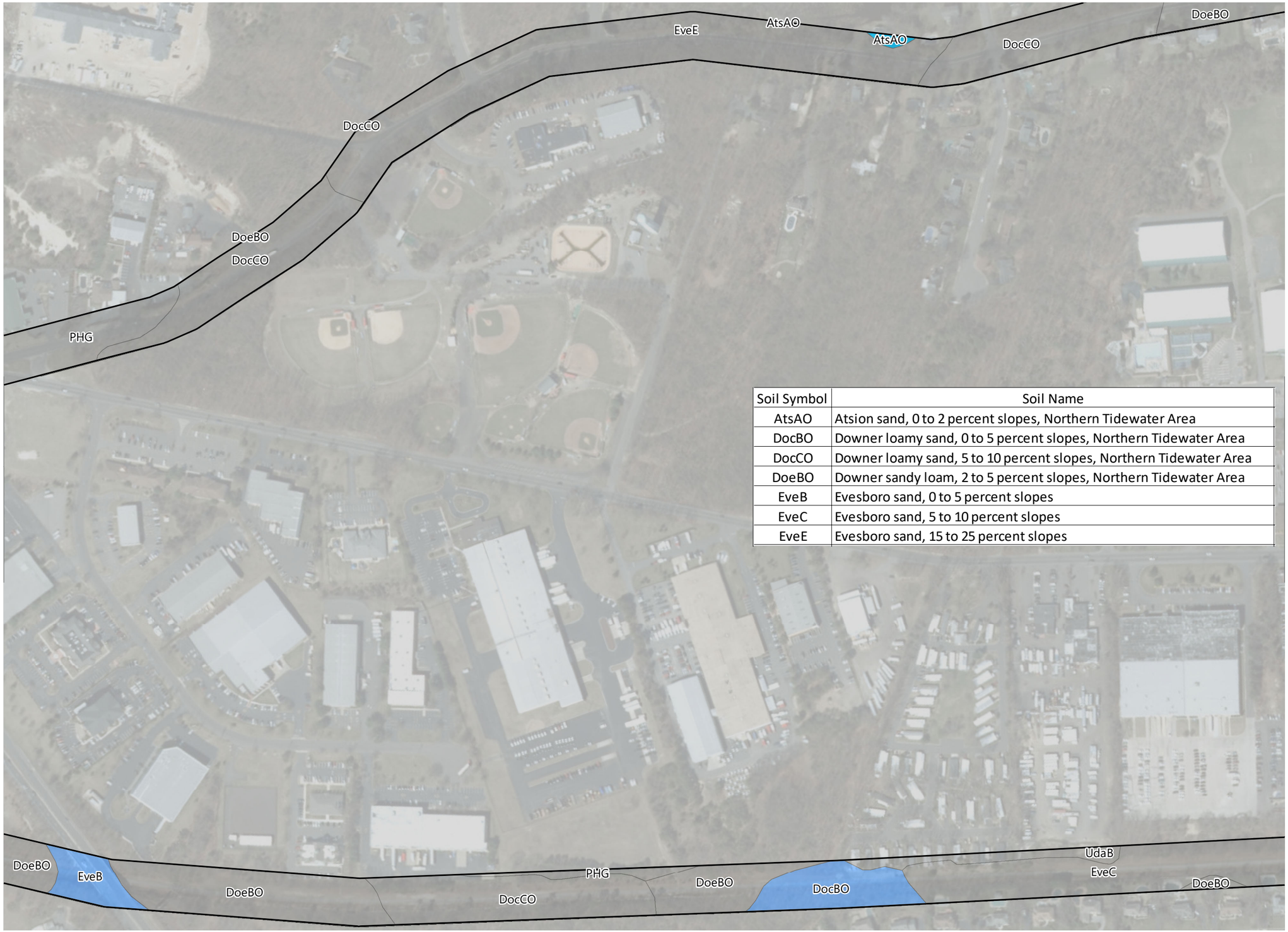
*Partially Hydric Status indicates that the major soil component is classified as not hydric but includes minor soil components that are classified as hydric

ATLANTIC SHORES offshore wind

EDR

## Figure 2. Soils Map






| Soil Symbol | Soil Name |
|---|---|
| AtsAO | Atsion sand, 0 to 2 percent slopes, Northern Tidewater Area |
| DocBO | Downer loamy sand, 0 to 5 percent slopes, Northern Tidewater Area |
| DocCO | Downer loamy sand, 5 to 10 percent slopes, Northern Tidewater Area |
| DoeBO | Downer sandy loam, 2 to 5 percent slopes, Northern Tidewater Area |
| EveB | Evesboro sand, 0 to 5 percent slopes |
| EveC | Evesboro sand, 5 to 10 percent slopes |
| EveE | Evesboro sand, 15 to 25 percent slopes |

# Atlantic Shores Offshore Wind – Larrabee Onshore Project Design Envelope

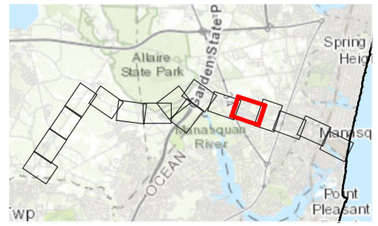
Borough of Sea Girt, Township of Wall, and Township of Howell
Monmouth County, New Jersey

***Natural Resources Conservation Service Soils Report***

Project Area

NRCS (SSURGO) Soils

- Hydric
- Partially Hydric*
- Water
- Not Hydric




0 100 200 400

Feet

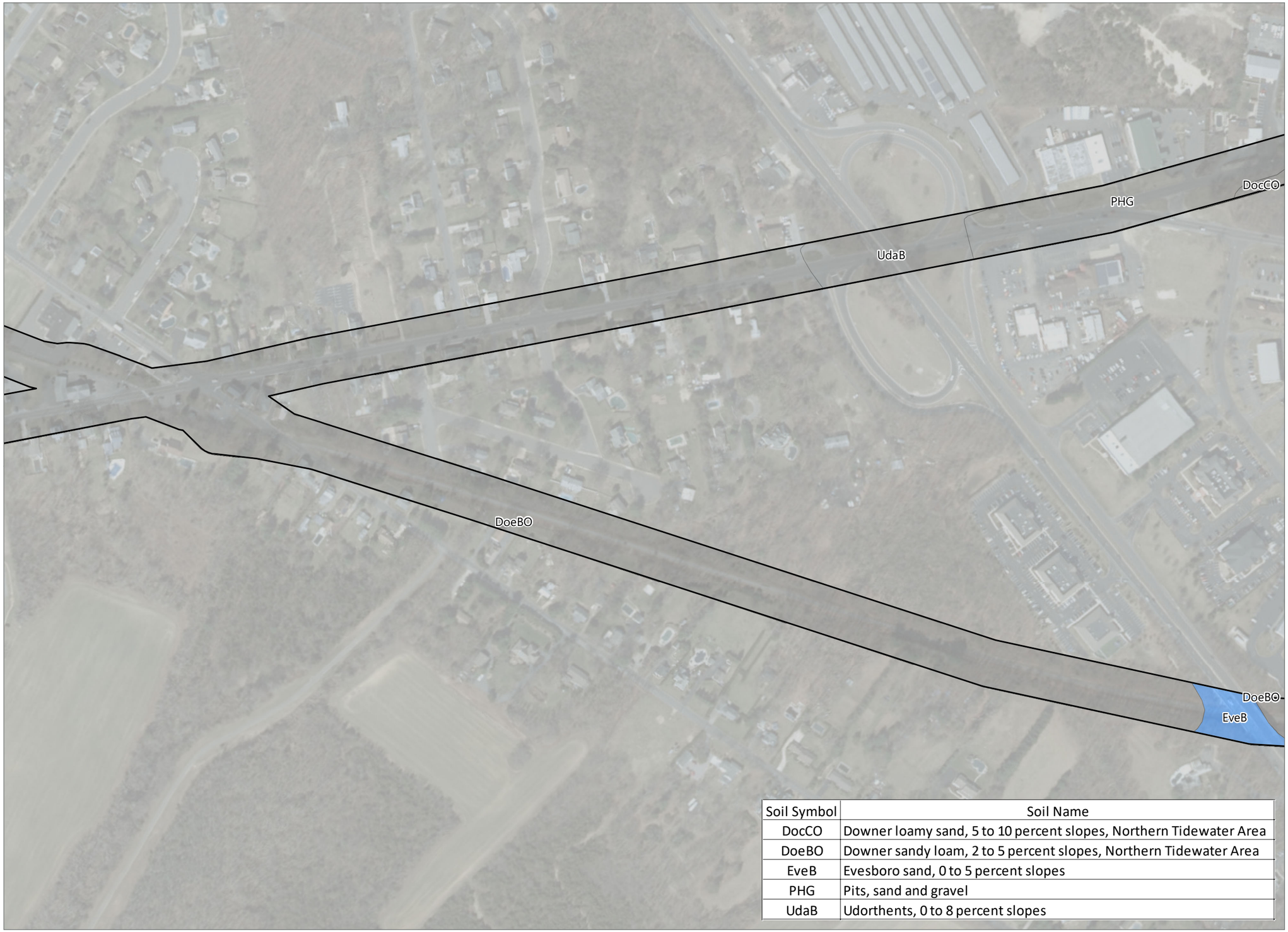
Prepared August 8, 2022

Basemap: NJ Office of GIS 2015 Natural Color Imagery

*Partially Hydric Status indicates that the major soil component is classified as not hydric but includes minor soil components that are classified as hydric

ATLANTIC SHORES offshore wind

EDR




| Soil Symbol | Soil Name |
|---|---|
| DocCO | Downer loamy sand, 5 to 10 percent slopes, Northern Tidewater Area |
| DoeBO | Downer sandy loam, 2 to 5 percent slopes, Northern Tidewater Area |
| EveB | Evesboro sand, 0 to 5 percent slopes |
| PHG | Pits, sand and gravel |
| UdaB | Udorthents, 0 to 8 percent slopes |

# Atlantic Shores Offshore Wind – Larrabee Onshore Project Design Envelope

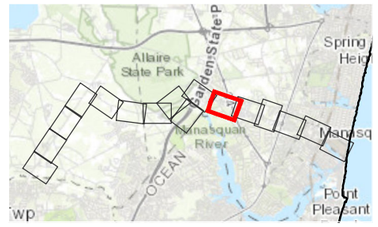
Borough of Sea Girt, Township of Wall, and Township of Howell
Monmouth County, New Jersey

***Natural Resources Conservation Service Soils Report***

Project Area

NRCS (SSURGO) Soils

- Hydric
- Partially Hydric*
- Water
- Not Hydric




0 100 200 400

Feet

Prepared August 8, 2022

Basemap: NJ Office of GIS 2015 Natural Color Imagery

*Partially Hydric Status indicates that the major soil component is classified as not hydric but includes minor soil components that are classified as hydric

ATLANTIC SHORES offshore wind

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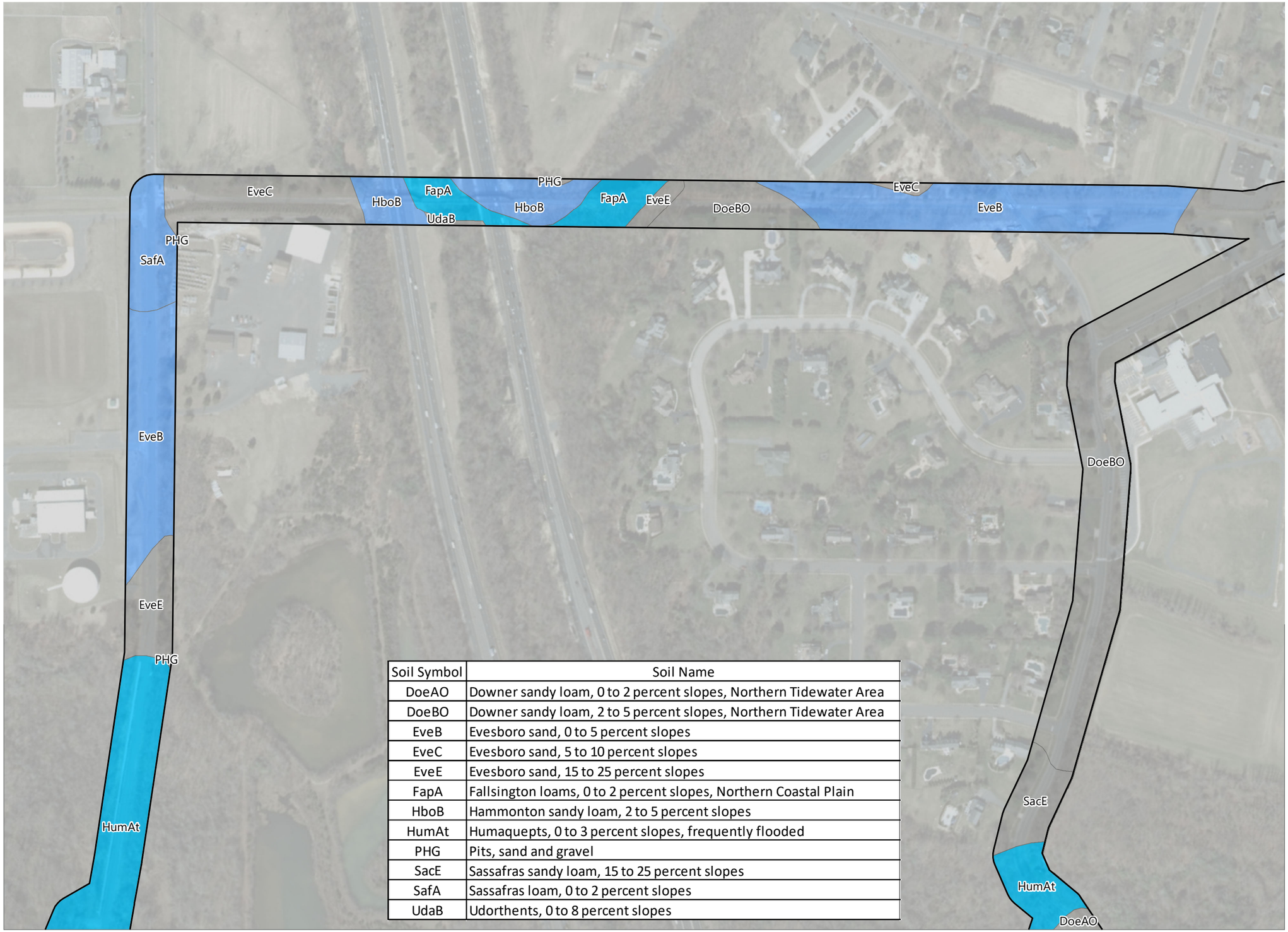


| Soil Symbol | Soil Name |
|---|---|
| DoeAO | Downer sandy loam, 0 to 2 percent slopes, Northern Tidewater Area |
| DoeBO | Downer sandy loam, 2 to 5 percent slopes, Northern Tidewater Area |
| EveB | Evesboro sand, 0 to 5 percent slopes |
| EveC | Evesboro sand, 5 to 10 percent slopes |
| EveE | Evesboro sand, 15 to 25 percent slopes |
| FapA | Fallsington loams, 0 to 2 percent slopes, Northern Coastal Plain |
| HboB | Hammonton sandy loam, 2 to 5 percent slopes |
| HumAt | Humaquepts, 0 to 3 percent slopes, frequently flooded |
| PHG | Pits, sand and gravel |
| SacE | Sassafras sandy loam, 15 to 25 percent slopes |
| SafA | Sassafras loam, 0 to 2 percent slopes |
| UdaB | Udorthents, 0 to 8 percent slopes |

# Atlantic Shores Offshore Wind – Larrabee Onshore Project Design Envelope

Borough of Sea Girt, Township of Wall, and Township of Howell
Monmouth County, New Jersey

***Natural Resources Conservation Service Soils Report***

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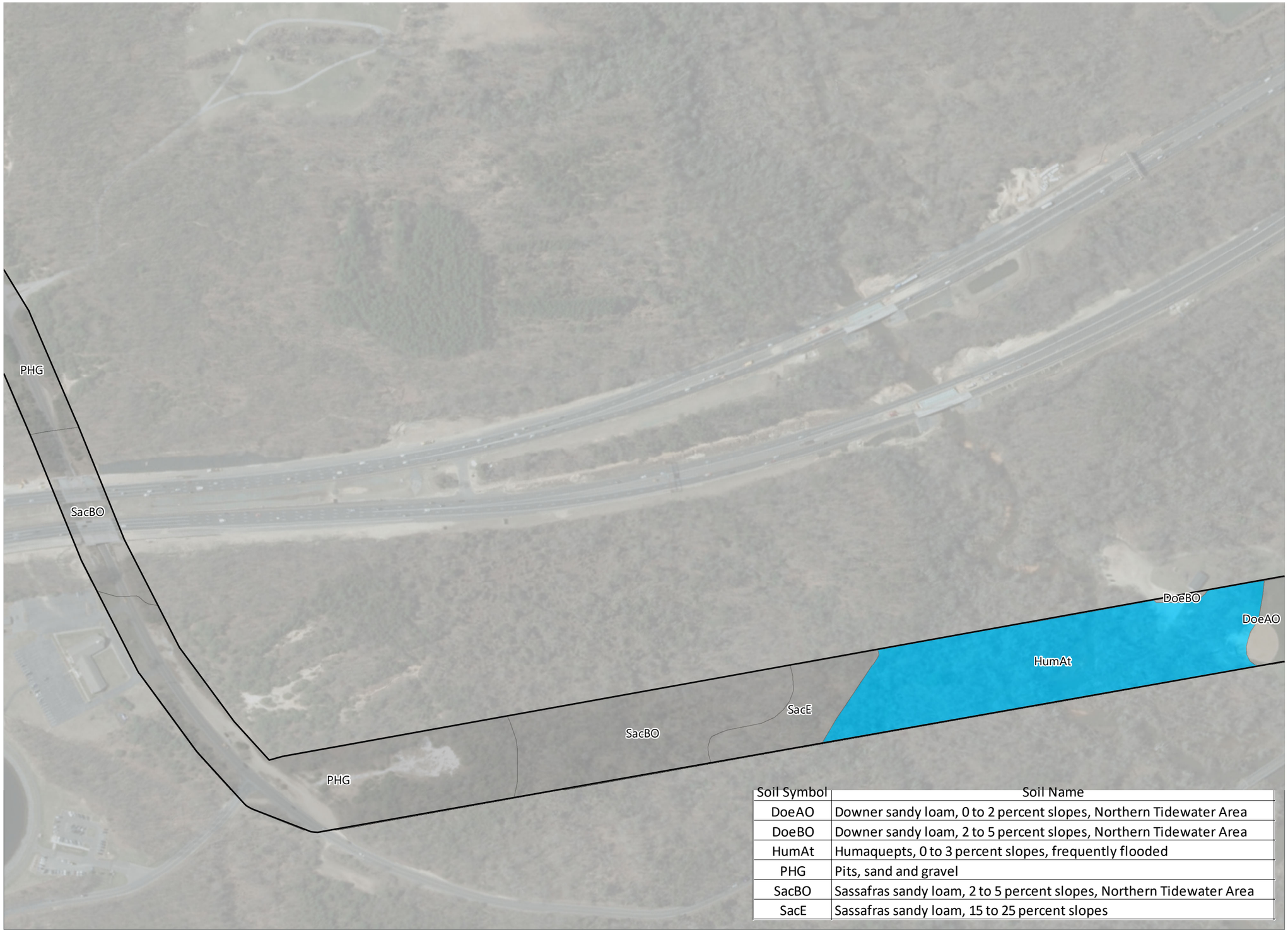
# Atlantic Shores Offshore Wind – Larrabee Onshore Project Design Envelope

Borough of Sea Girt, Township of Wall, and Township of Howell
Monmouth County, New Jersey

***Natural Resources Conservation Service Soils Report***




Project Area

NRCS (SSURGO) Soils

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- Partially Hydric*
- Water
- Not Hydric

| Soil Symbol | Soil Name |
|---|---|
| DoeAO | Downer sandy loam, 0 to 2 percent slopes, Northern Tidewater Area |
| DoeBO | Downer sandy loam, 2 to 5 percent slopes, Northern Tidewater Area |
| HumAt | Humaquepts, 0 to 3 percent slopes, frequently flooded |
| PHG | Pits, sand and gravel |
| SacBO | Sassafras sandy loam, 2 to 5 percent slopes, Northern Tidewater Area |
| SacE | Sassafras sandy loam, 15 to 25 percent slopes |


0 100 200 400

Feet

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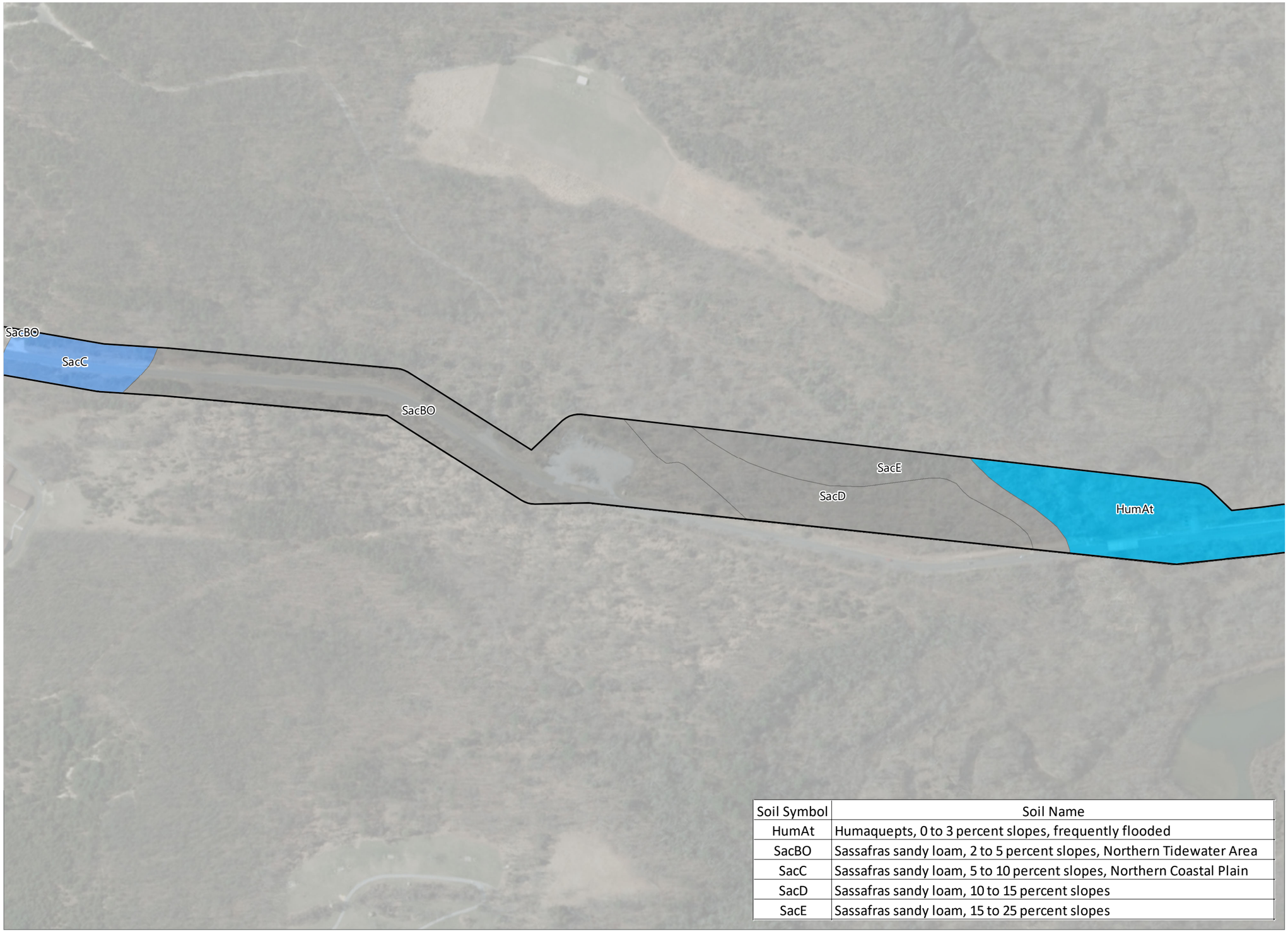


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- Not Hydric

| Soil Symbol | Soil Name |
|---|---|
| HumAt | Humaquepts, 0 to 3 percent slopes, frequently flooded |
| SacBO | Sassafras sandy loam, 2 to 5 percent slopes, Northern Tidewater Area |
| SacC | Sassafras sandy loam, 5 to 10 percent slopes, Northern Coastal Plain |
| SacD | Sassafras sandy loam, 10 to 15 percent slopes |
| SacE | Sassafras sandy loam, 15 to 25 percent slopes |


0 100 200 400

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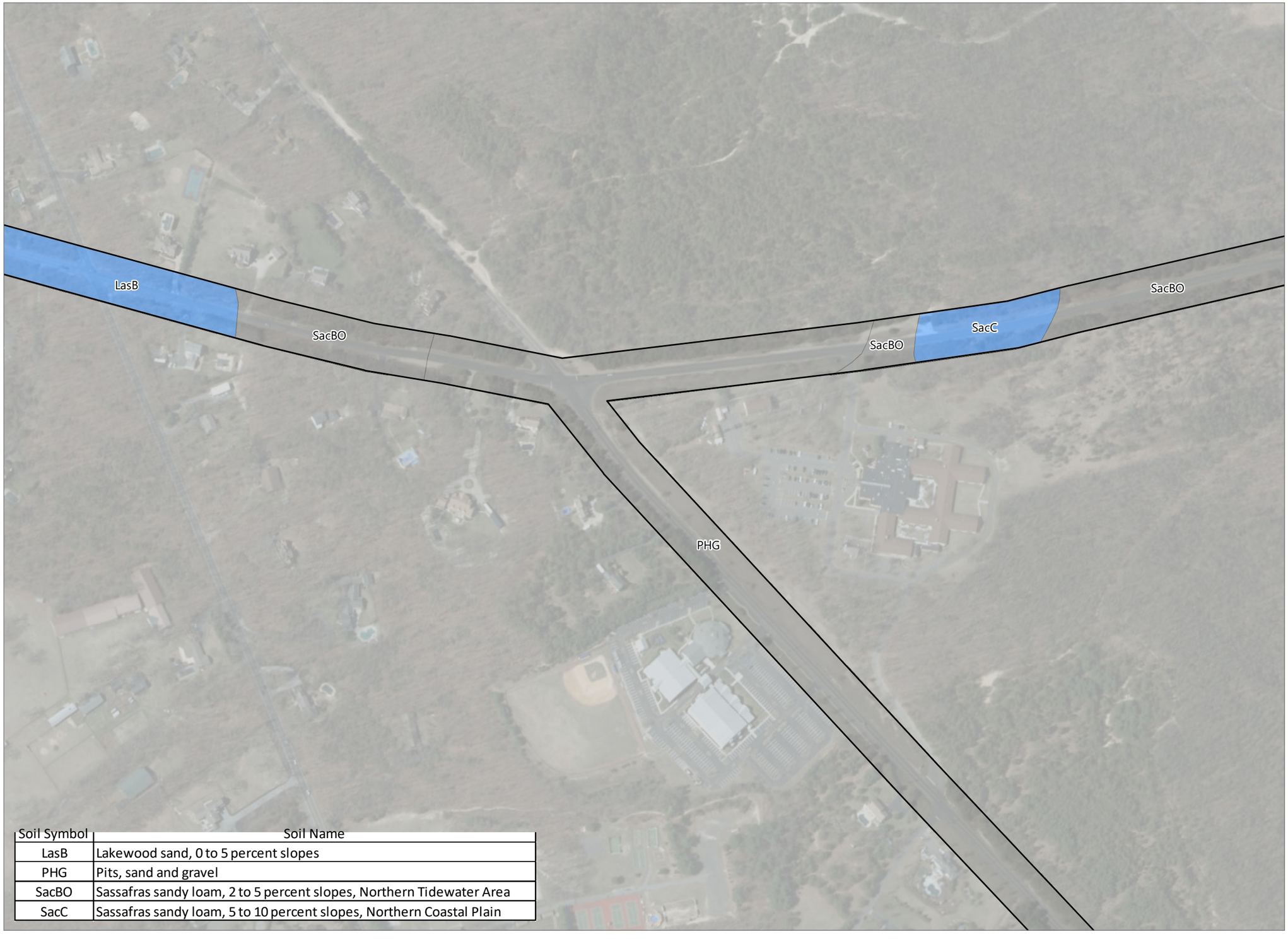
## Figure 2. Soils Map






| Soil Symbol | Soil Name |
|---|---|
| LasB | Lakewood sand, 0 to 5 percent slopes |
| PHG | Pits, sand and gravel |
| SacBO | Sassafras sandy loam, 2 to 5 percent slopes, Northern Tidewater Area |
| SacC | Sassafras sandy loam, 5 to 10 percent slopes, Northern Coastal Plain |

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# Figure 2. Soils Map


## Atlantic Shores Offshore Wind – Larrabee Onshore Project Design Envelope

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Monmouth County, New Jersey

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| Soil Symbol | Soil Name |
|---|---|
| KkgB | Klej loamy sand, 0 to 5 percent slopes |
| LasB | Lakewood sand, 0 to 5 percent slopes |


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# Figure 2. Soils Map




| Soil Symbol | Soil Name |
|---|---|
| AtsAO | Atsion sand, 0 to 2 percent slopes, Northern Tidewater Area |
| HumAt | Humaquepts, 0 to 3 percent slopes, frequently flooded |
| KkgB | Klej loamy sand, 0 to 5 percent slopes |

## Atlantic Shores Offshore Wind – Larrabee Onshore Project Design Envelope

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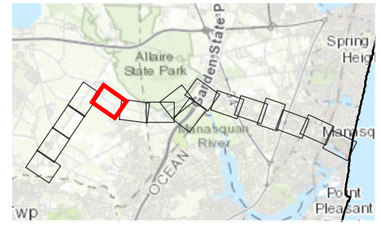


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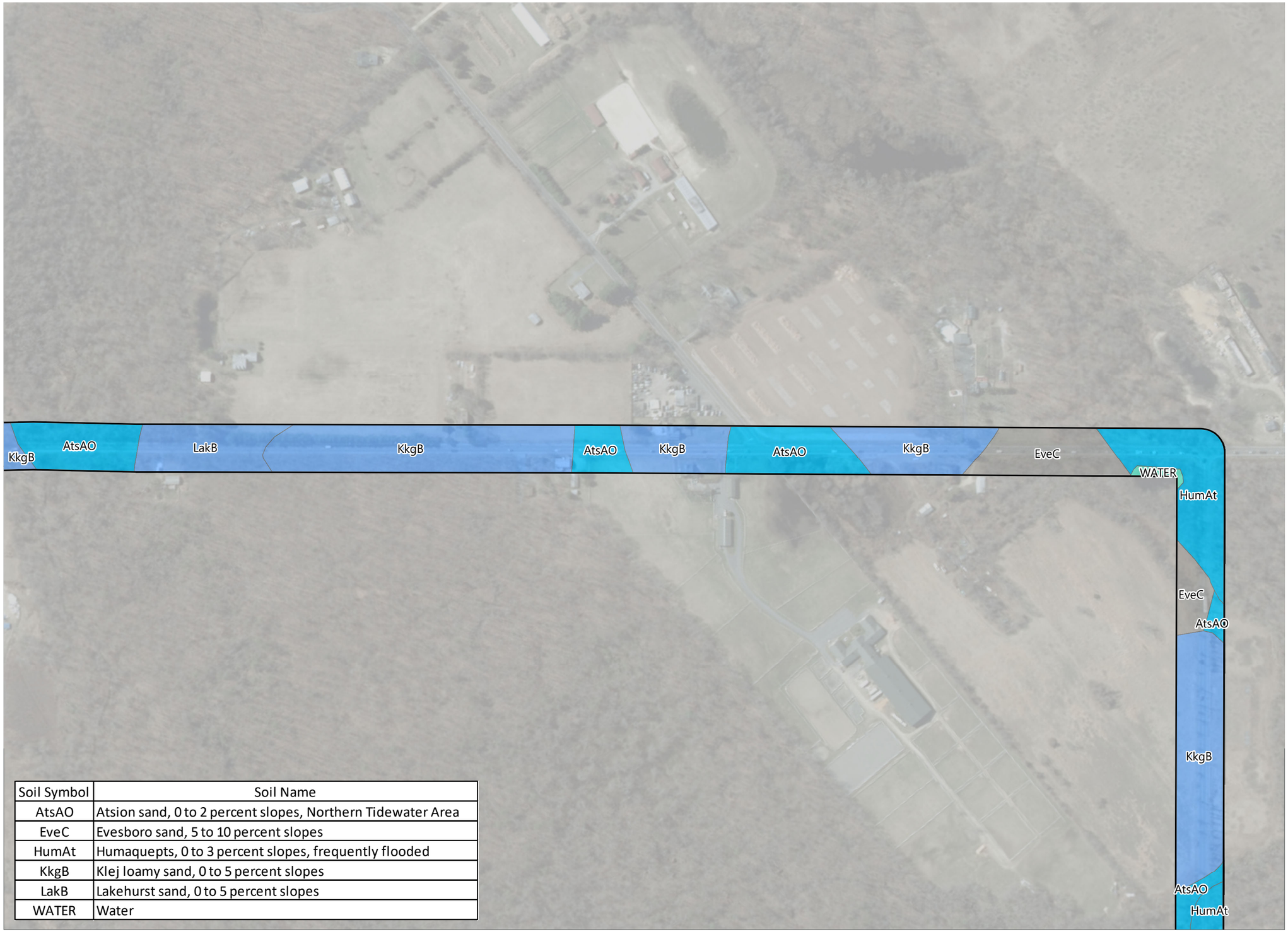


| Soil Symbol | Soil Name |
|---|---|
| AtsAO | Atsion sand, 0 to 2 percent slopes, Northern Tidewater Area |
| EveC | Evesboro sand, 5 to 10 percent slopes |
| HumAt | Humaquepts, 0 to 3 percent slopes, frequently flooded |
| KkgB | Klej loamy sand, 0 to 5 percent slopes |
| LakB | Lakehurst sand, 0 to 5 percent slopes |
| WATER | Water |

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| Soil Symbol | Soil Name |
|---|---|
| AtsAO | Atsion sand, 0 to 2 percent slopes, Northern Tidewater Area |
| KkgB | Klej loamy sand, 0 to 5 percent slopes |


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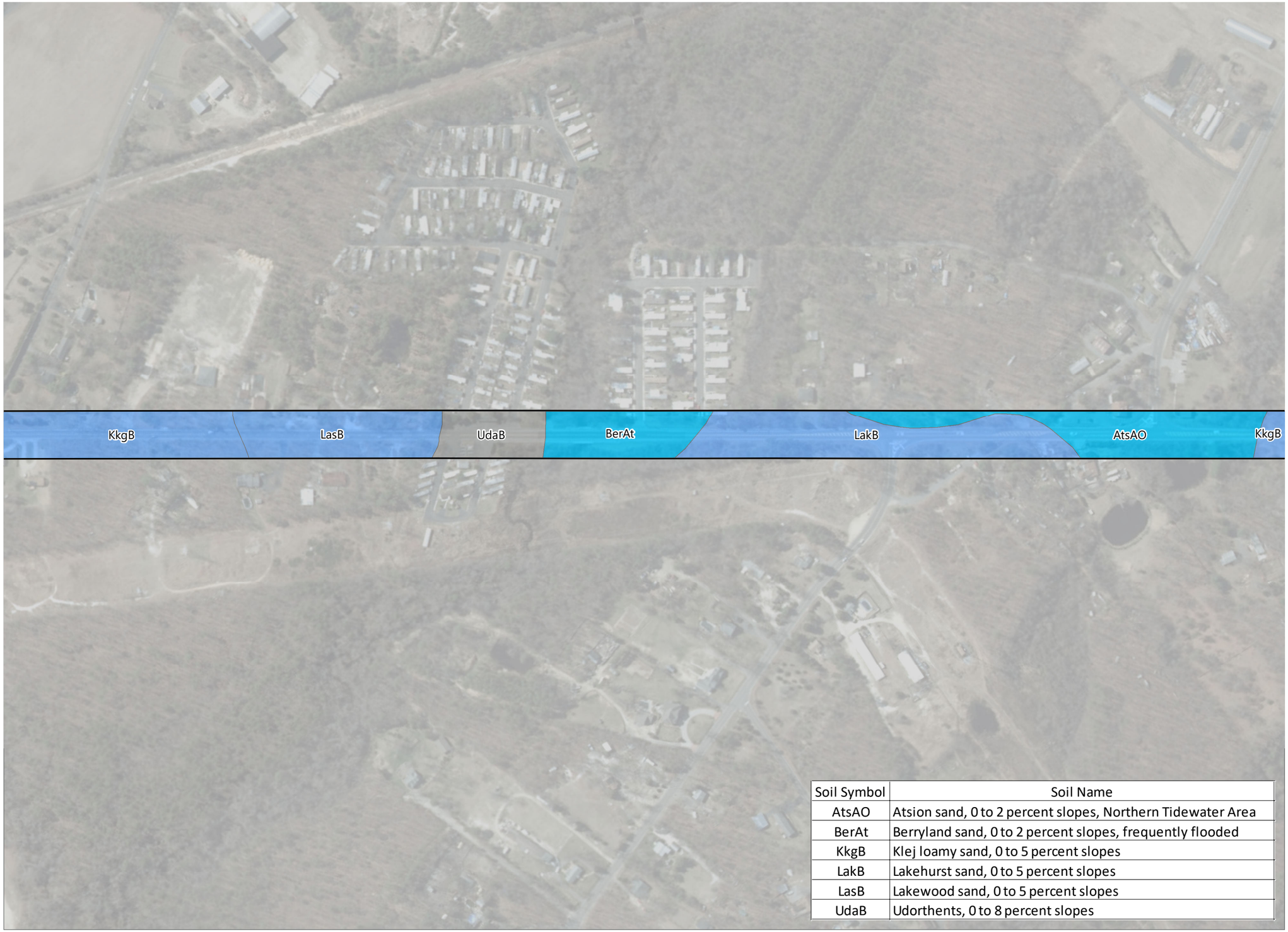


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| Soil Symbol | Soil Name |
|---|---|
| AtsAO | Atsion sand, 0 to 2 percent slopes, Northern Tidewater Area |
| BerAt | Berryland sand, 0 to 2 percent slopes, frequently flooded |
| KkgB | Klej loamy sand, 0 to 5 percent slopes |
| LakB | Lakehurst sand, 0 to 5 percent slopes |
| LasB | Lakewood sand, 0 to 5 percent slopes |
| UdaB | Udorthents, 0 to 8 percent slopes |


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ATLANTIC SHORES offshore wind

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## Figure 2. Soils Map




| Soil Symbol | Soil Name |
|---|---|
| AugaB | Aura sandy loam, 2 to 5 percent slopes, Northern Tidewater Area |
| DocBO | Downer loamy sand, 0 to 5 percent slopes, Northern Tidewater Area |
| GamB | Galloway loamy sand, 0 to 5 percent slopes |
| HbmB | Hammonton loamy sand, 0 to 5 percent slopes |

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