

# **Appendix II-D1**

# Wetland and Streams Delineation Report – New Jersey

# March 2024

**Note:** At the time of the initial development of this report, development of a substation and/or converter station at the Brook Road Site in Howell Township, New Jersey was considered. The Brook Road site is now expected to be prepared and developed as part of the State of New Jersey Board of Public Utility (BPU) State Agreement Approach 1.0 (SAA)1 to support the delivery of offshore wind energy onshore. In collaboration with the regional gird operator PJM Interconnection (PJM), NJBPU conducted a study that examined whether an integrated suite of open access transmission facilities designated to support the delivery of offshore wind energy onshore could best facilitate meeting New Jersey's expanded offshore wind goals. Under the SAA 1.0 Award all permitting for site preparation activities, including construction activities to provide a "fit for purpose" site, for an associated substation and/or converter station will be the responsibility of the BPU's SAA-awardee at the Brook Road Site. Therefore, impacts associated with site preparation have not been considered as part of the Project Design Envelope (PDE) of the Project. Discussion of the site has been retained as part of the study area in this report to demonstrate the completeness of Atlantic Shores' multi-year development efforts.

<sup>1</sup>New Jersey Board of Public Utilities Selects Offshore Wind Transmission Project Proposed by Mid-Atlantic Offshore Development and Jersey Central Power & Light Company in First in Nation State Agreement Approach Solicitation

# **Appendix II D1**

# Wetland and Streams Delineation Report

# Atlantic Shores Offshore Wind - New Jersey Study Area

Borough of Point Pleasant, Lakewood Township, Borough of Brielle, Brick Township, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts Neck Township, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean Counties, New Jersey

Prepared for:



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Prepared by:



March 2024

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## LIST OF ABBREVIATIONS AND ACRONYMS

EDR Environmental Design & Research, Landscape Architecture, Engineering & Environmental

Services, D.P.C.

FAC Facultative Plant

FACW Facultative Wetland Plant HUC Hydrologic Unit Code km² square kilometer(s) m² square meter(s)

NHD National Hydrology Dataset

NJDEP New Jersey Department of Environmental Protection

NRCS Natural Resources Conservation Service

NWI National Wetlands Inventory
PEM Palustrine Emergent Wetland
PFO Palustrine Forested Wetland
POW Palustrine Open Wetland

PSS Palustrine Scrub-Shrub Wetland

OBL Obligate Wetland Plant

USACE United States Army Corps of Engineers USFWS United States Fish and Wildlife Service

# 1.0 INTRODUCTION

# 1.1 PROJECT LOCATION AND DESCRIPTION

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.) and Shell New Energies US LLC. Atlantic Shores is developing a Construction and Operations Plan for submittal to the Bureau of Ocean Energy Management for the development of an offshore wind energy generation project in Lease Area OCS-A 0549.

Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR) was contracted by Atlantic Shores to identify mapped and field delineated wetlands and streams within and adjacent to the proposed Project components in New Jersey, hereafter referred to as the New Jersey Study Area (see Figure 1). Specifically, the New Jersey Study Area includes all of the land within 150 feet (46 meters) of the potential onshore interconnection cable routes, landfall sites, substations/converter station site options and potential points of interconnection.

The New Jersey Study Area consists of approximately 59 miles (95 kilometers) encompassing approximately 1,402.7 acres (5.7 square kilometers [km²]), with the assumed New Jersey Study Area width of 150 feet (46 meters) in the municipalities of the Borough of Point Pleasant, Lakewood Township, Borough of Brielle, Brick Township, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts Neck Township, Wall Township, Borough of Manasquan and Neptune Township in Monmouth and Ocean Counties, New Jersey (Figure 1 in Appendix A and Exhibit 1). This report provides information on mapped and field delineated wetland and stream locations. Additional field wetland delineations will be conducted as design progresses, and this report will be updated accordingly.

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Exhibit 1: New Jersey Study Area Location (not drawn to scale)

## 1.2 PURPOSE

This report describes the results of the field and desktop wetland and stream delineations conducted which includes identification of the federal and/or state jurisdictional wetland and water resources within the New Jersey Study Area, discussion of the evaluation of the three wetland parameters (i.e., hydrology, soils, and vegetation), and the process of evaluating the three parameters to determine the location and extent of the federal and/or state jurisdictional boundaries of wetlands and waters. This report also includes a preliminary evaluation of the resource value of each wetland according to New Jersey Department of Environmental Protection (NJDEP) regulations for the purpose of supporting required permit applications.

# 1.3 DATA SOURCES

Materials and data supporting this investigation have been derived from publicly available information sources that include United States Geological Survey topographic mapping (Long Branch, Ashbury Park, Farmingdale, Lakewood and Point Pleasant 7.5 minute quadrangles), United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping, NJDEP Wetlands mapping, the Natural Resources

Conservation Service (NRCS) Web Soil Survey (NRCS, 2022b), the NRCS List of Hydric Soils of the State of New Jersey (NRCS, 2022a), the National Land Cover Database land cover and vegetation classes (Yang et al., 2019), and recent aerial photography.

## 2.0 REGULATORY AUTHORITIES AND PERMITS

# 2.1 WATERS OF THE UNITED STATES

Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (40 CFR 239.3 and 33 CFR 328.3). Such areas are indicated by the presence of three conditions: 1) a dominance of hydrophytic vegetation, 2) the presence of hydric soils, and 3) evidence of wetland hydrology during the growing season (Environmental Laboratory, 1987).

Navigable waters of the United States "are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity" (33 CFR 320.4).

Freshwater wetlands and waterbodies are typically under the regulatory jurisdiction of the United States Army Corps of Engineers (USACE), subject to Section 404 of the Clean Water Act; however, the New Jersey Legislature in July 1987 passed the state's Freshwater Wetlands Protection Act, which provided protection for inland and coastal wetlands. This act provided the framework for New Jersey to establish a comprehensive permitting program to regulate all activities in freshwater and tidal wetlands and wetland transition areas under N.J.A.C. 7:7 et. seq. As a result of this permitting program, a memorandum of understanding between the United States Environmental Protection Agency, United States Fish and Wildlife Service, and the NJDEP and a memorandum of agreement between the USACE and NJDEP has provided New Jersey delegated federal authority over non-tidal freshwater wetlands within the state. Navigable waters of the United States and other wetlands within 1,000 feet (304.8 meters) of the head of tide remain under the regulatory jurisdiction of the USACE, subject to Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act but are also under NJDEP jurisdiction through the Freshwater Wetlands Protection Act.

Wetland transition areas established under N.J.A.C. 7:7-9.28 and N.J.A.C. 7:7A-3.3(d) vary depending on the resource value classification of the associated wetland or surface water based on surface water quality standards, special area protections and fish and wildlife requirements. The following are the resource classifications and their associated wetland transition areas:

Ordinary Resource Value (0-foot transition area) wetlands are those that are smaller than 5,000 square feet, are considered drainage ditches or swales, are detention facilities created for stormwater purposes or existing in lawns or are maintained landscaped areas and other disturbed locations.

- Intermediate Resource Value (50-foot [15.24-meter] transition area) wetlands are those wetlands that are not classified as either exceptional or ordinary resource value.
- Exceptional Resource Value (150-foot [45.75-meter] transition area in freshwater wetland systems and 300-foot in tidal wetland systems) wetlands are those that discharge into trout production waters or their tributaries or Category One waters and are a present or documented habitat for threatened and endangered species.<sup>1</sup>

Values will be assigned to wetland resources upon completion of field delineations, values cannot be determined through desktop analysis alone. Depending on project design and assessed impacts to the wetlands and waters identified, various NJDEP permits and/or Section 10/404 permits from the USACE may be required.

## 3.0 REVIEW OF BACKGROUND DATA AND MAPPING

## 3.1 PHYSIOGRAPHY AND SOILS

The New Jersey Study Area is located within the Outer Coastal Plaine physiographic province of New Jersey. The local geography includes materials that are marine deposited sedimentary sands, gravels and clays overlain with later deposits of the interglacial Pleistocene time. The area is dominated by the Pinelands ecoregion, which contains sandy and excessively well drained soils that have natural undulations in elevation and are generally low fertility soils. The coastal plain province is also an important aquifer area due to the shallow depth to groundwater. These shallow depths to groundwater support a diverse system of drainages and wetlands (NCTC, 2020).

Within the New Jersey Study Area, elevations range from 0 feet around the coastline and approximately 178 feet (54 meters) above sea level approaching the western-most portions for the New Jersey Study Area (see Figure 1).

Hydric soil is defined as a "soil that is saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part" (USDA-SCS 1987) and typically is indicative of a wetland. Extended periods of inundation/saturation cause chemical reactions in the soil that alters the physical characteristics and soil color within the matrix. These properties are used to identify hydric soils and can often be observed during field investigations. Hydric mineral soils generally have a gleyed matrix, low chroma matrix and/or brightly colored redox concentrations (mottles). A representative gleyed soil will have blue, green, or gray coloration directly below the A-horizon, reflecting consistent long-term saturation. A soil containing redox concentrations or mottles with a low chroma matrix is usually a strong indicator of a fluctuating water table. Although soil series may be generally classified as hydric or potentially hydric in the

<sup>&</sup>lt;sup>1</sup>According to N.J.A.C. 7:9B-1.4 "Category one waters" means those waters designated in the tables in N.J.A.C. 7:9B-1.15(c) through (i), for purposes of implementing the antidegradation policies set forth at N.J.A.C. 7:9B1.5(d), for protection from measurable changes in water quality based on exceptional ecological significance, exceptional recreational significance, exceptional water supply significance or exceptional fisheries resource(s) to protect their aesthetic value (color, clarity, scenic setting) and ecological integrity (habitat, water quality and biological functions).

online databases, this is for general use and does not supersede specific conditions documented in the field.

The Web Soil Survey of Monmouth and Ocean Counties (NRCS, 2022b) indicates the occurrence of 43 soil series within the New Jersey Study Area (see Figure 2 and Table 1). Klej loamy sand (KkgB), Downer sandy loam (DoeBO), and Atsion Sand (AtsAO) are the predominant series occurring within the New Jersey Study Area. Other dominant soil series found throughout the New Jersey Study Area include Lakewood sand (LasB) and Downer-Urban land complex (DouB). Soils range from very poorly drained to excessively drained, with soil textures ranging from sand to urban land. Table 1 lists the soil series found within the New Jersey Study Area and their characteristics such as slope, drainage class, and hydric ratings. Hydric ratings and hydric soil classifications are based on information obtained from the NRCS Web Soil Survey (NRCS, 2022b). Based on NRCS mapped soils, 17.4% of soils mapped within the New Jersey Study Area are Hydric, 31.8% are partially hydric, 50.3% are not hydric and 0.4% are water. Although soil series may have a hydric rating in the online databases, this is for general use and does not supersede specific conditions documented in the field.

Table 1. New Jersey Study Area Soils

Mapping Unit Symbol	Series	Slope (%)	Drainage <sup>1</sup>	Hydric Rating <sup>2</sup>	Hydric Soil <sup>3</sup>	Acreage within New Jersey Study Area
AptAv	Appoquinimink-Transquaking-Mispillion complex	0-1	VPD	95	Hydric	4.5
AtsAO	Atsion sand, Northern Tidewater Area	0-2	PD	95	Hydric	123.68
BerAr	Berryland sand, rarely flooded	0-2	VPD	100	Hydric	4.3
BerAt	Berryland sand, frequently flooded	0-2	VPD	100	Hydric	50.5
DocBO	Downer loamy sand, Northern Tidewater Area	0-5	WD	5	Partially Hydric	10.0
DocCO	Downer loamy sand, Northern Tidewater Area	5-10	WD	0	Not Hydric	37.7
DoeAO	Downer sandy loam, Northern Tidewater Area	0-2	WD	0	Not Hydric	10.5
DoeBO	Downer sandy loam, Northern Tidewater Area	2-5	WD	0	Not Hydric	128.4
DouB	Downer-Urban land complex	0-5	WD	0	Not Hydric	100.8
EkaAr	Elkton loam, rarely flooded	0-2	WD	95	Hydric	25.6
EveB	Evesboro sand	0-5	ED	10	Not Hydric	46.1
EveC	Evesboro sand	5-10	ED	0	Not Hydric	29.1
EveD	Evesboro sand	10-15	ED	0	Not Hydric	25.0
EveE	Evesboro sand, 15 to 25 percent slopes	15-25	ED	0	Not Hydric	13.9
EvuB	Evesboro-Urban land complex	0-5	ED	0	Not Hydric	79.1
FapA	Fallsington loams, Northern Coastal Plain	0-2	PD	85	Hydric	2.0
FrrC	Freehold-Urban land complex	0-10	WD	0	Not Hydric	8.9
Ньов	Hammonton sandy loam	2-5	MWD	5	Partially Hydric	3.4
HofB	Holmdel-Urban land complex	0-5	MWD	5	Partially Hydric	1.0
HumAt	Humaquepts, frequently flooded	0-3	PD	100	Hydric	27.6

Mapping Unit Symbol	Series	Slope (%)	Drainage <sup>1</sup>	Hydric Rating <sup>2</sup>	Hydric Soil <sup>3</sup>	Acreage within New Jersey Study Area
KkgB	Klej loamy sand	0-5	SPD	10	Partially Hydric	137.7
KkgkB	Klej loamy sand, clayey substratum	0-5	SPD	10	Partially Hydric	2.3
KkhB	Klej loamy sand-Urban land complex	0-5	SPD	5	Partially Hydric	30.7
LakB	Lakehurst sand	0-5	MWD	10	Partially Hydric	46.8
LasB	Lakewood sand	0-5	ED	5	Partially Hydric	101.6
LasC	Lakewood sand	5-10	ED	5	Partially Hydric	20.2
MakAt	Manahawkin muck, frequently flooded	0-2	VPD	100	Hydric	3.5
PHG	Pits, sand and gravel		WD	0	Not Hydric	35.1
PstAt	Psammaquents, sulfidic substratum, frequently flooded	0-2	VPD	100	Hydric	2.1
SacBO	Sassafras sandy loam, Northern Tidewater Area	2-5	WD	0	Not Hydric	26.6
SacC	Sassafras sandy Ioam, Northern Coastal Plain	5-10	WD	4	Partially Hydric	2.3
SacD	Sassafras sandy loam	10-15	WD	0	Not Hydric	4.0
SacE	Sassafras sandy loam	15-25	WD	0	Not Hydric	5.4
SadB	Sassafras gravelly sandy loam	2-5	WD	5	Partially Hydric	1.0
SadC	Sassafras gravelly sandy loam	5-10	WD	0	Not Hydric	1.2
SafA	Sassafras loam	0-2	WD	4	Partially Hydric	1.3
UdaB	Udorthents	0-8	WD	0	Not Hydric	78.4
UdauB	Udorthents-Urban land complex	0-8	WD	0	Not Hydric	2.8
UR	Urban land		N/A	0	Not Hydric	97.5
USBROA	Urban land-Brockatonorton complex, occasionally flooded	0-2	MWD	0	Not Hydric	22.2

Mapping Unit Symbol	Series	Slope (%)	Drainage <sup>1</sup>	Hydric Rating <sup>2</sup>	Hydric Soil <sup>3</sup>	Acreage within New Jersey Study Area
USKLEA	Urban land-Klej compleX	0-2	SPD	10	Partially Hydric	5.9
WATER	Water	N/A	N/A	0	Water	6.2
WoeB	Woodstown sandy loam, Northern Coastal Plain	2-5	MWD	7	Partially Hydric	-0.6

<sup>&</sup>lt;sup>1</sup> Soil drainage is represented by the following abbreviation: "ED" = excessively drained, "WD" = well drained, "MWD" = moderately well drained, and "SPD" = somewhat poorly drained, "PD" = poorly drained, and "VPD" = very poorly drained.

<sup>&</sup>lt;sup>2</sup> Map units are composed of one or more component soil types, each of which is individually rated as hydric or not hydric. The hydric rating, as provided in the USDA Web Soil Survey, indicates the percentage of the map unit that meets hydric criteria.

<sup>&</sup>lt;sup>3</sup> "Yes" indicates that this soil series is listed as containing 66% or more hydric components within the map unit as listed on the USDA Web Soil Survey.

## 3.2 HYDROLOGY

The New Jersey Study Area is located in the NJDEP Monmouth and Barnegat Bay Water Management Areas (WMA) as shown in Figure 3. The Monmouth WMA extends from Point Pleasant Beach to Perth Amboy and is comprised of coastal sub-watersheds (NJDEP, 2012). The majority of the Barnegat Bay WMA lies within Ocean County and stretches into Monmouth County and is approximately fifty percent forested with the remainder consisting of residential developments, agriculture, and a military installation (NJDEP, 2015). The New Jersey Study Area spans across the following Hydrologic Unit Codes (HUCs) that are within the WMAs (Figure 3).

#### HUC 8:

- o Sandy Hook-Staten Island (02030104)
- o Mullica-Toms (02040301)

# HUC 10:

- Navesink River-Shrewsbury River (0203010403)
- Manasquan River-Frontal Atlantic Ocean (0204030101)
- Metedeconk River (0204030102)

### HUC 12:

- Poplar Brook-Frontal Atlantic Ocean (020403010103)
- Swimming River (020301040302)
- Shark River-Frontal Atlantic Ocean (020403010104)
- Middle Manasquan River (020403010102)
- North Branch-Metedeconk River (020403010201)
- o Lower Manasquan River (020403010105)
- o Cedar Bridge Branch-Metedeconk River (020403010203).

Most of the surface hydrology within the New Jersey Study Area is generated by precipitation and surface water run-off from adjacent land. The total annual precipitation (from 2000 to 2022) averages 52.01 inches (132.1 centimeters) in the Long Branch-Oakhurst Region (NOAA, 2022). The on-site wetland delineations took place in early December 2020, late June 2022, early July 2022, and early March 2023. Precipitation for the preceding month of November 2020 was slightly below average (3.46 inches [8.79 centimeters]) when compared to the long-term monthly average for November 2000–2022 (3.96 inches [10.05 centimeters]). Precipitation for the month of June 2022 was low (3.18 inches [8.07 centimeters]). Precipitation for the month of

February 2023 was low (1.85 inches [4.70 centimeters]) compared to the long-term monthly average for February 2000 – 2023 (3.31 inches [8.40 centimeters]).

Due to the sandy texture of the soil and portions of the New Jersey Study Area close to sea level, there are areas where surface hydrology is influenced by groundwater discharge as well as connectivity of surface waters such as Hollow Brook, Musquash Brook and Shark River and floodplains of other various tidal and non-tidal creeks (Figure 3).

There are two Traditional Navigable Waters within the New Jersey Study Area within Monmouth County: Shark River and Manasquan River. Shark River has a drainage area of 22.4 square miles (58.01 km²) (EPA, 2019) which flows into the Atlantic Ocean. Manasquan River has a drainage area of 76.6 square miles (198.3 km²) which flows into the Atlantic Ocean.

## 3.3 FEDERAL AND STATE MAPPED WETLANDS AND STREAMS

All federal and state mapped wetland and stream resources can be used as a guide due to known inaccuracies. As such, this data can be used for preliminary Project planning and to guide field delineations and jurisdictional determinations which will be required to establish wetland location and extent.

New Jersey State mapped wetlands indicate the presence of 17 wetland types within the New Jersey Study Area, totaling approximately 172.1 acres (695,654.7 m<sup>2</sup>) (Figure 4). Deciduous wooded wetlands and wetland rights-of-way are the dominant wetland type mapped on site, totaling approximately 106.4 acres (430,585.5 m<sup>2</sup>). Other New Jersey State mapped wetlands within the New Jersey Study Area and their approximate areas are summarized in Table 2.

Table 2. New Jersey State Mapped Wetland Types

Wetland Type	Acres	Square Meters
Deciduous Wooded Wetlands	72.1	291,778.3
Wetland Rights-of-Way	34.3	138,807.2
Mixed Wooded Wetlands (Deciduous Dom.)	25.7	104,004.2
Mixed Wooded Wetlands (Coniferous Dom.)	19.7	79,723.1
Agricultural Wetlands (Modified)	7.2	29,137.4
Coniferous Wooded Wetlands	6.8	27,518.6
Deciduous Scrub/Shrub Wetlands	2.1	8,498.4
Mixed Scrub/Shrub Wetlands (Deciduous Dom.)	1.7	6,879.7
Herbaceous Wetlands	1.0	4,046.9
Mixed Scrub/Shrub Wetlands (Coniferous Dom.)	0.7	2,832.8
Managed Wetland in Maintained Lawn Greenspace	0.3	1,214.1
Disturbed Wetlands (Modified)	0.2	809.3

Wetland Type	Acres	Square Meters
Coniferous Scrub/Shrub Wetlands	0.04	161.9
Phragmites Dominated Coastal Wetlands	0.02	80.9
Saline Marsh (Low Marsh)	0.02	80.9
Vegetated Dune Communities	0.01	40.5
Cemetery on Wetland	0.01	40.5
Total	172.1	695,654.7

NWI mapping indicates the presence of five wetland types, totaling approximately 126.4 acres (511,522.7 m²) within the New Jersey Study Area (Figure 4). Freshwater forested/shrub wetland communities are the dominant wetland types mapped on site, totaling approximately 112.4 acres (454,866.7 m²). Other NWI-mapped wetlands within the New Jersey Study Area and their approximate areas are summarized in Table 3.

Table 3. NWI-Mapped Wetland Types

Wetland Type	Area (acres)	Area (m²)
Freshwater Forested/Shrub	112.4	454,866.7
Freshwater Pond	6.0	24,281.1
Estuarine and Marine Deepwater	3.9	15,782.7
Riverine	2.8	11,331.2
Freshwater Emergent	1.3	5,260.91
Total	126.4	511,522.7

New Jersey National Hydrology Dataset (NHD) mapping identifies 19 waterways within the New Jersey Study Area. The NHD mapped waterways within the New Jersey Study Area total approximately 19,045 feet (5,804.9 m) and are summarized in Table 4.

Table 4. New Jersey NHD Mapped Waterways

New Jersey NHD ID	Total Length in New Jersey Study Area (feet)	Total Length in New Jersey Study Area (meters)
North Branch Metedeconk River	4,401.10	1,341.4
Jumping Brook	3,060.70	932.9
Hollow Brook	3,047.60	928.9
Manasquan River	2,222.80	677.5
Dicks Brook	1,555.70	474.2

New Jersey NHD ID	Total Length in New Jersey Study Area (feet)	Total Length in New Jersey Study Area (meters)
Judas Creek	1,313.30	400.3
Haystack Brook	737.9	224.9
Wreck Pond Brook	518.8	1458.1
Beaverdam Creek	325.9	99.3
Watson Creek	307.5	93.7
Squankum Brook	267.3	81.5
Muddy Ford Brook	241.9	73.7
Sandyhill Brook	233.4	71.1
Hannabrand Brook	174.7	53.3
Tarkiln Brook	174.7	53.2
Laurel Gully Brook	157	47.9
Roberts Swamp Brook	150.5	45.9
Shark River	150.1	45.8
Musquash Brook	4.1	1.2
Total	19,045	5,805.9

### 3.4 MAPPED FLOODPLAINS

According to the Federal Emergency Management Agency map service, portions of the New Jersey Study Area are within the 1% chance annual floodplain as well as an areas of undetermined flood hazard risk (zone D) and are generally associated with the surface waters identified in Section 3.3. Figure 5 shows the locations of the mapped floodplain areas in relation to the New Jersey Study Area.

# 3.5 VEGETATION

Land cover and vegetation occurring within the Study Area were evaluated using data from 2015 Land Use/Land Cover of New Jersey (NJDEP, 2015), and further verified during the on-site field investigations. The New Jersey Area encompasses approximately 1,402.7 acres (5,676,526 m²) and primarily consists of urban land (commercial/services, residential [single unit, medium density], and major roadway, etc.).

Table 5. Vegetation/Land Cover Within the New Jersey Study Area

Land Cover Class	Туре	Area (acres)	Area (m²)	Percent Cover (%)
Developed, Low Intensity	Urban	329.2	1,332,311.0	23.5
Developed, Open Space	Urban	308.4	1,248,217.0	22.0

Land Cover Class	Туре	Area (acres)	Area (m²)	Percent Cover (%)
Developed, Medium Intensity	Urban	268	1,084,558	19.1
Woody Wetlands	Wetlands	149.3	604,319.5	10.6
Deciduous Forest	Forest	142.3	575,910.4	10.1
Developed, High Intensity	Urban	75.3	304,851	5.4
Mixed Forest	Forest	53.9	218,247.8	3.8
Evergreen Forest	Forest	24.1	97,651	1.7
Cultivated Crops	Agriculture	23	93,077.7	1.6
Barren Land (Rock/Sand/Clay)	Urban	13	52,609.1	0.9
Grassland/Herbaceous	Forest	6.2	25,090.6	0.4
Scrub/Shrub	Forest, Wetlands	5.0	20,234.3	0.4
Open Water	Water	3.6	14,568.7	0.3
Emergent Herbaceous Wetland	Wetlands	0.9	3,601.7	0.1
Pasture/Hay	Agriculture	0.4	1,618.7	<0.1

Source: NLCD 2016 (Yang et al., 2019).

## 4.0 METHODOLOGY

An initial desktop analysis using the data sources described in Section 3.0 was conducted by EDR personnel prior to performing on-site wetland delineations to identify areas likely to contain wetland and stream resources within the New Jersey Study Area. Field wetland delineations were conducted by EDR personnel in December 2020, June 2022, July 2022, and March 2023. Areas that were not field delineated were evaluated by desktop delineation in October and November 2022.

## 4.1 Field Delineations

The identification of wetland boundaries was based on the methodology described in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989 Interagency Manual) (Federal Interagency Committee for Wetland Delineation, 1989).

Wetland boundaries were defined in the field and mapped using a GPS unit with reported sub-meter accuracy. Data were collected from sample plots in representative wetland cover types and recorded on Routine Onsite Wetland Determination forms (Appendix B). The data collected at each delineated wetland included dominant vegetation, hydrology indicators, and soil characteristics.

According to the 1989 Interagency Manual an area has wetland hydrology when saturated to the surface or inundated at some point in time during an average rainfall year, defined by the following criteria:

- 1) Saturation to the surface normally occurs when soils in the following natural drainage classes meet the following conditions:
  - a. In somewhat poorly drained mineral soils, the water table is less than 0.5 feet from the surface for usually one week or more during the growing season.
  - b. In low permeability (greater than 0.6 inches/hour), poorly drained or very poorly drained mineral soils, the water table is less than 1.5 feet from the surface for usually one week or more during the growing season.
  - c. In more permeable, poorly drained or very poorly drained mineral soils, the water table is less than 1.0 foot from the surface for usually one week or more during the growing season.
  - d. In poorly drained or very poorly drained organic soils, the water table is usually at a depth where saturation to the surface occurs more than rarely.
- 2) An area is inundated at some time if ponded or frequently flooded with surface water for one week or more during the growing season.

The manual lists field indicators of wetland hydrology including, but not limited to, visual observation of inundation, visual observation of soil saturation, oxidized channels (rhizospheres) associated with living roots and rhizomes, water marks, drift lines, water-borne sediment deposits, water-stained leaves, surface scoured areas, wetland drainage patterns, morphological plant adaptations, and hydric soil characteristics.

The 1989 Interagency Manual defines hydrophytic vegetation as macrophytic plant life growing in water, soil or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. According to the manual an area has hydrophytic vegetation when, under normal circumstances, more than 50% of the composition of the dominant species from all strata are assigned wetland indicators of obligate wetland, facultative wetland, and/or facultative; or a frequency analysis of all species within the community yields a prevalence index value of less than 3.0 when hydric soils and wetland hydrology are also present. Assessment of vegetation focused on the identification of plant species in four strata: trees (greater than 3 inches diameter at breast height [dbh]), saplings/shrubs (less than 3.0 inches dbh and greater than 3.2 feet tall), herbs (less than 3.2 feet tall), and woody vines. Dominance was determined by visually estimating those species having the greatest absolute percent cover within each stratum. Wetland indicator status for dominant plant species was determined by reference to the National Wetland Plant List (Lichvar et al., 2016). In addition, the 1989 Interagency Manual considers plants that have developed structural or morphological adaptations to inundation as indicators of hydric vegetation.

Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part (Federal Interagency Committee for Wetland Delineation, 1989). Hydric soil criteria are as follows:

- 1) All Histosols except Folists
- 2) Soils in aquatic suborders, aquatic sub-groups, Albolls suborder, Salorthids great group, or Pell great groups of Vertisols that are:
  - a. somewhat poorly drained and have water table less than 0.5 feet from the surface for a significant period (usually a week or more) during the growing season, or
  - b. poorly drained or very poorly drained and have either:

- i. water table at less than 1.0 foot from the surface for a significant period during the growing season if permeability is equal to or greater than 6.0 inches/hour in all layers within 20 inches.
- ii. water table at less than 1.5 feet from the surface for a significant period during the growing season if permeability is less than 6.0 inches/hour in any layer within 20 inches.
- 3) Soils that are ponded for long duration (seven days to one month) or very long duration (a single event that is greater than one month) during the growing season.
- 4) Soils that are frequently flooded (50% chance of flooding in a given year) for long duration or very long duration during the growing season.

Hydric soil conditions were determined in the field through observation of soils composition, color, and morphology. Soils data were collected by using a Dutch auger and tiling spade to examine the soil profile. Soil colors were determined using Munsell Soil Charts (Munsell Color, 2009). Information concerning soil series, color, texture, and matrix and mottle color was recorded for each delineated wetland and used to determine whether the soils displayed hydric characteristics.

Streams were identified based on the presence of observable bed and bank, flow regime, catchment area, and presence of ordinary high water line characteristics, including a "clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris" (CFR, 1986). Stream boundaries were defined and mapped in the field using the same method as described above for wetlands. Stream flow regime (i.e., perennial, intermittent, or ephemeral) was determined through evaluation of hydrologic, geomorphic, and biological characteristics (NC DWQ, 2010). Data regarding stream gradient (gentle, moderate, or steep), stream bank and channel width, water depth, stream bed substrate, in-stream cover, and biological indicators were collected and recorded on stream inventory forms (Appendix B).

All wetlands and streams identified within the New Jersey Study Area were classified based on the Cowardin Classification System (1979).

Representative photographs were taken of wetlands and streams delineated within the Study Area. Photographs of delineated wetland and stream communities are included in Appendix C.

# 4.2 Desktop Delineations

Desktop delineations for wetlands and streams located within portions of the Study Area that were not field delineated were conducted in October and November 2022 by EDR personnel. These areas are located on parcels of land where access has not been granted for site investigations as of March 2023. As discussed in Section 3.0, materials and data supporting this investigation have been derived from publicly available information sources that include United States Geological Survey topographic mapping (Long Branch, Ashbury Park, Farmingdale, Lakewood and Point Pleasant 7.5 minute quadrangles), USFWS NWI mapping, NJDEP Wetlands mapping, the NRCS Web Soil Survey (NRCS, 2022b), the NRCS List of Hydric Soils of the

State of New Jersey (NRCS, 2022a), the National Land Cover Database land cover and vegetation classes (Yang et al., 2019), and recent aerial photography.

All desktop delineations for wetlands and streams were conducted in ArcGIS Pro using recent and historic aerial photographs. The wetlands and streams identified through the desktop delineation will be field verified utilizing the methodology described in Section 4.1 as design progresses and this report updated accordingly.

# 5.0 RESULTS

EDR personnel field delineated 47 wetlands and 37 streams within the Study Area as shown in the Wetland and Stream Delineation Plan in Appendix D. The data collected at each delineated wetland and stream, including presumed jurisdiction and NJDEP resource value classification, are summarized in Table 6. A detailed description of each field delineated resource is located in Section 5.1 (wetlands) and Section 5.2 (streams). In accordance with the Cowardin Classification System (1979), the waters delineated and/or identified within the Study Area consist of the following community types: palustrine emergent (PEM), and palustrine forested (PFO), palustrine open water (POW), and palustrine scrub-shrub (PSS).

Additionally, EDR personnel desktop delineated 6 wetlands and 5 streams within the Study Area. The desktop delineated wetlands and streams are summarized in Table 7. The wetlands and streams identified through the desktop delineation will be field verified utilizing the methodology described in Section 4.1.

Most of these wetlands and streams are not tidal or within 1,000 feet (305 meters) of the head of tide; therefore, USACE jurisdiction does not apply to the majority of the streams and wetlands as it relates to Section 404 of the Clean Water Act (CWA) because the NJDEP has assumed jurisdiction under the state's Freshwater Wetlands Protection Act. The wetlands and streams that are tidal or within 1,000 feet (305 meters) of the head of tide may fall under USACE jurisdiction. The presumed federal and/or state jurisdiction of delineated wetlands and streams is summarized in Table 6. Descriptions of the delineated wetlands and delineated streams within the Study Area are provided in Sections 5.1 and Section 5.2, respectively. Details on the desktop delineated wetlands and streams are provided in Section 5.3.

**Table 6. Delineated Wetlands and Streams** 

Delineation	Latitude of	Longitude of Centroid	Wetla	and Acrea	age With	nin Study <i>i</i>	Area by	Stream Type <sup>3</sup>	Linear Feet of Stream	Resource Value Classification	Anticipated Federal Jurisdiction <sup>4</sup>	Anticipated State Jurisdiction <sup>5</sup>
	Centroid		POW	PEM	PFO	PSS	Total		Within Study Area			
26-W008	40.121004	-74.195893			0.1	1	0.1			Exceptional	Yes	Yes
26-W009	40.118593	-74.195839			0.2	1	0.2			Exceptional	Yes	Yes
26-W010	40.115434	-74.17603		0.1		1	0.1			Exceptional	Yes	Yes
26-W011	40.115468	-74.175067			0.1		0.1			Exceptional	Yes	Yes
26-W012	40.117349	-74.170169			0.4	1	0.4			Exceptional	Yes	Yes
26-W014	40.118947	-74.1659				0.1	0.1			Exceptional	Yes	Yes
26-W015	40.128265	-74.13556			0.1		0.1			Intermediate	Yes	Yes
26-W016	40.130071	-74.051801	0.1				0.1			Ordinary	Yes	Yes
26-W017	40.155331	-74.098383		0.1			0.1			Exceptional	Yes	Yes
26-W018	40.171209	-74.082639			0.2	-	0.2			Exceptional	Yes	Yes
26-W019	40.137226	-74.109186				0.2	0.2			Exceptional	Yes	Yes
W007	40.119056	-74.057142			0.5		0.5			Intermediate	Yes	Yes
W008	40.104039	-74.077483		0.2			0.2			Ordinary	Yes	Yes
W009	40.108316	-74.072708			0.1		0.1			Intermediate	Yes	Yes
W010	40.094269	-74.118686			0.7	1	0.7			Intermediate	Yes	Yes
W011	40.090269	-74.100406			0.1	-	0.1			Ordinary	Yes	Yes
W012	40.094274	-74.122149			0.7	1	0.7			Exceptional	Yes	Yes
W013	40.090946	-74.099038			0.5	-	0.5			Intermediate	Yes	Yes
W014	40.09253	-74.096867			0.5	1	0.5			Intermediate	Yes	Yes
W015	40.093391	-74.117737			0.5	1	0.5			Exceptional	Yes	Yes
W016	40.093857	-74.123005			0.1		0.1			Exceptional	Yes	Yes
W017	40.139095	-74.108156			0.3	1	0.3			Intermediate	Yes	Yes
W017A	40.138902	-74.107758			0.4	-	0.4			Intermediate	Yes	Yes
W018	40.141023	-74.079964			0.8		0.8			Ordinary	Yes	Yes

Delineation	Latitude of	Longitude	Wetla	and Acrea	age With	nin Study 1	Area by	Stream Type <sup>3</sup>	Linear Feet of Stream	Resource Value	Anticipated Federal	Anticipated State
ID <sup>1</sup>	Centroid	of Centroid	POW	PEM	PFO	PSS	Total		Within Study Area	Classification	Jurisdiction <sup>4</sup>	Jurisdiction <sup>5</sup>
W019	40.136662	-74.110322			2.3		2.3			Exceptional	Yes	Yes
W020	40.240365	-74.094579			0.6		0.6			Intermediate	Yes	Yes
W021	40.246077	-74.09828			0.9	1	0.9			Intermediate	Yes	Yes
W022	40.244507	-74.096124			0.4	1	0.4			Intermediate	Yes	Yes
W023	40.243071	-74.093018			1.3		1.3			Exceptional	Yes	Yes
W024	40.237035	-74.082182			1.8	1	1.8			Exceptional	Yes	Yes
W025	40.231177	-74.061714			0.1	1	0.1			Intermediate	Yes	Yes
W026	40.23001	-74.056456	0.2				0.2			Exceptional	Yes	Yes
W027	40.224455	-74.031423			0.7	1	0.7			Exceptional	Yes	Yes
WL1	40.120301	-74.033958		0.6			0.6			Exceptional	Yes	Yes
WL10	40.133906	-74.179492			1.2	1	1.2			Exceptional	Yes	Yes
WL11	40.128772	-74.184049			0.5	1	0.5			Exceptional	Yes	Yes
WL12	40.124342	-74.187698		0.4		1	0.4			Ordinary	Yes	Yes
WL13	40.118727	-74.192792	-		0.3	1	0.3			Exceptional	Yes	Yes
WL2	40.146067	-74.10696	0.2				0.2			Intermediate	Yes	Yes
WL3	40.146101	-74.107643			0.3		0.3			Intermediate	Yes	Yes
WL4	40.144079	-74.116155			3.5		3.5			Exceptional	Yes	Yes
WL5	40.136989	-74.137713			0.2		0.2			Intermediate	Yes	Yes
WL6A	40.137924	-74.144525			0.3		0.3			Ordinary	Yes	Yes
WL6B	40.143678	-74.162614			0.9		0.9			Exceptional	Yes	Yes
WL7	40.146436	-74.167963	0.1		0.2		0.3			Intermediate	Yes	Yes
WL8	40.143712	-74.170264			0.2		0.2			Intermediate	Yes	Yes
WL9	40.138808	-74.174871			1.4		1.4			Exceptional	Yes	Yes
S005	40.115039	-74.035636						R1	64.8	FW2-NT/SE1	Yes	Yes
S006	40.113676	-74.037994						R1	133	FW2-NT/SE1	Yes	Yes

Delineation ID <sup>1</sup>	Latitude of	Longitude	Wetla	and Acrea	age With Type <sup>2</sup>	nin Study A	Area by	Stream Type <sup>3</sup>	Linear Feet of Stream	Resource Value Classification	Anticipated Federal Jurisdiction <sup>4</sup>	Anticipated State Jurisdiction <sup>5</sup>
	Centroid	of Centroid	POW	PEM	PFO	PSS	Total		Within Study Area			
S007	40.11907	-74.057234						R3	92.2	FW2-NT/SE1	Yes	Yes
S008	40.094355	-74.129931						R3	47.6	FW2-NT/SE1	Yes	Yes
S009A	40.096981	-74.085632						R1	828.6	SE1	Yes	Yes
S009B	40.136724	-74.110136						R3	581.7	FW-TMC1	Yes	Yes
S010	40.237082	-74.082167						R3	76.8	FW2-NT/SE1	Yes	Yes
S011	40.235314	-74.079003						R3	91.2	FW2-NT/SE1	Yes	Yes
										No		
S012	40.231084	-74.061794						R3	108.7	Classification	Yes	Yes
26-ST04	40.142478	-74.12032		-	-	-		R3	885.3	FW1-TM	Yes	Yes
26-ST09	40.127377	-74.055339				-		R6	120.3	FW2-NT/SE1	Yes	Yes
26-ST005	40.118484	-74.195904						R3	119.8	FW2-NTC1	Yes	Yes
26-ST006	40.115677	-74.175301				-		R3	400.6	FW2-NTC1	Yes	Yes
26-ST007	40.118116	-74.168116						R3	190.6	FW2-TMC1	Yes	Yes
26-ST008	40.128401	-74.135539						R4	94.2	FW2-NT/SE1	Yes	Yes
ST009	40.243408	-74.093567						R3	183	FW2-NT/SE1	Yes	Yes
26-ST011	40.171148	-74.083307						R6	169	FW2-NT	Yes	Yes
26-ST012	40.171208	-74.082346						R6	48.7	FW2-NT	Yes	Yes
ST013	40.224249	-74.030876						R3	135	FW2-NT/SE1	Yes	Yes
26-ST013	40.11817	-74.167968						R6	67.6	FW2-TMC1	Yes	Yes
26-ST014	40.119058	-74.16567						R3	60.8	FW2-TMC1	Yes	Yes
26-ST015	40.189	-74.070745						R3	21.2	SE1	Yes	Yes
26-ST016	40.157248	-74.099366						R3	15.3	FW2-NT	Yes	Yes
26-ST017	40.15536	-74.098433			-			R4	27.2	FW2-NT	Yes	Yes
26-ST018	40.171345	-74.07965						R3	467.5	FW2-NT	Yes	Yes
26-ST019	40.171274	-74.080937						R4	43.3	FW2-NT	Yes	Yes

Delineation ID <sup>1</sup>	Latitude of Centroid	Longitude of Centroid	Wetla	PEM	age With Type <sup>2</sup> PFO	PSS	Area by Total	Stream Type <sup>3</sup>	Linear Feet of Stream Within Study Area	Resource Value Classification	Anticipated Federal Jurisdiction <sup>4</sup>	Anticipated State Jurisdiction <sup>5</sup>
26-ST020	40.193238	-74.059949						R1	150	SE1	Yes	Yes
WC1	40.146344	-74.107541						R3	171.6	FW2-TMC1	Yes	Yes
WC10	40.118672	-74.192965						R2	122.9	FW2-NTC1	Yes	Yes
WC2	40.14342	-74.117733						R3	331.5	FW2-TMC1	Yes	Yes
WC3	40.144365	-74.163353						R4	130.8	FW2-NTC1	Yes	Yes
WC4	40.146766	-74.167917						R2	55.3	FW2-NTC1	Yes	Yes
WC5	40.138332	-74.175139						R2	108.8	FW2-TMC1	Yes	Yes
										No		
WC6	40.135076	-74.178157						R2	127.3	Classification	Yes	Yes
WC7	40.128609	-74.184312						R2	315.9	FW2-TMC1	Yes	Yes
										No		
WC8	40.124908	-74.18719						R4	144.5	Classification	Yes	Yes
WC9	40.123934	-74.188289						R2	149	FW2-NTC1	Yes	Yes
	Totals		0.6	1.4	23.4	0.3	25.7		6,881.6			

<sup>&</sup>lt;sup>1</sup> Field ID assigned by EDR.

<sup>&</sup>lt;sup>2</sup>Wetland community types are based upon the Cowardin et al. (1979) classification system: palustrine open water (POW), palustrine emergent wetland (PEM), palustrine forested wetland (PFO).

<sup>&</sup>lt;sup>3</sup> Stream type is based upon the Cowardin et al. (1979) classification system: tidal (R1), lower perennial (R2). perennial (R3), intermittent (R4), and ephemeral (R6).

<sup>&</sup>lt;sup>4</sup> Based on visual observation of hydrologic connectivity in the field and review of available spatial data. NJDEP has assumed Section 404 jurisdiction of Waters of the United States, so Section 404 jurisdiction is included under federal jurisdiction.

<sup>&</sup>lt;sup>5</sup> Based on existing NYSDEC mapping of freshwater wetlands and streams. See Sections 2.2 and 3.3 for additional information.

## 5.1 Field Delineated Wetlands

EDR personnel field delineated 47 wetlands totaling approximately 26 acres (10.52 hectares) within the New Jersey Study Area. The total acreage of each community type is summarized in Table 6 and descriptions of wetlands categorized by the Cowardin Classification System (1979) are provided below. Since the desktop delineated wetlands are in the same general area as the field delineated wetlands, the community types summarized are likely accurate descriptions of the desktop delineated wetlands. Desktop delineated wetlands will be field verified, and the community described in this report, as design progresses.

## Palustrine Open Water (POW)

Four wetlands with a classification of POW (See Table 6) were field delineated within the Study Area with a total size of 0.6 acre (0.24 hectare). Dominant vegetation consisted of Duckweed (*Lemna minor*, OBL) and Yellow Pond Lilly (*Nuphar lutea*, OBL) which meets the criteria for hydrophytic vegetation. Soils consisted of a thick layer of sandy muck (10YR 2/1) which meets the criteria of a histic epipedon and therefore meets the criteria for hydric soils. Wetland hydrology indicators observed were surface water, soil saturation, aquatic fauna, and a sparsely vegetated concave surface. See Appendix B for wetland-specific details on the four field delineated wetlands.

## Palustrine Emergent Wetland (PEM)

Five wetlands with a classification of PEM (See Table 6) were field delineated within the Study Area with a total size of 1.4 acres (0.57 hectare). Dominant vegetation consisted of Pennsylvania Smartweed (*Polygonum pensylvaticum*, FACW), Late Boneset (*Eupatorium serotinum*, FAC), Common Rush (*Juncus effusus*, OBL), Broadleaf cattail (*Typha latifolia*, OBL) and Common Reed (*Phragmites australis*, FACW) which meets the criteria for hydrophytic vegetation. Soils consisted of thick organic muck with a low chroma matrix (10YR 2/1), clayey loam with a low chroma matrix (10YR 2/1) and mottles (10YR 5/8), sandy muck with a low chroma matrix (10YR 2/1), and sandy loam (10YR 4/1) with mottles (10YR 5/4) and a depleted matrix. These soils meet the criteria for hydric soils. Wetland hydrology indicators observed were ground saturated soils, water-stained leaves, a high-water table, hydrogen sulfide odor, geomorphic position, and drainage patterns. See Appendix B for wetland-specific details on the five field delineated wetlands.

#### Palustrine Forested Wetland (PFO)

Thirty-seven wetlands with a classification of PFO (see Table 6) were field delineated within the Study Area with a total size of 23.4 acres (9.47 hectares). Dominant vegetation across the numerous wetlands consisted of, but was not limited, to Red Maple (*Acer rubrum*, FAC), Pepperbush (*Cletha alnifolia*, FACW), Green Ash (*Fraxinus pennsylvanica*, FACW), Swamp White Oak (*Quercus bicolor*, FACW), Skunk Cabbage (*Symplocarpus foetidus*, OBL), Common Reed (*Phragmites australis*, FACW), Narrowleaf Cattail (*Typha angustifolia*, OBL) and Soft Rush (*Juncus effusus*, OBL), which meets the criteria for hydrophytic vegetation. There were numerous types of soils sampled across the various wetlands. Some of the more common soils sampled were thick organic muck with a low chroma matrix (10YR 2/1), thick muck (10YR 2/1) Histic epipedon, thick muck (10YR 2/1; 10YR 2/2) Histosol, and Sandy loam (10YR 2/1) with redox features and a low chroma matrix.

Additionally, redox dark surfaces and depleted matrices were observed at a large percentage of the wetlands. These soils meet the criteria for hydric soils. Wetland hydrology indicators observed across the various wetlands include, but are not limited to, surface inundation, soil saturation, a high-water table, hydrogen sulfide odor, geomorphic position, sparsely vegetated concave surface, water-stained leaves, and drainage patterns. See Appendix B for wetland-specific details on the thirty-seven field delineated wetlands.

## Palustrine Scrub-Shrub (PSS)

Two wetlands with a classification of PSS (see Table 6) were field delineated within the Study Area with a total size of 0.3 acres (0.12 hectares). Dominant vegetation for both wetlands consisted of Red Maple (*Acer rubrum*, FAC) saplings, Green Ash (*Fraxinus pennsylvanica*, FACW) saplings, and Pepperbush (*Clethra alnifolia*, FACW), which meets the criteria for hydrophytic vegetation. Soils samples across the two wetlands consisted of thick muck (10YR 2/1) Histosol. Wetland hydrology indicators observed across both wetlands were surface water, a high-water table, saturation, iron deposits, water-stained leaves, and hydrogen sulfide odor. See Appendix B for wetland-specific details on the two field delineated wetlands.

## 5.2 Field Delineated Streams

EDR personnel field delineated 37 streams within the Study Area as shown in the Wetland and Stream Delineation Plan in Appendix D. The area of each stream type is summarized in Table 6 and descriptions of wetlands categorized by the Cowardin Classification System (1979) are provided below. Since the desktop delineated streams are in the same general area as the field delineated streams, the stream types summarized are likely accurate descriptions of the desktop delineated streams. Desktop delineated streams will be field verified, and the community described in this report, as design progresses.

# Tidal (R1)

Four streams with a classification of Tidal (R1) (See Table 6) were field delineated within the Study Area with a total length of 1,176.4 linear feet. The streams are part of the following streams and/or tributary:

- Watson Creek S005 and S006
- Manasquan River S009A
- Shark River 26-ST020

The stream gradient for all four streams is gentle (0-5%). The substrate for S005 and S006 is sand and the substrate for S009A is a mix of sand, silt, and clay. The surface water depth at Thalweg for S005, S006 and S009A ranges from 80 to 100 inches (203 to 254 centimeters). Substrate and surface water depth data were unable to be obtained for stream 26-ST020 due to access issues. 26-ST020 is located within the tidal portion of the Shark River which drains into the Atlantic Ocean. None of the four streams are drainage ditches.

### Lower Perennial (R2)

Six streams with a classification of Lower Perennial (R2) (See Table 6) were field delineated within the Study Area with a total length of 879.29 linear feet. The streams are part of the following streams and/or tributary:

- Squankum Brook WC4
- Muddy Ford Brook WC5 and possibly WC6
- Woodcock Brook Possibly WC6
- Tarkiln Brook WC7
- Haystack Brook WC9
- Dicks Brook WC10

The stream gradient is gentle (0–5%) for WC4, WC6, WC7, WC9 and W10 and is moderate (6–11%) for WC5. The substrate is composed of a mix of sand, silt, and clay with cobble present in WC9, and gravel present in WC4, WC5, WC6, and WC10. The surface water depth at Thalweg ranges across the 6 streams from 0.5 inches to 24 inches (1.3 to 61 centimeters). None of the six streams are drainage ditches.

## Perennial (R3)

Eighteen streams with a classification of Perennial (R3) (see Table 6) were field delineated within the Study Area with a total length of 3,980.4 linear feet. The streams are part of the following streams and/or tributary:

- Robert Swamp Brook S007
- Beaverdam Creek S008
- Jumping Brook tributary ST009, S010, and S011
- Hollow Brook ST013
- Manasquan River S009B, WC1, and WC2
- Manasquan River Tributary 26-ST04
- Dicks Brook 26-ST005
- Haystack Brook 26-ST006
- Muddy Ford Brook 26-ST007
- Sandyhill Brook 26-ST014
- Laurel Gully Brook 26-ST015
- Hannabrand Brook 26-ST016
- Wreck Pond Brook 26-ST018
- Unclassified Stream S012

The stream gradient for all 18 streams is gentle (0–5%). The substrate varies across the 18 streams and is composed of varying levels of a mix of bedrock, cobble, gravel, sand, silt, and clay. The surface depth at Thalweg ranges across the 18 streams from 0 to 100 inches (0 to 254 centimeters). None of the eighteen streams are drainage ditches.

## Intermittent (R4)

Five streams with a classification of Intermittent (R4) (See Table 6) were field delineated within the Study Area with a total length of 440 linear feet. The streams are part of the following streams and/or tributary:

- Squankum Brook WC3
- Haystack Brook WC8
- Sawmill Creek Possibly 26-ST008
- Hannabrand Brook 26-ST017
- Wreck Pond Brook 26-ST019

The stream gradient for all five streams is gentle (0-5%). The substrate for WC3 is a mix of silt, clay, cobble, and gravel. The substrate for WC8 is a mix of sand, silt and clay. The substrate for 26-ST008 is a mix of cobble, gravel, and sand. The substrate for 26-ST017 is a mix of silt and clay. The substrate for 26-ST019 is a mix of gravel, sand, silt, and clay. The surface water depth at Thalweg ranges across the five streams from 0 to 4 inches (0 to 10 centimeters). WC3 is a drainage ditch. The remaining four streams are not drainage ditches.

# Ephemeral (R6)

Four streams with a classification of Ephemeral (R6) (See Table 6) were field delineated within the Study Area with a total length of 405.6 linear feet. The streams are part of the following streams and/or tributary:

- Judas Creek 26-ST09
- Wreck Pond Brook tributary 26-ST011 and 26-ST012
- Muddy Ford Brook 26-ST013

The stream gradient for 26-ST09 and 26-ST012 is gentle (0-5%) and the stream gradient for 26-ST011 and 26-ST013 is moderate (6-11%). The substrate for 26-ST09 is a mix of gravel and sand. The substrate for 26-ST011 and 26-ST012 is a mix of gravel, sand, silt, and clay. The substrate for 26-ST013 is a mix of sand, silt, and clay. The surface water depth at Thalweg ranges across the four streams from 0 to 1 inch (0 to 2.5 centimeters) across the four streams. 26-ST011 is a drainage ditch. The remaining three streams are not drainage ditches.

# 5.3 Desktop Delineated Wetlands and Streams

EDR personnel desktop delineated 6 wetlands and 5 streams within the Study Area. The desktop delineated wetlands and streams are summarized in Table 7. The wetlands and streams identified through the desktop delineation will be field verified utilizing the methodology described in Section 4.1.

Table 7. Desktop Delineated Wetlands and Streams

Delineation ID <sup>1</sup>	Latitude of Centroid	Longitude of Centroid	Wetland Acreage within Study Area	Linear Feet of Stream Within Study Area
DDW001*	40.121228	-74.195748	0.2	
DDW002*	40.111859	-74.185659	25.0	
DDW033*	40.226629	-74.078776	13.7	
DDW034*	40.235551	-74.083499	7.0	
DDW035*	40.253743	-74.119368	17.1	
DDW080_NJ*	40.118292	-74.188324	10.6	
DDS001*	40.119065	74.194955		392.6
DDS002*	40.110884	-74.185355		3846.7
DDS025*	40.226176	-74.079693		1,072.1
DDS026*	40.235925	-74.082419		558.4
DDS042_NJ*	40.118512	-74.18827		1182
	73.6	7,051.8		

<sup>&</sup>lt;sup>1</sup> ID assigned by EDR.

# 6.0 CONCLUSIONS

EDR conducted a field wetland and watercourse delineation in June and December 2020, September 2021, June 2022, and March 2023 for the Atlantic Shores proposed onshore interconnection cable route to the Larrabee and Atlantic POIs and associated onshore infrastructure site options. A total of 47 wetlands encompassing approximately 25.7 acres and 37 streams totaling approximately 6,881.6 linear feet were identified and delineated within the New Jersey Study Area. Six wetlands totaling approximately 73.6 acres and five streams totaling 7,051.8 linear feet were desktop delineated within the New Jersey Study Area. These wetlands and streams will be field verified, and this report will be updated accordingly as design progresses and access issues are resolved. Wetlands and streams were identified and approximated using aerial imagery and other publicly available data sources (see Section 4.1)

All wetlands and watercourses are under the jurisdiction of the NJDEP under the Freshwater Wetlands Protection Act and/or Wetlands Act of 1970 (coastal wetlands). In additional, all tidally influenced systems or non-tidal wetlands within 1,000 feet (305 meters) of the head of tide may also be under the jurisdiction of the USACE under Section 10 of the River and Harbors Act and the Section 404 of the Clean Water Act (CWA). Any wetlands and watercourses greater than 1,000 feet (305 meters) upslope from the head of tide are under the assumed jurisdiction of the NJDEP.

<sup>\*</sup> Feature has been desktop delineated. These features will be field verified as design progresses and this report updated accordingly.

This wetland and waterway delineation and presumed jurisdictional determination should not be considered final until a Letter of Interpretation is issued by the NJDEP, and a review has been conducted by the USACE concurring with the location, extent, and jurisdiction of the wetlands and watercourses identified. The NJDEP will also need to confirm the resource value classification presented in Table 6.

# 7.0 REFERENCES

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0ae4919652ccaf4d67829679d&rgn=div5&view=text&node=33:3.0.1.1.35&idno=33 (Accessed August 2020).

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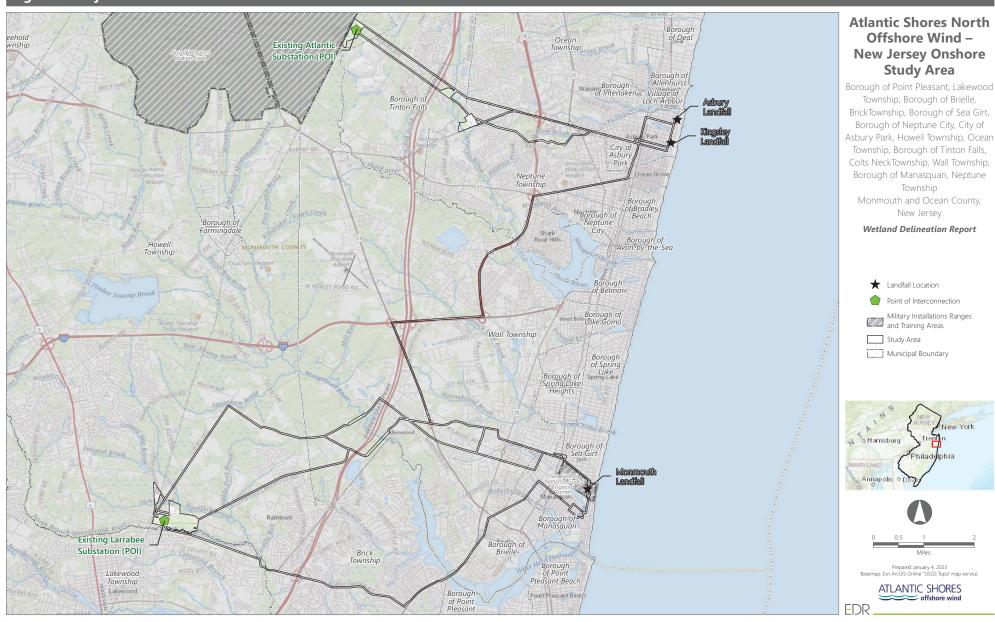
Appendix A

Figures

Figure 1

Project Location Map

**Figure 1. Project Location** 



**Figure 2** SSURGO Soils Map

Figure 2. Soils Map
Sheet 1 of 42

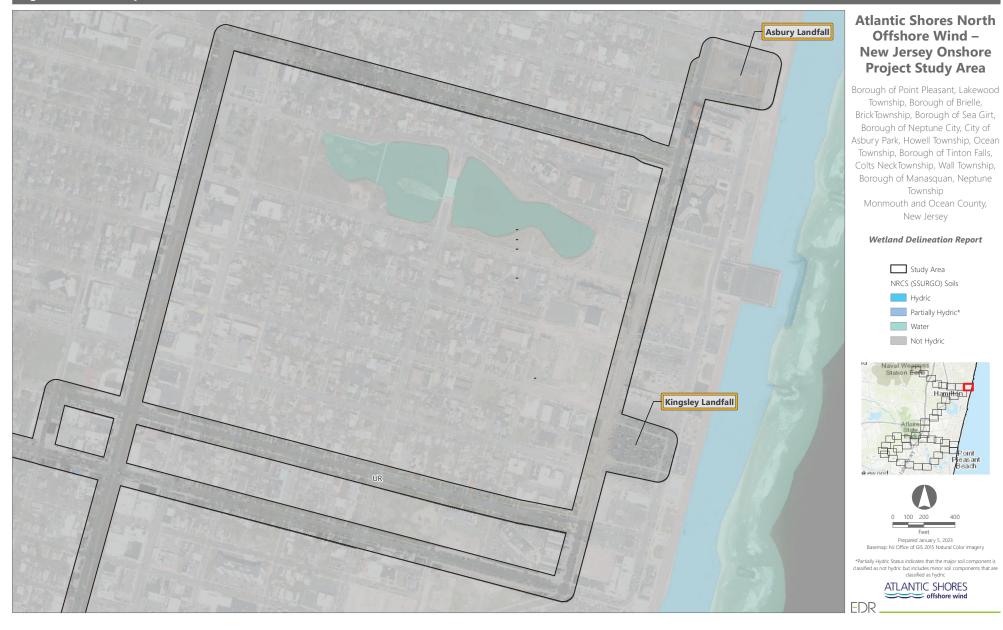


Figure 2. Soils Map
Sheet 2 of 42



Figure 2. Soils Map

Sheet 3 of 42



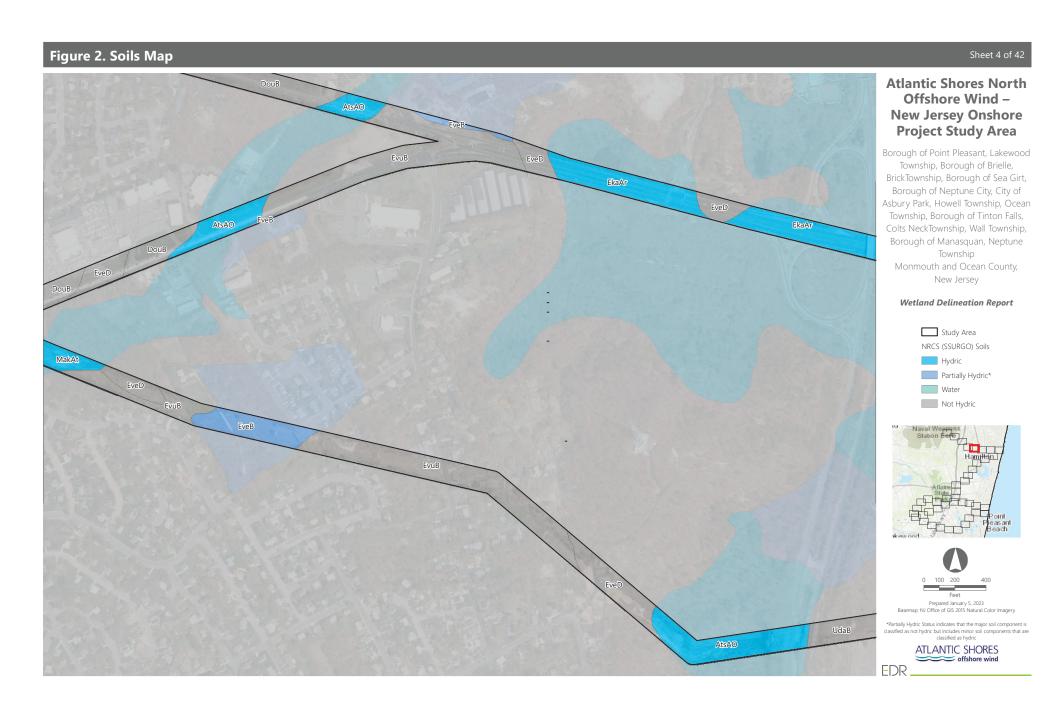


Figure 2. Soils Map
Sheet 5 of 42



Figure 2. Soils Map
Sheet 6 of 42



Figure 2. Soils Map
Sheet 7 of 42

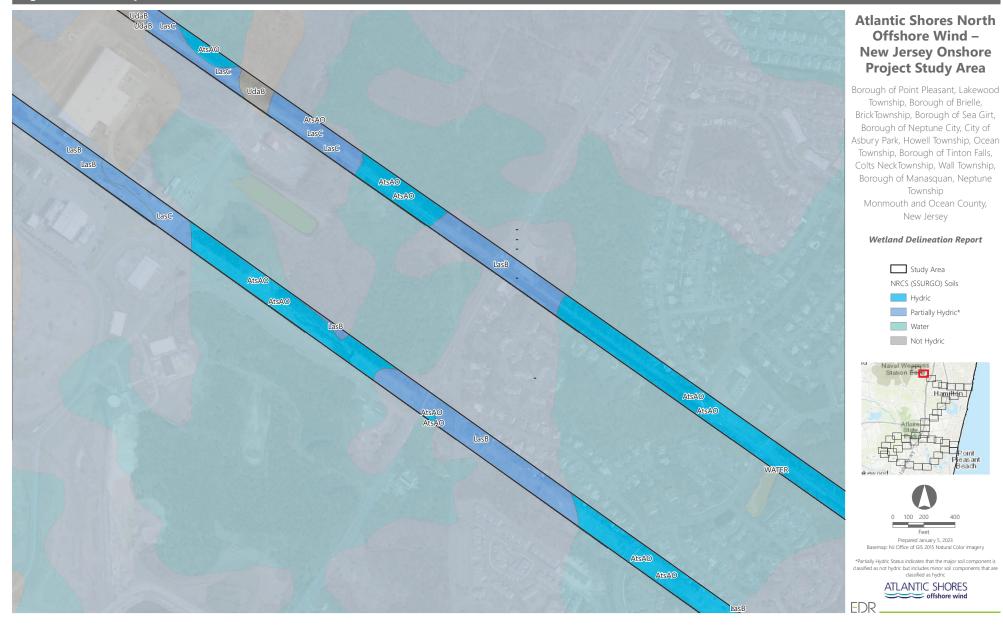


Figure 2. Soils Map
Sheet 8 of 42



Figure 2. Soils Map Sheet 9 of 42 **Atlantic Shores North** Offshore Wind -**New Jersey Onshore Project Study Area** Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey **Wetland Delineation Report** Study Area NRCS (SSURGO) Soils Hydric Partially Hydric\* Water Not Hydric Prepared January 5, 2023

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

Figure 2. Soils Map
Sheet 10 of 42

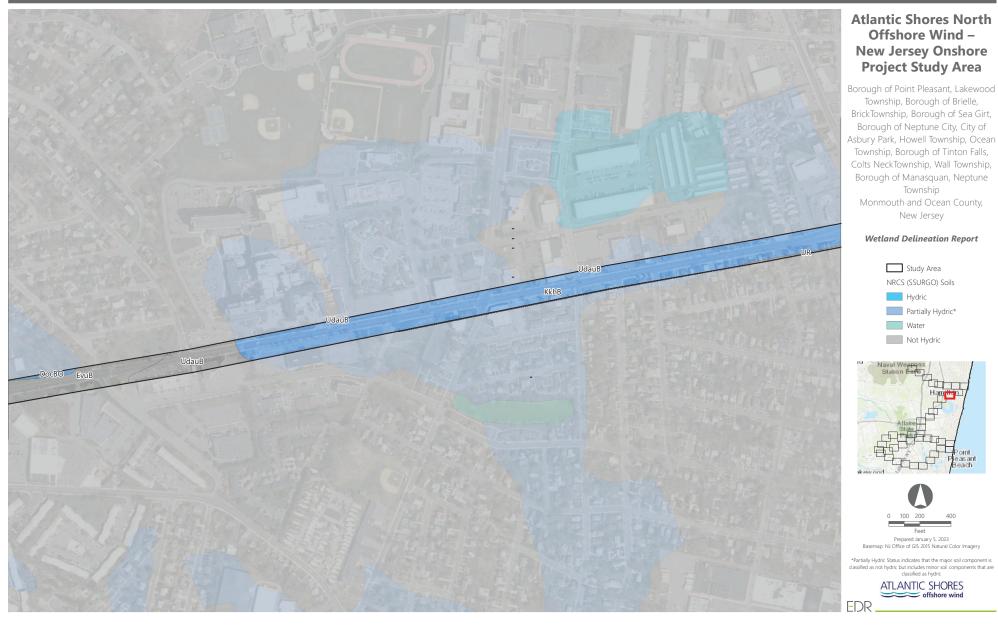


Figure 2. Soils Map
Sheet 11 of 42

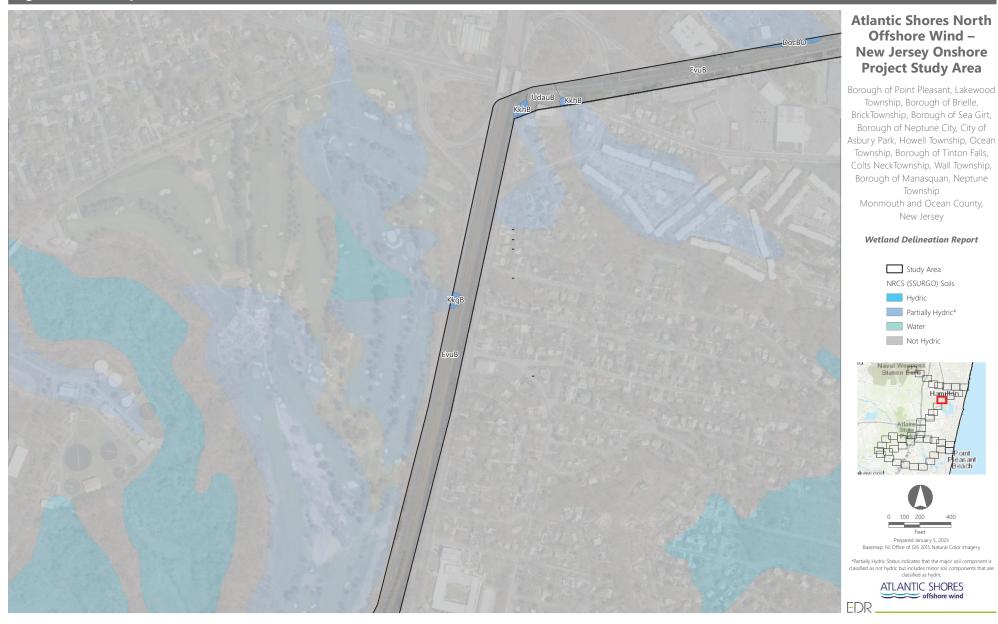


Figure 2. Soils Map
Sheet 12 of 42



Figure 2. Soils Map

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Atlantic Shores North

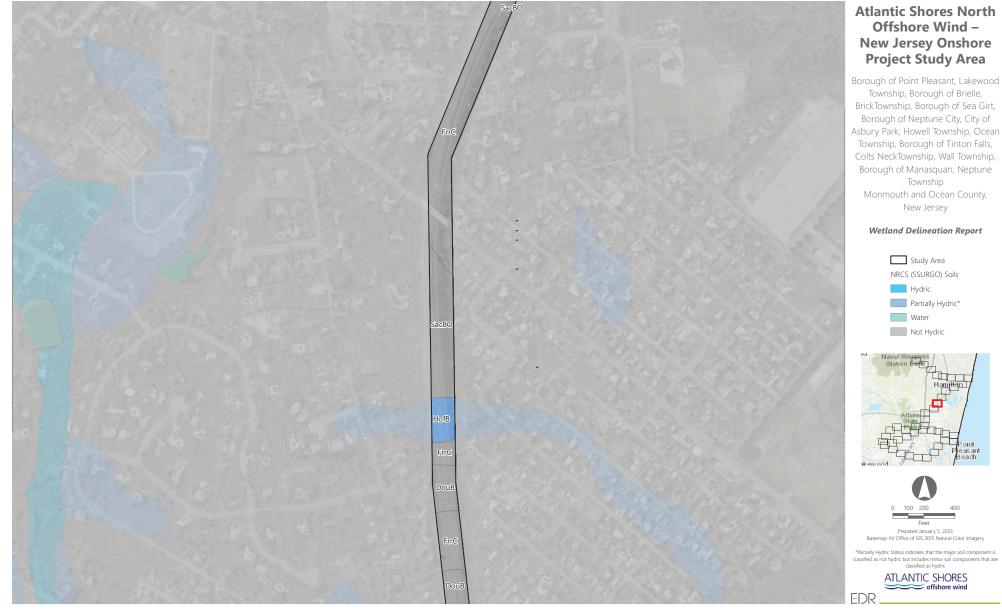


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Sheet 14 of 42

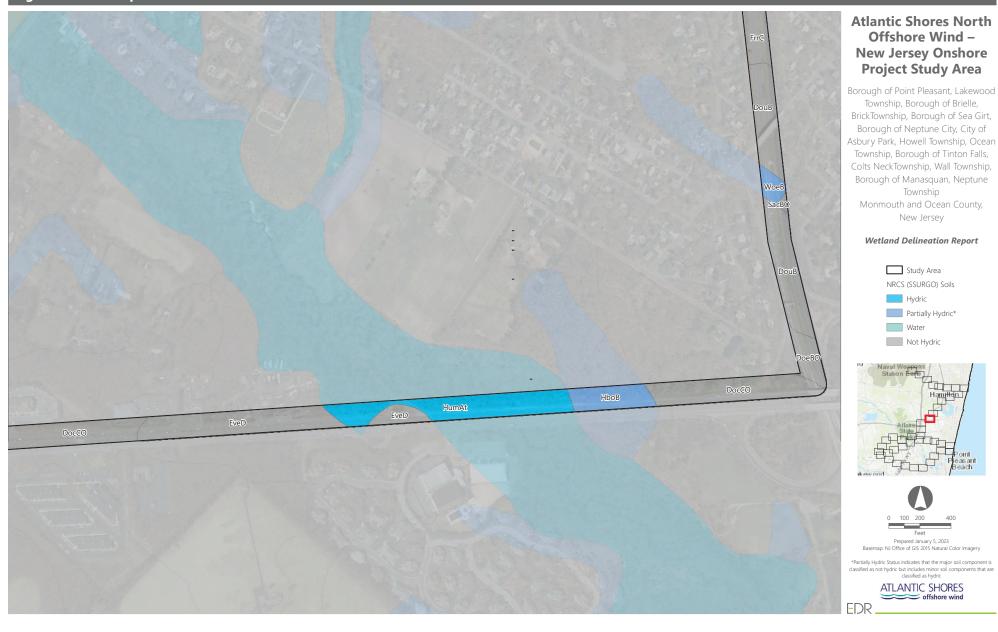


Figure 2. Soils Map
Sheet 15 of 42



Figure 2. Soils Map
Sheet 16 of 42

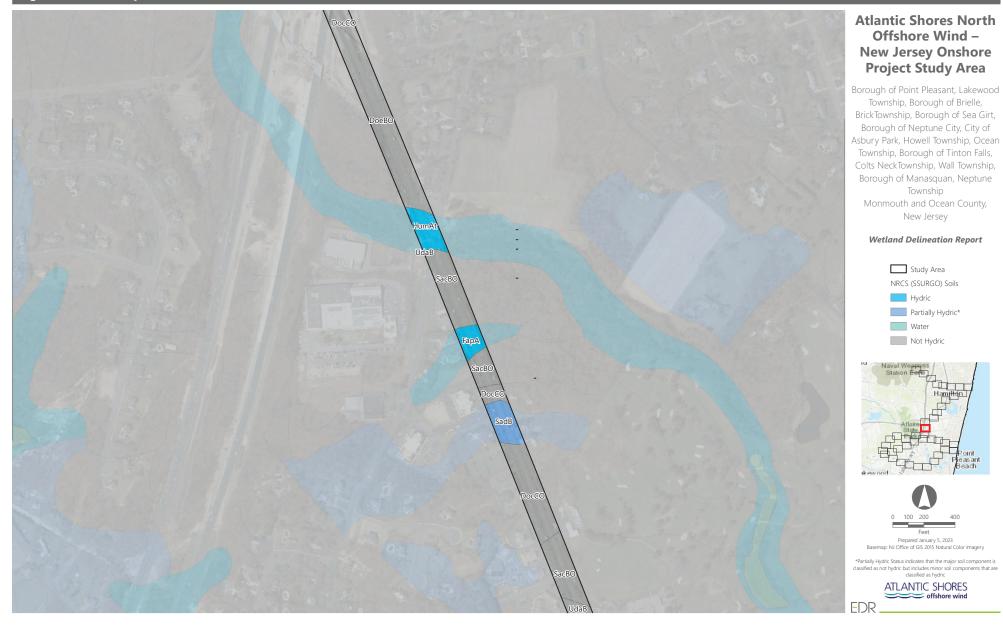


Figure 2. Soils Map
Sheet 17 of 42

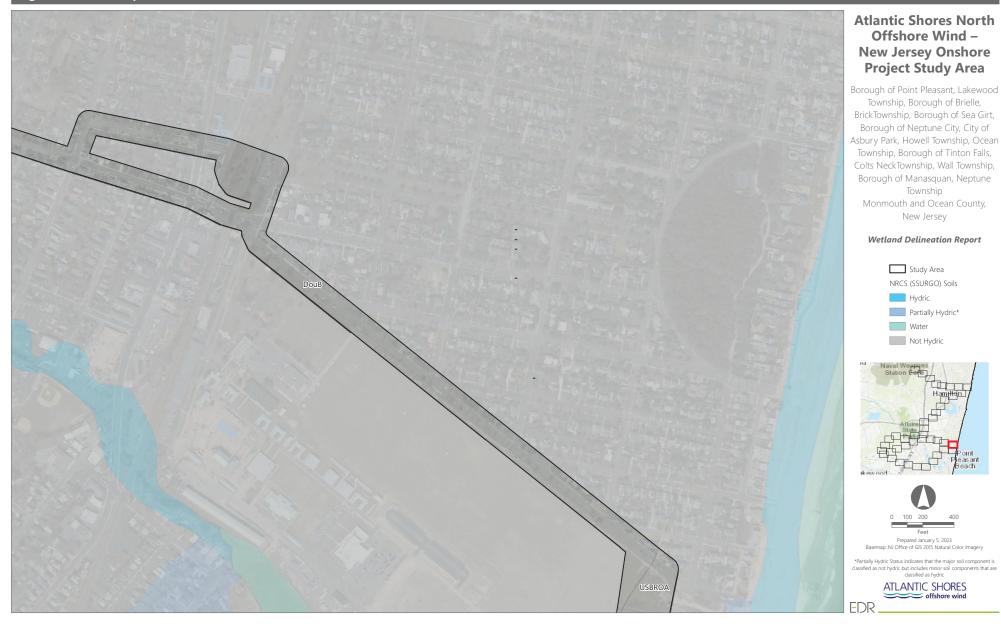


Figure 2. Soils Map
Sheet 18 of 42



Figure 2. Soils Map
Sheet 19 of 42



Figure 2. Soils Map
Sheet 20 of 42



Figure 2. Soils Map
Sheet 21 of 42

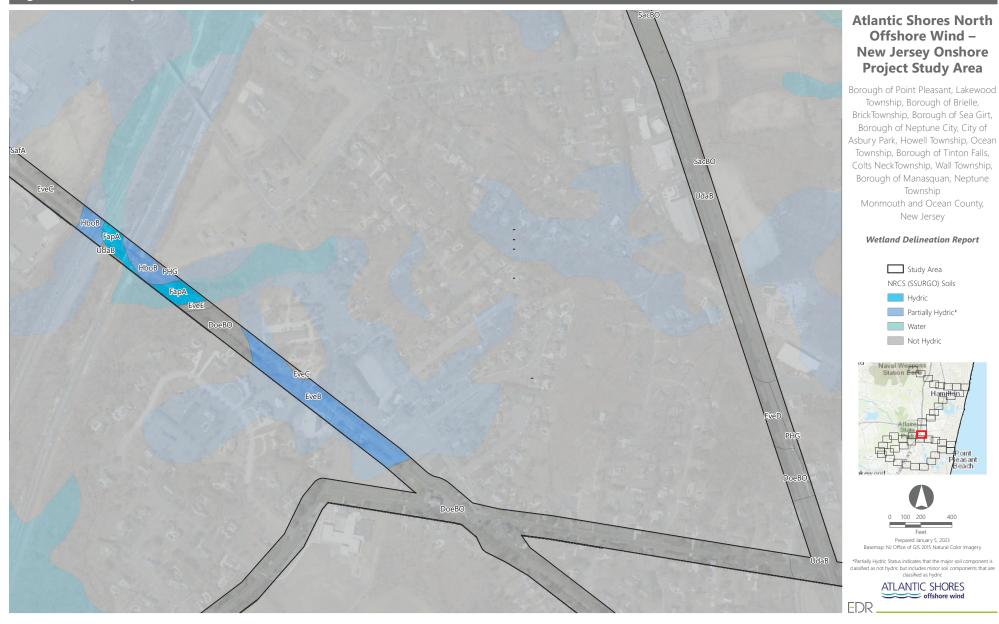


Figure 2. Soils Map
Sheet 22 of 42



Figure 2. Soils Map
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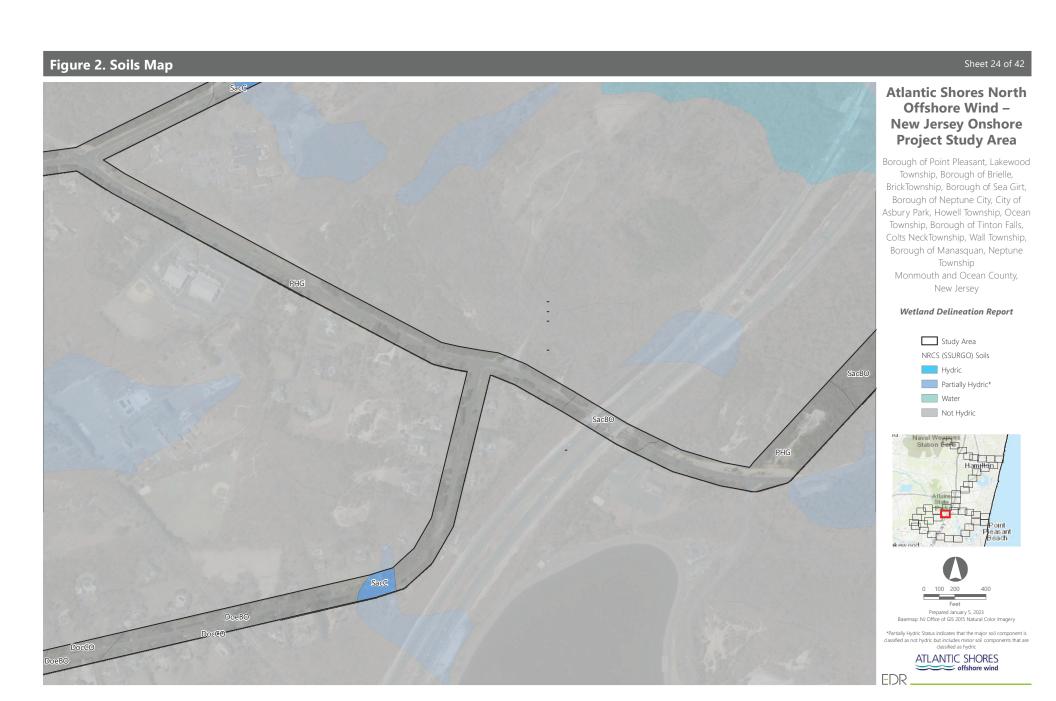


Figure 2. Soils Map

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Figure 2. Soils Map
Sheet 26 of 42



Figure 2. Soils Map

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Figure 2. Soils Map

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Figure 2. Soils Map
Sheet 29 of 42

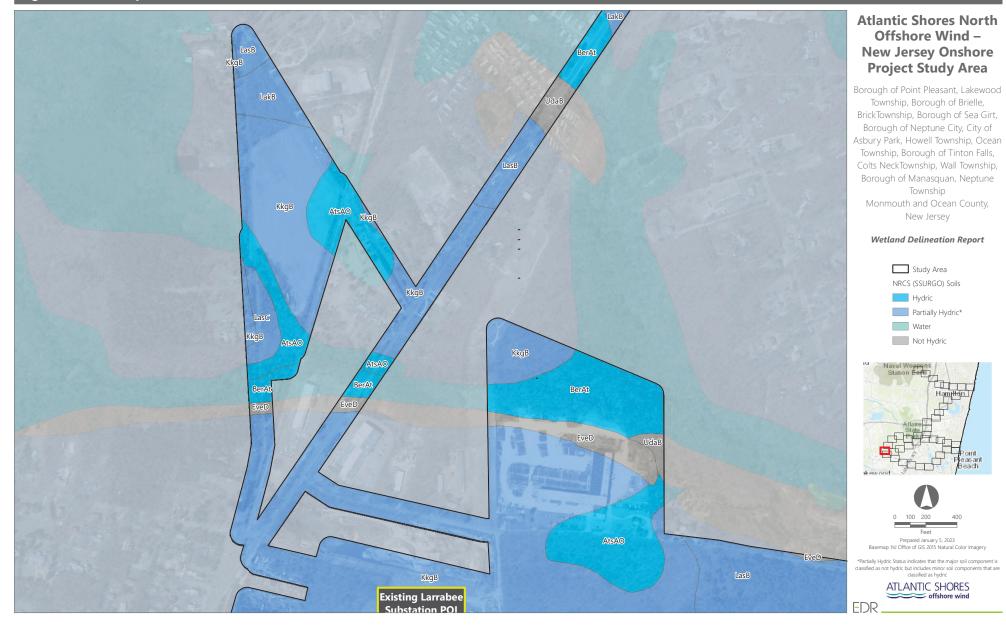


Figure 2. Soils Map

Sheet 30 of 42

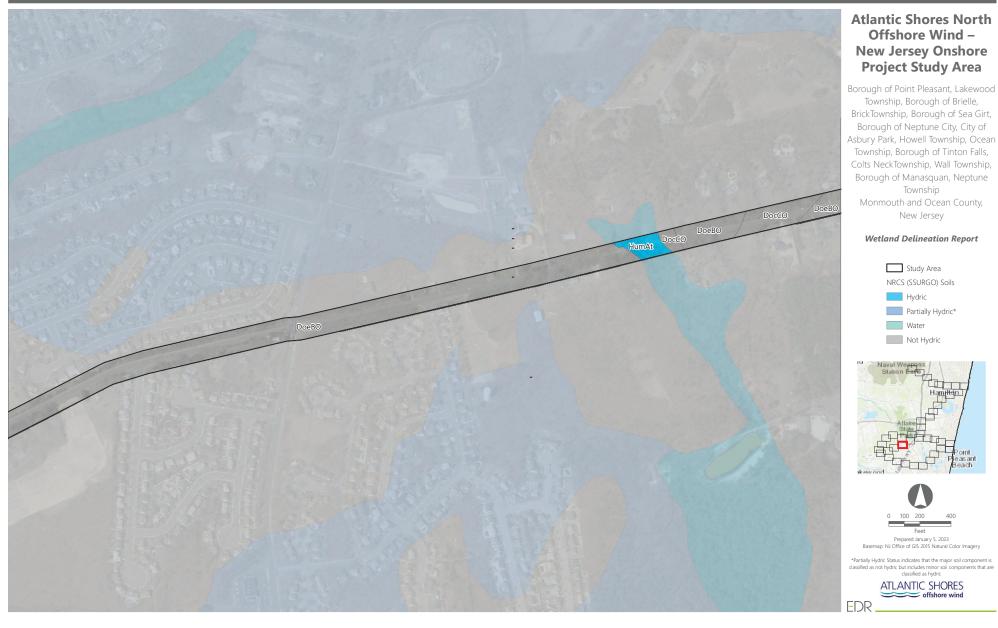


Figure 2. Soils Map
Sheet 31 of 42



Figure 2. Soils Map
Sheet 32 of 42



Figure 2. Soils Map

Sheet 33 of 42

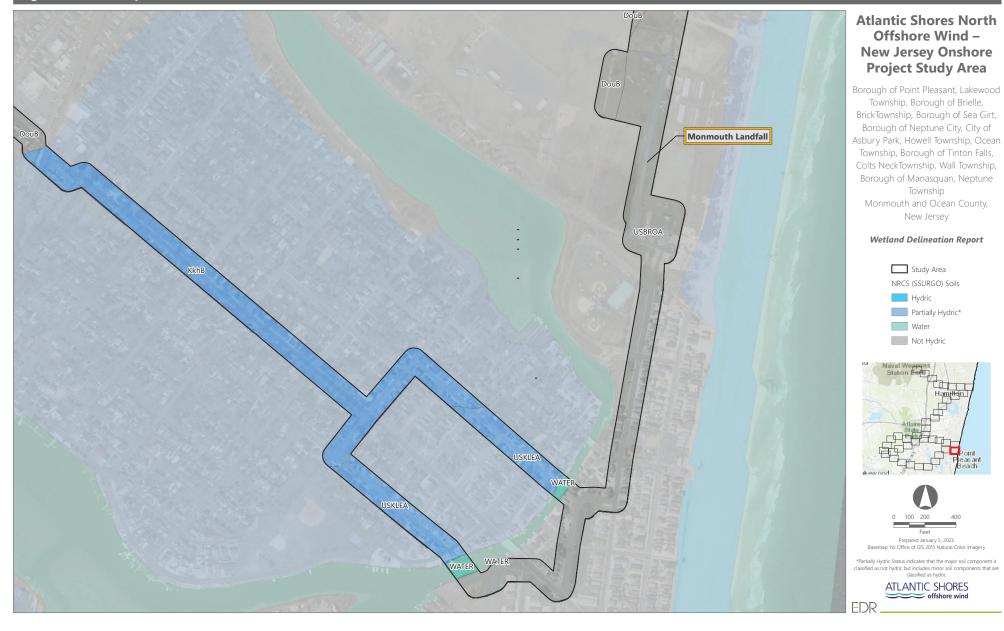


Figure 2. Soils Map
Sheet 34 of 42

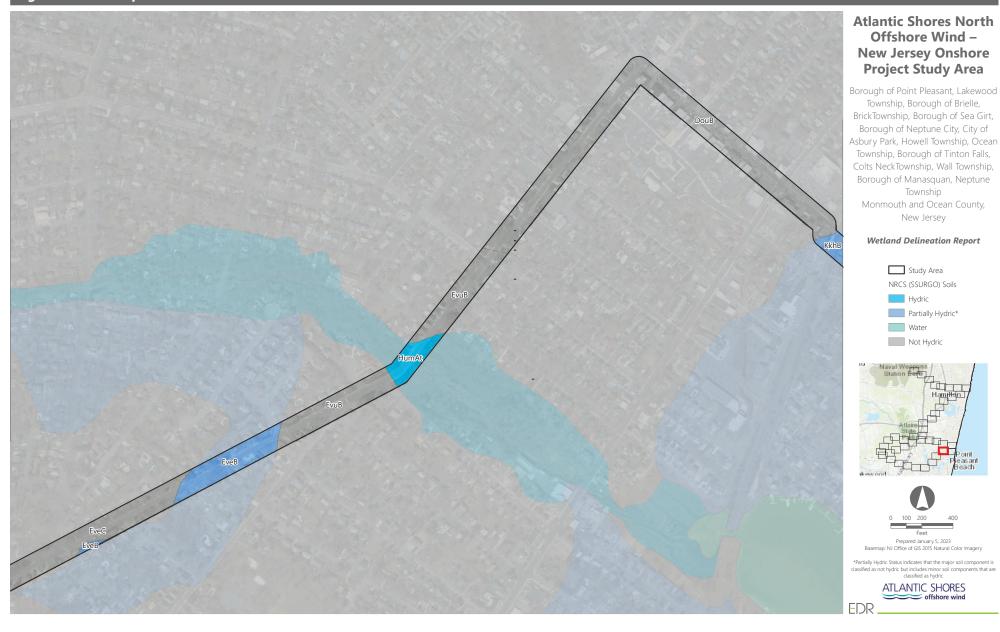


Figure 2. Soils Map
Sheet 35 of 42



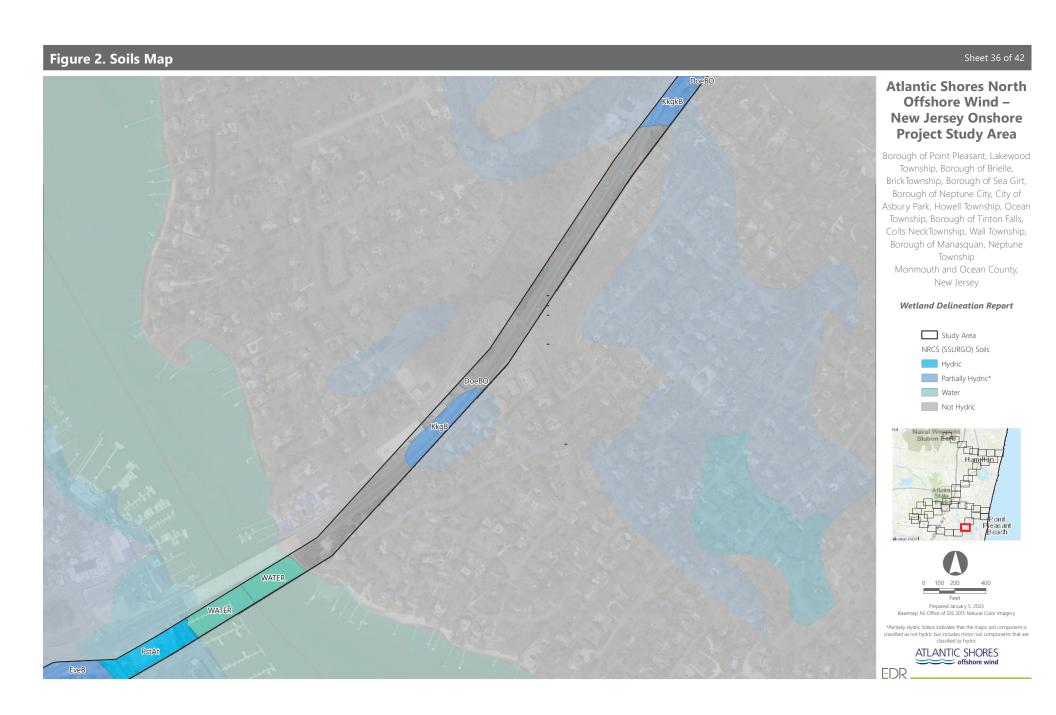


Figure 2. Soils Map Sheet 37 of 42 **Atlantic Shores North** Offshore Wind -**New Jersey Onshore Project Study Area** Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey **Wetland Delineation Report** Study Area NRCS (SSURGO) Soils Hydric Hydric Partially Hydric\* Water Not Hydric Prepared January 5, 2023

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
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Figure 2. Soils Map
Sheet 39 of 42

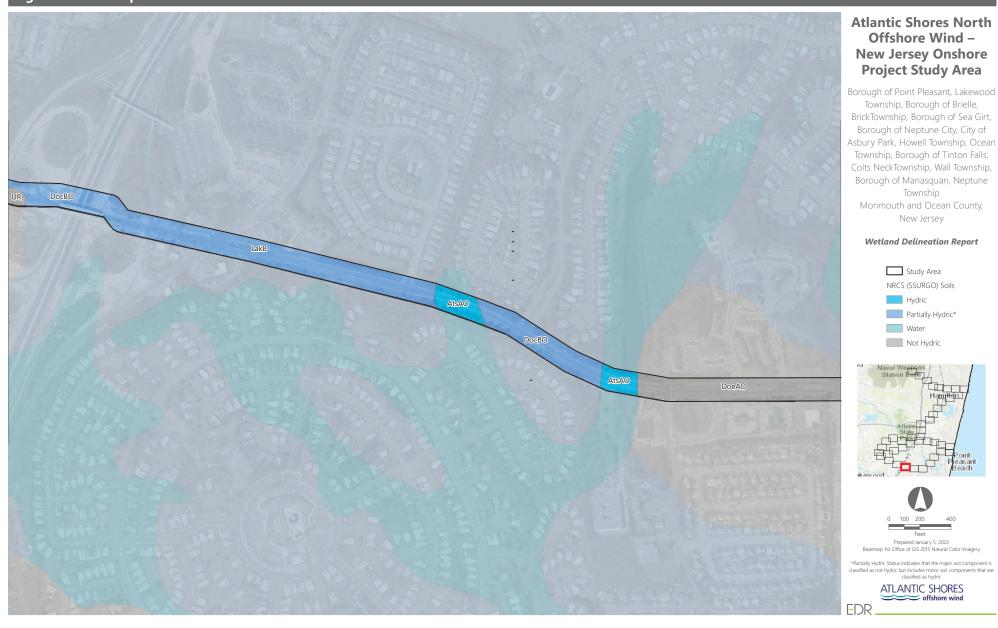


Figure 2. Soils Map
Sheet 40 of 42

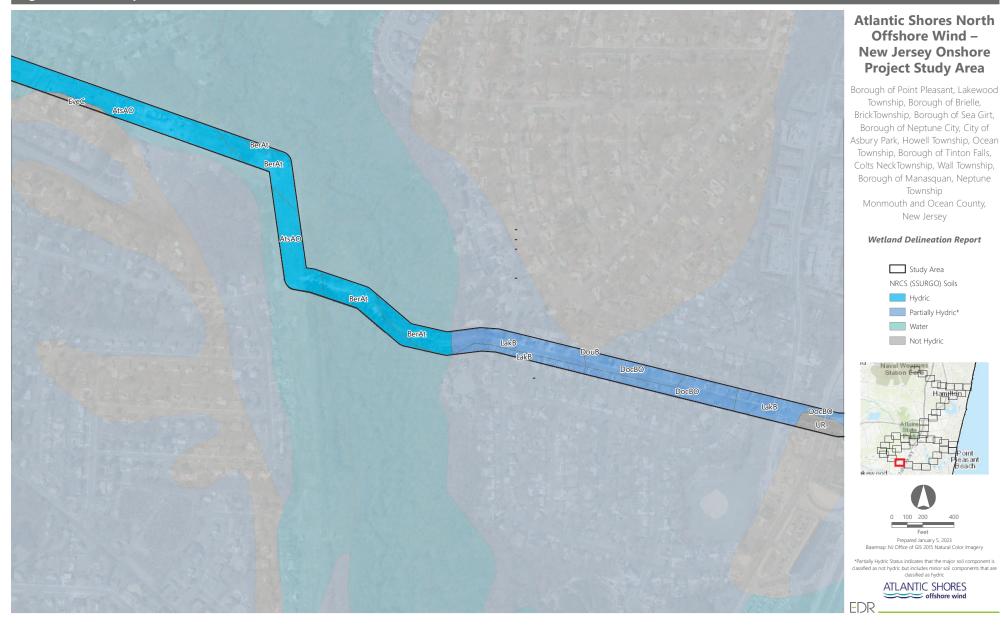


Figure 2. Soils Map

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Atlantic Shores North

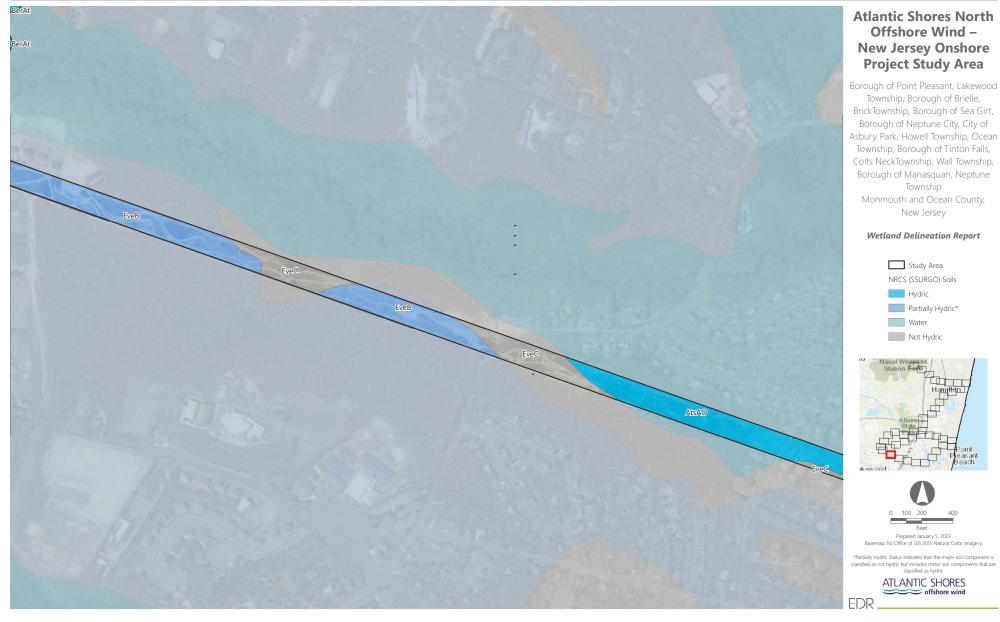


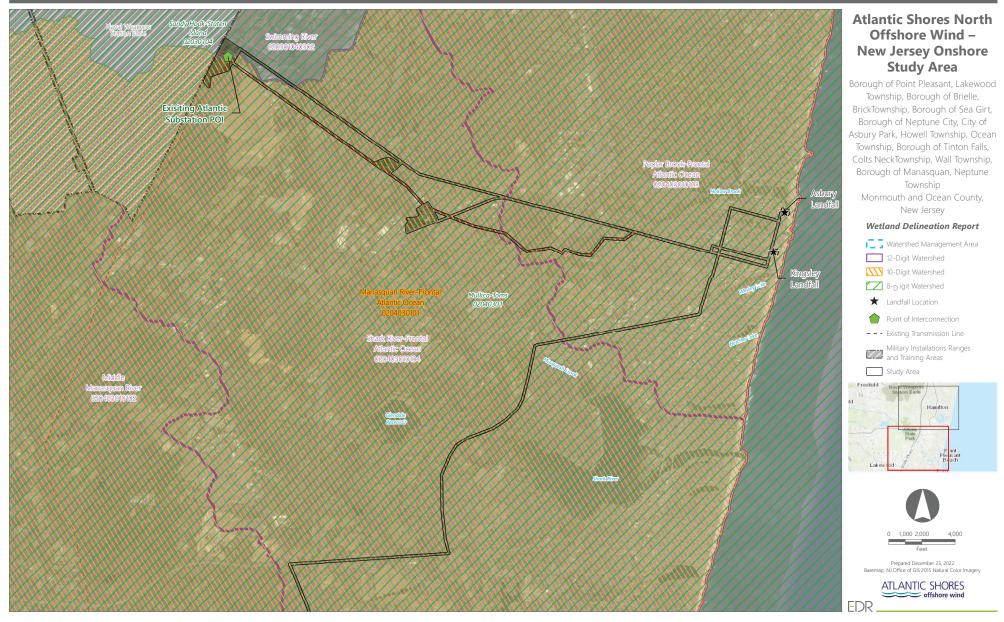
Figure 2. Soils Map
Sheet 42 of 42



## Figure 3

Watershed Management Areas and Hydrologic Units

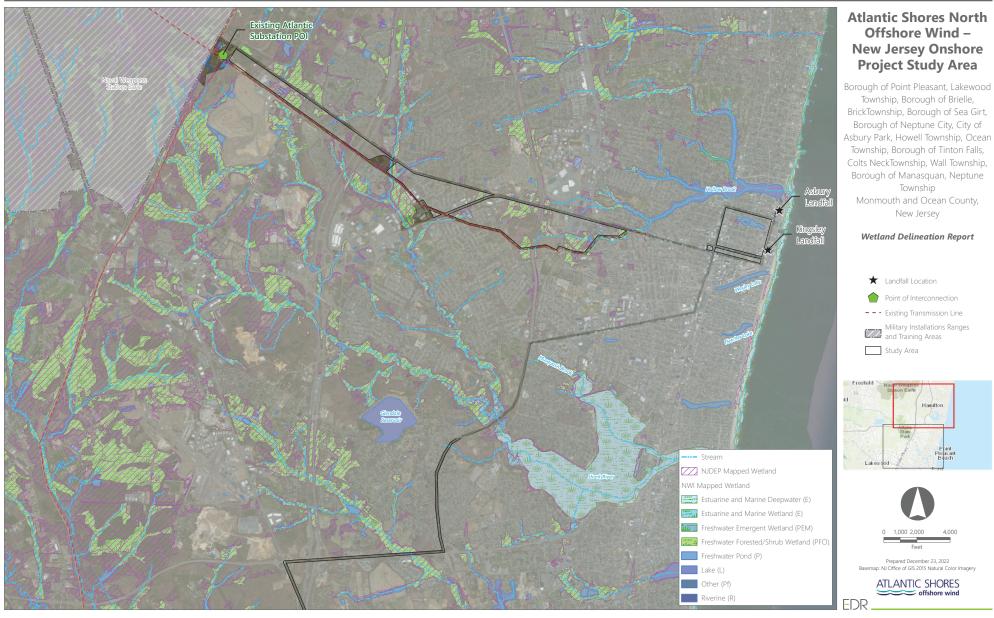
Figure 3. Watershed Management Areas and Hydrological Units





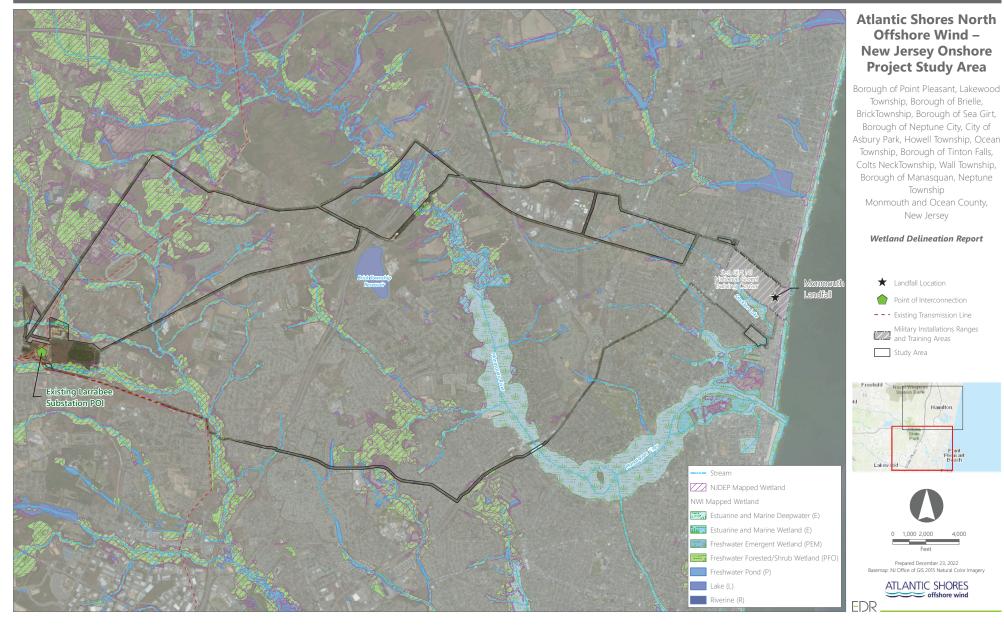
## Figure 4

NJDEP/NWI-Mapped Wetlands and Streams



BrickTownship, Borough of Sea Girt, Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune





# Figure 5

FEMA 1% Chance Annual Floodplain

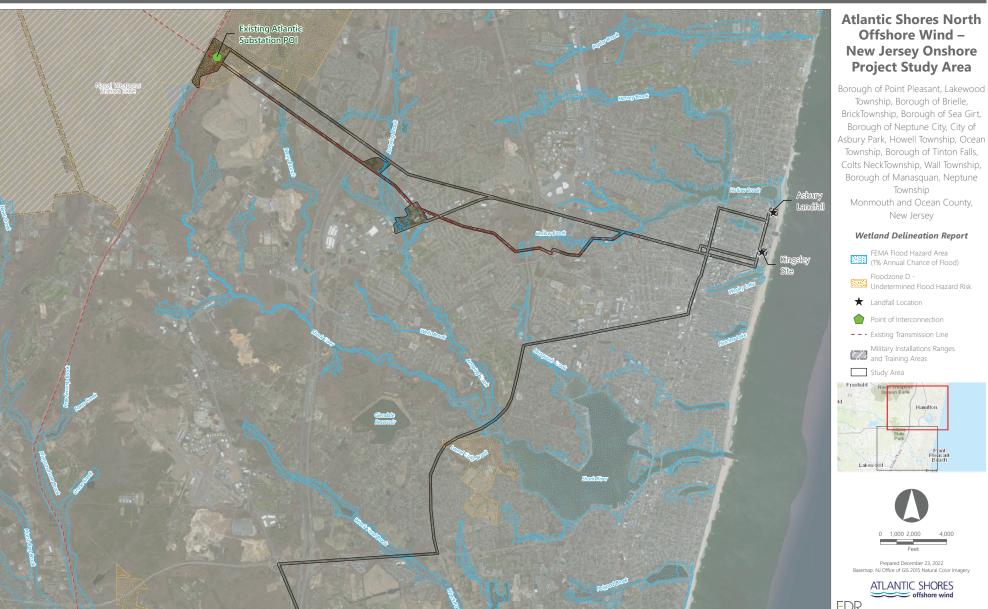
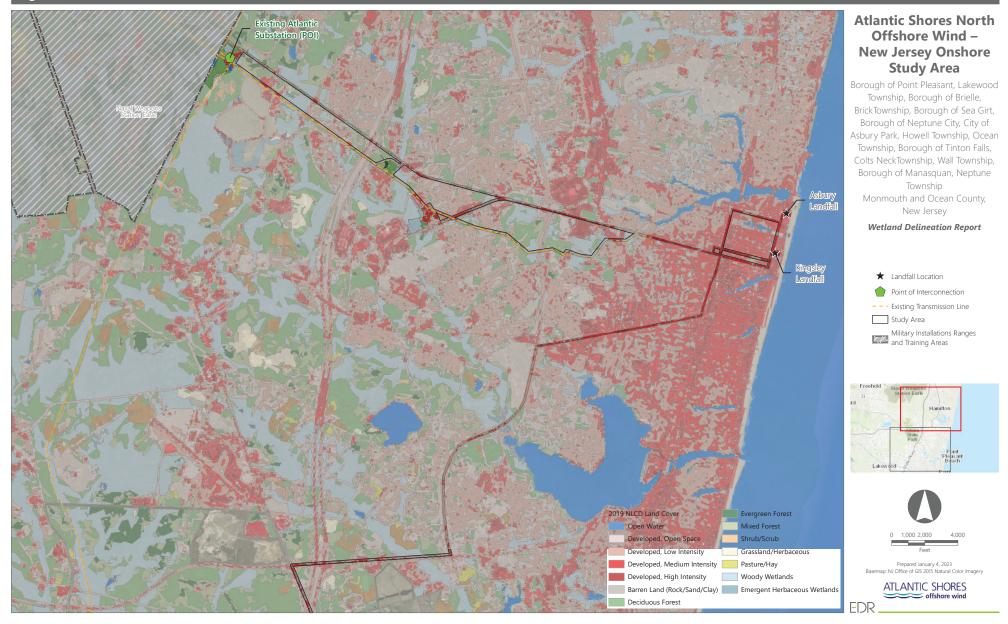
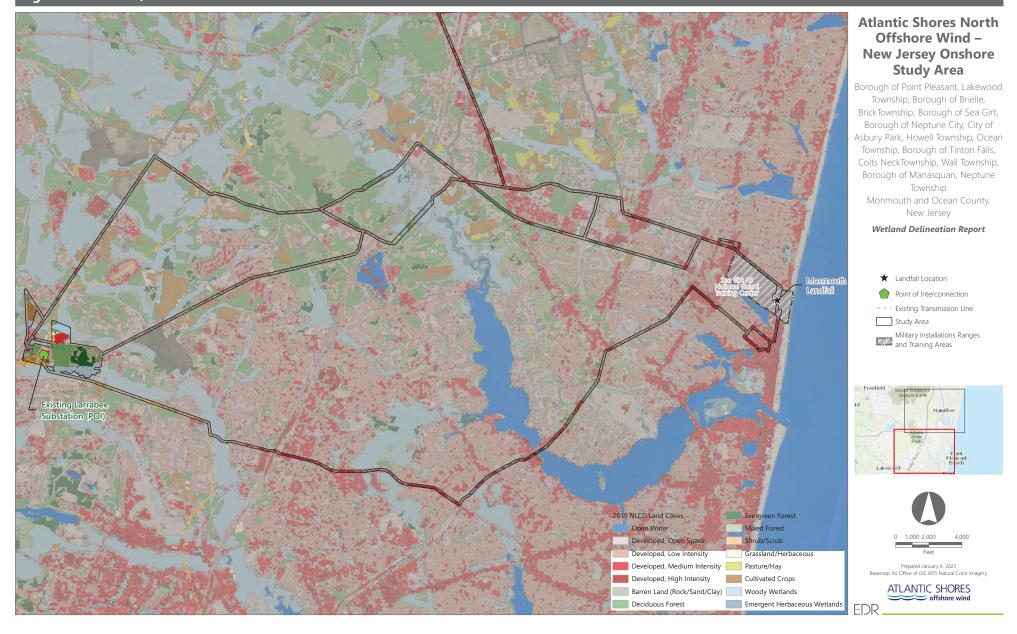




Figure 6

Land Use/Land Cover





1	APPENDIX B  Routine Wetland Determination Data Sheets and Stream Inventory Forms

Project Name: La	rabee W	etland Delineation	Project I	Number:	<u>20043</u>				
Survey Date: <u>6/25-6/26/2020</u>									
Evaluators: Matt	Spadoni,	Jacqueline McMill	<u>len</u>						
Stream ID: Water	course 2	Data Point ID: W	C1	(Pre	viously :WC	<u>C2)</u>			
Town: Click or tap here to enter text. County: Monmouth State: New Jersey									
Latitude: 40.1463	<u>3361041</u>	Longitude: <u>-74.10</u>	075399039	<u>)</u>					
Stream ID: Click or tap here to enter text.									
Previous Weathe	Previous Weather: Snow $\square$ Heavy Rain $\square$ Rain $\square$ None $\boxtimes$ Unknown $\square$								
Adjacent Landcov	ver: <u>fores</u>	<u>ted, pedestrian bil</u>	<u>ke path, st</u>	eep slop	e from bike	path to	stream		
Ecological Comm	nunities: 🤇	Click or tap here to	enter text	<u>t.</u>					
			Hydrolog	ic Chara	acteristics				
Perceptible Flow?	?	Yes ⊠	No □						
Flow Regime:  R1-Tidal □  R3-Upper Perennial □  R5-Unknown Perennial □  R6-Ephemeral □									
Flow Direction: no	orth to so	<u>uth</u>							
Surface Water Pr	esent:	Yes ⊠	No □						
Surface Water De	epth at Th	nalweg: 6"							
Wetted (Stream)	Width: 3'								
		Ge	omorpho	logic Ch	naracteristi	ics			
Gradient:	Gentle (	0-5 %) ⊠		Moderat	e (6-11 %)		Steep (>'	12 %) 🗆	
Substrate:	Silt/Clay	(<0.062 mm) ⊠		Sand (0.	062–2 mm	) ⊠		Gravel (2-64 mm) □	
	Cobble (	(64-256 mm) 🗆		Boulder	(256-4096	mm) 🗆	]	Bedrock (>4096 mm) □	
Bankful Width:	<u>4'</u>								
Bank Height:	<u>2'</u>								

Undercut Banks:	Banks: Yes□ No⊠ Description: Click or tap here to enter text.								
Overhanging Vegetation:	Yes⊠	No□	Description: Click or tap here to enter text.						
Deep Pools Present:	Yes□	No⊠	Description: Click or tap here to enter text.						
Coarse Woody Debris:	Yes⊠	No□	Description:						
Channel Alteration: to enter text.	Channe	lization ∑	☐ Channel Armoring ☐ Impoundment ☐ Other: Click or tap here						
Is the stream a Drainage I	Ditch:	Yes □	No ⊠						
			Additional Notes						

Stream that drains large wetland pond along pedestrian bike path. Flow from north to south crossing under bike path.

Project Name: La	<u>arabee We</u>	etland Delineation	Project N	lumber:	<u>20043</u>				
Survey Date: 6/2	<u>5-6/26/20</u>	<u>20</u>							
Evaluators: Matt	Spadoni,	Jacqueline McMil	<u>len</u>						
Stream ID: Water	rcourse 2	Data Point ID: W	<u>C2</u>						
Town: Click or to	ap here t	o enter text.	County: N	<u>lonmou</u>	th_	State: N	lew Jersey	<u> </u>	
Latitude: 40.146	<u>3361041</u>	Longitude: -74.10	075399039						
Stream ID: Click	or tap her	re to enter text.							
Previous Weathe	r:	Snow $\square$	Heavy Ra	in 🗆	Rain $\square$		None ⊠	ı	Unknown □
Adjacent Landco	ver: <u>fores</u>	ted, pedestrian bil	ke path, ste	eep slop	e from bil	ke path t	to stream		
Ecological Comm	nunities: 🤇	Click or tap here to	enter text						
			Hydrologi	c Chara	acteristic	S			
Perceptible Flow	?	Yes ⊠	No □						
Flow Regime:  R1-Tidal □  R3-Upper Perennial □  R5-Unknown Perennial □  R6-Ephemeral □									
Flow Direction: no	orth to so	<u>uth</u>							
Surface Water Pr	resent:	Yes ⊠	No □						
Surface Water Do	epth at Th	nalweg: 6"							
Wetted (Stream)	Width: 3'								
		Ge	eomorphol	ogic Ch	naracteris	stics			
Gradient:	Gentle (	0-5 %) ⊠	ı	Moderat	e (6-11 %	b) 🗆	Steep (>	12 %) 🗆	
Substrate:	Silt/Clay	(<0.062 mm) ⊠	;	Sand (0.	.062–2 mi	m) 🗵		Gravel (2	-64 mm) 🗆
	Cobble (	(64-256 mm) 🗆	ĺ	Boulder	(256-409	6 mm) 🗆		Bedrock (	(>4096 mm) 🗆
Bankful Width:	<u>4'</u>								
Bank Height:	<u>2'</u>								

Undercut Banks:	Yes□	No⊠	Description: Click or tap here to enter text.						
Overhanging Vegetation:	Yes⊠	No□	Description: Click or tap here to enter text.						
Deep Pools Present:	Yes□	No⊠	Description: Click or tap here to enter text.						
Coarse Woody Debris:	Yes⊠	No□	Description:						
Channel Alteration: to enter text.	Channe	lization ∑	☐ Channel Armoring ☐ Impoundment ☐ Other: Click or tap here						
Is the stream a Drainage [	Ditch:	Yes □	No ⊠						
			Additional Notes						

Stream that drains large wetland pond along pedestrian bike path. Flow from north to south crossing under bike path.

Project Name: La	arabee W	etland Delineation	Project N	lumber:	<u>20043</u>				
Survey Date: 6/2	<u>5-6/26/20</u>	<u>20</u>							
Evaluators: Matt	Spadoni,	Jacqueline McMil	<u>len</u>						
Stream ID: Water	rcourse 3	Data Point ID: W	<u>C3</u>						
Town: Click or to	ap here t	to enter text.	County: N	<u>lonmou</u>	<u>th</u>	State: N	lew Jerse	Υ	
Latitude: 40.151	<u>5109229</u>	Longitude: -74.1	<u>158297112</u>	<u>.</u>					
Stream ID: Click	or tap hei	re to enter text.							
Previous Weathe	er:	Snow $\square$	Heavy Ra	ain 🗆	$Rain \; \square$		None ⊠		Unknown □
Adjacent Landco	ver: mow	ed lawn, common	reed stand	l, bike p	ath, mead	<u>dow</u>			
Ecological Comm	nunities: <a>C</a>	Click or tap here to	enter text	<u>-</u>					
			Hydrologi	c Char	acteristic	S			
Perceptible Flow	?	Yes ⊠	No □						
Flow Regime:	Flow Regime:  R1-Tidal □  R3-Upper Perennial □  R5-Unknown Perennial □  R6-Ephemeral □								
Flow Direction: n	orth to so	<u>uth</u>							
Surface Water Pr	resent:	Yes ⊠	No □						
Surface Water Do	epth at Th	nalweg: 4"							
Wetted (Stream)	Width: 3'								
		Ge	eomorphol	ogic Cł	naracteris	stics			
Gradient:	Gentle (	0-5 %) ⊠	Ī	Moderat	e (6-11 %	%) □	Steep (>	12 %) □	
Substrate:	Silt/Clay	(<0.062 mm) ⊠	;	Sand (0	.062–2 m	m) 🗆		Gravel (2	2-64 mm) ⊠
	Cobble (	(64-256 mm) ⊠	I	Boulder	(256-409	6 mm) 🗆		Bedrock	(>4096 mm) 🗆
Bankful Width:	<u>8'</u>								
Bank Height:	<u>1'</u>								

			Additional Notes							
Is the stream a Drainage [	Ditch:	Yes □	No ⊠							
Channel Alteration: to enter text.	Channe	lization ⊠	☐ Channel Armoring ☐ Impoundment ☐ Other: Click or tap here							
Coarse Woody Debris:	Yes□	No⊠	Description:							
Deep Pools Present:	Yes⊠	No□	Description: Click or tap here to enter text.							
Overhanging Vegetation:	Yes⊠	No□	Description: Click or tap here to enter text.							
Undercut Banks:	Yes□ No⊠ Description: Click or tap here to enter text.									

Stream flowing from north to south controlled by channelization and piping under bikepath from meadow.

Project Name: La	rabee W	etland Delineation	Project Nu	mber: <u>2</u>	<u> 20043</u>		
Survey Date: 6/25	<u>5-6/26/20</u>	<u>20</u>					
Evaluators: Matt	Spadoni,	Jacqueline McMill	<u>len</u>				
Stream ID: Water	course 1	4 Data Po	int ID: WC4		( Previously	: WC14)	
Town: Click or ta	ap here t	to enter text.	County: Mo	nmouth	_ State:	New Jerse	<u>Y</u>
Latitude: 40.1323	<u>3690109</u>	Longitude: <u>-74.16</u>	<u>857166857</u>				
Stream ID: Click	or tap hei	re to enter text.					
Previous Weathe	r:	Snow $\square$	Heavy Rain	ı 🗆 F	Rain □	None ⊠	Unknown □
Adjacent Landcov	ver: <u>sand</u>	<u>, sparsely vegetat</u>	<u>ed areas, sa</u>	nd acce	ess road		
Ecological Comm	nunities: 🤇	Click or tap here to	enter text.				
			Hydrologic	Charac	cteristics		
Perceptible Flow?	?	Yes ⊠	No □				
Flow Regime:  R1-Tidal □  R3-Upper Perennial □  R5-Unknown Perennial □  R6-Ephemeral □							
Flow Direction: no	orth to so	<u>uth</u>					
Surface Water Pr	esent:	Yes ⊠	No □				
Surface Water De	epth at Th	nalweg: 3"					
Wetted (Stream)	Width: <u>1'</u>						
		Ge	omorpholog	gic Cha	racteristics		
Gradient:	Gentle (	0-5 %) ⊠	Мо	oderate	(6-11 %) 🗆	Steep (>	12 %) 🗆
Substrate:	Silt/Clay	(<0.062 mm) ⊠	Sa	and (0.0	62–2 mm) ⊠		Gravel (2-64 mm) $\square$
	Cobble (	(64-256 mm) 🗆	Во	oulder (2	256-4096 mm)		Bedrock (>4096 mm) $\square$
Bankful Width:	<u>3'</u>						
Bank Height:	<u>&lt;0.5'</u>						

Undercut Banks:	Yes⊠	No□	Description: Click or tap here to enter text.						
Overhanging Vegetation:	Yes⊠	No□	Description: Click or tap here to enter text.						
Deep Pools Present:	Yes□	No⊠	Description: Click or tap here to enter text.						
Coarse Woody Debris:	Yes□	No⊠	Description:						
Channel Alteration: to enter text.	Channe	lization □	☐ Channel Armoring ☐ Impoundment ☐ Other: Click or tap here						
Is the stream a Drainage [	Ditch:	Yes □	No ⊠						
			Additional Notes						

Stream that runs through the powerline ROW along sand access road, washes into access road at certain points, very shallow banks.

Project Name: <u>La</u>	arabee W	etland Delineation	Project Nu	mber: <u>:</u>	<u>20043</u>		
Survey Date: 6/2	<u>5-6/26/20</u>	<u>20</u>					
Evaluators: Matt	Spadoni,	Jacqueline McMil	<u>len</u>				
Stream ID: Water	rcourse 1	<u>0</u> Data Po	oint ID: WC5		(Previously:	WC10)	
Town: Click or to	ap here t	to enter text.	County: Mo	nmout	<u>n</u> State:	New Jerse	У
Latitude: <u>40.162</u>	<u>9444857</u>	Longitude: -74.14	<u>479998296</u>				
Stream ID: <u>UNT t</u>	to Mingan	nahone Brook					
Previous Weathe	er:	Snow $\square$	Heavy Rain		Rain □	None ⊠	☐ Unknown ☐
Adjacent Landco	ver: <u>uplar</u>	nd, flows into wetla	and				
Ecological Comm	nunities: 🤇	Click or tap here to	enter text.				
			Hydrologic	Chara	cteristics		
Perceptible Flow	?	Yes ⊠	No □				
Flow Regime:  R1-Tidal □  R3-Upper Perennial □  R5-Unknown Perennial □  R6-Ephemeral □							
Flow Direction: w	est to eas	<u>st</u>					
Surface Water Pr	resent:	Yes ⊠	No □				
Surface Water Do	epth at Th	nalweg: 1"					
Wetted (Stream)	Width: 1'						
		Ge	eomorpholog	gic Ch	aracteristics		
Gradient:	Gentle (	0-5 %) ⊠	Мо	oderate	e (6-11 %) □	Steep (>	•12 %) □
Substrate:	Silt/Clay	(<0.062 mm) ⊠	Sa	nd (0.0	062–2 mm) ⊠		Gravel (2-64 mm) ⊠
	Cobble (	(64-256 mm) 🗆	Во	ulder (	256-4096 mm)		Bedrock (>4096 mm) □
Bankful Width:	<u>1'</u>						
Bank Height:	0.25'						

Undercut Banks:	Yes□	No⊠	Description: Click or tap here to enter text.							
Overhanging Vegetation:	Yes⊠	No□	Description: Click or tap here to enter text.							
Deep Pools Present:	Yes□	No⊠	Description: Click or tap here to enter text.							
Coarse Woody Debris:	Yes□	No⊠	Description:							
Channel Alteration: to enter text.	Channe	lization □	Channel Armoring ☐ Impoundment ☐ Other: Click or tap here							
Is the stream a Drainage I	Ditch:	Yes □	No ⊠							
			Additional Notes							

<u>Trib to Mingamahone Brook, flows into wetland 2 before feeding in to Mingmahone. Low flow along bottom of slope from highway, slight channel development.</u>

Project Name: <u>La</u>	arabee W	etland Delineation	Project I	Number:	20043			
Survey Date: <u>6/2</u>	5-6/26/20	<u>20</u>						
Evaluators: Matt	Spadoni,	Jacqueline McMil	<u>len</u>					
Stream ID: <u>Wate</u>	rcourse 1	<u>6</u> Data Po	oint ID: <u>WC</u>	6	( Prev	iously: WC1	<u>6)</u>	
Town: Click or to	ap here t	to enter text.	County: N	<u>Monmou</u>	<u>th</u> Sta	te: <u>New Jers</u>	<u>sey</u>	
Latitude: <u>40.118</u>	6308557	Longitud	de: <u>-74.190</u>	<u>)572863</u>	<u>2</u>			
Stream ID: <u>Dicks</u>	<u>Brook</u>							
Previous Weathe	er:	Snow $\square$	Heavy Ra	ain 🗆	Rain □	None	$\boxtimes$	Unknown □
Adjacent Landco	ver: <u>wetla</u>	and and transmiss	ion line RC	<u>W</u>				
Ecological Comn	nunities: <a>©</a>	Click or tap here to	enter text	<u>:.</u>				
			Hydrolog	ic Char	acteristics			
Perceptible Flow	?	Yes ⊠	No □					
Flow Regime:	Flow Regime:  R1-Tidal □  R3-Upper Perennial □  R5-Unknown Perennial □  R6-Ephemeral □							
Flow Direction: w	vest to eas	<u>st</u>						
Surface Water P	resent:	Yes ⊠	No □					
Surface Water D	epth at Th	nalweg: 4"						
Wetted (Stream)	Width: 6'							
		Ge	eomorpho	logic Ch	naracteristics	3		
Gradient:	Gentle (	0-5 %) ⊠		Moderat	e (6-11 %) ⊏	] Steep	(>12 %) □	]
Substrate:	Silt/Clay	(<0.062 mm) ⊠		Sand (0.	.062–2 mm) [	$\boxtimes$	Gravel (	(2-64 mm) ⊠
	Cobble (	(64-256 mm) ⊠		Boulder	(256-4096 m	m) 🗆	Bedrock	(>4096 mm) □
Bankful Width:	<u>8'</u>							
Bank Height:	<u>2.5'</u>							

Undercut Banks:	Yes⊠	No□	Description: Click or tap here to enter text.		
Overhanging Vegetation:	Yes⊠	No□	Description: Click or tap here to enter text.		
Deep Pools Present:	Yes□	No⊠	Description: Click or tap here to enter text.		
Coarse Woody Debris:	Yes□	No⊠	Description:		
Channel Alteration: to enter text.	Channe	lization □	☐ Channel Armoring ☐ Impoundment ☐ Other: Click or tap here		
Is the stream a Drainage [	Ditch:	Yes □	No ⊠		
			Additional Notes		

Click or tap here to enter text..

20043 Atlantic Shores Stream Scoring Data Form 1	
Project	20043 - Atlantic Shores
ID	125587
Survey Date	12/10/2020
User	Heather Berry
Town/County/State	Sea Girt/Monmouth/New Jersey
Investigator(s)	HB SM
Stream Delineation ID	WC7 (Previously WC17)
Latitude, Longitude	40.12792995, -74.18451483
Latitude	40.12792995
Longitude	-74.18451483
Accuracy	7.44 m
Current Precipitation	Heavy Rain  X None Rain Snow
Precipitation in Past 48 Hours	Heavy Rain None Rain X Snow Unknown
General Characteristics	
NYSDEC Mapped Stream	X No No, but connects to mapped stream Yes
Drainage Ditch	X No Yes
Surface Water Depth at Thalweg (Inches)	10
Stream Gradient	X Gentle (0-5%)  Moderate (6-11%)  Steep (>12%)
Substrate	X Silt/Clay (No grit)

	X	Sand (Gritty feel)
		Gravel
		Cobble
		Boulder
		Bedrock
Range of Bankfull width for stream reach	15	
Geomorphology		
Continuity of channel bed and bank		Absent (0)
	X	Weak (1)
		Moderate (2)
		Strong (3)
Sinuosity of channel along thalweg		Absent (0)
	X	Weak (1)
		Moderate (2)
		Strong (3)
In Channel Structures	$\overline{\Box}$	
	X	Absent (0) Weak (1)
		Moderate (2)
	H	
Particle Size of Stream Substrate		Strong (3)
	H	Absent (0)
		Weak (1) Moderate (2)
	X	
Active/Polic Floodplain		Strong (3)
Active/Relic Floodplain		Absent (0)
		Weak (1)
	X	Moderate (2)
	$\perp$	Strong (3)
Depositional Bars or Benches	Щ	Absent (0)
	X	Weak (1)
	$\square$	Moderate (2)
	Ш	Strong (3)
Recent Alluvial Deposits	X	Absent (0)
		Weak (1)
		Moderate (2)
		Strong (3)

Are Headcuts present	X	Absent (0)
		Weak (1)
		Moderate (2)
		Strong (3)
Grade Control	X	Absent (0)
		Weak (0.5)
		Moderate (1)
		Strong (1.5)
Natural Valley	X	Absent (0)
		Weak (0.5)
		Moderate (1)
		Strong (1.5)
Second or Greater Order Channel	X	No (0)
		Yes (3)
Hydrology		
Presence of Baseflow		Absent (0)
	X	Weak (1)
		Moderate (2)
		Strong (3)
Iron Oxidizing Bacteria	X	Absent (0)
		Weak (1)
		Moderate (2)
		Strong (3)
Leaf Litter	X	Absent (1.5)
		Weak (1)
		Moderate (0.5)
		Strong (0)
Sediment on Plants or Debris		Absent (0)
		Weak (0.5)
	X	Moderate (1)
		Strong (1.5)
Organic Debris Lines or Piles		Absent (0)
		Weak (0.5)
	X	Moderate (1)
		Strong (1.5)

Soil-based evidence of high water table	No (0) X Yes (3)
Biology	
Fibrous Roots in Streambed	X Absent (3) Weak (2) Moderate (1) Strong (0)
Rooted Upland Plants in Streambed	X Absent (3) Weak (2) Moderate (1) Strong (0)
Aquatic Macroinvertebrates	Absent (0) Weak (1) Moderate (2) X Strong (3)
Aquatic Mollusks	Absent (0)  X Weak (1)  Moderate (2)  Strong (3)
Fish	Absent (0) Weak (0.5) X Moderate (1) Strong (1.5)
Crayfish	Absent (0) Weak (0.5) X Moderate (1) Strong (1.5)
Amphibians	Absent (0) Weak (0.5) X Moderate (1) Strong (1.5)
Algae	Absent (0) Weak (0.5)  X Moderate (1) Strong (1.5)

Wetland Plants in Streambed	X FACW (0.75) OBL (1.5) Other (0)
Stream Type Determination	
Total Score	30.25
Stream Determination	Ephemeral (<19)  Intermittent (≥19)  X Perennial (≥30)

Photo up and downstream





Notes wetland beyond stream feature.

# 20043 - Atlantic Shores Checklist

20043 Atlantic Shores Stream Scoring Data Form 1	
Project	20043 - Atlantic Shores
ID	128741
Survey Date	12/10/2020
User	Heather Berry
Town/County/State	Sea Girt/Monmouth/New Jersey
Investigator(s)	HB SM
Stream Delineation ID	WC 8 Previously WC18
Latitude, Longitude	
Latitude	40.125333
Longitude	-74.187329
Accuracy	m
Current Precipitation	Heavy Rain  X None Rain Snow
Precipitation in Past 48 Hours	Heavy Rain None X Rain Snow Unknown
General Characteristics	
NYSDEC Mapped Stream	No No, but connects to mapped stream Yes
Drainage Ditch	X No Yes
Surface Water Depth at Thalweg (Inches)	3
Stream Gradient	X Gentle (0-5%)  Moderate (6-11%)  Steep (>12%)
Substrate	X Silt/Clay (No grit)

	X	Sand (Gritty feel)
		Gravel
		Cobble
		Boulder
		Bedrock
Range of Bankfull width for stream reach	5	
Geomorphology		
Continuity of channel bed and bank		Absent (0)
	П	Weak (1)
	$\Box$	Moderate (2)
	X	Strong (3)
Sinuosity of channel along thalweg		
Sindosity of charmer drong thatweg		Absent (0)
		Weak (1)
	X	Moderate (2)
		Strong (3)
In Channel Structures		Absent (0)
	X	Weak (1)
		Moderate (2)
		Strong (3)
Particle Size of Stream Substrate		Absent (0)
	X	Weak (1)
		Moderate (2)
	$\Box$	Strong (3)
Active/Relic Floodplain		
•		Absent (0)
		Weak (1)
		Moderate (2)
Dan acitional Dans on Danshar	X	Strong (3)
Depositional Bars or Benches	Ш	Absent (0)
	X	Weak (1)
	Щ	Moderate (2)
		Strong (3)
Recent Alluvial Deposits		Absent (0)
	X	Weak (1)
		Moderate (2)
		Strong (3)

Are Headcuts present	X	Absent (0)
		Weak (1)
		Moderate (2)
		Strong (3)
Grade Control	X	Absent (0)
		Weak (0.5)
		Moderate (1)
		Strong (1.5)
Natural Valley		Absent (0)
	X	Weak (0.5)
		Moderate (1)
		Strong (1.5)
Second or Greater Order Channel	X	No (0)
		Yes (3)
Hydrology		
Presence of Baseflow		Absent (0)
	X	Weak (1)
		Moderate (2)
	$\overline{\Box}$	Strong (3)
Iron Oxidizing Bacteria	X	Absent (0)
		Weak (1)
		Moderate (2)
Leaf Litter		Strong (3)
Ecal Effect		Absent (1.5)
		Weak (1)
	X	Moderate (0.5)
Sediment on Plants or Debris		Strong (0)
Sediment on Plants or Debris	Щ	Absent (0)
	X	Weak (0.5)
		Moderate (1)
		Strong (1.5)
Organic Debris Lines or Piles		Absent (0)
	X	Weak (0.5)
		Moderate (1)
		Strong (1.5)

Biology         Absent (3)           Weak (2)         Wak (2)           Weak (2)         X Moderate (1)           Strong (0)         Strong (0)           Rooted Upland Plants in Streambed         Absent (3)           Weak (2)         Weak (2)           Weak (2)         Moderate (1)           X Strong (0)         Weak (1)           Moderate (2)         Strong (3)           Fish         X Absent (0)           Weak (1)         Moderate (2)           Strong (3)         Weak (0.5)           Moderate (1)         Strong (1.5)           Crayfish         X Absent (0)           Weak (0.5)         Moderate (1)           Strong (1.5)         Strong (1.5)           Amphibians         X Absent (0)           Weak (0.5)         Moderate (1)           Strong (1.5)         Strong (1.5)           Algae         X Absent (0)           Weak (0.5)         Moderate (1)           Moderate (1)         Strong (1.5)	Soil-based evidence of high water table	X	No (0) Yes (3)
Meak (2)   Weak (2)     Weak (2)     Weak (2)     Weak (2)     Weak (2)     Weak (2)     Weak (2)     Weak (2)     Weak (2)     Weak (2)     Weak (2)     Weak (2)     Weak (2)     Weak (2)     Weak (1)     Weak (0.5)     Weak (0.5)	Biology		
Weak (2	Fibrous Roots in Streambed	X	Weak (2) Moderate (1)
Weak (1)   Moderate (2)   Strong (3)	Rooted Upland Plants in Streambed	X	Weak (2) Moderate (1)
Weak (1)   Weak (2)   Strong (3)	Aquatic Macroinvertebrates	X	Weak (1) Moderate (2)
Crayfish       X       Absent (0)         Weak (0.5)       Moderate (1)         Strong (1.5)       Weak (0.5)         Moderate (1)       Strong (1.5)         Amphibians       X       Absent (0)         Weak (0.5)       Moderate (1)         Strong (1.5)       Strong (1.5)         Algae       X       Absent (0)         Weak (0.5)       Weak (0.5)         Moderate (1)       Weak (0.5)         Moderate (1)       Weak (0.5)         Moderate (1)       Weak (0.5)	Aquatic Mollusks	X	Weak (1) Moderate (2)
Weak (0.5)	Fish	X	Weak (0.5) Moderate (1)
Weak (0.5)  Weak (0.5)  Moderate (1)  Strong (1.5)  Algae  X Absent (0)  Weak (0.5)  Moderate (1)	Crayfish	X	Weak (0.5) Moderate (1)
Weak (0.5)  Moderate (1)	Amphibians	X	Weak (0.5) Moderate (1)
	Algae	X	Weak (0.5) Moderate (1)

Wetland Plants in Streambed	FACW (0.75) OBL (1.5) X Other (0)
Stream Type Determination	
Total Score	18
Stream Determination	Ephemeral (<19)  X Intermittent (≥19)  Pereppial (>30)

Photo up and downstream



# 20043 - Atlantic Shores Checklist

20043 Atlantic Shores Stream Scoring Data Form 1	
Project	20043 - Atlantic Shores
ID	125590
Survey Date	12/10/2020
User	Heather Berry
Town/County/State	Sea Girt/Monmouth/New Jersey
Investigator(s)	HB SM
Stream Delineation ID	WC9 (Previously WC19)
Latitude, Longitude	40.12389394, -74.18817077
Latitude	40.12389394
Longitude	-74.18817077
Accuracy	4.02 m
Current Precipitation	Heavy Rain  X None Rain Snow
Precipitation in Past 48 Hours	Heavy Rain None Rain X Snow Unknown
General Characteristics	
NYSDEC Mapped Stream	X No No, but connects to mapped stream Yes
Drainage Ditch	X No Yes
Surface Water Depth at Thalweg (Inches)	24
Stream Gradient	X Gentle (0-5%)  Moderate (6-11%)  Steep (>12%)
Substrate	X Silt/Clay (No grit)

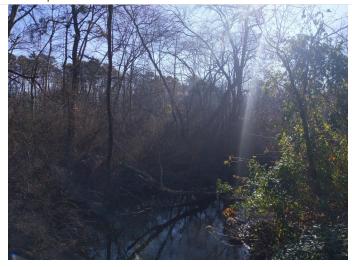
Gravel   Cobble   Boulder   Bedrock
Range of Bankfull width for stream reach  Geomorphology  Continuity of channel bed and bank  Moderate (2)  Strong (3)  Sinuosity of channel along thalweg  In Channel Structures  In Channel Structures  Particle Size of Stream Substrate  Range of Bankfull width for stream reach  40  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)
Range of Bankfull width for stream reach  Geomorphology  Continuity of channel bed and bank  Sinuosity of channel along thalweg  Moderate (2)  X Strong (3)  Sinuosity of channel along thalweg  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  In Channel Structures  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  In Channel Structures  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)
Range of Bankfull width for stream reach  Geomorphology  Continuity of channel bed and bank  Continuity of channel along thalweg  Sinuosity of channel along thalweg  In Channel Structures  In Channel Structures  Particle Size of Stream Substrate  Particle Size of Stream Substrate  Absent (0)  Weak (1)  Weak (1)
Geomorphology  Continuity of channel bed and bank  Continuity of channel bed and bank  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  Sinuosity of channel along thalweg  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  In Channel Structures  Absent (0)  Weak (1)  Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)
Continuity of channel bed and bank  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  Sinuosity of channel along thalweg  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  In Channel Structures  Absent (0)  Weak (1)  Weak (1)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)
Continuity of channel bed and bank  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  Sinuosity of channel along thalweg  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  In Channel Structures  Absent (0)  Weak (1)  Weak (1)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)
Moderate (2)  X Strong (3)  Sinuosity of channel along thalweg  Absent (0)  Weak (1)  Weak (1)  Moderate (2)  X Strong (3)  In Channel Structures  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)
Weak (1)  Moderate (2)  X Strong (3)  Sinuosity of channel along thalweg  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  In Channel Structures  Absent (0)  Weak (1)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)
Moderate (2)  X Strong (3)  Sinuosity of channel along thalweg  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  In Channel Structures  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)
Sinuosity of channel along thalweg  Sinuosity of channel along thalweg  Weak (1)  Moderate (2)  X Strong (3)  In Channel Structures  Absent (0)  Weak (1)  Weak (1)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  Weak (1)  Weak (1)  Moderate (2)  Moderate (2)
Sinuosity of channel along thalweg  Absent (0)  Weak (1)  Moderate (2)  X Strong (3)  In Channel Structures  Absent (0)  Weak (1)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)  Weak (1)  Moderate (2)
Weak (1) Weak (1) Moderate (2) X Strong (3)  In Channel Structures Absent (0) Weak (1) X Moderate (2) Strong (3)  Particle Size of Stream Substrate Absent (0) Weak (1) X Moderate (2) Weak (1) Weak (1) X Moderate (2)
Moderate (2)  X Strong (3)  In Channel Structures  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  Weak (1)  Moderate (2)
In Channel Structures  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  Moderate (2)  Weak (1)  Moderate (2)
In Channel Structures  Absent (0)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  Weak (1)  Weak (1)  X Moderate (2)
Absent (0)  Weak (1)  X Moderate (2)  Strong (3)  Particle Size of Stream Substrate  Absent (0)  Weak (1)  Weak (1)  Weak (1)  Weak (2)
Particle Size of Stream Substrate  Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)
Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)
Particle Size of Stream Substrate  Absent (0)  Weak (1)  X Moderate (2)
Weak (1)  X Moderate (2)
Weak (1)  X Moderate (2)
X Moderate (2)
Strong (3)
Active/Polic Floodplain
Absent (u)
Weak (1)
Moderate (2)  X Strong (3)
Depositional Bars or Benches  Absent (0)
Weak (1)
X Moderate (2)
Strong (3)
Recent Alluvial Deposits  X Absent (0)
Weak (1)
└── Moderate (2)
Moderate (2)  Strong (3)

Are Headcuts present	X	Absent (0)
		Weak (1)
		Moderate (2)
		Strong (3)
Grade Control		Absent (0)
	X	Weak (0.5)
		Moderate (1)
		Strong (1.5)
Natural Valley		Absent (0)
	X	Weak (0.5)
		Moderate (1)
		Strong (1.5)
Second or Greater Order Channel		No (0)
	X	Yes (3)
Hydrology		
Presence of Baseflow		Absent (0)
	$\overline{\Box}$	Weak (1)
		Moderate (2)
	X	Strong (3)
Iron Oxidizing Bacteria		Absent (0)
	X	Weak (1)
	П	Moderate (2)
		Strong (3)
Leaf Litter		
	X	Absent (1.5) Weak (1)
	Н	Moderate (0.5)
Sediment on Plants or Debris	X	Strong (0) Absent (0)
		Weak (0.5)
		Moderate (1)
Organic Debris Lines or Piles		Strong (1.5)
5.6ae 565115 Enres 61 1 1165		Absent (0)
		Weak (0.5)
		Moderate (1)
	X	Strong (1.5)

Soil-based evidence of high water table		No (0) Yes (3)
Biology		
Fibrous Roots in Streambed	X	Absent (3) Weak (2) Moderate (1) Strong (0)
Rooted Upland Plants in Streambed		Absent (3) Weak (2) Moderate (1) Strong (0)
Aquatic Macroinvertebrates	X	Absent (0) Weak (1) Moderate (2) Strong (3)
Aquatic Mollusks	X V	Absent (0) Weak (1) Moderate (2) Strong (3)
Fish	X N	Absent (0) Weak (0.5) Moderate (1) Strong (1.5)
Crayfish		Absent (0) Weak (0.5) Moderate (1) Strong (1.5)
Amphibians	X	Absent (0) Weak (0.5) Moderate (1) Strong (1.5)
Algae		Absent (0) Weak (0.5) Moderate (1) Strong (1.5)

Wetland Plants in Streambed	FACW (0.75)  X OBL (1.5)  Other (0)
Stream Type Determination	
Total Score	40.5
Stream Determination	Ephemeral (<19)  Intermittent (≥19)  X Pereppial (>30)

Photo up and downstream



# 20043 - Atlantic Shores Checklist

20043 Atlantic Shores Stream Scoring Data Form 1	
Project	20043 - Atlantic Shores
ID	125591
Survey Date	12/10/2020
User	Heather Berry
Town/County/State	Sea Girt/Monmouth/New Jersey
Investigator(s)	HB SM
Stream Delineation ID	WC10 (Previously: WC20)
Latitude, Longitude	40.11870505, -74.19284781
Latitude	40.11870505
Longitude	-74.19284781
Accuracy	6.46 m
Current Precipitation	Heavy Rain  X None  Rain  Snow
Precipitation in Past 48 Hours	Heavy Rain None Rain X Snow Unknown
General Characteristics	
NYSDEC Mapped Stream	X No No, but connects to mapped stream Yes
Drainage Ditch	X No Yes
Surface Water Depth at Thalweg (Inches)	12
Stream Gradient	X Gentle (0-5%)  Moderate (6-11%)  Steep (>12%)
Substrate	Silt/Clay (No grit)

Range of Bankfull width for stream reach	X Sand (Gritty feel) X Gravel Cobble Boulder Bedrock
Geomorphology	
Continuity of channel bed and bank	Absent (0) Weak (1) Moderate (2) X Strong (3)
Sinuosity of channel along thalweg	Absent (0) Weak (1) Moderate (2) X Strong (3)
In Channel Structures	Absent (0)  Weak (1)  X Moderate (2)  Strong (3)
Particle Size of Stream Substrate	Absent (0)  Weak (1)  X Moderate (2)  Strong (3)
Active/Relic Floodplain	Absent (0)  Weak (1)  X Moderate (2)  Strong (3)
Depositional Bars or Benches	Absent (0) Weak (1) X Moderate (2) Strong (3)
Recent Alluvial Deposits	Absent (0) Weak (1) X Moderate (2) Strong (3)

Are Headcuts present	X	Absent (0)
		Weak (1)
		Moderate (2)
		Strong (3)
Grade Control		
		Absent (0)
	X	Weak (0.5)
	$\square$	Moderate (1)
AV		Strong (1.5)
Natural Valley	Ш	Absent (0)
	X	Weak (0.5)
	Щ	Moderate (1)
		Strong (1.5)
Second or Greater Order Channel		No (0)
	X	Yes (3)
Hydrology		
Presence of Baseflow		Absent (0)
	П	Weak (1)
	П	Moderate (2)
	X	Strong (3)
Iron Oxidizing Bacteria		
non omailing bacteria	$\mathbb{H}$	Absent (0)
		Weak (1)
	X	Moderate (2)
		Strong (3)
Leaf Litter	Щ	Absent (1.5)
		Weak (1)
	X	Moderate (0.5)
		Strong (0)
Sediment on Plants or Debris		Absent (0)
		Weak (0.5)
	X	Moderate (1)
		Strong (1.5)
Organic Debris Lines or Piles		Absent (0)
		Weak (0.5)
		Moderate (1)
	X	Strong (1.5)

Soil-based evidence of high water table	No (0) X Yes (3)
Biology	
Fibrous Roots in Streambed	Absent (3)  X Weak (2)  Moderate (1)  Strong (0)
Rooted Upland Plants in Streambed	X Absent (3) Weak (2) Moderate (1) Strong (0)
Aquatic Macroinvertebrates	Absent (0) Weak (1) X Moderate (2) Strong (3)
Aquatic Mollusks	Absent (0) Weak (1) X Moderate (2) Strong (3)
Fish	Absent (0) Weak (0.5) X Moderate (1) Strong (1.5)
Crayfish	X Absent (0) Weak (0.5) Moderate (1) Strong (1.5)
Amphibians	Absent (0) Weak (0.5) X Moderate (1) Strong (1.5)
Algae	Absent (0) Weak (0.5)  X Moderate (1) Strong (1.5)

Wetland Plants in Streambed	X FACW (0.75)  OBL (1.5)  Other (0)
Stream Type Determination	
Total Score	42.75
Stream Determination	Ephemeral (<19)  Intermittent (≥19)  X Perennial (>30)

Photo up and downstream



20043 Atlantic Shores St	tream Scoring Data Form 1		
Project	20043 - Atlantic Shores		
ID	258365		
Survey Date	06/22/2022		
User	Heather Berry		
Town/County/State	Sea Girt/Monmouth/New Jersey		
Investigator(s)	HB AL		
Stream Delineation ID	37-S005		
Latitude, Longitude			
Latitude			
Longitude			
Accuracy	m		
Current Precipitation	None		
Precipitation in Past 48 Hours	None		
General Characteristics			
NYSDEC Mapped Stream			
Drainage Ditch	No		
Surface Water Depth at Thalweg (Inches)	80		
Stream Gradient	Gentle (0-5%)		
Substrate	Sand (Gritty feel)		
Range of Bankfull width for stream reach	80		
Geomorphology			
Continuity of channel bed and bank	Strong (3)		
Sinuosity of channel along thalweg	Strong (3)		
In Channel Structures	Strong (3)		
Particle Size of Stream Substrate	Moderate (2)		
Active/Relic Floodplain	Strong (3)		
Depositional Bars or Benches	Strong (3)		
Recent Alluvial Deposits	Moderate (2)		
Are Headcuts present	Absent (0)		
Grade Control	Absent (0)		
Natural Valley	Absent (0)		
Second or Greater Order Channel	Yes (3)		
Hydrology			
Hydrology Presence of Baseflow	Strong (3)		
	Strong (3) Absent (0)		

Leaf Litter	Absent (1.5)
Sediment on Plants or Debris	Moderate (1)
Organic Debris Lines or Piles	Moderate (1)
Soil-based evidence of high water table	Yes (3)
Biology	
Fibrous Roots in Streambed	Absent (3)
Rooted Upland Plants in Streambed	Absent (3)
Aquatic Macroinvertebrates	Strong (3)
Aquatic Mollusks	Strong (3)
Fish	Strong (1.5)
Crayfish	Absent (0)
Amphibians	Absent (0)
Algae	Absent (0)
Wetland Plants in Streambed	OBL (1.5)
Stream Type Determination	
Total Score	43.5
Stream Determination	Perennial (≥30)
Photos and Notes	
Photo up and downstream	None
Notes	

20043 Atlantic Shores St	tream Scoring Data Form 1		
Project	20043 - Atlantic Shores		
ID	258366		
Survey Date	06/22/2022		
User	Heather Berry		
Town/County/State	Sea Girt/Monmouth/New Jersey		
Investigator(s)	HB AL		
Stream Delineation ID	37-S006		
Latitude, Longitude			
Latitude			
Longitude			
Accuracy	m		
Current Precipitation	None		
Precipitation in Past 48 Hours	None		
General Characteristics			
NYSDEC Mapped Stream			
Drainage Ditch	No		
Surface Water Depth at Thalweg (Inches)	80		
Stream Gradient	Gentle (0-5%)		
Substrate	Sand (Gritty feel)		
Range of Bankfull width for stream reach	80		
Geomorphology			
Continuity of channel bed and bank	Strong (3)		
Sinuosity of channel along thalweg	Strong (3)		
In Channel Structures	Strong (3)		
Particle Size of Stream Substrate	Moderate (2)		
Active/Relic Floodplain	Strong (3)		
Depositional Bars or Benches	Strong (3)		
Recent Alluvial Deposits	Moderate (2)		
Are Headcuts present	Absent (0)		
Grade Control	Absent (0)		
Natural Valley	Absent (0)		
Second or Greater Order Channel	Yes (3)		
Charmer			
Hydrology Presence of Baseflow	Strong (3)		
Hydrology	Strong (3) Absent (0)		

Leaf Litter	Absent (1.5)
Sediment on Plants or Debris	Moderate (1)
Organic Debris Lines or Piles	Moderate (1)
Soil-based evidence of high water table	Yes (3)
Biology	
Fibrous Roots in Streambed	Absent (3)
Rooted Upland Plants in	Absent (3)

Fibrous Roots in Streambed	Absent (3)
Rooted Upland Plants in Streambed	Absent (3)
Aquatic Macroinvertebrates	Strong (3)
Aquatic Mollusks	Strong (3)
Fish	Strong (1.5)
Crayfish	Absent (0)
Amphibians	Absent (0)
Algae	Absent (0)
Wetland Plants in Streambed	OBL (1.5)

### Stream Type Determination

Total Score 43.5

Stream Determination Perennial (≥30)

### Photos and Notes

Photo up and downstream



Project	20043 - Atlantic Shores			
ID	258363			
Survey Date	06/22/2022			
User	Heather Berry			
Town/County/State	Sea Girt/Monmouth/New Jersey			
Investigator(s)	HB AL			
Stream Delineation ID	37-S007			
Latitude, Longitude				
Latitude				
Longitude				
Accuracy	m			
Current Precipitation	None			
Precipitation in Past 48 Hours	None			
General Characteristics				
NYSDEC Mapped Stream				
Drainage Ditch	No			
Surface Water Depth at Thalweg (Inches)	24			
Stream Gradient	Gentle (0-5%)			
Substrate	Sand (Gritty feel), Silt/Clay (No grit)			
Range of Bankfull width for stream reach	13			
Geomorphology				
Continuity of channel bed and bank	Strong (3)			
Sinuosity of channel along thalweg	Moderate (2)			
In Channel Structures	Strong (3)			
Particle Size of Stream Substrate	Moderate (2)			
Active/Relic Floodplain	Moderate (2)			
Depositional Bars or Benches	Moderate (2)			
Recent Alluvial Deposits	Absent (0)			
Are Headcuts present	Absent (0)			
Grade Control	Moderate (1)			
Natural Valley	Moderate (1)			
Second or Greater Order Channel	Yes (3)			

Hydrology	
Presence of Baseflow	Strong (3)
Iron Oxidizing Bacteria	Weak (1)
Leaf Litter	Absent (1.5)
Sediment on Plants or Debris	Weak (0.5)
Organic Debris Lines or Piles	Moderate (1)
Soil-based evidence of high water table	Yes (3)
Biology	
Fibrous Roots in Streambed	Absent (3)
Rooted Upland Plants in Streambed	Absent (3)
Aquatic Macroinvertebrates	Strong (3)
Aquatic Mollusks	Moderate (2)
Fish	Weak (0.5)
Crayfish	Absent (0)
Amphibians	Moderate (1)
Algae	Absent (0)
Wetland Plants in Streambed	FACW (0.75)
Stream Type Determination	
Total Score	42.25
Stream Determination	Perennial (≥30)
Photos and Notes	
Photo up and downstream	None
Notes	

20043 Atlantic Shores St	tream Scoring Data Form 1		
Project	20043 - Atlantic Shores		
ID	258370		
Survey Date	06/22/2022		
User	Heather Berry		
Town/County/State	Sea Girt/Monmouth/New Jersey		
Investigator(s)	HB AL		
Stream Delineation ID	37-S008		
Latitude, Longitude			
Latitude			
Longitude			
Accuracy	m		
Current Precipitation	None		
Precipitation in Past 48 Hours	None		
General Characteristics			
NYSDEC Mapped Stream			
Drainage Ditch	No		
Surface Water Depth at Thalweg (Inches)	36		
Stream Gradient	Gentle (0-5%)		
Substrate	Sand (Gritty feel)		
Range of Bankfull width for stream reach	100		
Geomorphology			
Continuity of channel bed and bank	Strong (3)		
Sinuosity of channel along thalweg	Moderate (2)		
In Channel Structures	Strong (3)		
Particle Size of Stream Substrate	Moderate (2)		
Active/Relic Floodplain	Moderate (2)		
Depositional Bars or Benches	Moderate (2)		
Recent Alluvial Deposits	Absent (0)		
Are Headcuts present	Absent (0)		
Grade Control	Absent (0)		
Natural Valley	Absent (0)		
Second or Greater Order Channel	Yes (3)		
Hydrology			
	Strong (2)		
Presence of Baseflow	Strong (3)		
Presence of Baseflow Iron Oxidizing Bacteria	Absent (0)		

Leaf Litter	Absent (1.5)
Sediment on Plants or Debris	Moderate (1)
Organic Debris Lines or Piles	Moderate (1)
Soil-based evidence of high water table	Yes (3)
Biology	
Fibrous Roots in Streambed	Absent (3)
Rooted Upland Plants in Streambed	Absent (3)
Aquatic Macroinvertebrates	Strong (3)
Aquatic Mollusks	Strong (3)
Fish	Strong (1.5)
Crayfish	Strong (1.5)
Amphibians	Absent (0)
Algae	Moderate (1)
Wetland Plants in Streambed	OBL (1.5)
Stream Type Determination	
Total Score	39.5
Stream Determination	Perennial (≥30)
Photos and Notes	
Photo up and downstream	None
Notes	

20043 Atlantic Shores St	tream Scoring Data Form 1
Project	20043 - Atlantic Shores
ID	258703
Survey Date	06/22/2022
User	Heather Berry
Town/County/State	Monmouth/New Jersey
Investigator(s)	HB AL
Stream Delineation ID	37-S009A
Latitude, Longitude	
Latitude	
Longitude	
Accuracy	m
Current Precipitation	Rain
Precipitation in Past 48 Hours	None
General Characteristics	
NYSDEC Mapped Stream	
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	100
Stream Gradient	Gentle (0-5%)
Substrate	Sand (Gritty feel), Silt/Clay (No grit)
Range of Bankfull width for stream reach	900
Geomorphology	
Continuity of channel bed and bank	Strong (3)
Sinuosity of channel along thalweg	Strong (3)
In Channel Structures	Strong (3)
Particle Size of Stream Substrate	Strong (3)
Substrate	Strong (3) Strong (3)
Substrate	
Substrate Active/Relic Floodplain Depositional Bars or	Strong (3)
Substrate Active/Relic Floodplain Depositional Bars or Benches Recent Alluvial Deposits	Strong (3) Strong (3)
Active/Relic Floodplain Depositional Bars or Benches Recent Alluvial Deposits Are Headcuts present	Strong (3) Strong (3) Moderate (2)
Active/Relic Floodplain Depositional Bars or Benches Recent Alluvial Deposits Are Headcuts present Grade Control	Strong (3) Strong (3)  Moderate (2) Absent (0)
Substrate Active/Relic Floodplain Depositional Bars or Benches Recent Alluvial Deposits Are Headcuts present Grade Control Natural Valley	Strong (3) Strong (3)  Moderate (2) Absent (0) Absent (0)
Substrate Active/Relic Floodplain Depositional Bars or Benches Recent Alluvial Deposits Are Headcuts present Grade Control Natural Valley Second or Greater Order	Strong (3) Strong (3)  Moderate (2) Absent (0) Absent (0)
Substrate Active/Relic Floodplain Depositional Bars or Benches Recent Alluvial Deposits Are Headcuts present Grade Control Natural Valley Second or Greater Order Channel	Strong (3) Strong (3)  Moderate (2) Absent (0) Absent (0)
Substrate Active/Relic Floodplain Depositional Bars or Benches Recent Alluvial Deposits Are Headcuts present Grade Control Natural Valley Second or Greater Order Channel  Hydrology	Strong (3) Strong (3)  Moderate (2) Absent (0) Absent (0) Yes (3)

Leaf Litter	Absent (1.5)
Sediment on Plants or Debris	Strong (1.5)
Organic Debris Lines or Piles	Strong (1.5)
Soil-based evidence of high water table	No (0)
Biology	
Fibrous Roots in Streambed	Absent (3)
Rooted Upland Plants in	Absent (3)

Fibrous Roots in Streambed	Absent (3)
Rooted Upland Plants in Streambed	Absent (3)
Aquatic Macroinvertebrates	Strong (3)
Aquatic Mollusks	Strong (3)
Fish	Strong (1.5)
Crayfish	Absent (0)
Amphibians	Weak (0.5)
Algae	Weak (0.5)
Wetland Plants in Streambed	OBL (1.5)

### Stream Type Determination

Total Score 50

Stream Determination Perennial (≥30)

### Photos and Notes

Photo up and downstream



20043 Atlantic Shores St	ream Scoring Data Form 1
Project	20043 - Atlantic Shores
ID	258707
Survey Date	06/22/2022
User	Heather Berry
Town/County/State	Monmouth/New Jersey
Investigator(s)	HB AL
Stream Delineation ID	37-S009B
Latitude, Longitude	
Latitude	
Longitude	
Accuracy	m
Current Precipitation	None
Precipitation in Past 48 Hours	Rain
General Characteristics	
NYSDEC Mapped Stream	Yes
NYSDEC mapped Classification	
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	60
Stream Gradient	Gentle (0-5%)
Substrate	Gravel, Sand (Gritty feel), Silt/Clay (No grit)
Range of Bankfull width for stream reach	50
Geomorphology	
Continuity of channel bed and bank	Strong (3)
Sinuosity of channel along thalweg	Strong (3)
In Channel Structures	Strong (3)
Particle Size of Stream Substrate	Strong (3)
Active/Relic Floodplain	Strong (3)
Depositional Bars or Benches	Strong (3)
Recent Alluvial Deposits	Absent (0)
Are Headcuts present	Absent (0)
Grade Control	Absent (0)
Natural Valley	Moderate (1)
Second or Greater Order Channel	Yes (3)
Hydrology	

Presence of Baseflow	Strong (3)
Iron Oxidizing Bacteria	Weak (1)
Leaf Litter	Absent (1.5)
Sediment on Plants or Debris	Strong (1.5)
Organic Debris Lines or Piles	Moderate (1)
Soil-based evidence of high water table	Yes (3)
Biology	

Biology	
Fibrous Roots in Streambed	Absent (3)
Rooted Upland Plants in Streambed	Absent (3)
Aquatic Macroinvertebrates	Strong (3)
Aquatic Mollusks	Strong (3)
Fish	Strong (1.5)
Crayfish	Strong (1.5)
Amphibians	Absent (0)
Algae	Moderate (1)
Wetland Plants in Streambed	OBL (1.5)

## Stream Type Determination

Total Score 50.5

Stream Determination Perennial (≥30)

### Photos and Notes

Photo up and downstream



Notes Manasquan River

20043 Atlantic Shores St	tream Scoring Data Form 1
Project	20043 - Atlantic Shores
ID	258372
Survey Date	07/12/2022
User	Heather Berry
Town/County/State	Sea Girt/Monmouth/New Jersey
Investigator(s)	HB MD
Stream Delineation ID	37-S009
Latitude, Longitude	
Latitude	
Longitude	
Accuracy	m
Current Precipitation	None
Precipitation in Past 48 Hours	None
General Characteristics	
NYSDEC Mapped Stream	
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	0
Stream Gradient	Gentle (0-5%)
Substrate	Sand (Gritty feel), Silt/Clay (No grit)
Range of Bankfull width for stream reach	15
Geomorphology	
Continuity of channel bed and bank	Moderate (2)
Sinuosity of channel along thalweg	Strong (3)
In Channel Structures	Absent (0)
Particle Size of Stream Substrate	Strong (3)
Active/Relic Floodplain	Moderate (2)
Depositional Bars or Benches	Moderate (2)
	Moderate (2)  Moderate (2)
Benches Recent Alluvial Deposits	
Benches Recent Alluvial Deposits Are Headcuts present	Moderate (2)
Benches Recent Alluvial Deposits Are Headcuts present Grade Control	Moderate (2) Absent (0)
Benches Recent Alluvial Deposits	Moderate (2) Absent (0) Absent (0)
Benches Recent Alluvial Deposits Are Headcuts present Grade Control Natural Valley Second or Greater Order Channel	Moderate (2) Absent (0) Absent (0) Absent (0)
Benches Recent Alluvial Deposits Are Headcuts present Grade Control Natural Valley Second or Greater Order	Moderate (2) Absent (0) Absent (0) Absent (0)
Benches Recent Alluvial Deposits Are Headcuts present Grade Control Natural Valley Second or Greater Order Channel Hydrology	Moderate (2) Absent (0) Absent (0) Absent (0) No (0)

Leaf Litter	Absent (1.5)
Sediment on Plants or Debris	Moderate (1)
Organic Debris Lines or Piles	Moderate (1)
Soil-based evidence of high water table	No (0)
Biology	
Fibrous Roots in Streambed	Absent (3)
Rooted Upland Plants in Streambed	Absent (3)
Aquatic Macroinvertebrates	Absent (0)
Aquatic Mollusks	Absent (0)
Fish	Absent (0)
Crayfish	Absent (0)
Amphibians	Moderate (1)
Algae	Absent (0)
Wetland Plants in Streambed	Other (0)
Stream Type Determination	
Total Score	24.5
Stream Determination	Intermittent (≥19)
Photos and Notes	
Photo up and downstream	None
Notes	

20043 Atlantic Shores St	ream Scoring Data Form 1
Project	20043 - Atlantic Shores
ID	258378
Survey Date	07/12/2022
User	Heather Berry
Town/County/State	Sea Girt/Monmouth/New Jersey
Investigator(s)	HB MD
Stream Delineation ID	37-S010
Latitude, Longitude	
Latitude	
Longitude	
Accuracy	m
Current Precipitation	None
Precipitation in Past 48 Hours	None
General Characteristics	
NYSDEC Mapped Stream	
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	12
Stream Gradient	Gentle (0-5%)
Substrate	Gravel, Sand (Gritty feel), Silt/Clay (No grit)
Range of Bankfull width for stream reach	6
Geomorphology	
Continuity of channel bed and bank	Strong (3)
Sinuosity of channel along thalweg	Moderate (2)
In Channel Structures	Strong (3)
Particle Size of Stream Substrate	Moderate (2)
Active/Relic Floodplain	Weak (1)
Depositional Bars or Benches	Moderate (2)
Recent Alluvial Deposits	Weak (1)
Are Headcuts present	Absent (0)
Grade Control	Weak (0.5)
Natural Valley	Absent (0)
Second or Greater Order Channel	No (0)
Hydrology	
Presence of Baseflow	Strong (3)
Iron Oxidizing Bacteria	Absent (0)

Leaf Litter	Absent (1.5)
Sediment on Plants or Debris	Moderate (1)
Organic Debris Lines or Piles	Moderate (1)
Soil-based evidence of high water table	Yes (3)
Biology	
Fibrous Roots in Streambed	Absent (3)
Rooted Upland Plants in Streambed	Absent (3)
Aquatic Macroinvertebrates	Moderate (2)
Aquatic Mollusks	Moderate (2)
Fish	Moderate (1)
Crayfish	Absent (0)
Amphibians	Weak (0.5)
Algae	Absent (0)
Wetland Plants in Streambed	FACW (0.75)
Stream Type Determination	
Total Score	36.25
Stream Determination	Perennial (≥30)
Photos and Notes	
Photo up and downstream	None
Notes	

20043 Atlantic Shores St	ream Scoring Data Form 1
Project	20043 - Atlantic Shores
ID	258384
Survey Date	07/12/2022
User	Heather Berry
Town/County/State	Sea Girt/Monmouth/New Jersey
Investigator(s)	HB MD
Stream Delineation ID	37-S011
Latitude, Longitude	
Latitude	
Longitude	
Accuracy	m
Current Precipitation	None
Precipitation in Past 48 Hours	None
General Characteristics	
NYSDEC Mapped Stream	
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	4
Stream Gradient	Gentle (0-5%)
Substrate	Cobble, Gravel, Sand (Gritty feel), Silt/Clay (No grit)
Range of Bankfull width for stream reach	4
Geomorphology	
Continuity of channel bed and bank	Strong (3)
Sinuosity of channel along thalweg	Moderate (2)
In Channel Structures	Moderate (2)
Particle Size of Stream Substrate	Strong (3)
Active/Relic Floodplain	Moderate (2)
Depositional Bars or Benches	Moderate (2)
Recent Alluvial Deposits	Weak (1)
Are Headcuts present	Absent (0)
Grade Control	Weak (0.5)
Natural Valley	Absent (0)
Second or Greater Order Channel	Yes (3)
Hydrology	
Presence of Baseflow	Strong (3)
Iron Oxidizing Bacteria	Absent (0)

Leaf Litter	Absent (1.5)
Sediment on Plants or Debris	Weak (0.5)
Organic Debris Lines or Piles	Moderate (1)
Soil-based evidence of high water table	Yes (3)
Biology	
Fibrous Roots in Streambed	Absent (3)
Rooted Upland Plants in Streambed	Absent (3)
Aquatic Macroinvertebrates	Weak (1)
Aquatic Mollusks	Weak (1)
Fish	Weak (0.5)
Crayfish	Absent (0)
Amphibians	Weak (0.5)
Algae	Absent (0)
Wetland Plants in Streambed	FACW (0.75)
Stream Type Determination	
Total Score	43.25
Stream Determination	Perennial (≥30)
Photos and Notes	
Photo up and downstream	None
Notes	

20073 Addititie 31101 c3 30	tream Scoring Data Form 1
Project	20043 - Atlantic Shores
ID	258394
Survey Date	07/12/2022
User	Heather Berry
Town/County/State	Sea Girt/Monmouth/New Jersey
nvestigator(s)	HB MD
Stream Delineation ID	37-S012
Latitude, Longitude	
Latitude	
Longitude	
Accuracy	m
Current Precipitation	None
Precipitation in Past 48 Hours	None
General Characteristics	
NYSDEC Mapped Stream	
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	24
Stream Gradient	Gentle (0-5%)
Substrate	Sand (Gritty feel), Silt/Clay (No grit)
Range of Bankfull width for stream reach	4
Geomorphology	
Continuity of channel bed and bank	Strong (3)
Sinuosity of channel along thalweg	Moderate (2)
In Channel Structures	Moderate (2)
Particle Size of Stream Substrate	Moderate (2)
Active/Relic Floodplain	Moderate (2)
Depositional Bars or Benches	Weak (1)
Recent Alluvial Deposits	Absent (0)
Are Headcuts present	Absent (0)
Grade Control	Absent (0)
Natural Valley	Absent (0)
Second or Greater Order Channel	No (0)
Hydrology	
r ly ar ology	
	Weak (1)
Presence of Baseflow Iron Oxidizing Bacteria	Weak (1) Absent (0)

Leaf Litter	Absent (1.5)
	, ,
Sediment on Plants or Debris	Weak (0.5)
Organic Debris Lines or Piles	Weak (0.5)
Soil-based evidence of high water table	No (0)
Biology	
Fibrous Roots in Streambed	Absent (3)
Rooted Upland Plants in Streambed	Absent (3)
Aquatic Macroinvertebrates	Moderate (2)
Aquatic Mollusks	Absent (0)
Fish	Absent (0)
Crayfish	Absent (0)
Amphibians	Absent (0)
Algae	Strong (1.5)
Wetland Plants in Streambed	FACW (0.75)
Stream Type Determination	
Total Score	33
Stream Determination	Perennial (≥30)
Photos and Notes	
Photo up and downstream	None
Notes	

Project	20043 - Atlantic Shores
ID	258398
Survey Date	07/12/2022
User	Heather Berry
Town/County/State	Sea Girt/Monmouth/New Jersey
Investigator(s)	HB MD
Stream Delineation ID	37-S013
Latitude, Longitude	
Latitude	
Longitude	
Accuracy	m
Current Precipitation	None
Precipitation in Past 48 Hours	None
General Characteristics	
NYSDEC Mapped Stream	
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	24
Stream Gradient	Gentle (0-5%)
Substrate	Sand (Gritty feel), Silt/Clay (No grit)
Range of Bankfull width for stream reach	4
Geomorphology	
Continuity of channel bed and bank	
Sinuosity of channel along thalweg	
In Channel Structures	
Particle Size of Stream Substrate	
Active/Relic Floodplain	
Depositional Bars or Benches	
Recent Alluvial Deposits	
Are Headcuts present	
Grade Control	
Natural Valley	
Second or Greater Order Channel	
Hydrology	

Leaf Litter

Sediment on Plants or

Debris

Organic Debris Lines or Piles

Soil-based evidence of high

water table

Biology

Fibrous Roots in Streambed

Rooted Upland Plants in

Streambed

Aquatic Macroinvertebrates

**Aquatic Mollusks** 

Fish

Crayfish

**Amphibians** 

Algae

Wetland Plants in

Streambed

Stream Type Determination

**Total Score** 

Stream Determination Perennial (≥30)

**Photos and Notes** 

Photo up and downstream None

Notes Stream not accessible therefore not surveyed.

COP South Stream Scori	ing Form 1
Project	20043 Atlantic Shores COP South
ID	317003
Survey Date	02/16/2023
User	Andrew Leonardi
Stream ID:	26-ST005
Administrative 1	
Investigator(s)	ALTC
Latitude, Longitude	
Latitude	40.11850767
Longitude	-74.19572567
Current Precipitation	None
Precipitation in Past 48 Hours	None
Town/County/State	Absecon, Atlantic County, NJ
General Characteristics 1	
NYSDEC Mapped Stream	No
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	6
Stream Gradient	Gentle (0-5%)
Substrate	Gravel, Sand (Gritty feel), Silt/Clay (No grit)
OHWM width for stream reach (feet)	6-12
Geomorphology	
Continuity of channel bed and bank	3-Strong
Sinuosity of channel along thalweg	2-Moderate
In Channel Structures	1-Weak
Particle Size of Stream Substrate	3-Strong
Active/Relic Floodplain	2-Moderate
Depositional Bars or Benches	3-Strong
Recent Alluvial Deposits	3-Strong
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley	0.5-Weak
Second or Greater Order Channel	0-No
Subtotal =	17.5
Hydrology	
Presence of Baseflow	3-Strong

Iron Oxidizing Bacteria	0-Absent
Leaf Litter	1-Weak
Sediment on Plants or Debris	0-Absent
Organic Debris Lines or Piles	0-Absent
Soil-based evidence of high water table	3-Yes
Subtotal =	7
Fibrous Roots in Streambed	3-Absent
Rooted Upland Plants in Streambed	3-Absent
Aquatic Macroinvertebrates	0-Absent
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	0-Absent
Wetland Plants in Streambed	0-Other
Subtotal =	6
Total Score	30.5
Stream Determination	Perennial (≥30)

COP South Stream Scoring Form 1	
Project	20043 Atlantic Shores COP South
ID	317004
Survey Date	02/16/2023
User	Andrew Leonardi
Stream ID:	26-ST006
Administrative 1	
Investigator(s)	ALTC
Latitude, Longitude	
Latitude	40.115496
Longitude	-74.175991
Current Precipitation	None
Precipitation in Past 48 Hours	None
Town/County/State	Absecon, Atlantic County, NJ
Company Champatanistics 1	

NYSDEC Mapped Stream	No
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	10
Stream Gradient	Gentle (0-5%)
Substrate	Gravel, Sand (Gritty feel), Silt/Clay (No grit)
OHWM width for stream reach (feet)	15-25
Geomorphology	
Continuity of channel bed and bank	3-Strong
Sinuosity of channel along thalweg	0-Absent
In Channel Structures	1-Weak
Particle Size of Stream Substrate	3-Strong
Active/Relic Floodplain	1-Weak
Depositional Bars or Benches	3-Strong
Recent Alluvial Deposits	3-Strong
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley	0.5-Weak
Second or Greater Order Channel	0-No
Subtotal =	14.5
Hydrology	
Presence of Baseflow	3-Strong
Iron Oxidizing Bacteria	1-Weak
Leaf Litter	1.5-Absent
Sediment on Plants or Debris	0-Absent
Organic Debris Lines or Piles	1-Moderate
Soil-based evidence of high water table	3-Yes
Subtotal =	9.5
Biology	
Fibrous Roots in Streambed	3-Absent
Rooted Upland Plants in Streambed	3-Absent
Aquatic Macroinvertebrates	0-Absent
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent

Algae	0.5-Weak
Wetland Plants in Streambed	0-Other
Subtotal =	6.5
Total Score	30.5
Stream Determination	Perennial (≥30)

COP South Stream Scori	ng Form 1
Project	20043 Atlantic Shores COP South
ID	317256
Survey Date	02/16/2023
User	Andrew Leonardi
Stream ID:	26-ST007
Administrative 1	
Investigator(s)	AL
Latitude, Longitude	
Latitude	40.11840367
Longitude	-74.16799
Current Precipitation	None
Precipitation in Past 48 Hours	None
Town/County/State	Absecon, Atlantic County, NJ
General Characteristics 1	
NYSDEC Mapped Stream	No
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	6
Stream Gradient	Gentle (0-5%)
Substrate	Gravel, Sand (Gritty feel), Silt/Clay (No grit)
OHWM width for stream reach (feet)	4-12
Geomorphology	
Continuity of channel bed and bank	3-Strong
Sinuosity of channel along thalweg	1-Weak
In Channel Structures	3-Strong
Particle Size of Stream Substrate	3-Strong
Active/Relic Floodplain	0-Absent

Depositional Bars or Benches	2-Moderate
Recent Alluvial Deposits	0-Absent
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley	0.5-Weak
Second or Greater Order Channel	0-No
Subtotal =	12.5
Presence of Baseflow	3-Strong
Iron Oxidizing Bacteria	3-Strong
Leaf Litter	1-Weak
Sediment on Plants or Debris	0-Absent
Organic Debris Lines or Piles	0-Absent
Soil-based evidence of high water table	3-Yes
Subtotal =	10
Fibrous Roots in Streambed	3-Absent
	3-Absent
Rooted Upland Plants in Streambed	
Aquatic Macroinvertebrates	1-Weak
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	1-Moderate
Wetland Plants in Streambed	0-Other
Subtotal =	8
Total Score	30.5
Stream Determination	Perennial (≥30)

COP South Stream Scoring Form 1	
Project	20043 Atlantic Shores COP South
ID	317251
Survey Date	02/16/2023
User	Andrew Leonardi

Stream ID:	26-ST013
Administrative 1	
Investigator(s)	ALTC
Latitude, Longitude	
Latitude	40.11819683
Longitude	-74.16796
Current Precipitation	None
Precipitation in Past 48 Hours	None
Town/County/State	Absecon, Atlantic County, NJ
General Characteristics 1	
NYSDEC Mapped Stream	No
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	0
Stream Gradient	Moderate (6-11%)
Substrate	Sand (Gritty feel), Silt/Clay (No grit)
OHWM width for stream reach (feet)	2-4
Geomorphology	
Continuity of channel bed and bank	2-Moderate
Sinuosity of channel along thalweg	0-Absent
In Channel Structures	1-Weak
Particle Size of Stream Substrate	1-Weak
Active/Relic Floodplain	0-Absent
Depositional Bars or Benches	0-Absent
Recent Alluvial Deposits	0-Absent
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley	0-Absent
Second or Greater Order Channel	0-No
Subtotal =	4
Hydrology	
Presence of Baseflow	0-Absent
Iron Oxidizing Bacteria	0-Absent
Leaf Litter	0-Strong
Sediment on Plants or Debris	0-Absent
Organic Debris Lines or Piles	0-Absent

Soil-based evidence of high water table	0-No
Subtotal =	0
Fibrous Roots in Streambed	1-Moderate
Rooted Upland Plants in Streambed	1-Moderate
Aquatic Macroinvertebrates	0-Absent
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	0.5-Weak
Wetland Plants in Streambed	0-Other
Subtotal =	2.5
Total Score	6.5
Stream Determination	Ephemeral (<19)

COP South Stream Sco	ring Form 1
Project	20043 Atlantic Shores COP South
ID	317262
Survey Date	02/16/2023
User	Andrew Leonardi
Stream ID:	26-ST08
Administrative 1	
Investigator(s)	ALTC
Latitude, Longitude	
Latitude	40.12809967
Longitude	-74.135174
Current Precipitation	None
Precipitation in Past 48 Hours	None
Town/County/State	Absecon, Atlantic County, NJ
General Characteristics 1	
NYSDEC Mapped Stream	No
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	0
Stream Gradient	Gentle (0-5%)

Substrate	Cobble, Gravel, Sand (Gritty feel)
OHWM width for stream reach (feet)	2-6
Geomorphology	
Continuity of channel bed and bank	3-Strong
Sinuosity of channel along thalweg	0-Absent
In Channel Structures	0-Absent
Particle Size of Stream Substrate	2-Moderate
Active/Relic Floodplain	1-Weak
Depositional Bars or Benches	0-Absent
Recent Alluvial Deposits	2-Moderate
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley	1-Moderate
Second or Greater Order Channel	0-No
Subtotal =	9
Hydrology	
Presence of Baseflow	0-Absent
Iron Oxidizing Bacteria	0-Absent
Leaf Litter	0-Strong
Sediment on Plants or Debris	0-Absent
Organic Debris Lines or Piles	0-Absent
Soil-based evidence of high water table	3-Yes
Subtotal =	3
Biology	
Fibrous Roots in Streambed	3-Absent
Rooted Upland Plants in Streambed	3-Absent
Aquatic Macroinvertebrates	1-Weak
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	0-Absent
Wetland Plants in Streambed	0-Other
Subtotal =	7

COP South Stream Scor	ing Form 1		
Project	20043 Atlantic Shores COP South		
ID	317267		
Survey Date	02/21/2023		
User	Andrew Leonardi		
Stream ID:	26-ST04		
Administrative 1			
Investigator(s)	ALTCSM		
Latitude, Longitude			
Latitude	40.142521		
Longitude	-74.120226		
Current Precipitation	None		
Precipitation in Past 48 Hours	None		
Town/County/State	Absecon, Atlantic County, NJ		
General Characteristics 1			
NYSDEC Mapped Stream	No		
Drainage Ditch	No		
Surface Water Depth at Thalweg (Inches)	6		
Stream Gradient	Gentle (0-5%)		
Substrate	Gravel, Sand (Gritty feel), Silt/Clay (No grit)		
OHWM width for stream reach (feet)	1-4		
Geomorphology			
Continuity of channel bed and bank	3-Strong		
Sinuosity of channel along thalweg	2-Moderate		
In Channel Structures	2-Moderate		
Particle Size of Stream Substrate	3-Strong		
Active/Relic Floodplain	1-Weak		
Depositional Bars or Benches	0-Absent		
Recent Alluvial Deposits	0-Absent		
Are Headcuts present	0-Absent		

Grade Control	0.5-Weak
Natural Valley	1.5-Strong
Second or Greater Order Channel	0-No
Subtotal =	13
Presence of Baseflow	3-Strong
Iron Oxidizing Bacteria	2-Moderate
Leaf Litter	1-Weak
Sediment on Plants or Debris	0.5-Weak
Organic Debris Lines or Piles	0-Absent
Soil-based evidence of high water table	3-Yes
Subtotal =	9.5
Fibrous Roots in Streambed	3-Absent
Rooted Upland Plants in Streambed	3-Absent
Aquatic Macroinvertebrates	1-Weak
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	0-Absent
Wetland Plants in Streambed	0.75-FACW
Subtotal =	7.75
Total Score	30.25
Stream Determination	Perennial (≥30)

COP South Stream Scoring Form 1		
Project	20043 Atlantic Shores COP South	
ID	317265	
Survey Date	02/21/2023	
User	Andrew Leonardi	
Stream ID:	26-ST09	
Administrative 1		
Investigator(s)	TCAL	
Latitude, Longitude		

Latitude	40.12772433
Longitude	-74.05554183
Current Precipitation	None
Precipitation in Past 48 Hours	Rain
Town/County/State	Absecon, Atlantic County, NJ
General Characteristics 1	
NYSDEC Mapped Stream	No
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	0
Stream Gradient	Gentle (0-5%)
Substrate	Gravel, Sand (Gritty feel)
OHWM width for stream reach (feet)	2-10
Geomorphology	
Continuity of channel bed and bank	1-Weak
Sinuosity of channel along thalweg	0-Absent
In Channel Structures	0-Absent
Particle Size of Stream Substrate	1-Weak
Active/Relic Floodplain	0-Absent
Depositional Bars or Benches	0-Absent
Recent Alluvial Deposits	0-Absent
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley	0.5-Weak
Second or Greater Order Channel	0-No
Subtotal =	2.5
Hydrology	
Presence of Baseflow	0-Absent
Iron Oxidizing Bacteria	0-Absent
Leaf Litter	0-Strong
Sediment on Plants or Debris	0-Absent
Organic Debris Lines or Piles	0-Absent
Soil-based evidence of high water table	0-No
Subtotal =	0
Biology	

Fibrous Roots in Streambed	0-Strong
Rooted Upland Plants in Streambed	2-Weak
Aquatic Macroinvertebrates	0-Absent
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	0-Absent
Wetland Plants in Streambed	0-Other
Subtotal =	2
Total Score	4.5
Stream Determination	Ephemeral (<19)

COP South Stream Scor	ring Form 1		
Project	20043 Atlantic Shores COP South		
ID	317287		
Survey Date	02/22/2023		
User	Andrew Leonardi		
Stream ID:	26-ST014		
Administrative 1			
Investigator(s)	TCAL		
Latitude, Longitude			
Latitude	40.119071		
Longitude	-74.165685		
Current Precipitation	None		
Precipitation in Past 48 Hours	Rain		
Town/County/State	Absecon, Atlantic County, NJ		
General Characteristics 1			
NYSDEC Mapped Stream	No		
Drainage Ditch	No		
Surface Water Depth at Thalweg (Inches)	6		
Stream Gradient	Gentle (0-5%)		
Substrate	Bedrock, Cobble, Gravel, Sand (Gritty feel)		
OHWM width for stream reach (feet)	2-15		

# Geomorphology

Continuity of channel bed and bank	3-Strong
Sinuosity of channel along thalweg	1-Weak
In Channel Structures	3-Strong
Particle Size of Stream Substrate	3-Strong
Active/Relic Floodplain	3-Strong
Depositional Bars or Benches	1-Weak
Recent Alluvial Deposits	0-Absent
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley	0.5-Weak
Second or Greater Order Channel	0-No
Subtotal =	14.5
Hydrology	
Presence of Baseflow	3-Strong
Iron Oxidizing Bacteria	3-Strong
Leaf Litter	1.5-Absent
Sediment on Plants or Debris	0-Absent
Organic Debris Lines or Piles	0.5-Weak
Soil-based evidence of high water table	3-Yes
Subtotal =	11
Biology	
Fibrous Roots in Streambed	3-Absent
Rooted Upland Plants in Streambed	3-Absent
Aquatic Macroinvertebrates	0-Absent
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	0-Absent
Wetland Plants in Streambed	0-Other
Subtotal =	6
Stream Type Determination	
Total Score	31.5
Stream Determination	Perennial (≥30)
Notes	

COP South Stream Scori	ng rom r
Project	20043 Atlantic Shores COP South
ID	320764
Survey Date	03/08/2023
User	Andrew Leonardi
Stream ID:	26-ST011
Administrative 1	
Investigator(s)	TCAL
Latitude, Longitude	
Latitude	40.17119083
Longitude	-74.08315483
Current Precipitation	None
Precipitation in Past 48 Hours	Snow
Town/County/State	Wall Township, Monmouth County, NJ
General Characteristics 1	
NYSDEC Mapped Stream	No
Drainage Ditch	Yes
Surface Water Depth at Thalweg (Inches)	0
Stream Gradient	Moderate (6-11%)
Substrate	Gravel, Sand (Gritty feel), Silt/Clay (No grit)
DHWM width for stream reach (feet)	2-4
Geomorphology	
Continuity of channel bed and bank	1-Weak
Sinuosity of channel along chalweg	1-Weak
n Channel Structures	0-Absent
Particle Size of Stream Substrate	1-Weak
Active/Relic Floodplain	2-Moderate
Depositional Bars or Benches	3-Strong
Recent Alluvial Deposits	3-Strong
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley	0.5-Weak
Second or Greater Order	0-No

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Subtotal =	11.5

Hydrology	
Presence of Baseflow	0-Absent
Iron Oxidizing Bacteria	1-Weak
Leaf Litter	0-Strong
Sediment on Plants or Debris	0-Absent
Organic Debris Lines or Piles	1.5-Strong
Soil-based evidence of high water table	0-No
Subtotal =	2.5

Subtotal =	2.5
Biology	
Fibrous Roots in Streambed	3-Absent
Rooted Upland Plants in Streambed	2-Weak
Aquatic Macroinvertebrates	0-Absent
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	0-Absent
Wetland Plants in Streambed	0-Other
Subtotal =	5

Stream Type Determination	
Total Score	

Stream Determination Intermittent (≥19)

19

#### Notes

COP South Stream Scoring Form 1	
Project	20043 Atlantic Shores COP South
ID	320796
Survey Date	03/08/2023
User	Andrew Leonardi
Stream ID:	26-ST012
Administrative 1	
Investigator(s)	ALTC
Latitude, Longitude	
Latitude	40.171269
Longitude	-74.08238667

Current Precipitation	None
Precipitation in Past 48	Snow
Hours Town/County/State	Wall Township, Monmouth County, NJ
·	waii Township, Moninouth County, Nj
General Characteristics 1	
NYSDEC Mapped Stream	No
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	1
Stream Gradient	Gentle (0-5%)
Substrate	Gravel, Sand (Gritty feel), Silt/Clay (No grit)
OHWM width for stream reach (feet)	1-6
Geomorphology	
Continuity of channel bed and bank	3-Strong
Sinuosity of channel along thalweg	0-Absent
In Channel Structures	2-Moderate
Particle Size of Stream Substrate	3-Strong
Active/Relic Floodplain	3-Strong
Depositional Bars or Benches	1-Weak
Recent Alluvial Deposits	1-Weak
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley	0-Absent
Second or Greater Order Channel	0-No
Subtotal =	13
Hydrology	
Presence of Baseflow	2-Moderate
Iron Oxidizing Bacteria	2-Moderate
Leaf Litter	0.5-Moderate
Sediment on Plants or Debris	0-Absent
Organic Debris Lines or Piles	1-Moderate
Soil-based evidence of high water table	0-No
Subtotal =	5.5
Biology	
Fibrous Roots in Streambed	3-Absent
Rooted Upland Plants in Streambed	3-Absent

Aquatic Macroinvertebrates	0-Absent
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	0.5-Weak
Wetland Plants in Streambed	0-Other
Subtotal =	6.5
Total Score	25
Stream Determination	Intermittent (≥19)

COP South Stream Scor	ing Form 1
Project	20043 Atlantic Shores COP South
ID	320889
Survey Date	03/08/2023
User	Andrew Leonardi
Stream ID:	26-ST015
Administrative 1	
Investigator(s)	TCAL
Latitude, Longitude	
Latitude	40.18899983
Longitude	-74.07074383
Current Precipitation	None
Precipitation in Past 48 Hours	Snow
Town/County/State	Wall Township, Monmouth County, NJ
General Characteristics 1	
NYSDEC Mapped Stream	No
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	5
Stream Gradient	Gentle (0-5%)
Substrate	Sand (Gritty feel), Silt/Clay (No grit)
OHWM width for stream reach (feet)	4-10
Geomorphology	
Continuity of channel bed and bank	3-Strong
Sinuosity of channel along	0-Absent

thalweg	
In Channel Structures	0-Absent
Particle Size of Stream Substrate	1-Weak
Active/Relic Floodplain	3-Strong
Depositional Bars or Benches	0-Absent
Recent Alluvial Deposits	2-Moderate
Are Headcuts present	2 Moderate
Grade Control	0.5-Weak
Natural Valley	0.5-Weak
Second or Greater Order Channel	0-No
Subtotal =	10
Hydrology	2 Chung
Presence of Baseflow	3-Strong
Iron Oxidizing Bacteria	2-Moderate
Leaf Litter	1.5-Absent
Sediment on Plants or Debris	0.5-Weak
Organic Debris Lines or Piles	0-Absent
Soil-based evidence of high water table	3-Yes
Subtotal =	10
Biology	
Fibrous Roots in Streambed	3-Absent
Rooted Upland Plants in Streambed	3-Absent
Aquatic Macroinvertebrates	0-Absent
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	0-Absent
Wetland Plants in Streambed	0-Other
Subtotal =	6
Stream Type Determination	
Total Score	26
Stream Determination	Intermittent (≥19)
Notes	
Notes	
140003	

COP South Stream Scor	ing Form 1
Project	20043 Atlantic Shores COP South
ID	320718
Survey Date	03/08/2023
User	Andrew Leonardi
Stream ID:	26-ST016
Administrative 1	
Investigator(s)	TCAL
Latitude, Longitude	
Latitude	40.15724133
Longitude	-74.099373
Current Precipitation	None
Precipitation in Past 48 Hours	Snow
Town/County/State	Allenwood, Monmouth County, NJ
General Characteristics 1	
NYSDEC Mapped Stream	No
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	4
Stream Gradient	Gentle (0-5%)
Substrate	Gravel, Sand (Gritty feel), Silt/Clay (No grit)
OHWM width for stream reach (feet)	4-8
Geomorphology	
Continuity of channel bed and bank	3-Strong
Sinuosity of channel along thalweg	0-Absent
In Channel Structures	1-Weak
Particle Size of Stream Substrate	2-Moderate
Active/Relic Floodplain	0-Absent
Depositional Bars or Benches	3-Strong
Recent Alluvial Deposits	3-Strong
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley	1.5-Strong
Second or Greater Order Channel	0-No
Subtotal =	13.5
Hydrology	
Presence of Baseflow	3-Strong

Iron Oxidizing Bacteria	1-Weak
Leaf Litter	1-Weak
Sediment on Plants or Debris	0-Absent
Organic Debris Lines or Piles	0-Absent
Soil-based evidence of high water table	0-No
Subtotal =	5
Biology	
Fibrous Roots in Streambed	3-Absent
	3-Absent
Rooted Upland Plants in Streambed	3-ADSENT
Aquatic Macroinvertebrates	0-Absent
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	0-Absent
Wetland Plants in Streambed	0-Other
Subtotal =	6
Stream Type Determination	
Total Score	24.5
Stream Determination	Intermittent (≥19)
Notes	

COP South	Stream	Scoring	Form 1
Project		20	0043 Atla

Project	20043 Atlantic Shores COP South
ID	320720
Survey Date	03/08/2023
User	Andrew Leonardi
Stream ID:	26-ST017
Administrative 1	
Investigator(s)	TCAL
Latitude, Longitude	
Latitude	40.15536917
Longitude	-74.098421
Current Precipitation	None
Precipitation in Past 48 Hours	Snow
Town/County/State	Wall Township, Monmouth County, NJ

AN/CDECAM LC	
NYSDEC Mapped Stream	No
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	4
Stream Gradient	Gentle (0-5%)
Substrate	Silt/Clay (No grit)
OHWM width for stream reach (feet)	2
Geomorphology	
Continuity of channel bed and bank	2-Moderate
Sinuosity of channel along thalweg	3-Strong
In Channel Structures	1-Weak
Particle Size of Stream Substrate	1-Weak
Active/Relic Floodplain	3-Strong
Depositional Bars or Benches	2-Moderate
Recent Alluvial Deposits	2-Moderate
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley	0.5-Weak
Second or Greater Order Channel	0-No
Subtotal =	14.5
Hydrology	
Presence of Baseflow	3-Strong
Iron Oxidizing Bacteria	0-Absent
Leaf Litter	0.5-Moderate
Sediment on Plants or Debris	1-Moderate
Organic Debris Lines or Piles	0-Absent
Soil-based evidence of high water table	3-Yes
Subtotal =	7.5
Biology	
Fibrous Roots in Streambed	3-Absent
Rooted Upland Plants in Streambed	3-Absent
Aquatic Macroinvertebrates	0-Absent
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
A 1 11 1	O Abront
Amphibians	0-Absent

Algae	1.5-Strong
Wetland Plants in Streambed	0-Other
Subtotal =	7.5
Total Score	29.5
Stream Determination	Intermittent (≥19)

COP South Stream Scori	ng Form 1
Project	20043 Atlantic Shores COP South
ID	320809
Survey Date	03/08/2023
User	Andrew Leonardi
Stream ID:	26-ST019
Administrative 1	
Investigator(s)	TCAL
Latitude, Longitude	
Latitude	40.17132233
Longitude	-74.08093867
Current Precipitation	None
Precipitation in Past 48 Hours	Snow
Town/County/State	Wall township, Monmouth County, NJ
General Characteristics 1	
NYSDEC Mapped Stream	No
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	1
Stream Gradient	Gentle (0-5%)
Substrate	Gravel, Sand (Gritty feel), Silt/Clay (No grit)
OHWM width for stream reach (feet)	1-10
Geomorphology	
Continuity of channel bed and bank	3-Strong
Sinuosity of channel along thalweg	1-Weak
In Channel Structures	0-Absent
Particle Size of Stream Substrate	1-Weak
Active/Relic Floodplain	0-Absent

Depositional Bars or Benches	1-Weak
Recent Alluvial Deposits	1-Weak
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley	1.5-Strong
Second or Greater Order Channel	0-No
Subtotal =	8.5
Hydrology	
Presence of Baseflow	0-Absent
Iron Oxidizing Bacteria	0-Absent
Leaf Litter	0-Strong
Sediment on Plants or Debris	0-Absent
Organic Debris Lines or Piles	1.5-Strong
Soil-based evidence of high water table	0-No
Subtotal =	1.5
Biology	
Fibrous Roots in Streambed	2-Weak
Rooted Upland Plants in Streambed	3-Absent
Aquatic Macroinvertebrates	0-Absent
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	0-Absent
Wetland Plants in Streambed	0-Other
Subtotal =	5
Stream Type Determination	
Total Score	15
Stream Determination	Ephemeral (<19)
Notes	
Notes	

COP South Wetland Delineation Form v5.1			
Project	20043 Atlantic Shores COP South		
ID	322188		
Survey Date	03/08/2023		
User	Andrew Leonardi		

COD Courth Character Cook	: F 1
COP South Stream Scor	
Project	20043 Atlantic Shores COP South
ID	320846
Survey Date	03/08/2023
User	Andrew Leonardi
Stream ID:	26-ST018
Administrative 1	
Investigator(s)	TCAL
Latitude, Longitude	
Latitude	40.17135417
Longitude	-74.08030417
Current Precipitation	None
Precipitation in Past 48 Hours	Snow
Town/County/State	Wall Township, Monmouth County, NJ
General Characteristics 1	
NYSDEC Mapped Stream	No
Drainage Ditch	No
Surface Water Depth at Thalweg (Inches)	6
Stream Gradient	Gentle (0-5%)
Substrate	Gravel, Sand (Gritty feel), Silt/Clay (No grit)
OHWM width for stream reach (feet)	20+
Geomorphology	
Continuity of channel bed and bank	3-Strong
Sinuosity of channel along thalweg	0-Absent
In Channel Structures	2-Moderate
Particle Size of Stream Substrate	3-Strong
Active/Relic Floodplain	0-Absent
Depositional Bars or Benches	3-Strong
Recent Alluvial Deposits	3-Strong
Are Headcuts present	0-Absent
Grade Control	0.5-Weak
Natural Valley	0.5-Weak
Second or Greater Order	0-No

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Channel	
Subtotal =	15
Hydrology	
Presence of Baseflow	3-Strong
Iron Oxidizing Bacteria	1-Weak
Leaf Litter	1-Weak
Sediment on Plants or Debris	1-Moderate
Organic Debris Lines or Piles	1.5-Strong
Soil-based evidence of high water table	0-No
Subtotal =	7.5
Biology	
Fibrous Roots in Streambed	3-Absent
Rooted Upland Plants in Streambed	3-Absent
Aquatic Macroinvertebrates	0-Absent
Aquatic Mollusks	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians	0-Absent
Algae	1.5-Strong
Wetland Plants in Streambed	0-Other
Subtotal =	7.5
Stream Type Determination	
Total Score	30
Stream Determination	Perennial (≥30)
Notes	

Field Inv	vestigators: <u>Matt Spadoni,</u>	Jacqueline McMille	<u>en</u>	Date: <u>6/25/2020</u>	
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>					
Applicar	nt/Owner: Atlantic Shores	Offshore Wind			
Plant Co	ommunity#/Name: Wetland	d 1 - 1U (Upland Po	oint)		
	a more detailed site descr a convex hillslope with >	•	provide detail he	re: <u>Steep hill between bike p</u>	oath and wetland
Do norm	nal environmental conditio	ns exist at the plan	t community?		
Yes ⊠	No □	(If no, explain)			
Has the	vegetation, soils, and/or h	nydrology been sigr	nificantly disturbed	?	
Yes□	No⊠	(If yes, explain)			
		V	EGETATION		
	Dominant Plant Species		Percent Cover	Indicator Status	Stratum
1. 2. 3. 4. 5. 6. 7.	Cherry (Prunus serotina) Tree of Heaven (Ailanthu Black Locust (Robinia ps Bamboo (Bambusoideae Grape Vine (Vitis sp.) Pokeweed (Phytolacca a Multiflora Rose (Rosa mu Green Briar (Smilax rotur	s altissima) eudoacacia) sp.) mericana)	30% 70% 20% 30% 20% 15% 5% 60%	FACU FACU UPL NA NA FACU FACU FACU	Tree Tree Sapling/Shrub Woody Vine Herbaceous Herbaceous Woody Vine
Percent	of Dominant Species that	are OBL, FACW, a	and/or FAC: <u>0.14%</u>	<u>′o</u>	
Is the hy	drophytic vegetation crite	rion met? Yes □	No ⊠		
Rational	e:				
			SOILS		
Series/P	Phase: <u>Entisols</u> Subgro	oup: Psamments			
Is the so	oil on the hydric soils list?	Yes □	No ⊠	Undetermined	
Is the soil a Histosol? Yes $\square$ No $\boxtimes$ Histic epidedon present? Yes $\square$ No $\boxtimes$					

Is the soil:	Mottled?	Yes □	No ⊠	Gleyed'	? Yes □	No ⊠
Matrix Color: 0-3	Matrix Color: <u>0-3 10YR 3/1 (Sandy fill)</u> Mottle Colors: <u>N/A</u>					
Other hydric soil	indicators: I	<u>\/A</u>				
Is the hydric soil	criterion me	et? Yes □	N	o 🗵		
Rationale:						
			HYD	ROLOGY		
Is the ground sur	face inunda	ıted? Yes □	N	o 🗵	Surface water de	epth: <u>N/A</u>
Is the soil saturat	ted? Y	es □	No ⊠			
Depth to free-sta	nding water	in pit/soil probe	hole: N/A			
List of other field	evidence o	f surface inunda	tion or soil s	saturation: <u>N/A</u>		
Is the wetland hy	drology crit	erion met?	Yes □	No ⊠		
Rationale:						

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/20/2020					
Project/Site: Larabee Wetland Delineation State: NJ County: Monmouth County					
Applicant/Owner: Atlantic Shores Offs	hore Wind				
Plant Community#/Name: <u>WL 1 – 1W</u>					
Note: if a more detailed site description	n is necessary, provide o	detail here: Previo	us: Wetland 1 – 1	W (Wetland Point)	
Do normal environmental conditions ex	xist at the plant commur	nity?			
Yes ⊠ No □ (If	no, explain)				
Has the vegetation, soils, and/or hydro	ology been significantly o	listurbed?			
Yes□ No⊠ (If	yes, explain)				
	VEGETAT	ION			
Dominant Plant Species	Perc	cent Cover	Indicator Status	Stratum	
<ol> <li>Willow sp. (Salix sp.)</li> <li>PA Smartweed (Polygonum partweed)</li> <li>Soft Rush (Juncus effusus)</li> <li>Reed Canary Grass (Phalaris Blunt Broom Sedge (Carex transported)</li> </ol>	s arundinacea)	35% 65% 10% 10% 10%	NA FACW OBL OBL FACW	Tree Herbaceous Herbaceous Herbaceous Herbaceous	
Percent of Dominant Species that are	OBL, FACW, and/or FA	C: <u>100%</u>			
Is the hydrophytic vegetation criterion met? Yes $\ oxdot$ No $\ oxdot$					
Rationale:					
	SOILS				
Series/Phase: <u>Ultisols</u> Su	ubgroup: <u>Udultus</u>				
Is the soil on the hydric soils list? Ye	es □ No ⊠	Undeter	mined $\square$		
Is the soil a Histosol? Yes $\ \square$	No ⊠	Histic epidedon p	resent? Yes	No ⊠	
Is the soil: Mottled? Yes $\boxtimes$	No □	Gleyed? Yes	□ No ⊠		
Matrix Color: <u>0-1" 10yr 2/1, 1-8" 10yr 4/1 (80%), clayey loam</u> Mottle Colors: <u>1-8" 10yr 5/8 (20%)</u>					
Other hydric soil indicators: Low chron	na soils and mottled soil	<u>s</u>			

Is the hydric soil criterion met? Yes $\ oxdot$ No $\ oxdot$
Rationale: <u>Hydric mineral soils that are saturated for substantial periods of the growing season, but are unsaturated for some time, commonly develop mottles. Soils that have brightly colored mottles and a low chroma matrix are indicative of a fluctuating water table.</u>
HYDROLOGY
Is the ground surface inundated? Yes $\square$ No $\boxtimes$ Surface water depth: $\underline{\text{N/A}}$
Is the soil saturated? Yes $\boxtimes$ No $\square$
Depth to free-standing water in pit/soil probe hole: N/A
List of other field evidence of surface inundation or soil saturation: <u>water stained leaves</u> , <u>saturated soils</u> , <u>geomorphic position</u>
Is the wetland hydrology criterion met? Yes $\ oxdot$ No $\ \Box$
Rationale:

Field investigators: <u>Matt Spadoni, Jacqueline McMillen</u> Date: <u>6/25/2020</u>				
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>				
Applicant/Owner: Atlantic Shores Offshore Wind				
Plant Community#/Name: WL2 – 1U				
Note: if a more detailed site description is necessary, provide Previous: Wetland 4 – 1U (Upland Point)	detail here: Upland	l between pond an	d bike path	
Do normal environmental conditions exist at the plant commu	nity?			
Yes $oxtimes$ No $oxtimes$ (If no, explain)				
Has the vegetation, soils, and/or hydrology been significantly	disturbed?			
Yes⊠ No□ (If yes, explain) <u>Semi-ma</u>	ntained area			
VEGETAT	TON			
Dominant Plant Species	Percent Cover	Indicator Status	Stratum	
1. Tree of Heaven (Ailanthus altissima)	<u>50%</u>	FACU	<u>Tree</u>	
2. Mowed Grass	90%	NA	<u>Herbaceous</u>	
3. Mugwort (Artemisia vulgaris)	50%	UPL	Herbaceous	
4. White Clover (Trifolium repens)	30%	FACU	Herbaceous	
5. Narroleaf Plantain (Plantago lanceolate) 15% FACU Herbaceous				
6. Common Plantain (Plantago major)	10%	FAC	Herbaceous	
7. Common Reed (Phragmites australis) 1% FACW Herbaceous				
Percent of Dominant Species that are OBL, FACW, and/or FAC: 0%  Is the hydrophytic vegetation criterion met? Yes □ No ⊠  Rationale:				
SOILS				
Series/Phase: <u>Ultisols</u> Subgroup: <u>Udults</u>				
Is the soil on the hydric soils list? Yes $\square$ No $\boxtimes$ Undetermined $\square$				
Is the soil a Histosol? Yes $\square$ No $\boxtimes$ Histic epipedon present? Yes $\square$ No $\boxtimes$				
Is the soil: Mottled? Yes $\square$ No $\boxtimes$ Gleyed? Yes $\square$ No $\boxtimes$				

Matrix Color: <u>0-8" 10YR 4/4</u>						
Mottle Colors: N/A						
Other hydric soil indicators: N/A						
Is the hydric soil criterion met? Yes $\ \Box$	No ⊠					
Rationale:						
	HYDROLOGY					
Is the ground surface inundated? Yes $\ \Box$	No ⊠	Surface water depth: N/A				
Is the soil saturated? Yes $\square$ No $\boxtimes$						
Depth to free-standing water in pit/soil probe hole: N/A						
List of other field evidence of surface inundation or soil saturation: <u>N/A</u>						
Is the wetland hydrology criterion met?	Yes □ No ▷					
Rationale:						

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/25/2020					
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>					
Applica	nt/Owner: <u>Atlantic Shores O</u>	ffshore Wind			
Plant Co	ommunity#/Name: <u>WL2</u>				
	a more detailed site descripts: Wetland 3 – 1W (wetland	• •	detail here: PFO		
Do norn	nal environmental conditions	exist at the plant commu	nity?		
Yes ⊠	No □	(If no, explain)			
Has the	vegetation, soils, and/or hyd	drology been significantly	disturbed?		
Yes□	No⊠	(If yes, explain)			
		VEGETA <sup>-</sup>	TION		
	Dominant Plant Species		Percent Cover	Indicator Status	Stratum
1.	Red Maple (Acer rubrum)		80%	FAC	Tree
2.	Pepperbush (Clethra alnifo	lia)	60%	FACW	Sapling/Shrub
3.	Sweetgum (liquidambar sty		20%	FAC	Sapling/Shrub
4.	Skunk Cabbge (Symplocar		60%	OBL	Herbaceous
5.	Cinnamon Fern (Osmunda		30%	FACW	Herbaceous
6. Jack in the Pulpet (Arisaema triphyllum)		10%	FACW	Herbaceous	
7.	Jewelweed (Impatiens cap	ensis)	10%	FACW	Herbaceous
Percent of Dominant Species that are OBL, FACW, and/or FAC: 100%  Is the hydrophytic vegetation criterion met? Yes ⊠ No □  Rationale:					
		SOILS	<u> </u>		
Series/Phase: Fallsington loams/Ultisols Subgroup: Aquults					
Is the soil on the hydric soils list? Yes $oximes$ No $oximes$ Undetermined $oximes$					
Is the soil a Histosol? Yes $\boxtimes$ No $\square$ Histic epipedon present? Yes $\square$ No $\boxtimes$					
Is the soil: Mottled? Yes □ No ⊠ Gleyed? Yes □ No ⊠					

Matrix Color: 0-18" 10yr 2/1 mucky						
Mottle Colors: N/A						
Other hydric soil indicators: N/A						
Is the hydric soil criterion met?	Yes ⊠	No □				
Rationale:						
	HYDROLOGY					
Is the ground surface inundated?	Yes ⊠	No □	Surface water depth: 1"			
Is the soil saturated? Yes $oximes$ No $oximes$						
Depth to free-standing water in pit/soil probe hole: N/A						
List of other field evidence of surface inundation or soil saturation: N/A						
Is the wetland hydrology criterion m	et? Yes ⊠	No □				
Rationale:						

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/25/2020					
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>					
Applicar	nt/Owner: <u>Atlantic Shores C</u>	Offshore Wind			
Plant Co	ommunity#/Name: <u>WL3 – 1</u>	<u>W</u>			
Note: if a more detailed site description is necessary, provide detail here: Open water wetland with very thin emergent fringe Previous: Wetland 4 – 1W					
Do norm	nal environmental condition	s exist at the plant commun	ity?		
Yes ⊠	No □	(If no, explain)			
Has the	vegetation, soils, and/or hy	drology been significantly c	listurbed?		
Yes□	No⊠	(If yes, explain)			
		VEGETAT	ION		
	Dominant Plant Species		Percent Cover	Indicator Status	Stratum
1.	Common Reed (Phragmit	es australis)	5%	FACW	Herbaceous
2.	Yellow Pond Lilly (Nuphar		60%	OBL	Herbaceous
3.	Soft Rush (Juncus effuses		20%	OBL	Herbaceous
4.	Lurid Sedge (Carex Iurida	·	20%	OBL	Herbaceous
			FACU	Herbaceous	
6. Virginia Creeper (Parthenocissus quinquefolia) 1% FACU Herbaceous					
Percent of Dominant Species that are OBL, FACW, and/or FAC: $\underline{100\%}$ Is the hydrophytic vegetation criterion met? Yes $\boxtimes$ No $\square$ Rationale:					
SOILS					
Series/Phase: Water Subgroup: Water					
Is the soil on the hydric soils list? Yes $\square$ No $\square$ Undetermined $\boxtimes$					
Is the soil a Histosol? Yes $\square$ No $\boxtimes$ Histic epipedon present? Yes $\square$ No $\boxtimes$					
Is the soil: Mottled? Yes $\square$ No $\boxtimes$ Gleyed? Yes $\square$ No $\boxtimes$					

Matrix Color: Soils were not accessible – wetland is a pond				
Mottle Colors: N/A				
Other hydric soil indicators: N/A				
Is the hydric soil criterion met? Yes $\ oxdot$ No $\ \Box$				
Rationale: Wetland area is an open water pond, soils were not accessible				
HYDROLOGY				
Is the ground surface inundated? Yes $\boxtimes$ No $\square$ Surface water depth: $\underline{5"+}$				
Is the soil saturated? Yes $\square$ No $\square$				
Depth to free-standing water in pit/soil probe hole: N/A				
List of other field evidence of surface inundation or soil saturation: N/A				
Is the wetland hydrology criterion met? Yes $\ oxdot$ No $\ oxdot$				
Rationale:				

Field Investigators: Matt Spadoni, Jacqueline McMillen	Date: <u>6/2</u>	<u>25/2020</u>		
Project/Site: <u>Larrabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>				
Applicant/Owner: Atlantic Shores Offshore Wind				
Plant Community#/Name: <u>UL4</u>				
Note: if a more detailed site description is necessary, provide of	detail here: <u>hillslope</u>	<u>9</u>		
Do normal environmental conditions exist at the plant commur	nity?			
Yes ⊠ No □ (If no, explain)				
Has the vegetation, soils, and/or hydrology been significantly of	disturbed?			
Yes□ No⊠ (If yes, explain)				
VEGETAT	ION			
Dominant Plant Species	Percent Cover	Indicator Status	Stratum	
Fireweed (Chamerion angustifolium)	30%	NA	<u>Herbaceous</u>	
2. Goldenrod (Solidago canadensis)	50%	<u>FACU</u>	Herbaceous	
<ol> <li>Honeysuckle Vine (Lonicera japonica)</li> </ol>	20%	<u>FACU</u>	<u>Herbaceous</u>	
4. <u>Mugwort (Artemisia vulgaris)</u>	30	<u>UPL</u>	<u>Herbaceous</u>	
Percent of Dominant Species that are OBL, FACW, and/or FAC: $\underline{0\%}$ Is the hydrophytic vegetation criterion met? Yes $\square$ No $\boxtimes$ Rationale:				
SOILS				
Series/Phase: <u>Ultisols</u> Subgroup: <u>Udults</u>				
Is the soil on the hydric soils list? Yes $\ oxin{tabular}{ll} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	Undeterr	mined $\square$		
Is the soil a Histosol? Yes $\square$ No $\boxtimes$	Histic epipedon p	resent? Yes $\square$	No ⊠	
Is the soil: Mottled? Yes $\square$ No $\boxtimes$	Gleyed? Yes □	□ No ⊠		
Matrix Color: 0-3" 10yr 3/1 sand				
Mottle Colors: N/A				

Other hydric soil indicators: N/A				
Is the hydric soil criterion met? Yes $\square$ No $\boxtimes$				
Rationale:				
HYDROLOGY				
Is the ground surface inundated? Yes $\square$ No $\boxtimes$ Surface water depth: $\underline{\text{N/A}}$				
Is the soil saturated? Yes $\square$ No $\boxtimes$				
Depth to free-standing water in pit/soil probe hole: <u>N/A</u>				
List of other field evidence of surface inundation or soil saturation: <u>N/A</u>				
Is the wetland hydrology criterion met? Yes $\square$ No $\boxtimes$				
Rationale:				

Field Inv	Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/25/2020				
Project/	Project/Site: <u>Larrabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>				
Applicar	nt/Owner: Atlantic Shores Offshore Wind				
Plant Co	ommunity#/Name: <u>WL4</u>				
Note: if	a more detailed site description is necessary, provide	e detail here: PFO			
Do norn	nal environmental conditions exist at the plant commu	unity?			
Yes ⊠	No ☐ (If no, explain)				
Has the	vegetation, soils, and/or hydrology been significantly	disturbed?			
Yes□	No⊠ (If yes, explain)				
	VEGETA	TION			
	Dominant Plant Species	Percent Cover	Indicator Status	Stratum	
1.	Red Maple (Acer rubrum)	80%	FAC	Tree	
2.	Pepperbush (Clethra alnifolia)	60%	FACW	Sapling/Shrub	
3.	Sweetgum (liquidambar styraciflua)	20%	FAC	Sapling/Shrub	
4.	Skunk Cabbge (Symplocarpus foetidus)	60%	OBL	Herbaceous	
5.	Cinnamon Fern (Osmunda cinnamomea)	30%	FACW	Herbaceous	
6.	Jack in the Pulpet (Arisaema triphyllum)	10%	FACW	Herbaceous	
7.	Jewelweed (Impatiens capensis)	10%	FACW	Herbaceous	
	of Dominant Species that are OBL, FACW, and/or FA				
	ydrophytic vegetation criterion met? Yes ⊠	No □			
Rationa					
rationa					
	SOIL	S			
Series/F	Phase: Fallsington loams/Ultisols Subgroup: Aqui	<u>ults</u>			
Is the so	Is the soil on the hydric soils list? Yes $oximes$ No $oximes$ Undetermined $oximes$				
Is the so	Is the soil a Histosol? Yes $oxtimes$ No $oxtimes$ Histic epipedon present? Yes $oxtimes$ No $oxtimes$				
Is the so	s the soil: Mottled? Yes $\square$ No $\boxtimes$ Gleyed? Yes $\square$ No $\boxtimes$				

Matrix Color: 0-18" 10yr 2/1 mucky				
Mottle Colors: N/A				
Other hydric soil indicators: N/A				
Is the hydric soil criterion met?	Yes ⊠	No □		
Rationale:				
	Н	YDROLOGY		
Is the ground surface inundated?	Yes ⊠	No □	Surface water depth: 1"	
Is the soil saturated? Yes $\ oxtimes$	No □			
Depth to free-standing water in pit/soil probe hole: N/A				
List of other field evidence of surface inundation or soil saturation: N/A				
Is the wetland hydrology criterion m	et? Yes ⊠	No □		
Rationale:				

#### **Routine Onsite Determination Form**

Field Investigators: HB, SMB Date: 12/07/2020 Project/Site: Atlantic Shores State: NJ County: Monmouth Applicant/Owner: Atlantic Shores, LLC Plant Community#/Name: UL5 Note: if a more detailed site description is necessary, provide detail here: Upland area on the side of a county highway Do normal environmental conditions exist at the plant community? Yes ⊠ No  $\square$ (If no, explain) Click or tap here to enter text. Has the vegetation, soils, and/or hydrology been significantly disturbed? Yes□ No⊠ (If yes, explain) Click or tap here to enter text. **VEGETATION** 

	Dominant Plant Species	s F	Percent Cover	Indicator Status	Stratur
1	. Kentucky Bluegrass (Po	oa pratensis)	80	FACU	Herbaceous
2	. Red Fescue (Festuca ru	ubra)	20	FACU	Herbaceous
3	. Species Name	% Cover_	STATUS	_Stratum	
4	. Species Name	% Cover_	STATUS	_Stratum	
5	. Species Name	% Cover_	STATUS	_Stratum	
6	. Species Name	% Cover_	STATUS	_Stratum	
7	. <u>Species Name</u>	% Cover	STATUS	Stratum	
8	. <u>Species Name</u>	% Cover	STATUS	Stratum	
9	. <u>Species Name</u>	% Cover	STATUS	Stratum	
1	0. <u>Species Name</u>	% Cover	STATUS	Stratum	
1	1. <u>Species Name</u>	% Cover	STATUS	Stratum	
1	2. <u>Species Name</u>	% Cover	STATUS	Stratum	
1	3. <u>Species Name</u>	% Cover	STATUS	Stratum	
1	4. Species Name	% Cover	STATUS	Stratum	
1	5. <u>Species Name</u>	% Cover	STATUS	Stratum	

Is the hydrophytic vegetation criterion met? Yes  $\ \square$  No  $\ \boxtimes$ 

Rationale: All species present are FACU.

## SOILS

Series/Phase: AtsAO: Atsion sand, 0 to 2 percent slopes	Subgroup: Atsion				
Is the soil on the hydric soils list? Yes $\boxtimes$ No $\Box$	Undetermined				
Is the soil a Histosol? Yes $\square$ No $\boxtimes$	Histic epidedon present? Yes $\ \square$ No $\ \boxtimes$				
Is the soil: Mottled? Yes $\square$ No $\boxtimes$	Gleyed? Yes $\square$ No $\boxtimes$				
Matrix Color: 0-18" 10YR 3/3, loam					
Mottle Colors: None					
Other hydric soil indicators: None					
Is the hydric soil criterion met? Yes $\hfill\square$ No $\hfill \boxtimes$					
Rationale: This is a characteristic upland soil without a	Rationale: This is a characteristic upland soil without any colors or hydric indicators.				
HYDROLO	OGY				
Is the ground surface inundated? Yes $\hfill\Box$ No $\hfill \boxtimes$	Surface water depth: None				
Is the soil saturated? Yes $\square$ No $\boxtimes$					
Depth to free-standing water in pit/soil probe hole: None					
List of other field evidence of surface inundation or soil saturation: None					
Is the wetland hydrology criterion met? Yes $\square$ No $\boxtimes$					
Rationale: No primary or secondary wetland hydrology indicators exist.					

#### **Routine Onsite Determination Form**

Field Investigators: HB, SMB Date: 12/07/2020 Project/Site: Atlantic Shores State: NJ County: Monmouth Applicant/Owner: Atlantic Shores, LLC Plant Community#/Name: WL5 Note: if a more detailed site description is necessary, provide detail here: Depressional area associated with stormwater runoff. PEM wetland. Do normal environmental conditions exist at the plant community? Yes ⊠ No  $\square$ (If no, explain) Click or tap here to enter text. Has the vegetation, soils, and/or hydrology been significantly disturbed? Yes□ No⊠ (If yes, explain) Click or tap here to enter text. **VEGETATION Dominant Plant Species** Percent Cover **Indicator Status** Stratum 40 1. Common Reed (Phragmites australis) **FACW** Herbaceous 2. Marsh Fern (Thelypteris palustris) 25 **FACW** Herbaceous 3. Skunk Cabbage (Symplocarpus foetidus) 20 OBL Herbaceous 4. Allegheny Blackberry (Rubus allegheniensis) FACU Herbaceous 5 5. White Goldenrod (Solidago bicolor) FAC Herbaceous 6. Species Name\_ % Cover STATUS\_ Stratum 7. Species Name % Cover STATUS Stratum 8. Species Name % Cover Stratum STATUS % Cover 9. Species Name STATUS Stratum % Cover 10. Species Name Stratum STATUS 11. Species Name % Cover STATUS Stratum 12. Species Name % Cover STATUS Stratum 13. Species Name % Cover STATUS Stratum % Cover 14. Species Name STATUS Stratum % Cover 15. Species Name STATUS Stratum Percent of Dominant Species that are OBL, FACW, and/or FAC: 100% Is the hydrophytic vegetation criterion met? Yes ⊠ No □ Rationale: All species present are FAC, FACW, or OBL.

## SOILS

Series/Phase: FapA:	Fallsington loams,	0 to 2 percent slo	pes Sul	bgroup: Fallsin	gton	
Is the soil on the hydr	ric soils list? Yes	⊠ No □	Un	determined	]	
Is the soil a Histosol?	Yes □	No ⊠	Histic epide	don present?	Yes □ No ⊠	
Is the soil: Mo	ttled? Yes □	No ⊠	Gleyed? Y	′es □	No ⊠	
Matrix Color: 0-2" 10	YR 2/2, loam; 2-18"	2.5Y 4/2, sand with	cobbles			
Mottle Colors: None						
Other hydric soil indic	ators: Problematic sa	andy soils				
Is the hydric soil crite	rion met? Yes	⊠ No □				
Rationale: Both cold	ors and texture qua	alify this soil to be	hydric.	_		
		HYDROLO	OGY			
Is the ground surface	inundated? Yes	⊠ No □	Su	rface water dep	oth: 4 inches	
Is the soil saturated?	Yes ⊠	No □				
Depth to free-standing	g water in pit/soil prol	e hole: 4 inches				
List of other field evidence of surface inundation or soil saturation: Algal mat or crust, inundation visible on aerial imagery, water-stained leaves, drainage patterns, dry-season water table, geomorphic position, FAC neutral test.						
Is the wetland hydrolo	ogy criterion met?	Yes ⊠	No □			
Rationale: Six primary and four secondary indicators of hydrology were observed at this location.						

#### **Routine Onsite Determination Form**

Field Investigators: HB, SMB Date: 12/07/2020 Project/Site: Atlantic Shores State: NJ County: Monmouth Applicant/Owner: Atlantic Shores, LLC Plant Community#/Name: UL6 Note: if a more detailed site description is necessary, provide detail here: Upland forested area on the side of a county highway. Do normal environmental conditions exist at the plant community? Yes ⊠ No  $\square$ (If no, explain) Click or tap here to enter text. Has the vegetation, soils, and/or hydrology been significantly disturbed? Yes□ No⊠ (If yes, explain) Click or tap here to enter text.

#### **VEGETATION**

	Dominant Plant Species	Percen	t Cover	Indicator Status		Stratum
1.	American Holly (Ilex opac	a)	30	FAC	Tree	
2.	Mountain Laurel (Kalmia I	atifolia)	15	FACU	Tree	
3.	Species Name	_% Cover	STATUS	_Stratum		
4.	Species Name	_% Cover	STATUS	_Stratum		
5.	Species Name	_% Cover	STATUS	_Stratum		
6.	Species Name	_% Cover	STATUS	_Stratum		
7.	Species Name	% Cover	STATUS	Stratum		
8.	Species Name	% Cover	STATUS	Stratum		
9.	Species Name	% Cover	STATUS	Stratum		
10.	Species Name	% Cover	STATUS	Stratum		
11.	Species Name	% Cover	STATUS	Stratum		
12.	Species Name	% Cover	STATUS	Stratum		
13.	Species Name	% Cover	STATUS	Stratum		
14.	Species Name	% Cover	STATUS	Stratum		
15.	Species Name	% Cover	STATUS	Stratum		

Percent of Dominant Species that are OBL, FACW, and/or FAC: 66.6%

Is the hydrophytic vegetation criterion met? Yes  $\ \square$  No  $\ \boxtimes$ 

Rationale: All species present are either FAC or FACU.

## SOILS

Series/Phase: AtsAO: Atsion sand, 0 to 2 percent slopes	Subgroup: Atsion			
Is the soil on the hydric soils list? Yes $\ oxin{tikzpicture} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Undetermined			
Is the soil a Histosol? Yes $\ \square$ No $\ \boxtimes$	Histic epidedon present? Yes $\ \square$ No $\ \boxtimes$			
Is the soil: Mottled? Yes $\square$ No $\boxtimes$	Gleyed? Yes $\square$ No $\boxtimes$			
Matrix Color: 0-2" 10YR 2/1; 2-6" 10YR 3/2+; 6-18" 10YR 3/2	3, sandy loam			
Mottle Colors: None				
Other hydric soil indicators: None				
Is the hydric soil criterion met? Yes $\ \square$ No $\ \boxtimes$				
Rationale: This is a characteristic upland soil without a	ny colors or hydric indicators.			
HYDROL	OGY			
Is the ground surface inundated? Yes $\ \square$ No $\ \boxtimes$	Surface water depth: None			
Is the soil saturated? Yes $\ \square$ No $\ \boxtimes$				
Depth to free-standing water in pit/soil probe hole: None				
List of other field evidence of surface inundation or soil saturation: None				
Is the wetland hydrology criterion met? Yes $\square$ No $\boxtimes$				
Rationale: No primary or secondary wetland hydrology indicators exist.				

#### **Routine Onsite Determination Form**

Field Investigators: HB, SMB Date: 12/07/2020 Project/Site: Atlantic Shores State: NJ County: Monmouth Applicant/Owner: Atlantic Shores, LLC Plant Community#/Name: WL6 Note: if a more detailed site description is necessary, provide detail here: Depressional area associated with stormwater runoff. PFO wetland. Do normal environmental conditions exist at the plant community? Yes ⊠ No  $\square$ (If no, explain) Click or tap here to enter text. Has the vegetation, soils, and/or hydrology been significantly disturbed? Yes□ No⊠ (If yes, explain) Click or tap here to enter text. **VEGETATION Dominant Plant Species** Percent Cover **Indicator Status** Stratum 30 1. Swamp White Oak (Quercus bicolor) FACW Tree 2. American Holly (Illex opaca) 30 FAC Tree 3. Roundleaf Green Briar (Smilax rotundifolia) 5 FAC Herbaceous % Cover Stratum STATUS Species Name\_ Species Name\_ % Cover STATUS\_ Stratum % Cover Stratum 6. Species Name STATUS <u>STAT</u>US 7. Species Name % Cover Stratum % Cover 8. Species Name Stratum STATUS 9. Species Name % Cover STATUS Stratum 10. Species Name % Cover **STATUS** Stratum % Cover 11. Species Name STATUS Stratum % Cover 12. Species Name STATUS Stratum 13. Species Name % Cover STATUS Stratum % Cover 14. Species Name **STATUS** Stratum 15. Species Name % Cover STATUS Stratum Percent of Dominant Species that are OBL, FACW, and/or FAC: 100% Is the hydrophytic vegetation criterion met? Yes ⊠ No  $\square$ Rationale: All species present are FAC or FACW.

## SOILS

Series/Phase: AtsAO: Atsion sand, 0 to 2 p	ercent slopes	Subgroup: Atsion
Is the soil on the hydric soils list? Yes $\ oximes$	No □	Undetermined □
Is the soil a Histosol? Yes ⊠	No 🗆	Histic epidedon present? Yes $\ \square$ No $\ \boxtimes$
Is the soil: Mottled? Yes $\square$	No ⊠	Gleyed? Yes □ No ⊠
Matrix Color: 0-5" 10YR 2/1, muck; 5-18" 10Y	YR 3/1, silt loam	
Mottle Colors: None		
Other hydric soil indicators: Histosol (A1) and	2cm Muck (A10)	
Is the hydric soil criterion met? Yes $\ oximes$	No □	
Rationale: Both colors and texture qualify	this soil to be	hydric.
	HYDROLO	GY
Is the ground surface inundated? Yes $\ oximes$	No □	Surface water depth: 1 inch
Is the soil saturated? Yes ⊠ N	No 🗆	
Depth to free-standing water in pit/soil probe h	nole: 5 inches	
List of other field evidence of surface inundation water table, geomorphic position	on or soil saturation	on: Thin muck surface, drainage patterns, dry-season
Is the wetland hydrology criterion met?	Yes ⊠	No 🗆
Rationale: Four primary and three secondary i	indicators of hydr	ology were observed at this location.

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020			
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>			
Applicant/Owner: Atlantic Shores Offshore Wind			
Plant Community#/Name: WL7 -1U			
Note: if a more detailed site description is necessary, provide	detail here: Previous: Wetland 19 – 1U (Upland Point)		
Do normal environmental conditions exist at the plant commu	nity?		
Yes $\boxtimes$ No $\square$ (If no, explain)			
Has the vegetation, soils, and/or hydrology been significantly	disturbed?		
Yes□ No⊠ (If yes, explain)			
VEGETA	TION		
Dominant Plant Species	Percent Cover Indicator Status Stratum		
1. White Clover (Trifolium repens)	30% FACU Herbaceous		
Kentucky Blue Grass (Poa pratensis)	50% FACU Herbaceous		
3. <u>Buttercup (Ranunculus repens)</u>	20% FAC Herbaceous		
Percent of Dominant Species that are OBL, FACW, and/or FAC: $33.3\%$ Is the hydrophytic vegetation criterion met? Yes $\square$ No $\boxtimes$			
Rationale:			
SOILS	<b>3</b>		
Series/Phase: <u>Spodosols</u> Subgroup: <u>Aquods</u>			
Is the soil on the hydric soils list? Yes $\ oxdot$ No $\ \Box$	Undetermined		
Is the soil a Histosol? Yes $\square$ No $\boxtimes$	Histic epipedon present? Yes $\square$ No $\boxtimes$		
Is the soil: Mottled? Yes $\square$ No $\boxtimes$	Gleyed? Yes □ No ⊠		
Matrix Color: <u>0-8 10yr 3/2</u>			
Mottle Colors: N/A			
Other hydric soil indicators: N/A			

Is the hydric soil criterion met?	Yes □	No ⊠		
Rationale:				
		HYDROLOGY		
Is the ground surface inundated?	Yes □	No ⊠	Surface water depth: N/A	
Is the soil saturated? Yes □	No ⊠			
Depth to free-standing water in pit	/soil probe hole: <u>N</u>	<u> </u>		
List of other field evidence of surfa	ace inundation or	soil saturation: <u>N/A</u>		
Is the wetland hydrology criterion i	met? Yes	□ No ⊠		
Rationale:				

d Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020				
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>				
Applicant/Owner: Atlantic Shores Offshore W	<u>Vind</u>			
Plant Community#/Name: WL7 – 1W				
Note: if a more detailed site description is nepond. Tadpoles and frogs observed at time of Previous: Wetland 19 – 1W (Wetland Point)	• •	detail here: <u>Wetlan</u>	d fringe around a	small spring fed
Do normal environmental conditions exist at	the plant commun	ity?		
	•	horse/cow pasture	e, grasses have be	een mowed
Has the vegetation, soils, and/or hydrology b	een significantly d	listurbed?		
Yes⊠ No ☐ (If yes, e	explain) maintained	d horse/cow pastu	re, grasses have b	een mowed
	VEGETATI	ION		
Dominant Plant Species		Percent Cover	Indicator Status	Stratum
Duckweed (Lemna minor)		95%	OBL	Herbaceous
2. Water Chestnut (Trapa natans)		10%	OBL	Herbaceous
3. Mowed Juncus (Juncus sp.)		90%	<u>NA</u>	Herbaceous
Percent of Dominant Species that are OBL, F				
Is the hydrophytic vegetation criterion met?	res 🗵	No 🗆		
Rationale:				
	SOILS			
Series/Phase: Atsion sand/Spodosols	Subgroup: Aquod	<u>ls</u>		
Is the soil on the hydric soils list? Yes $\ oxdot$	No □	Undeter	mined $\square$	
Is the soil a Histosol? Yes □	No 🗵	Histic epipedon p	resent? Yes ⊠	No □
Is the soil: Mottled? Yes $\square$ No $\boxtimes$ Gleyed? Yes $\square$ No $\boxtimes$				
Matrix Color: 0-8" 10vr 2/1 sandy muck				

Mottle Colors: N/A
Other hydric soil indicators: Low chroma soil
Is the hydric soil criterion met? Yes $\ oxdot$ No $\ oxdot$
Rationale:
HYDROLOGY
Is the ground surface inundated? Yes $\boxtimes$ No $\square$ Surface water depth: $\underline{\text{1-6"+}}$
Is the soil saturated? Yes $oximes$ No $oximes$
Depth to free-standing water in pit/soil probe hole: 1"
List of other field evidence of surface inundation or soil saturation: sparsely vegetated surface, aquatic organisms
Is the wetland hydrology criterion met? Yes $\ oxdot$ No $\ oxdot$
Rationale:

Field In	d Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020					
Project/	roject/Site: Larabee Wetland Delineation State: NJ County: Monmouth County					
Applica	nt/Owner: Atlantic S	Shores Offshore	<u>Wind</u>			
Plant C	ommunity#/Name: \	WL7 -2U				
new gro	a more detailed site with was impacted s: Wetland 19 – 2U	•	ecessary, provid	e detail here: <u>Uplan</u>	d area, sprayed thi	s year. Most of the
Do norr	nal environmental c	conditions exist a	t the plant comm	nunity?		
Yes □	No ⊠	(If no, e	xplain) <u>Herbicid</u>	e was recently used		
Has the	vegetation, soils, a	and/or hydrology	been significantl	y disturbed?		
Yes⊠	No□	(If yes,	explain) <u>Herbici</u>	de was recently used	<u>d</u>	
			VEGETA	ATION		
	Dominant Plant S	pecies		Percent Cover	Indicator Status	Stratum
1.	Pitch Pine (Pinus	rigida)		5%	<u>FACU</u>	Sapling/Shrub
2.	Lowbush Blueber	ry (Vaccinium an	gustifolium)	<u>80%</u>	FACU	Sapling/Shrub
3.	Grass sp.			90%	NA	<u>Herbaceous</u>
4.	Soft Rush (Juncus	s effuses)		<u>1%</u>	OBL	<u>Herbaceous</u>
	of Dominant Speci ydrophytic vegetation le:			FAC: <u>0%</u> No ⊠		
			SOII	LS		
Series/l	Phase: Spodosols	Subgro	up: <u>Aquods</u>			
Is the s	oil on the hydric soi	ls list? Yes ⊠	l No □	☐ Undete	rmined $\square$	
Is the s	oil a Histosol?	Yes □	No ⊠	Histic epipedon	present? Yes	No ⊠
Is the s	oil: Mottled?	Yes □	No ⊠	Gleyed? Yes	□ No ⊠	
Matrix (	Color: 0-4" 10vr 3/2	4-12" 5vr 4/6 loa	amy sand			

Mottle Colors: N/A
Other hydric soil indicators: N/A
Is the hydric soil criterion met? Yes $\square$ No $\boxtimes$
Rationale:
HYDROLOGY
Is the ground surface inundated? Yes $\square$ No $\boxtimes$ Surface water depth: $\underline{\text{N/A}}$
Is the soil saturated? Yes $\square$ No $\boxtimes$
Depth to free-standing water in pit/soil probe hole: N/A
List of other field evidence of surface inundation or soil saturation: N/A
Is the wetland hydrology criterion met? Yes $\square$ No $\boxtimes$
Rationale:

Field Inv	Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020				
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>					
Applicar	nt/Owner: Atlantic Shores Offshore Wind				
	ommunity#/Name: <u>WL7 – 2W</u>				
	•	1.6.21			
	a more detailed site description is necessary, provide s: Wetland 19 – 2W (Wetland Point)	detail here: <u>vvetlar</u>	id along stream an	d in low lying area	
Do norm	nal environmental conditions exist at the plant commu	nity?			
Yes ⊠	No ☐ (If no, explain)				
Has the	vegetation, soils, and/or hydrology been significantly	disturbed?			
Yes□	No⊠ (If yes, explain)				
	VEGETA	TION			
	Dominant Plant Species	Percent Cover	Indicator Status	Stratum	
1.	Highbush Blueberry (Vaccinium corymbosum)	5%	FACW	Sapling/Shrub	
2.	Soft Rush (Juncus effuses)	40%	OBL	Herbaceous	
3. Tearthumb (Polygonum sagittatum)		5%	OBL	Herbaceous	
4. Japanese Stiltgrass (Microstegium vimineum) 10%		<u>10%</u>	FAC	<u>Herbaceous</u>	
5. Blunt Spikerush (Eleocharis obtuse) 90% OBL Herbaceous		<u>Herbaceous</u>			
6.	White Meadowsweet (Spirea alba)	<u>10%</u>	<u>FACW</u>	<u>Herbaceous</u>	
7.	Broom Sedge (Carex scoparia)	<u>20%</u>	<u>FACW</u>	<u>Herbaceous</u>	
8.	Swamp Loostrife (Decodon verticillatus)	<u>30%</u>	OBL	<u>Herbaceous</u>	
9.	Rice Cutgrass (Leersia oryzoides)	70%	OBL	<u>Herbaceous</u>	
	of Dominant Species that are OBL, FACW, and/or FArdrophytic vegetation criterion met? Yes ⊠e:	AC: <u>100%</u> No □			
	SOILS	<u></u>			
Series/P	hase: Atsion sand/Spodosols Subgroup: Aquo	<u>ds</u>			
Is the so	Is the soil on the hydric soils list? Yes $oxtimes$ No $oxtimes$ Undetermined $oxtimes$				

Is the soil a Histosol? Yes $\boxtimes$ N	lo □ Hi	istic epipedon present?	Yes □ No ⊠
Is the soil: Mottled? Yes $\boxtimes$ N	lo □ G	ileyed? Yes □	No ⊠
Matrix Color: <u>0-6" 10yr 3/1; 6-18" 10yr 2/1 (95%</u>	6) organic loam		
Mottle Colors: 6-18" 10yr5/8 (5%) redox feature	es, pore linings pre	<u>esent</u>	
Other hydric soil indicators: Low chroma matrix	k, hydrogen sulfide	smell	
Is the hydric soil criterion met? Yes $\ oximes$	No □		
Rationale:			
	HYDROLOGY	Υ	
Is the ground surface inundated? Yes $\ \square$	No ⊠	Surface water de	pth: <u>N/A</u>
Is the soil saturated? Yes ⊠ N	lo 🗆		
Depth to free-standing water in pit/soil probe he	ole: <u>N/A</u>		
List of other field evidence of surface inundation	on or soil saturation	n: <u>hydrogen sulfide smell</u>	
Is the wetland hydrology criterion met?	es ⊠ No	o 🗆	
Rationale:			

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020			
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>			
Applicant/Owner: Atlantic Shores Offshore Wind			
Plant Community#/Name: <u>WL8 – 1U</u>			
Note: if a more detailed site description is necessary, provide	detail here: Previous: Wetland 20 – 1U		
Do normal environmental conditions exist at the plant commu	ınity?		
Yes ⊠ No □ (If no, explain)			
Has the vegetation, soils, and/or hydrology been significantly	disturbed?		
Yes□ No⊠ (If yes, explain)			
VEGETA	TION		
Dominant Plant Species	Percent Cover Indicator Status Stratum		
1. Pitch Pine (Pinus rigida)	10% FACU Sapling/Shrub		
<ol> <li>Greenbriar (Smilax rotundifolia)</li> <li>Upland Grass species</li> </ol>	10% FAC Woody Vine 35% NA Herbaceous		
3. <u>Opiano Grass species</u>	35 // NA PEDACEOUS		
Percent of Dominant Species that are ORL FACW and/or F	∆C· 33 3%		
Percent of Dominant Species that are OBL, FACW, and/or FAC: 33.3%  Is the hydrophytic vegetation criterion met? Yes □ No ⊠			
Rationale:			
Rationale.			
SOIL			
Series/Phase: Spodosols Subgroup: Aquods	<b>J</b>		
<del></del>	Undetermined □		
Is the soil on the hydric soils list? Yes ⊠ No □			
Is the soil a Histosol? Yes $\square$ No $\boxtimes$	Histic epipedon present? Yes □ No ⊠		
Is the soil: Mottled? Yes $oxtimes$ No $oxtimes$	Gleyed? Yes □ No ⊠		
Matrix Color: <u>0-6" 10yr 2/1, 6-14" 10yr 4/4 (60%)</u>			
Mottle Colors: 6-14" 10yr 5/3 (40%)			
Other hydric soil indicators:			

Is the hydric soil criterion met?	Yes □	No ⊠		
Rationale:				
		HYDROLOGY		
Is the ground surface inundated?	Yes □	No ⊠	Surface water depth: N/A	
Is the soil saturated? Yes □	No ⊠			
Depth to free-standing water in pit	/soil probe hole: <u>N</u>	<u> </u>		
List of other field evidence of surfa	ace inundation or	soil saturation: <u>N/A</u>		
Is the wetland hydrology criterion i	met? Yes	□ No ⊠		
Rationale:				

## **Routine Onsite Determination Form**

Field Inv	eld Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020				
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>					
Applican	nt/Owner: Atlantic Shores Of	fshore Wind			
Plant Co	ommunity#/Name: <u>WL8 – 1V</u>	<u>/</u>			
	a more detailed site descript ear to be connected	ion is necessary, provide	e detail here: <u>Spot b</u>	etween two wetlar	nd communities
Previous	s: Wetland 20 – 1W (Wetland	d Point)			
Do norm	nal environmental conditions	exist at the plant comm	unity?		
Yes □	No ⊠	(If no, explain) Dead veg	getation (possibly fro	om Herbicide)	
Has tha	vegetation, soils, and/or hyd	, , ,		<del>-</del>	
	•				
Yes⊠	No 🗆	(If yes, explain) <u>Dead ve</u>	egetation (possibly f	rom Herbicide)	
		VEGETA	ATION		
	Dominant Plant Species		Percent Cover	Indicator Status	Stratum
1.	Dead Red Maples (Acer rul	brum)	10%	FAC	<u>Tree</u>
2.	Dead Red Maples (Acer ru	brum)	5%	FAC	Sapling/Shrub
Deertongue (Dichanthelium clandestinum)		<u>5%</u>	FACW	Herbaceous	
4. Fox Sedge (Carex vulpinoidea)		<u>10%</u>	FACW	<u>Herbaceous</u>	
5.	Grass sp.		<u>50%</u>	NA	<u>Herbaceous</u>
6.	Rice Cutgrass (Leersia ory:	zoides)	70%	OBL	<u>Herbaceous</u>
7.	Bottlebrush Sedge (Carex I	nystericina)	<u>5%</u>	OBL	<u>Herbaceous</u>
8.	Common Reed (Phragmite	s australis)	<u>80%</u>	<u>FACW</u>	<u>Herbaceous</u>
9.	Japanese Knotweed (Polyc	onum cuspidatum)	<u>50%</u>	UPL	<u>Herbaceous</u>
	of Dominant Species that and of drophytic vegetation criterions:		FAC: <u>100%</u> No □		
		SOIL	 .S		

Subgroup: Aquods

Series/Phase: Atsion sand/Spodosols

Is the soil on the hydric soils list? Yes $oximes$ No $oximes$ Undetermined $oximes$
Is the soil a Histosol? Yes $\square$ No $\boxtimes$ Histic epipedon present? Yes $\boxtimes$ No $\square$
Is the soil: Mottled? Yes $\square$ No $\boxtimes$ Gleyed? Yes $\square$ No $\boxtimes$
Matrix Color: 0-6" 10yr 2/1 organic sand, 6-16" 10yr 4/2 sandy
Mottle Colors: N/A
Other hydric soil indicators: Low chroma soils
Is the hydric soil criterion met? Yes $\ oxdot$ No $\ oxdot$
Rationale:
HYDROLOGY
Is the ground surface inundated? Yes $\square$ No $\boxtimes$ Surface water depth: $\underline{\text{N/A}}$
Is the soil saturated? Yes $\boxtimes$ No $\square$
Depth to free-standing water in pit/soil probe hole: N/A
List of other field evidence of surface inundation or soil saturation: <u>Hydrogen Sulfide Smell</u>
Is the wetland hydrology criterion met? Yes $\ oxdot$ No $\ oxdot$
Rationale:

Field investigators: <u>Matt Spadoni, Jacqueline McMillen</u> Date: <u>6/24/2020</u>							
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>							
Applicant/Owner: Atlantic Shores Offshore W	<u>ind</u>						
Plant Community#/Name: WL8 – 2W							
Note: if a more detailed site description is neo	essary, provide d	etail here: <u>PSS</u>					
Do normal environmental conditions exist at t	he plant commun	ity?					
Yes $oxtimes$ No $oxtimes$ (If no, exp	olain)						
Has the vegetation, soils, and/or hydrology be	en significantly d	isturbed?					
Yes□ No⊠ (If yes, ex	rplain)						
	VEGETATI	ON					
Dominant Plant Species		Percent Cover	Indicator Status	Stratum			
1. Pepperbush (Clethra alnifolia)		<u>45%</u>	<u>FACW</u>	Sapling/Shrub			
2. Pitch Pine (Pinus rigida)		10%	FACU	Sapling/Shrub			
3. Sphagnum moss (Sphagnum sp.)		90%	NA NA	Herbaceous			
Skunk Cabbage (Symplocarpus foet)	idus)	15%	OBL	Herbaceous			
Common Reed (Phragmites australian)			FACW	Herbaceous			
	•						
Percent of Dominant Species that are OBL, F	ACW, and/or FAC	J. <u>50%</u>					
Is the hydrophytic vegetation criterion met? \	'es ⊠	No □					
Rationale: Without the identification of specific species for the sphagnum moss, the percent of dominant hydrophytic species is not greater than 50%. Taking into consideration that the sphagnum moss is dominant and requires a wet environment to thrive, the vegetation should be considered hydrophytic.							
	SOILS						
Series/Phase: Atsion sand/Spodosols Subgroup: Aquods							
Is the soil on the hydric soils list? Yes $oximes$ No $oximes$ Undetermined $oximes$							
Is the soil a Histosol? Yes □	No ⊠	Histic epipedon p	resent? Yes ⊠	No 🗆			
s the soil: Mottled? Yes $\square$ No $\boxtimes$ Gleyed? Yes $\square$ No $\boxtimes$							

Matrix Color: <u>0-12 10yr 2/2</u>								
Mottle Colors: N/A								
Other hydric soil indicators: hydroge	en sulfi	<u>de</u>						
Is the hydric soil criterion met?	Yes 2	⊠ N	o 🗆					
Rationale:								
		НҮГ	ROLO	OGY				
Is the ground surface inundated?	Yes [	□ N	o 🗵		Surface water depth: N/A			
Is the soil saturated? Yes $\ oxtimes$		No □						
Depth to free-standing water in pit/s	oil prol	oe hole: <u>&gt;12"</u>						
List of other field evidence of surfac	e inund	dation or soil	satura	tion: <u>Hydr</u>	ogen sulfide odor			
Is the wetland hydrology criterion met? Yes $oximes$ No $oximes$								
Rationale:								

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020							
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>							
Applica	nt/Owner: Atlantic S	Shores Offshore	<u>Wind</u>				
Plant Co	ommunity#/Name: \	<u>WL9 – 1U</u>					
along w	a more detailed site etland boundary s: Wetland 21 - Up	•	ecessary, provid	e detail here: <u>area r</u>	ext to maintained (	grass roadway	
Do norn	nal environmental o	conditions exist at	t the plant comm	unity?			
Yes ⊠	No 🗆	(If no, e	explain)				
Has the	vegetation, soils, a	and/or hydrology	been significantl	y disturbed?			
Yes⊠	No□	(If yes,	explain) <u>mowed</u>	grass roadway			
			VEGETA	ATION			
	Dominant Plant S	pecies		Percent Cover	Indicator Status	Stratum	
1.	Dead Cedar (Juni	perus sp.)		<u>5%</u>	NA	Sapling/Shrub	
2.	Grass sp.			100%	NA	Herbaceous	
3.	Deptford Pink (Dia	anthus armeria)		1%	UPL	Herbaceous	
4.	Deer Tongue (Dic		lestinum)	5%	FACW	Herbaceous	
Percent of Dominant Species that are OBL, FACW, and/or FAC: <u>0%</u> Is the hydrophytic vegetation criterion met? Yes □ No ⊠  Rationale:							
SOILS							
Series/F	Phase: <u>Spodosols</u>	Subgro	up: <u>Aquods</u>				
Is the so	oil on the hydric soi	ls list? Yes ⊠	l No □	☐ Undete	rmined $\square$		
Is the so	oil a Histosol?	Yes □	No ⊠	Histic epipedon	present? Yes □	No ⊠	
Is the so	oil: Mottled?	Yes □	No ⊠	Gleyed? Yes	□ No ⊠		
Matrix (	Color: 0-12" 10vr 4/4	4 sandy loam					

Mottle Colors: N/A
Other hydric soil indicators: N/A
Is the hydric soil criterion met? Yes $\square$ No $\boxtimes$
Rationale:
HYDROLOGY
Is the ground surface inundated? Yes $\square$ No $\boxtimes$ Surface water depth: $\underline{\text{N/A}}$
Is the soil saturated? Yes $\square$ No $\boxtimes$
Depth to free-standing water in pit/soil probe hole: N/A
List of other field evidence of surface inundation or soil saturation: N/A
Is the wetland hydrology criterion met? Yes $\square$ No $\boxtimes$
Rationale:

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020							
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>							
Applicant/Owner: Atlantic Shores Offshore Wind							
Plant Co	ommunity#/Name: <u>WL9 – 1</u>	<u>W</u>					
Note: if	a more detailed site descrip	otion is necessary, p	provide detail here: Low ly	ing area			
Previous	s: Wetland 21 – 1W (Wetla	nd Point)					
Do norm	nal environmental condition	s exist at the plant	community?				
Yes ⊠	No □	(If no, explain)					
Has the	vegetation, soils, and/or hy	drology been signif	ficantly disturbed?				
Yes□	No⊠	(If yes, explain)					
		VE	GETATION				
	Dominant Plant Species		Percent Cover	Indicator Status	Stratum		
1.	Pepperbush (Clethra alnif	olia)	5%	FACW	Sapling/Shrub		
2.	Pitch Pine (Pinus rigida)		<del>5</del> %	FACU	Sapling/Shrub		
3.	Grey Birch (Betula populif	olia)	1%	FAC	Sapling/Shrub		
4.	Lurid Sedge (Carex lurida		50%	OBL	Herbaceous		
5.	Common Reed (Phragmit		40%	FACW	Herbaceous		
6.	Cinnamon Fern (Osmunda	•	5%	FACW	Herbaceous		
Percent of Dominant Species that are OBL, FACW, and/or FAC: <u>75%</u> Is the hydrophytic vegetation criterion met? Yes ⊠ No □  Rationale:							
SOILS							
Series/Phase: Atsion sand/Spodosols Subgroup: Aquods							
Is the so	oil on the hydric soils list?	Yes ⊠	No □ Undete	rmined $\square$			
Is the so	oil a Histosol? Yes ⊠	No □	Histic epipedon p	present? Yes	No 🗵		
Is the so	Is the soil: Mottled? Yes $\square$ No $\boxtimes$ Gleyed? Yes $\square$ No $\boxtimes$						

Matrix Color: 0-18" 10yr 2/2 muck					
Mottle Colors: N/A					
Other hydric soil indicators: Hydroge	en sulfide od	<u>lor</u>			
Is the hydric soil criterion met?	Yes ⊠	No □			
Rationale:					
		HYDROLO	OGY		
Is the ground surface inundated?	Yes □	No ⊠	Surfa	ace water depth: N/A	
Is the soil saturated? Yes $\ oxtimes$	No	) <b></b>			
Depth to free-standing water in pit/s	oil probe ho	le: <u>4"</u>			
List of other field evidence of surfac	e inundation	or soil saturat	ion: <u>hydrogen s</u>	sulfide odor	
Is the wetland hydrology criterion m	et? Ye	s 🗵	No □		
Rationale:					

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020							
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>							
Applicant/Owner: Atlantic Shores Offshore \	<u> Vind</u>						
Plant Community#/Name: W10 -1W							
Note: if a more detailed site description is ne	ecessary, provide d	letail here: Previou	us: Wetland 22 – 1	IW (Wetland			
Do normal environmental conditions exist at	the plant commun	ity?					
Yes $\boxtimes$ No $\square$ (If no, e	xplain)						
Has the vegetation, soils, and/or hydrology l	peen significantly d	isturbed?					
Yes□ No⊠ (If yes,	explain)						
	VEGETATI	ON					
Dominant Plant Species		Percent Cover	Indicator Status	Stratum			
1. Pepperbush (Clethra alnifolia)		20%	FACW	Sapling/Shrub			
2. Grey Birch (Betula populifolia)		1%	FAC	Sapling/Shrub			
3. Raspberry (Rubus occidentalis)			NA	Sapling/Shrub			
4. Cinnamon fern (Osmunda cinnamo	mea)	10%	FACW	Herbaceous			
5. Bottle Brush Sedge (Carex hysteric		5%	OBL	Herbaceous			
6. Soft Rush (Juncus effuses)		5%	OBL	Herbaceous			
7. Wool Grass (Scirpus cypernus)		70%	OBL	Herbaceous			
Percent of Dominant Species that are OBL, FACW, and/or FAC: 100%  Is the hydrophytic vegetation criterion met? Yes ⊠ No □  Rationale:							
SOILS							
Series/Phase: <u>Lakehurst sand/Entisols</u>	Subgroup: Psamr	<u>ments</u>					
Is the soil on the hydric soils list? Yes $oximes$ No $oximes$ Undetermined $oximes$							
Is the soil a Histosol? Yes □	No ⊠	Histic epipedon pi	resent? Yes	No ⊠			
Is the soil: Mottled? Yes $oxtimes$ No $oxtimes$ Gleyed? Yes $oxtimes$ No $oxtimes$							

Matrix Color: <u>0-3" 10yr 2/1, 3-16" 10yr 6/3 sandy loam</u>									
Mottle Colors: 3-16" 10yr 6/8 redox features									
Other hydric soil indicators: low chroma matrix									
Is the hydric soil criterion met? Yes $\ oximes$ No $\ oximes$									
Rationale:									
HYDROLOGY									
Is the ground surface inundated? Yes $\square$ No $\boxtimes$ Surface	ace water depth: N/A								
Is the soil saturated? Yes $\ oxdot$ No $\ oxdot$									
Depth to free-standing water in pit/soil probe hole: 6"									
List of other field evidence of surface inundation or soil saturation: geomorphological position									
Is the wetland hydrology criterion met? Yes $oximes$ No $oximes$									
Rationale:									

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020							
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>							
Applicant/Owner: Atlantic Shores Offshore Wind							
Plant Community#/Name: WL10 & WL11 – 1U							
Note: if a more detailed site description is necessary, provide	detail here: Previous: Wetlands 22 & 23 – 1U						
Do normal environmental conditions exist at the plant commu	nity?						
Yes $\boxtimes$ No $\square$ (If no, explain)							
Has the vegetation, soils, and/or hydrology been significantly	disturbed?						
Yes□ No⊠ (If yes, explain)							
VEGETAT	ΓΙΟΝ						
Dominant Plant Species	Percent Cover Indicator Status Stratum						
Sweet Fern (Comptonia peregrina)	70% NA Herbaceous						
2. Grass species	50% NA Herbaceous						
Percent of Dominant Species that are OBL, FACW, and/or FA	IC: <u>N/A</u>						
Is the hydrophytic vegetation criterion met? Yes $\ \square$	No ⊠						
Rationale:							
SOILS	3						
Series/Phase: Entisols Subgroup: Psamments							
Is the soil on the hydric soils list? Yes $\ oximes$ No $\ \Box$	Undetermined						
Is the soil a Histosol? Yes $\square$ No $\boxtimes$	Histic epipedon present? Yes $\ \square$ No $\ \boxtimes$						
Is the soil: Mottled? Yes $\square$ No $\boxtimes$	Gleyed? Yes □ No ⊠						
Matrix Color: 0-12" 10yr 4/4 sandy loam							
Mottle Colors: N/A							
Other hydric soil indicators: N/A							

Is the hydric soil criterion met?	Yes □	No ⊠		
Rationale:				
		HYDROLOGY		
Is the ground surface inundated?	Yes □	No ⊠	Surface water depth: N/A	
Is the soil saturated? Yes □	No ⊠			
Depth to free-standing water in pit	/soil probe hole: <u>N</u>	<u> </u>		
List of other field evidence of surfa	ace inundation or	soil saturation: <u>N/A</u>		
Is the wetland hydrology criterion i	met? Yes	□ No ⊠		
Rationale:				

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020								
Project/Site: Larabee Wetland Delineation State: NJ County: Monmouth County								
Applicant/Owner: Atlantic Shores Offshore Wind								
Plant Community	/#/Name: WL11	– 1W						
Note: if a more d	etailed site desc	ription is ne	ecessary, p	orovide d	etail here: Previo	us: Wetland 23 -	<u>1W</u>	
Do normal enviro	onmental conditi	ons exist at	the plant	communi	ty?			
Yes ⊠	No □	(If no, ex	xplain)					
Has the vegetation	on, soils, and/or	hydrology b	een signif	ficantly di	sturbed?			
Yes□	No⊠	(If yes, e	explain)					
			VE	GETATI	ON			
Domina	nt Plant Species	3			Percent Cover	Indicator Status	Stratum	
Narrowleaf Cattail (Typha angustifolia)     85%     OBL					OBL	Herbaceous		
	<u>re Fern (Onoclea</u>				10%	FACW	<u>Herbaceous</u>	
3. <u>Joe Pye</u>	Weed (Eutroch	ium macula	itum)		10%	FACW	<u>Herbaceous</u>	
Percent of Dominant Species that are OBL, FACW, and/or FAC: $\underline{100\%}$ Is the hydrophytic vegetation criterion met? Yes $\boxtimes$ No $\square$ Rationale:								
				SOILS				
Series/Phase: <u>La</u>	akehurst sand/Ei	<u>ntisols</u>	Subgroup	o: <u>Psamr</u>	<u>nents</u>			
Is the soil on the	hydric soils list?	Yes ⊠		No □	Undeter	mined $\square$		
Is the soil a Histo	osol? Yes		No ⊠		Histic epipedon p	resent? Yes	No ⊠	
Is the soil:	Mottled? Yes	s 🗆	No ⊠		Gleyed? Yes	□ No ⊠		
Matrix Color: 0-1	Matrix Color: <u>0-18 10yr 2/2</u>							
Mottle Colors: N/	<u>'A</u>							
Other hydric soil indicators:								

Is the hydric soil criterion met? Yes	$\boxtimes$	No $\square$		
Rationale: <u>Matched with hydric vegetation hydric.</u>	n and hydrol	ogy it indicates t	hat the borderline soil should	be considered
	Н	YDROLOGY		
Is the ground surface inundated? Yes	$\boxtimes$	No □	Surface water depth: 1"	
Is the soil saturated? Yes $\ oximes$	No □			
Depth to free-standing water in pit/soil pro	obe hole: <u>0"</u>			
List of other field evidence of surface inur	ndation or so	oil saturation: <u>N/</u>	<u> </u>	
Is the wetland hydrology criterion met?	Yes ⊠	No □	]	
Rationale:				

Field Investigators: Matt Spadoni, Jacqueline McMillen	Date: <u>6</u>	24/2020		
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u>	County: Monmou	ıth County		
Applicant/Owner: Atlantic Shores Offshore Wind				
Plant Community#/Name: WL12 – 1U				
Note: if a more detailed site description is necessary, provide	Note: if a more detailed site description is necessary, provide detail here: Previous: Wetland 24 – 1U (upland point)			
Do normal environmental conditions exist at the plant commu	nity?			
Yes $oxtimes$ No $oxtimes$ (If no, explain)				
Has the vegetation, soils, and/or hydrology been significantly disturbed?				
Yes□ No⊠ (If yes, explain)				
VEGETA	TION			
Dominant Plant Species	Percent Cover	Indicator Status	Stratum	
<ol> <li>Spicebush (Lindera benzoin)</li> <li>Lowbush Blueberry (Vaccinium angustifolium)</li> <li>Grass sp.</li> <li>Common cinquefoil (Potentilla simplex)</li> <li>Goldenrod (Solidago rugosa)</li> </ol>	15% 25% 85% 15% 10%	FACU NA FACU FAC	Sapling/Shrub Sapling/Shrub Herbaceous Herbaceous Herbaceous	
Percent of Dominant Species that are OBL, FACW, and/or FA	AC: <u>33.3</u>			
Is the hydrophytic vegetation criterion met? Yes $\ \square$ No $\ \boxtimes$				
Rationale:				
SOILS	8			
Series/Phase: Entisols Subgroup: Psamments				
Is the soil on the hydric soils list? Yes $\ oxin{tabular}{ll} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	Undete	mined $\square$		
Is the soil a Histosol? Yes $\square$ No $\boxtimes$	Histic epipedon p	present? Yes	No ⊠	
Is the soil: Mottled? Yes $\square$ No $\boxtimes$	Gleyed? Yes	□ No ⊠		
Matrix Color: <u>0-7" 10yr 2/1 organic sand; 7-18" 2.5y 5/3 sand</u>				
Mottle Colors: N/A				

Other hydric soil indicators: N/A	
Is the hydric soil criterion met? Yes $\square$ No $\boxtimes$	
Rationale:	
HYDROLOGY	
Is the ground surface inundated? Yes $\square$ No $\boxtimes$ Surface water depth:	N/A
Is the soil saturated? Yes $\square$ No $\boxtimes$	
Depth to free-standing water in pit/soil probe hole: N/A	
List of other field evidence of surface inundation or soil saturation: N/A	
Is the wetland hydrology criterion met? Yes $\square$ No $\boxtimes$	
Rationale:	

ield Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020			
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>			
Applicant/Owner: Atlantic Shores Offshore Wind			
Plant Community#/Name: WL12 – 1W			
Note: if a more detailed site description is necessary, provide	detail here: Previou	us: Wetland 24 – 1	W (Wetland Point)
Do normal environmental conditions exist at the plant commun	nity?		
'es ⊠ No □ (If no, explain)			
Has the vegetation, soils, and/or hydrology been significantly disturbed?			
Yes□ No⊠ (If yes, explain)			
VEGETAT	TION		
Dominant Plant Species	Percent Cover	Indicator Status	Stratum
Highbush blueberry (Vaccinium corymbosum)	10%	FACW	Sapling/Shrub
Pepper Bush (Clethera alnifolia)	25%	FACW	Sapling/Shrub
Common Reed (Phragmites australis)	50%	FACW	Herbaceous
4. Common Rush (Juncus effuses)	<u>50%</u>	OBL	<u>Herbaceous</u>
Percent of Dominant Species that are OBL, FACW, and/or FAC: 100%  Is the hydrophytic vegetation criterion met? Yes ⊠ No □  Rationale:			
SOILS	•		
Series/Phase: <u>Lakehurst sand/Entisols</u> Subgroup: <u>Psam</u>	<u>iments</u>		
Is the soil on the hydric soils list? Yes $\ oxin{tabular}{l} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Undeter	mined $\square$	
Is the soil a Histosol? Yes $\square$ No $\boxtimes$	Histic epipedon p	resent? Yes ⊠	No □
Is the soil: Mottled? Yes $\square$ No $\boxtimes$	Gleyed? Yes	□ No ⊠	
Matrix Color: 0-10 10yr 2/1 mucky			
Mottle Colors:			

Other hydric soil indicators: <u>Hydrogen sulfide smell, Low chroma matrix</u>
Is the hydric soil criterion met? Yes $oxtimes$ No $oxtimes$
Rationale:
HYDROLOGY
Is the ground surface inundated? Yes $\boxtimes$ No $\square$ Surface water depth: $\underline{\text{N/a}}$
Is the soil saturated? Yes $oximes$ No $oximes$
Depth to free-standing water in pit/soil probe hole: <u>0"</u>
List of other field evidence of surface inundation or soil saturation: <u>hydrogen sulfide odor, landscape position</u>
Is the wetland hydrology criterion met? Yes $\ oxdot$ No $\ \Box$
Rationale:

Field Investigators: Matt Spadoni, Jacqueline	<u>McMillen</u>	Date: 6/24/2020	
Project/Site: <u>Larabee Wetland Delineation</u>	State: <u>NJ</u> County:	Monmouth County	
Applicant/Owner: Atlantic Shores Offshore Wi	<u>nd</u>		
Plant Community#/Name: WL13 – 1U			
Note: if a more detailed site description is necessary, provide detail here: Hillslope next to wetland boundary Previous: Wetland 25 – 1U (upland point)			
Do normal environmental conditions exist at the	ne plant community?		
Yes ⊠ No □ (If no, explain)			
Has the vegetation, soils, and/or hydrology been significantly disturbed?			
Yes□ No⊠ (If yes, ex	plain)		
	VEGETATION		
Dominant Plant Species	Percent	Cover Indicator Status	Stratum
Red Pine (Pinus resnosa)     Spicebush (Lindera benzoin)     Lowbush Blueberry (Vaccinium angu     Raspberry (Rubus occidentalis)     Grass sp.     Common cinquefoil (Potentilla simple pracken Fern (Pteridium aquilinum)     Goldenrod (Solidago rugosa)  Percent of Dominant Species that are OBL, False by drophytic vegetation criterion met?	20% 95% ex) 20% 5% 15% ACW, and/or FAC: 25%	FACU FACU NA NA FACU NA FACU NA FACU	Sapling/Shrub Sapling/Shrub Sapling/Shrub Herbaceous Herbaceous Herbaceous Herbaceous
Is the hydrophytic vegetation criterion met? Y	es □ No ⊠		
Rationale:			
	SOILS		
Series/Phase: Entisols Subgroup: Psamm	<u>ents</u>		
Is the soil on the hydric soils list? Yes $\ oximes$	No 🗆	Undetermined	
Is the soil a Histosol? Yes $\Box$	No ⊠ Histic ep	ipedon present? Yes $\ \Box$	No ⊠

Is the soil: Mottled? Yes $\square$ No $\boxtimes$	Gleyed? Yes $\square$ No $\boxtimes$
Matrix Color: <u>0-7" 10yr 2/1 organic sand; 7-18" 2.5y 5/3 sand</u>	
Mottle Colors: N/A	
Other hydric soil indicators: N/A	
Is the hydric soil criterion met? Yes $\ \square$ No $\ \boxtimes$	
Rationale:	
HYDROLO	OGY
Is the ground surface inundated? Yes $\ \square$ No $\ \boxtimes$	Surface water depth: N/A
Is the soil saturated? Yes $\square$ No $\boxtimes$	
Depth to free-standing water in pit/soil probe hole: N/A	
List of other field evidence of surface inundation or soil saturat	ion: <u>N/A</u>
Is the wetland hydrology criterion met? Yes $\ \square$	No ⊠
Rationale:	

Field Investigators: Matt Spadoni, Jacqueline McMillen	Date: <u>6</u>	24/2020	
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u> County: <u>Monmouth County</u>			
Applicant/Owner: Atlantic Shores Offshore Wind			
Plant Community#/Name: WL13 -1W			
Note: if a more detailed site description is necessary, provide detail here: <u>Large wetland separated by grass roadway for powerline access</u> <u>Previous: Wetland 25 – 1W (Wetland Point)</u>			
Do normal environmental conditions exist at the plant commu	ınity?		
Yes ⊠ No □ (If no, explain)			
Has the vegetation, soils, and/or hydrology been significantly disturbed?			
Yes⊠ No□ (If yes, explain) grass roadway for powerline access			
VEGETA	TION		
Dominant Plant Species	Percent Cover	Indicator Status	Stratum
1. Red Maple (Acer rubrum)	5%	FAC	Tree
2. Pepperbush (Clethera alnifolia)	20%	FACW	Sapling/Shrub
Arrow arum (Peltandra virginica)	35%	OBL	Herbaceous
4. Narrowleaf Cattail (Typha angustifolia)	85%	OBL	Herbaceous
5. Skunk Cabbage (Symplocarpus foetidus)	5%	OBL	Herbaceous
6. Sedge sp.	40%	NA	Herbaceous
7. Sensitive Fern (Onoclea sensibilis)	<u>5%</u>	FACW	<u>Herbaceous</u>
8. <u>Intermediate Fern (Dryopteris intermedia)</u>	20%	<u>FACU</u>	<u>Herbaceous</u>
Virginia Creeper (Parthenocissus quinquefolia)	<u>5%</u>	FACU	Woody Vine
Percent of Dominant Species that are OBL, FACW, and/or FA	AC: <u>75%</u>		
Is the hydrophytic vegetation criterion met? Yes $\ oxtimes$	No □		
Rationale:			
SOIL	S		
Series/Phase: <u>Lakehurst sand &amp; Udorthents/Entisols</u> Subgro	oup: Psamments &	<u>Orthents</u>	
Is the soil on the hydric soils list? Yes $\ oxdot$ No $\ oxdot$	Undete	mined $\square$	

Is the soil a Histosol?	Yes ⊠	No □	Histic epipedon present?	Yes □ No ⊠
Is the soil: Mottled	? Yes □	No ⊠	Gleyed? Yes □	No ⊠
Matrix Color: <u>0-18 10yr 2/</u>	2 muck			
Mottle Colors: N/A				
Other hydric soil indicator	s: <u>Hydric sulfide o</u>	<u>dor</u>		
Is the hydric soil criterion	met? Yes ⊠	No □		
Rationale:				
		HYDROLO	OGY	
Is the ground surface inur	idated? Yes ⊠	No □	Surface water de	epth: <u>2"</u>
Is the soil saturated?	Yes ⊠	No □		
Depth to free-standing wa	ter in pit/soil probe	e hole: <u>0"</u>		
List of other field evidence	e of surface inunda	tion or soil saturat	ion: <u>hydrogen sulfide odor</u>	
Is the wetland hydrology of	criterion met?	Yes ⊠	No □	
Rationale:				

Field Investigators: Matt Spadoni, Ja	acqueline McMillen	Date: <u>6/2</u>	24/2020	
Project/Site: Larabee Wetland Delin	County: Monmouth County			
Applicant/Owner: Atlantic Shores O	ffshore Wind			
Plant Community#/Name: WL13 – 2	W			
Note: if a more detailed site description is necessary, provide detail here: Low lying area Previous: Wetland 25 – 2W (Wetland)				
Do normal environmental conditions	exist at the plant commun	ity?		
Yes ⊠ No □ (If no, explain)				
Has the vegetation, soils, and/or hydrology been significantly disturbed?				
Yes□ No⊠ (If yes, explain)				
	VEGETATI	ON		
Dominant Plant Species		Percent Cover	Indicator Status	Stratum
1. Pepperbush (Clethra alnifo	lia)	<u>45%</u>	<u>FACW</u>	Sapling/Shrub
2. Black Willow (Salix nigra)	·	<u>5%</u>	OBL	Sapling/Shrub
<ol><li>Common Reed (Phragmite</li></ol>		98%	FACW	<u>Herbaceous</u>
4. Skunk Cabbage (Symploca	arpus foetidus)	<u>5%</u>	OBL	<u>Herbaceous</u>
Percent of Dominant Species that a	re OBL, FACW, and/or FAC	C: <u>100%</u>		
Is the hydrophytic vegetation criterio	n met? Yes ⊠	No 🗆		
Rationale:				
	SOILS			
Series/Phase: Lakehurst sand & Ud	orthents/Entisols Subgrou	p: Psamments & 0	<u>Orthents</u>	
Is the soil on the hydric soils list?	Yes ⊠ No □	Undeter	mined $\square$	
Is the soil a Histosol? Yes ⊠	No 🗆	Histic epipedon p	resent? Yes $\square$	No ⊠
Is the soil: Mottled? Yes	□ No ⊠	Gleyed? Yes	□ No ⊠	
Matrix Color: 0-18 10yr 2/2 muck				
Mottle Colors: N/A				

Other hydric soil indicators: N/A			
Is the hydric soil criterion met?	Yes ⊠	No 🗆	
Rationale:			
	H,	YDROLOGY	
Is the ground surface inundated? Y	Yes ⊠	No □	Surface water depth: 0.5"
Is the soil saturated? Yes $\ oxtimes$	No □		
Depth to free-standing water in pit/soi	oil probe hole: 0"		
List of other field evidence of surface	inundation or so	il saturation: <u>N/A</u>	
Is the wetland hydrology criterion met	t? Yes ⊠	No □	
Rationale:			

#### **Routine Onsite Determination Form**

Field Investigators: HB, AL Date: 06/23/2022 Project/Site: Atlantic Shores State: NJ County: Atlantic Applicant/Owner: Atlantic Shores, LLC Plant Community#/Name: 37-W017-1U Note: if a more detailed site description is necessary, provide detail here: Area consists of mowed grasses and is a maintained side of a roadway. Do normal environmental conditions exist at the plant community? Yes ⊠ No  $\square$ (If no, explain) Click or tap here to enter text. Has the vegetation, soils, and/or hydrology been significantly disturbed? Yes⊠ No□ (If yes, explain) Soils were previously excavated and piled to create this upland berm **VEGETATION Dominant Plant Species** Percent Cover **Indicator Status** Stratum 1. Red fescue (Festuca rubra) 90 FACU Herb 2. White Clover (Trifolium repens) 15 FACU Herb % Cover STATUS Stratum Species Name\_ % Cover Species Name\_\_\_ STATUS Stratum % Cover Stratum 5. Species Name STATUS STATUS\_ 6. Species Name\_\_ % Cover Stratum % Cover 7. Species Name STATUS Stratum 8. Species Name % Cover STATUS Stratum 9. Species Name % Cover STATUS Stratum % Cover 10. Species Name STATUS Stratum % Cover 11. Species Name STATUS Stratum 12. Species Name % Cover STATUS Stratum 13. Species Name % Cover Stratum STATUS % Cover 14. Species Name STATUS Stratum 15. Species Name % Cover STATUS Stratum Percent of Dominant Species that are OBL, FACW, and/or FAC: 0% Is the hydrophytic vegetation criterion met? Yes No  $\boxtimes$ Rationale: All species present are FACU.

# SOILS

Series/Phase: Click or tap here to enter text.	ubgroup: Click or tap here to enter text.		
Is the soil on the hydric soils list? Yes $\ \square$	o □ Undetermined □		
Is the soil a Histosol? Yes $\ \square$ No $\ \boxtimes$	Histic epidedon present? Yes $\ \square$ No $\ \boxtimes$		
Is the soil: Mottled? Yes $\square$ No $\boxtimes$	Gleyed? Yes $\square$ No $\boxtimes$		
Matrix Color: 0-3" 10YR 2/1 (100%); 3-6" 10YR 5/3 (100	%) Mottle Colors: N/A		
Other hydric soil indicators: None			
Is the hydric soil criterion met? Yes $\square$	0 🗵		
Rationale: This is a characteristic upland soil without any colors or hydric indicators. Refusal at 4-inches.			
HYD	ROLOGY		
Is the ground surface inundated? Yes □ N	o ⊠ Surface water depth: None		
Is the soil saturated? Yes $\square$ No $\boxtimes$			
Depth to free-standing water in pit/soil probe hole: None			
	List of other field evidence of surface inundation or soil saturation: None		
List of other field evidence of surface inundation or soil s	eaturation: None		
List of other field evidence of surface inundation or soil solution is the wetland hydrology criterion met? Yes $\Box$	saturation: None  No ⊠		

#### **Routine Onsite Determination Form**

Field Investigators: HB, AL Date: 06/23/2022 Project/Site: Atlantic Shores State: NJ County: Monmouth Applicant/Owner: Atlantic Shores, LLC Plant Community#/Name: 37-W017-1W Note: if a more detailed site description is necessary, provide detail here: PFO wetland. Do normal environmental conditions exist at the plant community? Yes 🖂 No □ (If no, explain) Click or tap here to enter text. Has the vegetation, soils, and/or hydrology been significantly disturbed? No⊠ Yes□ (If yes, explain) Click or tap here to enter text. **VEGETATION Dominant Plant Species** Percent Cover **Indicator Status** Stratum 1. Green Ash (Fraxinus pennsylvanica) 50 FACW Tree Sweet Gum (Liquidambar styraciflua) 30 FAC Tree 3. Sweet Pepperbush (Clethra alnifolia) 50 **FACW** Sapling/Shrub 4. Highbush Blueberry (Vaccinium corymbosum)40 FACW Sapling/Shrub Stratum 5. Species Name\_ STATUS\_ % Cover 6. Species Name\_ STATUS Stratum % Cover 7. Species Name **STATUS** Stratum 8. Species Name % Cover **STATUS** Stratum % Cover 9. Species Name Stratum STATUS 10. Species Name % Cover STATUS Stratum 11. Species Name % Cover **STATUS** Stratum % Cover 12. Species Name STATUS Stratum % Cover 13. Species Name Stratum STATUS 14. Species Name % Cover STATUS Stratum % Cover 15. Species Name **STATUS** Stratum Percent of Dominant Species that are OBL, FACW, and/or FAC: 100% Is the hydrophytic vegetation criterion met? Yes ⊠ No  $\square$ Rationale: Majority of species present are FAC or FACW.

Series/Phase: Click or tap here to enter text. Subgroup: Click or tap here to enter text.					
Is the soil on the hydric soils list? Yes $\ \square$	□ Undetermined □				
Is the soil a Histosol? Yes $\ oxdot$ No $\ \Box$	Histic epidedon present? Yes $\ \square$ No $\ \boxtimes$				
Is the soil: Mottled? Yes $\square$ No $\boxtimes$	Gleyed? Yes $\square$ No $\boxtimes$				
Matrix Color: 0-18" 10YR 2/1 100%; 18-20" 10YR 5/3 100	% Mottle Colors: Click or tap here to enter text.				
Other hydric soil indicators: Click or tap here to enter t	ext.				
Is the hydric soil criterion met? Yes $\ oxdot$ No					
Rationale: Histosol criterion met.					
HYDROLOGY					
HYDF	OLOGY				
	Surface water depth: N/A				
Is the ground surface inundated? Yes $\square$ No					
Is the ground surface inundated? Yes $\square$ No Is the soil saturated? Yes $\square$ No $\boxtimes$	⊠ Surface water depth: N/A				
Is the ground surface inundated? Yes □ No Is the soil saturated? Yes □ No ☒  Depth to free-standing water in pit/soil probe hole: N/A	⊠ Surface water depth: N/A				
Is the ground surface inundated? Yes □ No Is the soil saturated? Yes □ No ☒  Depth to free-standing water in pit/soil probe hole: N/A  List of other field evidence of surface inundation or soil saturated?	Surface water depth: N/A  turation: Geomorphic position and drainage patterns.				

#### **Routine Onsite Determination Form**

Field Investigators: HB, AL Date: 06/23/2022 Project/Site: Atlantic Shores State: NJ County: Atlantic Applicant/Owner: Atlantic Shores, LLC Plant Community#/Name: 37-W018-1U Note: if a more detailed site description is necessary, provide detail here: Area consists of mowed grasses and is a maintained side of a roadway. Do normal environmental conditions exist at the plant community? Yes ⊠ No  $\square$ (If no, explain) Click or tap here to enter text. Has the vegetation, soils, and/or hydrology been significantly disturbed? Yes⊠ No□ (If yes, explain) Soils were previously excavated and piled to create this upland berm **VEGETATION Dominant Plant Species** Percent Cover **Indicator Status** Stratum 1. Red fescue (Festuca rubra) 90 FACU Herb 2. White Clover (Trifolium repens) 15 FACU Herb % Cover STATUS Stratum Species Name\_ % Cover Species Name\_\_\_ STATUS Stratum % Cover Stratum 5. Species Name STATUS STATUS\_ 6. Species Name\_\_ % Cover Stratum % Cover 7. Species Name STATUS Stratum 8. Species Name % Cover STATUS Stratum 9. Species Name % Cover STATUS Stratum % Cover 10. Species Name STATUS Stratum % Cover 11. Species Name STATUS Stratum 12. Species Name % Cover STATUS Stratum 13. Species Name % Cover Stratum STATUS % Cover 14. Species Name STATUS Stratum 15. Species Name % Cover STATUS Stratum Percent of Dominant Species that are OBL, FACW, and/or FAC: 0% Is the hydrophytic vegetation criterion met? Yes No  $\boxtimes$ Rationale: All species present are FACU.

# SOILS

Series/Phase: Click or tap here to enter text.	Subgroup: Click or tap here to enter text.
Is the soil on the hydric soils list? Yes $\ \square$	No $\square$ Undetermined $\square$
Is the soil a Histosol? Yes $\ \square$ No $\ \boxtimes$	Histic epidedon present? Yes $\ \square$ No $\ \boxtimes$
Is the soil: Mottled? Yes $\square$ No $\boxtimes$	Gleyed? Yes $\square$ No $\boxtimes$
Matrix Color: 0-6" 10YR 4/4 (100%) Mottle Colors: N/	A
Other hydric soil indicators: None	
Is the hydric soil criterion met? Yes $\ \square$	No ⊠
Rationale: This is a characteristic upland soil winches.	thout any colors or hydric indicators. Refusal at 6-
н	YDROLOGY
Is the ground surface inundated? Yes $\ \square$	No ⊠ Surface water depth: None
	· ,——
Is the soil saturated? Yes $\square$ No $\boxtimes$	
Is the soil saturated? Yes ☐ No ☒  Depth to free-standing water in pit/soil probe hole: No	ne
Depth to free-standing water in pit/soil probe hole: No	

#### **Routine Onsite Determination Form**

Field Investigators: HB, AL Date: 06/23/2022 Project/Site: Atlantic Shores State: NJ County: Monmouth Applicant/Owner: Atlantic Shores, LLC Plant Community#/Name: 37-W018-1W Note: if a more detailed site description is necessary, provide detail here: PFO wetland. Do normal environmental conditions exist at the plant community? Yes 🖂 No □ (If no, explain) Click or tap here to enter text. Has the vegetation, soils, and/or hydrology been significantly disturbed? No⊠ Yes□ (If yes, explain) Click or tap here to enter text. **VEGETATION Dominant Plant Species** Percent Cover **Indicator Status** Stratum 1. Green Ash (Fraxinus pennsylvanica) 50 FACW Tree Sweet Gum (Liquidambar styraciflua) 30 FAC Tree 3. Sweet Pepperbush (Clethra alnifolia) 50 **FACW** Sapling/Shrub 4. Highbush Blueberry (Vaccinium corymbosum)40 FACW Sapling/Shrub Stratum 5. Species Name\_ STATUS\_ % Cover 6. Species Name\_ STATUS Stratum % Cover 7. Species Name **STATUS** Stratum 8. Species Name % Cover **STATUS** Stratum % Cover 9. Species Name Stratum STATUS 10. Species Name % Cover STATUS Stratum 11. Species Name % Cover **STATUS** Stratum % Cover 12. Species Name STATUS Stratum % Cover 13. Species Name Stratum STATUS 14. Species Name % Cover STATUS Stratum % Cover 15. Species Name **STATUS** Stratum Percent of Dominant Species that are OBL, FACW, and/or FAC: 100% Is the hydrophytic vegetation criterion met? Yes ⊠ No  $\square$ Rationale: Majority of species present are FAC or FACW.

Series/Phase: Click or tap here to enter text. Subgroup: Click or tap here to enter text.				
Is the soil on the hydric soils list? Yes $\ \square$	No □ Undetermined □			
Is the soil a Histosol? Yes $\square$ No $\boxtimes$	Histic epidedon present? Yes $\ \square$ No $\ \boxtimes$			
Is the soil: Mottled? Yes $oximes$ No $oximes$	Gleyed? Yes $\square$ No $\boxtimes$			
Matrix Color: 0-4" 10YR 2/2 100%; 4-8" 10YR 3/1 98%	%; 8-10" 10YR 3/4 100% Mottle Colors: 7.5YR 4/6 2%			
Other hydric soil indicators: Redox Dark Surface				
Is the hydric soil criterion met? Yes $\ oximes$	No □			
Rationale: Redox dark surface criterion met.				
H	YDROLOGY			
Is the ground surface inundated? Yes $\ \square$	No ⊠ Surface water depth: N/A			
Is the soil saturated? Yes $\square$ No $\boxtimes$				
Depth to free-standing water in pit/soil probe hole: N/A	4			
List of other field evidence of surface inundation or so	il saturation: Geomorphic position and drainage patterns.			
Is the wetland hydrology criterion met? Yes $\ oxtimes$	No □			
Rationale: Two secondary indicators present.				

#### **Routine Onsite Determination Form**

Field Investigators: HB, AL Date: 06/23/2022 Project/Site: Atlantic Shores State: NJ County: Monmouth Applicant/Owner: Atlantic Shores, LLC Plant Community#/Name: 37-W018-2W Note: if a more detailed site description is necessary, provide detail here: PEM wetland. Do normal environmental conditions exist at the plant community? Yes 🖂 No □ (If no, explain) Click or tap here to enter text. Has the vegetation, soils, and/or hydrology been significantly disturbed? No⊠ Yes□ (If yes, explain) Click or tap here to enter text. **VEGETATION** Dominant Plant Species Percent Cover **Indicator Status** Stratum 1. Green Ash (Fraxinus pennsylvanica) 10 **FACW** Tree 2. Black Willow (Salix nigra) 5 **OBL** Tree 3. Red Maple (Acer rubrum) 2 **FACW** Sapling/Shrub 4. Sweet Pepperbush (Clethra alnifolia) 10 FACW Sapling/Shrub 5. Northern Spicebush (Lindera benzoin) FACW Sapling/Shrub 5 6. Skunk Cabbage (Symplocarpus foetidus) 80 OBL Herb 7. Soft Rush (Juncus effucus) 30 **OBL** Herb 8. Ostrich Fern (Matteuccia struthiopteris) 20 FACW Herb 9. Sensitive Fern (Onoclea sensibilis) 10 **FACW** Herb 10. Species Name % Cover **STATUS** Stratum 11. Species Name % Cover Stratum **STATUS** 12. Species Name % Cover **STATUS** Stratum % Cover 13. Species Name Stratum STATUS 14. Species Name % Cover STATUS Stratum 15. Species Name % Cover Stratum **STATUS** Percent of Dominant Species that are OBL, FACW, and/or FAC: 100% Is the hydrophytic vegetation criterion met? Yes ⊠ No  $\square$ Rationale: Majority of species present are FAC, FACW, or OBL.

Series/Phase: Click or tap here to enter to	ext. Subgrou	Subgroup: Click or tap here to enter text.		
Is the soil on the hydric soils list? Yes $\hfill\Box$	No □	Undetermined □		
Is the soil a Histosol? Yes $\square$	No ⊠	Histic epidedon present? Yes $\ \square$ No $\ \boxtimes$		
Is the soil: Mottled? Yes $\boxtimes$	No □	Gleyed? Yes $\square$ No $\boxtimes$		
Matrix Color: 0-6" 10YR 3/2 100%; 6-12" 10Y	'R 4/2 95%	Mottle Colors: 10YR 5/6 5%		
Other hydric soil indicators: Redox Dark Surf	ace			
Is the hydric soil criterion met? Yes $\ oxtimes$	No □			
Rationale: Redox dark surface criterion	met.			
	HYDROLO	GY		
Is the ground surface inundated? Yes $\ oximes$	No □	Surface water depth: 6 inches		
Is the soil saturated? Yes $\ oximes$	No □			
Depth to free-standing water in pit/soil probe	hole: 0 inches			
List of other field evidence of surface inundation or soil saturation: Water-stained leaves, geomorphic position and drainage patterns.				
Is the wetland hydrology criterion met?	Yes ⊠	No □		
Rationale: Primary and secondary indicators	present.			

#### **Routine Onsite Determination Form**

Field Investigators: HB, MD Date: 07/11/2022 Project/Site: Atlantic Shores State: NJ County: Monmouth Applicant/Owner: Atlantic Shores, LLC Plant Community#/Name: 37-W019-1U Note: if a more detailed site description is necessary, provide detail here: Area consists of herbaceous vegetation and is a side of a roadway. Do normal environmental conditions exist at the plant community? Yes ⊠ No  $\square$ (If no, explain) Click or tap here to enter text. Has the vegetation, soils, and/or hydrology been significantly disturbed? Yes⊠ No□ (If yes, explain) Soils were previously excavated and piled to create this upland berm **VEGETATION Dominant Plant Species** Percent Cover **Indicator Status** Stratum 1. Canada Goldenrod (Solidago canidensis) FACU 40 Herb 2. Devil's Beggartick (Bidens frondosa) 30 **FACW** Herb 3. Poison Ivy (Toxicodendron radicans) 40 FAC Herb 4. Species Name\_\_ % Cover\_ STATUS Stratum % Cover Stratum Species Name\_\_\_\_ STATUS\_ % Cover 6. Species Name STATUS Stratum 7. Species Name % Cover STATUS Stratum 8. Species Name % Cover Stratum STATUS % Cover Stratum 9. Species Name STATUS 10. Species Name % Cover STATUS Stratum 11. Species Name % Cover Stratum STATUS 12. Species Name % Cover STATUS Stratum 13. Species Name % Cover Stratum STATUS 14. Species Name % Cover STATUS Stratum 15. Species Name % Cover STATUS Stratum Percent of Dominant Species that are OBL, FACW, and/or FAC: 50% Is the hydrophytic vegetation criterion met? Yes No  $\boxtimes$ Rationale: Fails the dominance test.

# SOILS

Series/Phase: Click or tap here to enter text. Subgroup: Click or tap here to enter text.				
Is the soil on the hydric soils list? Yes $\ \Box$	No 🗆	Uı	ndetermined [	
Is the soil a Histosol? Yes $\hfill\Box$ No	⊠ H	istic epide	edon present?	Yes □ No ⊠
Is the soil: Mottled? Yes $\square$ No	⊠ G	ileyed?	Yes □	No ⊠
Matrix Color: 0-12" 5Y 2.5/1 (100%) Mottle Colors	s: N/A			
Other hydric soil indicators: None				
Is the hydric soil criterion met? Yes $\ \square$	No ⊠			
Rationale: This is a characteristic upland so	il without any	colors o	r hydric indica	ators.
	HYDROLOG	Y		
Is the ground surface inundated? Yes $\ \square$	No ⊠	Sı	urface water de	pth <u>: None</u>
Is the soil saturated? Yes $\ \square$ No	$\boxtimes$			
Depth to free-standing water in pit/soil probe hole	: None			
List of other field evidence of surface inundation of	or soil saturation	n: None		
Is the wetland hydrology criterion met? Yes	. □ N	o 🗵		
Rationale: No primary or secondary wetland hydr	ology indicators	exist.		

Field Inv	vestigators: HR MD	Date: 0	7/11/2022			
rieiu iiiv	Field Investigators: HB, MD Date: 07/11/2022					
Project/S	Site: Atlantic Shores	State: NJ	County: Monmo	outh		
Applicar	nt/Owner: Atlantic Shores,	LLC				
Plant Co	ommunity#/Name: 37-W01	9-1W				
	•		, provido dotoil bo	oro: DEO watland		
NOLE. II d	a more detailed site descri	plion is necessary	, provide detail ne	ste. FFO welland.		
Do norm	nal environmental condition	ns exist at the plar	nt community?			
Yes ⊠	No □	(If no, explain)	Click or tap here	to enter text.		
Has the	vegetation, soils, and/or h	ydrology been sig	nificantly disturbe	d?		
Yes□	No⊠	(If yes, explain)	Click or tap here	e to enter text.		
		\	/EGETATION			
	D : 1D 10 :				0, ,	
	Dominant Plant Species	Percen	t Cover	Indicator Status	Stratum	
1.	Sweet Gum (Liquidambai	styraciflua)	10	FAC	Tree	
2.	Gray Dogwood (Liquidam	bar styraciflua)	10	FAC	Tree	
3.	Soft Rush (Juncus effusu	s)	50	OBL	Herb	
4.	Flat-top Goldentop (Eutha	amia graminifolia)	30	FAC	Herb	
5.	Mile-a-Minute (Persicaria	perfoliate)	20	FAC	Herb	
6.	Common Reed (Phragmi	tes australis)	20	FACW	Herb	
7.	Wrinkle-Leaf Goldenrod (	Solidago rugosa)	30	FAC	Herb	
8.	Species Name	% Cover	STATUS	Stratum		
9.	Species Name	% Cover	STATUS	Stratum		
10.	Species Name	% Cover	STATUS	Stratum		
11.	Species Name	% Cover	STATUS	Stratum		
	Species Name	% Cover	STATUS	Stratum		
	Species Name	% Cover	STATUS	Stratum		
	Species Name	% Cover	STATUS	Stratum		
	Species Name	% Cover	STATUS	Stratum		
	opecies italiie	70 00101	3171100	Ott Otto		
Percent	of Dominant Species that	are OBL, FACW,	and/or FAC: 100%	0		
le tha hu	drophytic vegetation criter	ion met? Ves ⊠	No □			
•						
Rational	Rationale: Majority of species present are FAC or FACW.					

Series/Phase: Click or tap here to enter text.	Subgroup	p: Click or tap here to enter text.
Is the soil on the hydric soils list? Yes $\ \square$	No □	Undetermined □
Is the soil a Histosol? Yes $\square$ No $\boxtimes$	ŀ	Histic epidedon present? Yes $\ \square$ No $\ \boxtimes$
Is the soil: Mottled? Yes $\boxtimes$ No $\square$	(	Gleyed? Yes $\square$ No $\boxtimes$
Matrix Color: 0-12" 10YR 2/1 100%; 12-18" 10YR 4/2	95% N	Mottle Colors: 7.5YR 4/6 5%
Other hydric soil indicators: Depleted Matrix		
Is the hydric soil criterion met? Yes $\ oximes$	No □	
Rationale: Depleted Matrix criterion met.		
Н	YDROLOG	GY
Is the ground surface inundated? Yes $\ \square$	No ⊠	Surface water depth: N/A
Is the soil saturated? Yes $\square$ No $\boxtimes$		
Depth to free-standing water in pit/soil probe hole: N/	A	
List of other field evidence of surface inundation or so	oil saturatio	ion: Geomorphic position and drainage patterns.
Is the wetland hydrology criterion met? Yes $\ oxtimes$	1	No □
Rationale: Two secondary indicators present.		

Field Inv	vestigators: HB, AL	Date: 06/23/2022				
Project/	Site: Atlantic Shores	State: NJ County: Atlantic				
Applicant/Owner: Atlantic Shores, LLC						
Plant Co	ommunity#/Name: 37-W01	<b>1</b> -1U				
Note: if roadway	•	otion is necessary,	provide detail her	e: Area consists of upland f	orest adjacent to a	
Do norn	nal environmental condition	s exist at the plant	community?			
Yes ⊠	No □	(If no, explain)				
Has the	vegetation, soils, and/or hy	drology been sign	ificantly disturbed	?		
Yes⊠ berm	No□	(If yes, explain) S	Soils were previous	sly excavated and piled to c	reate this upland	
		V	EGETATION			
	Dominant Plant Species	Percent	Cover	Indicator Status	Stratum	
1.	Pitch Pine (Pinus rigida)		60	FACU	Tree	
2. 3.	Burr Oak (Quercus macro Lowbush Blueberry (Vacc		<u>20</u> n) 10	FACU FACU	Tree Sapling/Shrub	
	of Dominant Species that a	•	,		<u> </u>	
	ydrophytic vegetation criteri		No ⊠			
•	le: All species present are I		110			
ιαιοπα	ic. All species present are i	A00.				
			SOILS			
Series/F	Phase: Subgroup:					
ls the so	oil on the hydric soils list?	Yes □	No 🗆	Undetermined		
Is the so	oil a Histosol? Yes □	No ⊠	Histic e	oidedon present? Yes □	No ⊠	
ls the so	oil: Mottled? Yes	□ No ⊠	Gleyed	P Yes □ No ⊠		
Matrix Color: 0-2" 5Y ¾ (100%); 2-6" 7.5YR 3/1 (100%); 6-8" 7.5YR 6/1 (100%) Mottle Colors: N/A						
	vdric soil indicators: None	,	-	•		

Is the hydric soil criterion met? Yes	□ No ⊠		
Rationale: Damma maramemmon	a co co co		
	HYDROLO	OGY	
Is the ground surface inundated? Yes	□ No ⊠	Surface water depth: None	
Is the soil saturated? Yes $\ \square$	No ⊠		
Depth to free-standing water in pit/soil pro	bbe hole: None		
List of other field evidence of surface inur	dation or soil saturat	tion: None	
Is the wetland hydrology criterion met?	Yes □	No ⊠	
Rationale: No primary or secondary wetla	nd hydrology indicate	ors exist.	

Field Investig	ators: HB, AL	Date: (	06/23/2022	2					
Project/Site:	Atlantic Shores	Shores State: NJ County: Monmouth							
Applicant/Ow	ner: Atlantic S	hores, LLC							
Plant Commu	unity#/Name: 3	7-W014-1W							
Note: if a mo	re detailed site	description is r	ecessary,	provide	detail here	: PFO wetland.	•		
Do normal er	nvironmental co	onditions exist a	it the plant	commur	nity?				
Yes ⊠	No □	(If no,	explain)						
Has the vege	tation, soils, ar	nd/or hydrology	been sign	ificantly o	disturbed?				
Yes□	No⊠	(If yes,	explain)						
			٧	EGETAT	ION				
Don	ninant Plant Sp	ecies	Percent	Cover		Indicator Statu	S	Stratum	
2. Swe 3. Swe 4. High Percent of Do Is the hydrop	eet Gum (Liquidet Pepperbush bush Blueberr ominant Specie hytic vegetatio	us pennsylvanional lambar styracification (Clethra alnifory (Vaccinium constitution) state that are OBL in criterion met?	ua) lia) orymbosur , FACW, a Yes ⊠	ind/or FA	C: 100% No 🗆	FACV FAC FACV	V	Tree Tree Sapling/Shrub Sapling/Shrub	
				SOILS					
Series/Phase	<b>:</b> :			Subgrou	ıp:				
Is the soil on	the hydric soils	s list? Yes		No □		Undetermined			
Is the soil a F	listosol?	∕es □	No ⊠		Histic ep	idedon present	? Yes □	No ⊠	
Is the soil:	Mottled?	Yes ⊠	No □		Gleyed?	Yes □	No ⊠		
Matrix Color:	0-4" 10YR 2/2	100%; 4-8" 10	YR 3/1 98°	%; 8-10"	10YR ¾ 10	00% Mottle	e Colors: 7.5	5YR 4/6 2%	
Other hydric	soil indicators:	Redox Dark Su	ırface						
Is the hydric	soil criterion me	et? Yes D		No □					

Rationale: De Do Da III DI fa De DI DE DO DE DE DO DE DE DO DE DE DO DE							
	HYDROLOGY						
Is the ground surface inundated? Yes □	No ⊠	Surface water depth: N/A					
Is the soil saturated? Yes $\square$	No ⊠						
Depth to free-standing water in pit/soil probe	e hole: N/A						
List of other field evidence of surface inunda	ation or soil saturati	tion: Geomorphic position and drainage patterns.					
Is the wetland hydrology criterion met?	Yes ⊠	No □					
Rationale: Two secondary indicators present.							

Field Investigators: HB, AL	Date: 06/23/2022						
Project/Site: Atlantic Shores	State: NJ County: Atlantic						
Applicant/Owner: Atlantic Shores, LLC							
Plant Community#/Name: 37-W015	5-1U						
Note: if a more detailed site descripmaintained side of a roadway.	otion is necessary,	provide detail here	e: Area consists of mowed	grasses and is a			
Do normal environmental condition	s exist at the plant	community?					
Yes ⊠ No □	(If no, explain)						
Has the vegetation, soils, and/or hy	drology been signi	ificantly disturbed?	•				
Yes⊠ No□ berm	(If yes, explain) S	oils were previous	ly excavated and piled to o	create this upland			
	VI	EGETATION					
Dominant Plant Species	Percent	Cover	Indicator Status	Stratum			
<ol> <li>Red fescue (Festuca rubra</li> <li>White Clover (Trifolium re</li> </ol>		90 15	FACU FACU	Herb Herb			
Percent of Dominant Species that a	are OBL, FACW, a	nd/or FAC: 0%					
Is the hydrophytic vegetation criteri	on met? Yes □	No ⊠					
Rationale: All species present are F	FACU.						
		0011.0					
Carias/Dhasa		SOILS					
Series/Phase:	v =	Subgroup:					
Is the soil on the hydric soils list?			Undetermined				
Is the soil a Histosol? Yes $\Box$	No ⊠	Histic ep	idedon present? Yes □	No ⊠			
Is the soil: Mottled? Yes	□ No ⊠	Gleyed?	Yes □ No ⊠				
Matrix Color: 0-2" 10YR 2/1 (100%)	); 2-6" 10YR 4/2 (1	00%); 6-8" 7.5YR	4/4 (100%) Mottle 0	Colors: N/A			
Other hydric soil indicators: None							
s the hydric soil criterion met? Yes $\square$ No $\boxtimes$							

Rationale:					
HYDROLOGY					
Is the ground surface inundated? Yes $\ \Box$	No ⊠	Surface water depth: None			
Is the soil saturated? Yes $\square$ No $\boxtimes$					
Depth to free-standing water in pit/soil probe hole: None					
List of other field evidence of surface inundation or soil saturation: None					
Is the wetland hydrology criterion met? Yes $\ \square$ No $\ \boxtimes$					
Rationale: No primary or secondary wetland hydrology indicators exist.					

Field Investig	eld Investigators: HB, AL Date: 06/23/2022							
Project/Site: A	Atlantic Shores	State: N	State: NJ County: Monmouth					
Applicant/Ow	Applicant/Owner: Atlantic Shores, LLC							
Plant Commu	ınity#/Name: 3	7-W015-1W						
Note: if a mor	e detailed site	description is n	ecessary,	provide	detail here	: PFO wetland	l.	
Do normal en	vironmental co	nditions exist a	t the plant	commur	nity?			
Yes ⊠	No □	(If no, e	explain)					
Has the vege	tation, soils, ar	d/or hydrology	been sign	ificantly	disturbed?			
Yes□	No⊠	(If yes,	explain)					
			٧	EGETAT	ION			
Dom	ninant Plant Sp	ecies	Percent	Cover		Indicator Statu	ıs	Stratum
1. Green Ash (Fraxinus pennsylvanica) 50 FACW Tree 2. Sweet Gum (Liquidambar styraciflua) 30 FAC Tree 3. Sweet Pepperbush (Clethra alnifolia) 50 FACW Sapling/Shrub 4. Highbush Blueberry (Vaccinium corymbosum)40 FACW Sapling/Shrub Percent of Dominant Species that are OBL, FACW, and/or FAC: 100% Is the hydrophytic vegetation criterion met? Yes ☑ No □ Rationale: Majority of species present are FAC or FACW.								
				SOILS				
Series/Phase	:			Subgro	ıp:			
Is the soil on	the hydric soils	list? Yes □	]	No □		Undetermined	I 🗆	
Is the soil a H	listosol? Y	'es □	No ⊠		Histic ep	idedon presen	t? Yes □	No ⊠
Is the soil:	Mottled?	Yes ⊠	No □		Gleyed?	Yes □	No ⊠	
Matrix Color: 0-4" 10YR 2/2 100%; 4-8" 10YR 3/1 98%; 8-10" 10YR ¾ 100% Mottle Colors: 7.5YR 4/6 2%								
Other hydric soil indicators: Redox Dark Surface								
ls the hydric soil criterion met? Yes ⊠ No □								

Rationale: ecocam coface come con em						
HYDROLOGY						
Is the ground surface inundated? Yes □	No ⊠	Surface water depth: N/A				
Is the soil saturated? Yes $\square$ No $\boxtimes$						
Depth to free-standing water in pit/soil probe hole: N/A						
List of other field evidence of surface inundation or soil saturation: Geomorphic position and drainage patterns.						
Is the wetland hydrology criterion met?	Yes ⊠	No □				
Rationale: Two secondary indicators present.						

Field Investigators: HB, AL	Date: 06/23/2022				
Project/Site: Atlantic Shores	State: NJ	tate: NJ County: Atlantic			
Applicant/Owner: Atlantic Shores, LLC					
Plant Community#/Name: 37-W016	S-1U				
Note: if a more detailed site descripmaintained side of a roadway.	otion is necessary,	provide detail here	e: Area consists of mowed	grasses and is a	
Do normal environmental condition	s exist at the plant	community?			
Yes ⊠ No □	(If no, explain)				
Has the vegetation, soils, and/or hy	drology been signi	ificantly disturbed?	•		
Yes⊠ No□ berm	(If yes, explain) S	oils were previous	ly excavated and piled to o	create this upland	
	VI	EGETATION			
Dominant Plant Species	Percent	Cover	Indicator Status	Stratum	
<ol> <li>Red fescue (Festuca rubra</li> <li>White Clover (Trifolium re</li> </ol>		90 15	FACU FACU	Herb Herb	
Percent of Dominant Species that a	are OBL, FACW, a	nd/or FAC: 0%			
Is the hydrophytic vegetation criteri	on met? Yes □	No ⊠			
Rationale: All species present are F	FACU.				
SOILS					
Series/Phase: Subgroup:					
Is the soil on the hydric soils list? Yes $\square$ No $\square$ Undetermined $\square$					
Is the soil a Histosol? Yes $\square$ No $\boxtimes$ Histic epidedon present? Yes $\square$ No $\boxtimes$					
Is the soil: Mottled? Yes	□ No ⊠	Gleyed?	Yes □ No ⊠		
Matrix Color: 0-2" 10YR 2/1 (100%); 2-6" 10YR 4/2 (100%); 6-8" 7.5YR 4/4 (100%) Mottle Colors: N/A					
Other hydric soil indicators: None					
Is the hydric soil criterion met? Yes $\square$ No $\boxtimes$					

Rationale:					
HYDROLOGY					
Is the ground surface inundated? Yes $\ \Box$	No ⊠	Surface water depth: None			
Is the soil saturated? Yes $\square$ No $\boxtimes$					
Depth to free-standing water in pit/soil probe hole: None					
List of other field evidence of surface inundation or soil saturation: None					
Is the wetland hydrology criterion met? Yes $\ \square$ No $\ \boxtimes$					
Rationale: No primary or secondary wetland hydrology indicators exist.					

Field Investigators: HB, AL	Date: 06/23/2022				
Project/Site: Atlantic Shores	State: NJ County: Monmouth				
Applicant/Owner: Atlantic Shores,	LLC				
Plant Community#/Name: 37-W016	6-1W				
Note: if a more detailed site descrip stormwater feature with rip rap.	otion is necessary,	provide detail here	: PFO wetland appear	s to be a previous	
Do normal environmental condition	s exist at the plant	community?			
Yes ⊠ No □	(If no, explain)				
Has the vegetation, soils, and/or hy	drology been sign	ificantly disturbed?			
Yes□ No⊠	(If yes, explain)				
	VI	EGETATION			
Dominant Plant Species	Percent	Cover	Indicator Status	Stratum	
<ol> <li>Green Ash (Fraxinus pennsylvanica)</li> <li>Sweet Gum (Liquidambar styraciflua)</li> <li>Sweet Pepperbush (Clethra alnifolia)</li> <li>Highbush Blueberry (Vaccinium corymbosum)40</li> </ol> FACW Tree  Sapling/Shrub  FACW Sapling/Shrub					
Percent of Dominant Species that a	are OBL, FACW, a	nd/or FAC: 100%			
Is the hydrophytic vegetation criteri	on met? Yes ⊠	No 🗆			
Rationale: Majority of species present are FAC or FACW.					
SOILS					
Series/Phase: Subgroup:					
Is the soil on the hydric soils list? Yes $\square$ No $\square$ Undetermined $\square$					
Is the soil a Histosol? Yes $\square$ No $\boxtimes$ Histic epidedon present? Yes $\square$ No $\boxtimes$					
Is the soil: Mottled? Yes	⊠ No □	Gleyed?	Yes □ No	$\boxtimes$	
Matrix Color: 0-4" 10YR 2/2 100%; 4-8" 10YR 3/1 98%; 8-10" 10YR 3/4 100% Mottle Colors: 7.5YR 4/6 2%					
Other hydric soil indicators: Redox Dark Surface					

Is the hydric soil criterion met?	Yes ⊠	No □						
Rationale: De Do Da	ше о пеш							
	HYDROLOGY							
Is the ground surface inundated?	Yes ⊠	No ⊠	Surface water depth: 24"+					
Is the soil saturated? Yes $\ oxtimes$	No □							
Depth to free-standing water in pit/s	soil probe hole: 0"							
List of other field evidence of surface	ce inundation or se	oil saturation:	Geomorphic position and drainage patterns.					
Is the wetland hydrology criterion m	net? Yes ⊠	l No						
Rationale: Primary and secondary i	ndicators present							

Field Investigators: HB, AL	nvestigators: HB, AL Date: 07/11/2022						
Project/Site: Atlantic Shores	State: NJ County: Monmouth						
Applicant/Owner: Atlantic Shores, LLC							
Plant Community#/Name: 37-W020	)-1U						
Note: if a more detailed site descripmaintained side of a roadway.	otion is necessary,	provide detail here	e: Area consists of mowed	grasses and is a			
Do normal environmental condition	s exist at the plant	community?					
Yes ⊠ No □	(If no, explain)						
Has the vegetation, soils, and/or hy	drology been signi	ificantly disturbed?	•				
Yes⊠ No□ berm	(If yes, explain) S	oils were previous	ly excavated and piled to o	create this upland			
	VE	EGETATION					
Dominant Plant Species	Percent	Cover	Indicator Status	Stratum			
<ol> <li>Red fescue (Festuca rubra</li> <li>White Clover (Trifolium re</li> </ol>		90 15	FACU FACU	Herb Herb			
Percent of Dominant Species that a	are OBL, FACW, a	nd/or FAC: 0%					
Is the hydrophytic vegetation criteri	on met? Yes □	No ⊠					
Rationale: All species present are f	FACU.						
		SOILS					
Series/Phase:		Subgroup:					
Is the soil on the hydric soils list?	Yes □	No 🗆	Undetermined				
Is the soil a Histosol? Yes □	No ⊠	Histic ep	oidedon present? Yes	No ⊠			
Is the soil: Mottled? Yes	□ No ⊠	Gleyed?	Yes □ No ⊠				
Matrix Color: 0-6" 5YR ¾ (100%) Mottle Colors: N/A							
Other hydric soil indicators: None							
Is the hydric soil criterion met? Yes $\square$ No $\boxtimes$							

Rationale: Dallina da ala de dillin da da comporta da colo do							
	HYDROLOGY						
Is the ground surface inundated? Yes $\ \Box$	No ⊠	Surface water depth: None					
Is the soil saturated? Yes $\ \square$ No							
Depth to free-standing water in pit/soil probe hole	e: None						
List of other field evidence of surface inundation or soil saturation: None							
Is the wetland hydrology criterion met? Yes $\ \square$ No $\ \boxtimes$							
Rationale: No primary or secondary wetland hydrology indicators exist.							

Field Inv	vestigators: HB, MD	Date: 07	7/11/2022					
Project/S	Site: Atlantic Shores	State: NJ	County: Monmou	th				
Applicant/Owner: Atlantic Shores, LLC								
Plant Co	Plant Community#/Name: 37-W020-1W							
Note: if a	a more detailed site descrip	otion is necessary,	provide detail here	e: PEM wetland.				
Do norm	nal environmental condition	s exist at the plant	community?					
Yes ⊠	No □	(If no, explain)						
Has the	vegetation, soils, and/or hy	drology been sign	ificantly disturbed?					
Yes□	No⊠	(If yes, explain)						
		VI	EGETATION					
	Dominant Plant Species	Percent	Cover	Indicator Status	Stratum			
Dominant Plant Species Percent Cover Indicator Status Stratum  1. Sweet Pepperbush (Clethra alnifolia) 10 FACW Sapling/Shrub 2. Narrowleaf Cattail (Typha angustifolia) 30 OBL Herb 3. Soft Rush (Juncus effusus) 30 OBL Herb 4. Common Reed (Phragmites australis) 50 FACW Herb 5. Wrinkle-Leaf Goldenrod (Solidago rugosa) 30 FAC Herb  Percent of Dominant Species that are OBL, FACW, and/or FAC: 100%  Is the hydrophytic vegetation criterion met? Yes ☑ No □  Rationale: Majority of species present are FAC, FACW, or OBL.								
			SOILS					
Series/F	Phase:		Subgroup:					
Is the so	oil on the hydric soils list?	Yes □	No □	Undetermined $\square$				
Is the so	oil a Histosol? Yes □	No ⊠	Histic ep	idedon present? Yes	$\square$ No $\boxtimes$			
Is the so	oil: Mottled? Yes	⊠ No □	Gleyed?	Yes □ No I	$\boxtimes$			
Matrix C	Matrix Color: 0-6" 10YR 4/1 98% Mottle Colors: 7.5YR 4/6 2%							
Other hydric soil indicators: Depleted Matrix								

Is the hydric soil criterion met?	Yes ⊠	No □				
Rationale: eee a a me	© □ e Ш					
	Н	IYDROLOGY				
Is the ground surface inundated?	Yes □	No ⊠	Surface water depth: N/A			
Is the soil saturated? Yes $\ \square$	No ⊠					
Depth to free-standing water in pit/s	soil probe hole: N	'A				
List of other field evidence of surface	ce inundation or se	oil saturation: Ge	comorphic position and drainage patterns.			
Is the wetland hydrology criterion m	net? Yes ⊠	l No □	]			
Rationale: Two secondary indicators present.						

Field Investigators: HB, MD Date: 07/11/2022								
Project/Site: Atlantic Shores	Project/Site: Atlantic Shores State: NJ County: Monmouth							
Applicant/Owner: Atlantic Shores, LLC								
Plant Community#/Name: 37-W021-	-1U							
Note: if a more detailed site descript maintained side of a roadway.	ion is necessary,	provide detail here	e: Area consists of mo	owed grasses and is a				
Do normal environmental conditions	exist at the plant	community?						
Yes ⊠ No □	(If no, explain)							
Has the vegetation, soils, and/or hyd	drology been signi	ficantly disturbed?						
Yes⊠ No□ berm	(If yes, explain) S	oils were previous	ly excavated and pile	d to create this upland				
	VE	EGETATION						
Dominant Plant Species	Percent	Cover	Indicator Status	Stratum				
<ol> <li>Red fescue (Festuca rubra)</li> <li>White Clover (Trifolium rep</li> </ol>		90 15	FACU FACU	Herb Herb				
Percent of Dominant Species that ar	re OBL, FACW, ar	nd/or FAC: 0%						
Is the hydrophytic vegetation criterio	n met? Yes	No ⊠						
Rationale: All species present are F	ACU.							
_		SOILS						
Series/Phase:		Subgroup:						
Is the soil on the hydric soils list?	Yes □		Undetermined □					
Is the soil a Histosol? Yes □	No ⊠		idedon present? Yes	: □ No ⊠				
		·	·					
Is the soil: Mottled? Yes		•	Yes □ No					
Matrix Color: 0-4" 10YR 3/1 (100%) Mottle Colors: N/A								
Other hydric soil indicators: None								
Is the hydric soil criterion met? Yes $\square$ No $\boxtimes$								

Rationale: Data de							
HYDROLOGY							
Is the ground surface inundated? Yes □ No ⊠ Surface water depth: None							
Is the soil saturated? Yes $\square$ No $\boxtimes$							
Depth to free-standing water in pit/soil probe hole: None							
List of other field evidence of surface inundation or soil saturation: None							
Is the wetland hydrology criterion met? Yes $\square$ No $\boxtimes$							
Rationale: No primary or secondary wetland hydrology indicators exist.							

Field Inv	estigators: HB, MD	Da	te: 07/11/2022	2			
Project/s	Site: Atlantic Shores	State: NJ	County	Monmouth			
Applicar	nt/Owner: Atlantic Sh	ores, LLC					
Plant Co	ommunity#/Name: 37	-W021-1W					
Note: if	a more detailed site o	lescription is neces	sary, provide	detail here: PFO wetl	and.		
Do norn	nal environmental cor	nditions exist at the	plant commu	nity?			
Yes ⊠	No □	(If no, expla	in)				
Has the	vegetation, soils, and	l/or hydrology beer	significantly	disturbed?			
Yes□	No⊠	(If yes, expla	ain)				
			VEGETAT	ION			
	Dominant Plant Spe	cies Pe	rcent Cover	Indicator S	tatus	Stratum	
Is the hy	<ol> <li>Sweet Gum (Liquidambar styraciflua)</li> <li>Sweet Pepperbush (Clethra alnifolia)</li> <li>FAC</li> <li>FAC</li> <li>Tree</li> <li>Sapling/Shrub</li> </ol>						
			SOILS	}			
Series/F	Phase:		Subgro	up:			
Is the so	oil on the hydric soils	list? Yes □	No □	Undetermi	ned $\square$		
Is the so	oil a Histosol? Ye	es 🗆 No	$\boxtimes$	Histic epidedon pre	sent? Yes [	□ No ⊠	
Is the so	oil: Mottled?	Yes ⊠ No		Gleyed? Yes □	No [	$\boxtimes$	
Matrix C	Color: 0-4" 10YR 2/2 1	00%; 4-8" 10YR 3/	1 98%; 8-10"	10YR ¾ 100% N	lottle Colors:	: 7.5YR 4/6 2%	
Other hy	ydric soil indicators: F	Redox Dark Surface					
Is the hy	dric soil criterion met	? Yes ⊠	No □				

Rationale: De Do Da Do Da Do Da Do Da Do								
HYDROLOGY								
Is the ground surface inundated? Yes $\ \Box$	No ⊠	Surface water depth: N/A						
Is the soil saturated? Yes $\square$ No $\boxtimes$								
Depth to free-standing water in pit/soil probe hole: N	I/A							
List of other field evidence of surface inundation or	soil saturation: Geo	morphic position and drainage patterns.						
Is the wetland hydrology criterion met? Yes $\ oxdot$ No $\ oxdot$								
Rationale: Two secondary indicators present.								

Field Investigators: HB, MD Date: 07/11/2022								
Project/Site: Atlantic Shores State: NJ County: Monmouth								
Applicant/Owner: Atlantic Shores, LLC								
Plant Community#/Name: 37-W	/022-1U							
Note: if a more detailed site des maintained side of a roadway.	scription is necessary,	provide detail here	e: Area consists o	f mowed g	rasses and is a			
Do normal environmental condi	tions exist at the plant	community?						
Yes ⊠ No □	(If no, explain)							
Has the vegetation, soils, and/o	r hydrology been sign	ificantly disturbed?	?					
Yes⊠ No□ berm	(If yes, explain) S	Soils were previous	sly excavated and	piled to cr	eate this upland			
	V	EGETATION						
Dominant Plant Specie	es Percent	Cover	Indicator Status		Stratum			
<ol> <li>Red fescue (Festuca r White Clover (Trifolium</li> </ol>		90 15	FACU FACU		Herb Herb			
Percent of Dominant Species th	nat are OBL, FACW, a	nd/or FAC: 0%						
Is the hydrophytic vegetation cr	iterion met? Yes	No ⊠						
Rationale: All species present a	re FACU.							
		SOILS						
Series/Phase:		Subgroup:						
Is the soil on the hydric soils lis	t? Yes □	No □	Undetermined [					
Is the soil a Histosol? Yes	$\square$ No $\boxtimes$	Histic ep	oidedon present?	Yes □	No ⊠			
Is the soil: Mottled? Y	es □ No ⊠	Gleyed?	Yes □	No ⊠				
Matrix Color: 0-4" 10YR 3/1 (10	0%) Mottle Colors: N/	A						
Other hydric soil indicators: No	ne							
Is the hydric soil criterion met?	Yes □	No ⊠						

Rationale: Data de							
HYDROLOGY							
Is the ground surface inundated? Yes □ No ⊠ Surface water depth: None							
Is the soil saturated? Yes $\square$ No $\boxtimes$							
Depth to free-standing water in pit/soil probe hole: None							
List of other field evidence of surface inundation or soil saturation: None							
Is the wetland hydrology criterion met? Yes $\square$ No $\boxtimes$							
Rationale: No primary or secondary wetland hydrology indicators exist.							

Fleid investigators: HB, MD	Date: 07	/11/2022				
Project/Site: Atlantic Shores	State: NJ	County: Monmo	uth			
Applicant/Owner: Atlantic Shores,	LC					
Plant Community#/Name: 37-W022	2-1W					
Note: if a more detailed site descrip	otion is necessary,	provide detail her	e: PFO wetland.			
Do normal environmental condition	s exist at the plant	community?				
Yes ⊠ No □	(If no, explain)					
Has the vegetation, soils, and/or hy	drology been sign	ificantly disturbed	?			
Yes□ No⊠	(If yes, explain)					
	VI	EGETATION				
Dominant Plant Species	Percent	Cover	Indicator Status		Stratum	
1. Green Ash (Fraxinus pennsylvanica) 50 FACW Tree 2. Sweet Gum (Liquidambar styraciflua) 30 FAC Tree 3. Sweet Pepperbush (Clethra alnifolia) 50 FACW Sapling/Shrub 4. Highbush Blueberry (Vaccinium corymbosum)40 FACW Sapling/Shrub  Percent of Dominant Species that are OBL, FACW, and/or FAC: 100%  Is the hydrophytic vegetation criterion met? Yes ☑ No □  Rationale: Majority of species present are FAC or FACW.						
		SOILS				
Series/Phase: Subgroup:  Is the soil on the hydric soils list?	Yes □	No □	Undetermined			
Is the soil a Histosol? Yes □	No ⊠	Histic e	pidedon present?	Yes □	No ⊠	
Is the soil: Mottled? Yes	⊠ No □	Gleyed	? Yes □	No ⊠		
Matrix Color: 0-4" 10YR 2/2 100%;	4-8" 10YR 3/1 98%	%; 8-10" 10YR ¾	100% Mottle	Colors: 7.5	YR 4/6 2%	
Other hydric soil indicators: Redox	Dark Surface					
Is the hydric soil criterion met?	Yes ⊠	No 🗆				

Rationale: De o ca conface confecto de con								
	HYDROLOGY							
Is the ground surface inundated? Yes □	No ⊠	Surface water depth: N/A						
Is the soil saturated? Yes $\square$	No ⊠							
Depth to free-standing water in pit/soil probe	e hole: N/A							
List of other field evidence of surface inundation or soil saturation: Geomorphic position and drainage patterns.								
Is the wetland hydrology criterion met? Yes $\ oxdot$ No $\ oxdot$								
Rationale: Two secondary indicators present.								

Field Investigators: HB, MD Date: 07/11/2022							
Project/Site: Atlantic Shores S	tate: NJ C	County: Monmouth					
Applicant/Owner: Atlantic Shores, LLC							
Plant Community#/Name: 37-W023-1	U						
Note: if a more detailed site description maintained side of a roadway.	on is necessary, p	rovide detail here: Area consists of	f mowed grasses and is a				
Do normal environmental conditions e	exist at the plant c	ommunity?					
Yes ⊠ No □ (I	f no, explain)						
Has the vegetation, soils, and/or hydro	ology been signifi	cantly disturbed?					
Yes⊠ No□ (I berm	f yes, explain) Soi	ls were previously excavated and	piled to create this upland				
	VEC	SETATION					
Dominant Plant Species Percent Cover Indicator Status Stra							
Red fescue (Festuca rubra)		0 FACU	Herb_				
White Clover (Trifolium reper	<u>ns) 1</u>	5 FACU	<u>Herb</u>				
Percent of Dominant Species that are	OBL, FACW, and	l/or FAC: 0%					
Is the hydrophytic vegetation criterion	met? Yes □	No ⊠					
Rationale: All species present are FAI	CU.						
		SOILS					
Series/Phase: Subgroup:							
Is the soil on the hydric soils list? Y	es □ N	lo  Undetermined					
Is the soil a Histosol? Yes $\ \square$	No ⊠	Histic epidedon present?	Yes □ No ⊠				
Is the soil: Mottled? Yes □	No ⊠	Gleyed? Yes □	No ⊠				
Matrix Color: 0-4" 10YR 3/1 (100%) N	Nottle Colors: N/A						
Other hydric soil indicators: None							
Is the hydric soil criterion met?	es □ N	lo 🗵					

Rationale: Data de								
	HYDROLOGY							
Is the ground surface inundated? Yes $\ \square$	No ⊠	Surface water depth: None						
Is the soil saturated? Yes $\square$ No $\square$	Is the soil saturated? Yes $\square$ No $\boxtimes$							
Depth to free-standing water in pit/soil probe hole:	None							
List of other field evidence of surface inundation o	List of other field evidence of surface inundation or soil saturation: None							
Is the wetland hydrology criterion met? Yes $\square$ No $\boxtimes$								
Rationale: No primary or secondary wetland hydrology indicators exist.								

Field Investigato	rs: HB, MD	Date: 07	7/12/2022				
Project/Site: Atla	entic Shores	State: NJ	County: Monmo	outh			
Applicant/Owner: Atlantic Shores, LLC							
Plant Community	y#/Name: 37-W023	3-1W					
Note: if a more d	letailed site descrip to Asbury Ave.	otion is necessary,	, provide detail he	ere: PFO wetlar	nd associated	with a perennial	
Do normal enviro	onmental condition	s exist at the plant	t community?				
Yes ⊠	No □	(If no, explain)					
Has the vegetati	on, soils, and/or hy	drology been sign	nificantly disturbe	d?			
Yes□	No⊠	(If yes, explain)					
		٧	EGETATION				
Domina	ant Plant Species	Percent	Cover	Indicator Sta	itus	Stratum	
1. Green Ash (Fraxinus pennsylvanica) 50 FACW Tree 2. Sweet Gum (Liquidambar styraciflua) 30 FAC Tree 3. Sweet Pepperbush (Clethra alnifolia) 50 FACW Sapling/Shrub 4. Highbush Blueberry (Vaccinium corymbosum)40 FACW Sapling/Shrub  Percent of Dominant Species that are OBL, FACW, and/or FAC: 100%							
	·		No □				
Is the hydrophytic vegetation criterion met? Yes ⊠ No □  Rationale: Majority of species present are FAC or FACW.							
			SOILS				
Series/Phase:			Subgroup:				
Is the soil on the hydric soils list? Yes $\square$ No $\square$ Undetermined $\square$							
Is the soil a Histosol? Yes $\square$ No $\boxtimes$ Histic epidedon present? Yes $\square$ No $\boxtimes$						No ⊠	
Is the soil: Mottled? Yes $\boxtimes$ No $\square$ Gleyed? Yes $\square$ No $\boxtimes$							
Matrix Color: 0-4	" 10YR 2/2 100%;	4-8" 10YR 3/1 989	%; 8-10" 10YR ¾	100% Mo	ttle Colors: 7.5	YR 4/6 2%	
Other hydric soil indicators: Redox Dark Surface							

Is the hydric soil criterion met?	Yes ⊠	No □	
Rationale: eocamonfare			
	Н	IYDROLOGY	
Is the ground surface inundated?	Yes □	No ⊠	Surface water depth: N/A
Is the soil saturated? Yes $\ \square$	No ⊠		
Depth to free-standing water in pit/s	soil probe hole: N/	'A	
List of other field evidence of surface	ce inundation or so	oil saturation: Geo	morphic position and drainage patterns.
Is the wetland hydrology criterion m	net? Yes ⊠	No □	
Rationale: Two secondary indicator	rs present.		

Field Investigators: HB, MD Date: 07/11/2022								
Project/Site: Atlantic Shores	State: NJ	County: Monmout	th					
Applicant/Owner: Atlantic Shores, LLC								
Plant Community#/Name: 37-W024-	1U							
Note: if a more detailed site description maintained side of a roadway.	on is necessary, p	orovide detail here	e: Area consists of mow	ed grasses and is a				
Do normal environmental conditions	exist at the plant	community?						
Yes ⊠ No □ (	If no, explain)							
Has the vegetation, soils, and/or hydronycle	rology been signit	ficantly disturbed?						
Yes⊠ No□ ( berm	lf yes, explain) So	oils were previous	ly excavated and piled	to create this upland				
	VE	GETATION						
Dominant Plant Species	Percent (	Cover	Indicator Status	Stratum				
1. Red fescue (Festuca rubra)		90	FACU	Herb				
2. White Clover (Trifolium repe		15	FACU	<u>Herb</u>				
Percent of Dominant Species that are	e OBL, FACW, ar	nd/or FAC: 0%						
Is the hydrophytic vegetation criterior	n met? Yes $\square$	No ⊠						
Rationale: All species present are FA	CU.							
		SOILS						
Series/Phase:		Subgroup:						
Is the soil on the hydric soils list?	∕es □	No □	Undetermined $\square$					
Is the soil a Histosol? Yes $\ \square$	No ⊠	Histic ep	idedon present? Yes	□ No ⊠				
Is the soil: Mottled? Yes	No ⊠	Gleyed?	Yes □ No I	$\boxtimes$				
Matrix Color: 0-4" 10YR 3/1 (100%) N	Mottle Colors: N/A	1						
Other hydric soil indicators: None								
Is the hydric soil criterion met? Yes □ No ⊠								

Rationale: Description of the control of the contro						
HYD	ROLOGY					
Is the ground surface inundated? Yes $\ \square$	lo 🗵	Surface water depth: None				
Is the soil saturated? Yes $\ \square$ No $\ \boxtimes$						
Depth to free-standing water in pit/soil probe hole: None	)					
List of other field evidence of surface inundation or soil s	List of other field evidence of surface inundation or soil saturation: None					
Is the wetland hydrology criterion met? Yes $\ \Box$	No	$\boxtimes$				
Rationale: No primary or secondary wetland hydrology indicators exist.						

Field Investigators: HB, MD Date:	Field Investigators: HB, MD Date: 07/12/2022						
Project/Site: Atlantic Shores State: NJ	Project/Site: Atlantic Shores State: NJ County: Monmouth						
Applicant/Owner: Atlantic Shores, LLC							
Plant Community#/Name: 37-W024-1W							
Note: if a more detailed site description is necessa	ry, provide d	letail here: PFO we	tland.				
Do normal environmental conditions exist at the pla	ant commun	ity?					
Yes $\boxtimes$ No $\square$ (If no, explain)							
Has the vegetation, soils, and/or hydrology been si	ignificantly d	isturbed?					
Yes□ No⊠ (If yes, explain	1)						
	VEGETATI	ON					
Dominant Plant Species Perce	ent Cover	Indicator	Status	Stratum			
1. Green Ash (Fraxinus pennsylvanica) 50 FACW Tree 2. Sweet Gum (Liquidambar styraciflua) 30 FAC Tree 3. Sweet Pepperbush (Clethra alnifolia) 50 FACW Sapling/Shrub 4. Highbush Blueberry (Vaccinium corymbosum)40 FACW Sapling/Shrub 5. Common Reed (Phragmites australis) 40 FACW Herb  Percent of Dominant Species that are OBL, FACW, and/or FAC: 100%  Is the hydrophytic vegetation criterion met? Yes ☑ No ☐  Rationale: Majority of species present are FAC or FACW.							
	SOILS						
Series/Phase:	Subgrou	p:					
Is the soil on the hydric soils list? Yes $\square$ No $\square$ Undetermined $\square$							
Is the soil a Histosol? Yes ☐ No ☑	$\boxtimes$	Histic epidedon pro	esent? Yes	No ⊠			
Is the soil: Mottled? Yes ⊠ No □		Gleyed? Yes □	No ⊠				
Matrix Color: 0-4" 10YR 2/2 100%; 4-8" 10YR 3/1 9	98%; 8-10" 1	0YR ¾ 100%	Mottle Colors: 7.5	5YR 4/6 2%			
Other hydric soil indicators: Redox Dark Surface							

Is the hydric soil criterion met?	Yes ⊠	No □						
Rationale: De lo la								
	HYDROLOGY							
Is the ground surface inundated?	Yes □	No ⊠	Surface water depth: N/A					
Is the soil saturated? Yes $\ \square$	No ⊠							
Depth to free-standing water in pit/s	soil probe hole: N	'A						
List of other field evidence of surface	ce inundation or se	oil saturation: Geo	morphic position and drainage patterns.					
Is the wetland hydrology criterion m	net? Yes ⊠	No □						
Rationale: Two secondary indicator	rs present.							

Field Investigators: HB, MD Date: 07/11/2022								
Project/Site: Atlantic Shores Sta	te: NJ County:	Monmouth						
Applicant/Owner: Atlantic Shores, LLC								
Plant Community#/Name: 37-W025-1U								
Note: if a more detailed site description maintained side of a roadway.	is necessary, provide o	letail here: Area consists of mo	wed grasses and is a					
Do normal environmental conditions ex	ist at the plant commun	ity?						
Yes ⊠ No □ (If r	no, explain)							
Has the vegetation, soils, and/or hydrol	ogy been significantly d	isturbed?						
Yes⊠ No□ (If y	yes, explain) Soils were	previously excavated and piled	d to create this upland					
	VEGETATI	ON						
Dominant Plant Species	Percent Cover	Indicator Status	Stratum					
Red fescue (Festuca rubra)	90	FACU	<u>Herb</u>					
White Clover (Trifolium repense)		FACU	<u>Herb</u>					
Percent of Dominant Species that are C	DBL, FACW, and/or FAC	D: 0%						
Is the hydrophytic vegetation criterion n	net? Yes	No ⊠						
Rationale: All species present are FACI	U.							
	SOILS							
Series/Phase:	Subgrou	p:						
Is the soil on the hydric soils list? Yes	s □ No □	Undetermined $\square$						
Is the soil a Histosol? Yes $\ \square$	No ⊠	Histic epidedon present? Yes	$\square$ No $\boxtimes$					
Is the soil: Mottled? Yes $\square$	No ⊠	Gleyed? Yes □ No	$\boxtimes$					
Matrix Color: 0-4" 10YR 3/1 (100%) Mottle Colors: N/A								
Other hydric soil indicators: None								
Is the hydric soil criterion met? Yes □ No ⊠								

Rationale: Description of the control of the contro						
HYD	ROLOGY					
Is the ground surface inundated? Yes $\ \square$	lo 🗵	Surface water depth: None				
Is the soil saturated? Yes $\ \square$ No $\ \boxtimes$						
Depth to free-standing water in pit/soil probe hole: None	)					
List of other field evidence of surface inundation or soil s	List of other field evidence of surface inundation or soil saturation: None					
Is the wetland hydrology criterion met? Yes $\ \Box$	No	$\boxtimes$				
Rationale: No primary or secondary wetland hydrology indicators exist.						

Field Inv	estigators: HB, MD		Date: 07/12	/2022			
Project/S	Project/Site: Atlantic Shores State: NJ County: Monmouth						
Applicar	nt/Owner: Atlantic S	hores, LLC					
Plant Co	ommunity#/Name: 3	7-W025-1W					
Note: if a	a more detailed site	description is nec	essary, pro	vide detail her	e: PFO wetland.		
Do norm	nal environmental co	onditions exist at t	he plant cor	nmunity?			
Yes ⊠	No □	(If no, ex	olain)				
Has the	vegetation, soils, ar	nd/or hydrology be	en significa	ntly disturbed	?		
Yes□	No⊠	(If yes, ex	(plain)				
			VEGE	TATION			
	Dominant Plant Sp	ecies	Percent Cov	/er	Indicator Status	;	Stratum
Is the hy	<ol> <li>Sweet Gum (Liquidambar styraciflua)</li> <li>Sweet Pepperbush (Clethra alnifolia)</li> <li>FAC</li> <li>FAC</li> <li>Tree</li> <li>Sapling/Shrub</li> </ol>						
			S	OILS			
Series/P	Phase:		Su	bgroup:			
Is the so	oil on the hydric soils	s list? Yes □	No		Undetermined		
Is the so	oil a Histosol?	∕es □	No ⊠	Histic e <sub>l</sub>	oidedon present?	Yes 🗆	No 🗵
Is the so	oil: Mottled?	Yes ⊠	No □	Gleyed?	P Yes □	No ⊠	
Matrix C	Color: 0-4" 10YR 2/2	100%; 4-8" 10YR	3/1 98%; 8	-10" 10YR ¾ ′	100% Mottle	Colors: 7.5	5YR 4/6 2%
Other hy	/dric soil indicators:	Redox Dark Surfa	ice				
Is the hy	dric soil criterion me	et? Yes ⊠	No				

Rationale: Delo la la la falle de la ella									
HYDROLOGY									
Is the ground surface inundated? Yes □	No ⊠	Surface water depth: N/A							
Is the soil saturated? Yes $\square$ No $\boxtimes$									
Depth to free-standing water in pit/soil probe	e hole: N/A								
List of other field evidence of surface inundation or soil saturation: Geomorphic position and drainage patterns.									
Is the wetland hydrology criterion met? Yes $\ oxdot$ No $\ oxdot$									
Rationale: Two secondary indicators present.									

Field Inv	Field Investigators: HB, MD Date: 07/11/2022							
Project/S	Project/Site: Atlantic Shores State: NJ County: Monmouth							
Applicar	nt/Owner: Atlantic Shores, L	LC						
Plant Community#/Name: 37-W026-1U								
	a more detailed site descrip ned side of a roadway.	tion is necessary,	provide detail here	e: Area consists of	mowed g	rasses and is a		
Do norm	nal environmental conditions	s exist at the plant	community?					
Yes ⊠	No □	(If no, explain)						
Has the	vegetation, soils, and/or hy	drology been sign	ficantly disturbed?	•				
Yes⊠ berm	No□	(If yes, explain) S	oils were previous	ly excavated and	piled to cre	eate this upland		
		VI	EGETATION					
	Dominant Plant Species	Percent	Cover	Indicator Status		Stratum		
1. 2.	Red fescue (Festuca rubra White Clover (Trifolium rep	<del></del>	90	FACU FACU		<u>Herb</u> Herb		
	of Dominant Species that a			17.00		11010		
	drophytic vegetation criterion		No ⊠					
•	e: All species present are F							
			SOILS					
Series/P	Phase:		Subgroup:					
Is the so	oil on the hydric soils list?	Yes □	No □	Undetermined [				
Is the so	oil a Histosol? Yes □	No ⊠	Histic ep	idedon present?	Yes □	No ⊠		
Is the so	oil: Mottled? Yes	□ No ⊠	Gleyed?	Yes □	No ⊠			
Matrix C	color: 0-4" 10YR 3/1 (100%)	Mottle Colors: N/A	4					
Other hy	dric soil indicators: None							
Is the hydric soil criterion met? Yes □ No ⊠								

Rationale: Description of the control of the contro								
HYDROLOGY								
Is the ground surface inundated? Yes $\ \square$	lo 🗵	Surface water depth: None						
Is the soil saturated? Yes $\square$ No $\boxtimes$								
Depth to free-standing water in pit/soil probe hole: None	)							
List of other field evidence of surface inundation or soil s	saturation: N	lone						
Is the wetland hydrology criterion met? Yes $\ \square$	No							
Rationale: No primary or secondary wetland hydrology indicators exist.								

Field Investigators: HB, MD Date: 07/12/2022						
Project/Site: Atlantic Shores State: NJ County: Monmouth						
Applicant/Owner: Atlantic Shores, I	LC					
Plant Community#/Name: 37-W026	6-1W					
Note: if a more detailed site descrip	tion is necessary,	provide detail here: POW wetland.				
Do normal environmental condition	s exist at the plant	community?				
Yes ⊠ No □	(If no, explain)					
Has the vegetation, soils, and/or hy	drology been signi	ificantly disturbed?				
Yes□ No⊠	(If yes, explain)					
	VE	EGETATION				
Dominant Plant Species	Percent	Cover Indicator Status Stratum				
1. Pondweed (Potamogeton	sp.) 5	OBL Herb				
Percent of Dominant Species that a	are OBL, FACW, a	nd/or FAC: 100%				
Is the hydrophytic vegetation criteri	on met? Yes ⊠	No □				
Rationale: Only species is OBL.						
		SOILS				
Series/Phase:		Subgroup:				
Is the soil on the hydric soils list?	Yes □	No $\square$ Undetermined $\square$				
Is the soil a Histosol? Yes $\ \square$	No □	Histic epidedon present? Yes $\ \square$ No $\ \square$				
Is the soil: Mottled? Yes	□ No □	Gleyed? Yes $\square$ No $\square$				
Matrix Color:		Mottle Colors:				
Other hydric soil indicators:						
Is the hydric soil criterion met? Yes $\square$ No $\square$						
Rationale: o o o o o o o o o o o o o o o o o o o	e o cecaae					

#### **HYDROLOGY**

Is the ground surface inundated? Yes $\ oximes$	No □	Surface water depth: 48"+					
Is the soil saturated? Yes $\ oximes$	No □						
Depth to free-standing water in pit/soil probe hole: 0"							
List of other field evidence of surface inundation or soil saturation: Geomorphic position and drainage patterns.							
Is the wetland hydrology criterion met? Yes $\ oxdot$ No $\ oxdot$							
Rationale: Multiple primary and secondary indicators present.							

Field Investigators: HB, MD Date: 07/11/2022								
Project/Site: Atlantic Shores State: NJ County: Monmouth								
Applicant/Owner: Atlantic Shores, LLC								
Plant Community#/Name: 37-W027-1L	J							
Note: if a more detailed site description is necessary, provide detail here: Area consists of mowed grasses and is a maintained side of a roadway.								
Do normal environmental conditions ex	xist at the plant commun	ity?						
Yes ⊠ No □ (If no, explain)								
Has the vegetation, soils, and/or hydro	logy been significantly d	isturbed?						
Yes⊠ No□ (If berm	yes, explain) Soils were	previously excavated and piled	d to create this upland					
VEGETATION								
Dominant Plant Species	Percent Cover	Indicator Status	Stratum					
Red fescue (Festuca rubra)	90	FACU	<u>Herb</u>					
White Clover (Trifolium repense)		FACU	<u>Herb</u>					
Percent of Dominant Species that are	OBL, FACW, and/or FAC	D: 0%						
Is the hydrophytic vegetation criterion r	met? Yes □	No ⊠						
Rationale: All species present are FAC	SU.							
	SOILS							
Series/Phase:	Subgrou	p:						
Is the soil on the hydric soils list? Ye	s 🗆 No 🗆	Undetermined						
Is the soil a Histosol? Yes $\ \square$	No ⊠	Histic epidedon present? Yes	$\square$ No $\boxtimes$					
Is the soil: Mottled? Yes □	No ⊠	Gleyed? Yes □ No	$\boxtimes$					
Matrix Color: 0-4" 10YR 3/1 (100%) Mo	ottle Colors: N/A							
Other hydric soil indicators: None								
Is the hydric soil criterion met? Yes □ No ⊠								

Rationale: Dall la cala le la la la collection de la collection de la cala la								
HYDROLOGY								
Is the ground surface inundated? Yes □ No ⊠ Surface water depth: None								
Is the soil saturated? Yes $\square$ No $\boxtimes$								
Depth to free-standing water in pit/soil probe hole: None								
List of other field evidence of surface inundation or soil saturation: None								
Is the wetland hydrology criterion met? Yes $\square$ No $\boxtimes$								
Rationale: No primary or secondary wetland hydrology indicators exist.								

Field In	vestigators: HB, MD		Date: 07	/12/2022					
Project/Site: Atlantic Shores State: NJ County: Monmouth									
Applica	nt/Owner: Atlantic Sl	nores, LLC							
Plant Co	ommunity#/Name: 3	7-W027-1W							
Note: if	a more detailed site	description is ne	cessary,	provide d	etail here	: PFO wetland.	•		
Do norn	nal environmental co	nditions exist at	the plant	communi	ty?				
Yes ⊠	No □	(If no, ex	plain)						
Has the	vegetation, soils, ar	d/or hydrology b	een signi	ficantly di	sturbed?				
Yes□	No⊠	(If yes, e	xplain)						
			VE	GETATIO	NC				
	Dominant Plant Sp	ecies	Percent	Cover	[	Indicator Statu	S	Stratum	
Is the h	Green Ash (Fraxing Sweet Gum (Liquid Sweet Pepperbush Highbush Blueberr of Dominant Species ydrophytic vegetation le: Majority of species	ambar styraciflum (Clethra alnifolia y (Vaccinium con s that are OBL, I n criterion met?	a) ymbosum FACW, ar	nd/or FAC	:: 100% No 🗆	FACV FAC FACV	V	Tree Sapling/Shrub Sapling/Shrub	
				SOILS					
Series/F	Phase:			Subgrou	o:				
Is the so	oil on the hydric soils	list? Yes □		No □	ı	Undetermined			
Is the so	oil a Histosol?	′es □	No ⊠		Histic epi	dedon present	? Yes □	No 🗵	
Is the so	oil: Mottled?	Yes ⊠	No □		Gleyed?	Yes □	No ⊠		
Matrix C	Color: 0-4" 10YR 2/2	100%; 4-8" 10Yi	R 3/1 98%	6; 8-10" 1	0YR ¾ 10	00% Mottle	e Colors: 7.5	5YR 4/6 2%	
Other h	ydric soil indicators:	Redox Dark Surf	ace						
Is the h	ydric soil criterion me	et? Yes ⊠		No □					

Rationale: De o call conface cone o e o								
HYDROLOGY								
Is the ground surface inundated? Yes $\ \Box$	No ⊠	Surface water depth: N/A						
Is the soil saturated? Yes $\square$ No $\boxtimes$								
Depth to free-standing water in pit/soil probe hole:	N/A							
List of other field evidence of surface inundation of	r soil saturation: Geo	morphic position and drainage patterns.						
Is the wetland hydrology criterion met? Yes $\ oxdot$ No $\ \Box$								
Rationale: Two secondary indicators present.								

### WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site:	COP South Larrabee	City/Cour	ity: Monmouth Co	ountv. NJ	Sampling Date:	02/16/2023	
Applicant/Owner:	AS	OW	·	State: New Jersey	· · · -	26-W008-1U	
Investigator(s):	ALTC	Section, Township, Range:		Monmouth County, NJ			
Landform (hillslope, terrace, etc):	Hillslope	Local relief (concave, convex, none):		convex	convex Slope (%		
Subregion (LRR or MLRA):	LRR S		1208965 Long	g: -74.1960083	3 Datum	n: WGS 1984	
Soil Map Unit Name:	Atsion sand, 0 to 2 perce	nt slopes, Northern Tid		NWI classification	n:		
Are climatic / hydrologic conditions or				If no, explain in Remark	s.)		
Are Vegetation , Soil	, or Hydrology	significantly disturbed	? Are "Norma	al Circumstances" prese	nt? Yes >	( No	
	, or Hydrology	naturally problematic	? (If needed,	explain any answers in	Remarks.)		
SUMMARY OF FINDINGS - A	Attach site map show	ving sampling po	oint locations, tran	sects, important	features, etc.		
Hydrophytic Vegetation Present?	-	No X	Is the Sampled Area	· · ·	,		
Hydric Soil Present?		No X	within a Wetland?	Yes	No		
Wetland Hydrology Present?		No X	If yes, optional Wetland			_	
Wettaria Hydrology Frescht:	1	<u> </u>	ii yes, optional wettan	1 OILC ID.			
Remarks: (Explain alternative proc	edures here or in a separat	e report.)					
HYDROLOGY							
Wetland Hydrology Indicators:							
Primary Indicators (minimum of one	· · · · · · · · · · · · · · · · · · ·				tors (minimum of t	wo required)	
Surface Water (A1)		ater-Stained Leaves (I	39)	Surface Soil			
High Water Table (A2)		quatic Fauna (B13)		Drainage Pa			
Saturation (A3)		arl Deposits (B15)		Moss Trim L			
Water Marks (B1)	<del></del>	drogen Sulfide Odor (	•	<del></del>	Water Table (C2)		
Sediment Deposits (B2)	<del></del>	kidized Rhizospheres		Crayfish Bur			
Drift Deposits (B3)	Pr	esence of Reduced Ire	on (C4)	Saturation V	isible on Aerial Ima	agery (C9)	
Algal Mat or Crust (B4)	Re	ecent Iron Reduction in	n Tilled Soils (C6)	Stunted or S	tressed Plants (D1	)	
Iron Deposits (B5)	Th	nin Muck Surface (C7)		Geomorphic	Position (D2)		
Inundation Visible on Aerial In	nagery (B7) Of	her (Explain in Remar	ks)	Shallow Aqu	itard (D3)		
Sparsely Vegetated Concave	Surface (B8)			Microtopogra	aphic Relief (D4)		
				FAC-Neutral	Test (D5)		
Field Observations							
Field Observations:	Van Na V I	Donth (inches)					
		Depth (inches):					
		Depth (inches):				N V	
	Yes NoX [	Depth (inches):	Wetland	Hydrology Present?	Yes	No X	
(includes capillary fringe)							
Describe Recorded Data (stream g	nauge monitoring well aeri	al nhotos, previous ins	enections) if available				
Describe Recorded Bata (Stream 9	dage, monitoring well, acri	ai priotos, previous irie	pections), ii available.				
Remarks:							

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W008-1U **Dominance Test worksheet: Number of Dominant Species** That Are OBL, FACW, or FAC: 2 (A) Absolute Dominant Indicator Tree Stratum (Plot size: 30 Feet % Cover Species? Status **Total Number of Dominant** 1. Acer rubrum / Red maple FAC Species Across All Strata: 4 \_\_\_\_ (B) 2. Juniperus virginiana / Eastern red-cedar Yes FACU 30 3. Liquidambar styraciflua / Sweetgum No FAC 10 Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 70 = Total Cover OBL species 0 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: 15 Feet FACW species 0 \_\_\_ x 2 = \_\_ 45 \_\_\_ x 3 = \_\_ FAC species 135 35 FACU species x 4 = x 5 = UPL species 0 (A) \_\_\_ Column Totals: 6. Prevalence Index = B/A = 3.44 **Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation Smilax rotundifolia / Horsebrier FAC 2 - Dominance Test is >50% 2. Ilex opaca / American holly FACU 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and 10 = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes \_\_\_\_ No \_X\_\_ Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 26-W008-1U

Profile Desci	iption: (Describe to th	e depth neede			or confirm	the abser	nce of indicators	.)
Depth Matrix Redox Features								
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR 2/2	100					Fine Sndy Lm	
·								
			_					
			_					
¹Type: C=Cor	centration, D=Depletion	, RM=Reduced	Matrix, MS=Mask	ed Sand Gra	ains.		²Locat	ion: PL=Pore Lining, M=Matrix.
Hydric Soil II	diaatara						Indicators	for Droblemetic Hydric Caile3
•			Debaselse Deless	Curfoss (CC		MI DA 440		for Problematic Hydric Soils³:
Histosol	•		Polyvalue Below	•	, .		· —	Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)		Thin Dark Surfac			( 149B)		Prairie Redox (A16) (LRR K, L, R)
Black His	` '	_	Loamy Mucky Mi		LRR K, L)			Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Gleyed M					Surface (S7) (LRR K, L)
	Layers (A5)		Depleted Matrix					alue Below Surface (S8) (LRR K, L)
	Below Dark Surface (A	.11)	Redox Dark Surf					Park Surface (S9) (LRR K, L)
_	rk Surface (A12)		Depleted Dark S					anganese Masses (F12) (LRR K, L, R)
_	ucky Mineral (S1)		Redox Depression	ons (F8)				ont Floodplain Soils (F19) (MLRA 149B)
_	leyed Matrix (S4)							Spodic (TA6) (MLRA 144A, 145, 149B)
_	edox (S5)							arent Material (F21)
	Matrix (S6)							Shallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, ML	RA 149B)					Other	(Explain in Remarks)
³Indicators of	hydrophytic vegetation	and wetland hy	drology must be pro	esent, unles	s disturbed	or problen	natic.	
Restrictive L	ayer (if observed):							
Type:								
Depth (inc	ches):		<del>-</del>				Hydric Soil Pr	esent? Yes <u>X</u> No
Remarks:								

Project/Site:	COP South Larrabee	City/Cou	nty: Monmouth C	ounty, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	A	SOW		State: New Jersey	Sampling Point:	26-W008-1W
Investigator(s):	ALTC	Section,	Township, Range:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Swale	Local relief (conc	ave, convex, none):	concave	Slope (	%): 0-3
Subregion (LRR or MLRA):	LRR S	Lat: 40.	12106767 Long	g:74.196000	5 Datum:	WGS 1984
Soil Map Unit Name:	Atsion sand, 0 to 2 perce	ent slopes, Northern Ti	dewater Area	NWI classification	n:	
Are climatic / hydrologic conditions or	n the site typical for this tin	ne of year? Yes	X No (I	lf no, explain in Remark	s.)	
Are Vegetation, Soil	, or Hydrology	significantly disturbed	d? Are "Norma	al Circumstances" prese	nt? Yes X	No
Are Vegetation, Soil	, or Hydrology	_naturally problematio	? (If needed,	explain any answers in	Remarks.)	
<b>SUMMARY OF FINDINGS - A</b>	Attach site map sho	wing sampling p	oint locations, tran	sects, important t	features, etc.	
Hydrophytic Vegetation Present?	Yes X	No	Is the Sampled Area			
Hydric Soil Present?		No	within a Wetland?	Yes	No	
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland			
, 0,						
Remarks: (Explain alternative proc	edures here or in a separa	ate report.)				
HYDROLOGY						
Wetland Hydrology Indicators: Primary Indicators (minimum of on	a required; abook all that a	annlu)		Cocondany Indica	toro (minimum of tu	o required)
			(DO)	Secondary indica	Cracks (P6)	o required)
Surface Water (A1) High Water Table (A2)		Vater-Stained Leaves ( Iquatic Fauna (B13)	_D9)	Drainage Pa	` '	
Saturation (A3)	<del></del>	Marl Deposits (B15)		Moss Trim L		
Water Marks (B1)	<del></del>	lydrogen Sulfide Odor	(C1)		Water Table (C2)	
Sediment Deposits (B2)	<del></del>	Oxidized Rhizospheres		Crayfish Bur		
Drift Deposits (B3)		Presence of Reduced In		<del></del>	isible on Aerial Imag	nery (C9)
Algal Mat or Crust (B4)		Recent Iron Reduction i	` '	<del></del>	tressed Plants (D1)	
Iron Deposits (B5)	<del></del>	hin Muck Surface (C7)			Position (D2)	
Inundation Visible on Aerial In	<del></del>	Other (Explain in Rema		Shallow Aqu		
THE THE PROPERTY OF THE PROPER					(20)	
l <del></del>	- · · · · —			Microtopogra	aphic Relief (D4)	
X Sparsely Vegetated Concave	- · · · · —			Microtopogra	aphic Relief (D4) Test (D5)	
l <del></del>	- · · · · —					
X Sparsely Vegetated Concave  Field Observations:	- · · · · —					
X Sparsely Vegetated Concave  Field Observations: Surface Water Present?	Surface (B8)  Yes NoX	Depth (inches):				
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present?	Yes NoX Yes NoX	Depth (inches):		FAC-Neutral	Test (D5)	
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Surface (B8)  Yes NoX	· · · · · · · · · · · · · · · · · · ·	Wetland			No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present?	Yes NoX Yes NoX	Depth (inches):	Wetland	FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No
X Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X           Yes         No         X           Yes         No         X	Depth (inches):		FAC-Neutral	Test (D5)	No

/EGETATION - Use scientific names of plants.				Sampling Point: 26-W008-1W
Trac Chrohum (Dish sira) 20 Fash	Absolute	Dominant	Indicator	Dominance Test worksheet:  Number of Dominant Species  That Are OBL, FACW, or FAC: 3 (A)
Tree Stratum (Plot size: 30 Feet )  1. Acer rubrum / Red maple  2.	% Cover 80	Species? Yes	Status FAC	Total Number of Dominant Species Across All Strata: 3 (B)
3	_	_		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:  Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:15 Feet)  1. Acer rubrum / Red maple 234.	_		FAC	OBL species         0         x 1 =         0           FACW species         0         x 2 =         0           FAC species         165         x 3 =         495           FACU species         0         x 4 =         0           UPL species         0         x 5 =         0           Column Totals:         165         (A)         495         (B)
5. 6.	_	<u> </u>		Prevalence Index = B/A = 3.0
7	80	= Total Cov	er	Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation
Smilax rotundifolia / Horsebrier     Smilax rotundifolia / Horsebrier     Smilax rotundifolia / Horsebrier     Smilax rotundifolia / Horsebrier     Smilax rotundifolia / Horsebrier	_			<ul> <li>X 2 - Dominance Test is &gt;50%</li> <li>X 3 - Prevalence Index ≤3.0¹</li> <li>4 - Morphological Adaptations¹ (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain )</li> </ul>
5	_			¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
9	_	_		Definitions of Vegetation Strata  Tree - Woody plants 3 in. (7.6 cm) or more in diameter at
12. Woody Vine Stratum (Plot size: 30 Feet )	5	= Total Cov	er	breast height (DBH), regardless of height.  Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
1				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vines - All woody vines greater than 3.28 ft in
4.	0	= Total Cov	er	height.  Hydrophytic
				Vegetation           Present?         YesX No
Remarks: (Explain alternative procedures here or in a separate	e report.)			

SOIL Sampling Point: 26-W008-1W

Profile Desc Depth	ription: (Describe to th Matrix	ne depth ne		he indicator x Features	or confirm	the abser	nce of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture	Remarks
0-18	10YR 2/1	100	( 2 2 3)				Fine Sndy Lm	
	-		•					
-	-		•					
				_				
	-							
	-		•					
¹Type: C=Coi	ncentration, D=Depletion	n RM=Redu		ked Sand Gr	ains		²I ocatio	n: PL=Pore Lining, M=Matrix.
		,	- Watth, We Wat	- Carla Ci				-
Hydric Soil I								or Problematic Hydric Soils <sup>3</sup> :
Histosol	•		Polyvalue Belov	-			· -	uck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		Thin Dark Surfa			(149B)		rairie Redox (A16) (LRR K, L, R)
	stic (A3)		Loamy Mucky N		(LRR K, L)			ucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Gleyed					rface (S7) (LRR K, L)
	d Layers (A5)		Depleted Matrix					ue Below Surface (S8) (LRR K, L)
Depleted	d Below Dark Surface (A	<del>\</del> 11)	Redox Dark Su	rface (F6)			Thin Da	rk Surface (S9) (LRR K, L)
X Thick Da	ark Surface (A12)		Depleted Dark	Surface (F7)			Iron-Mai	nganese Masses (F12) (LRR K, L, R)
Sandy M	lucky Mineral (S1)		Redox Depress	ions (F8)			Piedmor	nt Floodplain Soils (F19) (MLRA 149B)
Sandy G	Sleyed Matrix (S4)						Mesic S	podic (TA6) (MLRA 144A, 145, 149B)
Sandy R	tedox (S5)						Red Par	rent Material (F21)
Stripped	Matrix (S6)						Very Sha	allow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, ML	RA 149B)					Other (E	Explain in Remarks)
Indicators of	hydrophytic vegetation	and wetland	hydrology must be p	oresent, unles	ss disturbed	or probler	natic.	
	ayer (if observed):							
Type:								
Depth (in	ches):						Hydric Soil Pres	sent? Yes X No No
Remarks:								

Investigator(s):  ALTC  Section, Township, Range:  Monmouth County, NJ  Landform (hillslope, terrace, etc):  Subregion (LRR or MLRA):  LRR S  Lat:  40.11846917  Long:  -74.19569283  Datum:  WO  Soil Map Unit Name:  Berryland sand, 0 to 2 percent slopes, frequently flooded  NWI classification:  Are climatic / hydrologic conditions on the site typical for this time of year? Yes X  Are Vegetation  NO (If no, explain in Remarks.)  Are Vegetation  Soil  On Hydrology  In Hydrology  Is the Sampled Area	0-10 SS 1984
Investigator(s): ALTC Section, Township, Range: Monmouth County, NJ  Landform (hillslope, terrace, etc): Berm Local relief (concave, convex, none): convex Slope (%):  Subregion (LRR or MLRA): LRR S Lat: 40.11846917 Long: -74.19569283 Datum: WC  Soil Map Unit Name: Berryland sand, 0 to 2 percent slopes, frequently flooded NWI classification:  Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)  Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No  Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes No X Is the Sampled Area	
Subregion (LRR or MLRA): LRR S Lat: 40.11846917 Long: -74.19569283 Datum: Work Soil Map Unit Name: Berryland sand, 0 to 2 percent slopes, frequently flooded NWI classification:  Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)  Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes No X Is the Sampled Area	
Subregion (LRR or MLRA): LRR S Lat: 40.11846917 Long: -74.19569283 Datum: Work Soil Map Unit Name: Berryland sand, 0 to 2 percent slopes, frequently flooded NWI classification:  Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)  Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes No X Is the Sampled Area	S 1984
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)  Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes No X Is the Sampled Area	
Are Vegetation, Soil, or Hydrologysignificantly disturbed? Are "Normal Circumstances" present? YesX _ N Are Vegetation, Soil, or Hydrologynaturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes NoX Is the Sampled Area	
Are Vegetation, Soil, or Hydrologynaturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes NoX Is the Sampled Area	
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present?  Yes NoX Is the Sampled Area	ວ
Hydrophytic Vegetation Present? Yes NoX Is the Sampled Area	
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Hodgin Onli December 1	
Hydric Soil Present?   Yes NoX   within a Wetland?   Yes NoX	
Wetland Hydrology Present?   Yes   No   X   If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures here or in a separate report.)	
HYDROLOGY	
Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)  Secondary Indicators (minimum of two required)	ired)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)	<del></del>
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)	
Saturation (A3) Marl Deposits (B15) Moss Trim Lines (B16)	
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	
Sediment Deposits (B2)  Oxidized Rhizospheres on Living Roots (C3)  Crayfish Burrows (C8)	
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C4)	9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)	
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3)	
Sparsely Vegetated Concave Surface (B8) Microtopographic Relief (D4) FAC-Neutral Test (D5)	
FAC-Neutral Test (D3)	
Field Observations:	
Surface Water Present? Yes NoX _ Depth (inches):	
Water Table Present? Yes NoX Depth (inches):	
Saturation Present? Yes No _X Depth (inches): Wetland Hydrology Present? Yes No _	X
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W009-1U **Dominance Test worksheet:** Number of Dominant Species That Are OBL, FACW, or FAC: 0 \_\_\_\_ (A) Absolute Dominant Indicator <u>Tree Stratum</u> (Plot size: \_ 30 Feet ) % Cover Species? Status **Total Number of Dominant** 1\_\_\_\_ (B) Species Across All Strata: 3. Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: 15 Feet FACW species 0 x 2 = \_\_\_ 0\_\_\_\_ x 3 = \_\_ FAC species 20 x 4 = FACU species x 5 = UPL species 0 (A) Column Totals: 6. Prevalence Index = B/A = 4.0 **Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation 1. Phytolacca americana / Pokeweed \_\_\_\_20 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and 20 = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_\_\_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes \_\_\_\_ No \_\_X Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 26-W009-1U

(Inches) Color (molst) % Color (molst) % Type! Loc* Texture Remarks 6-18 10YR 5/8 100 Fine Sand 6-18 10YR 5/8 100 Fine Sand Fi							x Features	Redo		Matrix	Depth
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand, Masked Sand, Mseles Sand, Surface (F3) (LRR K, L)  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand, Mseles Sand, Surface (F3) (LRR K, L)  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand, Mseles Sand, Surface (F3) (LRR K, L)  Type: C=Concentration, D=Depletion, MS=Masked Sand Grains.  Type: C=Concentration, D=Depletion, MS=Masked Sand Grains.  Type: C=Concentration, D=Depletion, MS=Masked Sand Grains.  Type: C=Concentration, MS=Masked Sand Grains.  Type: C=Concentration Matrix (Sand, Selection, MS=Masked Sand, Mselection, MS=Masked Sand, Selection, MS=Masked Sand, Selecti		Remarks		Texture	Loc²	Type <sup>1</sup>	%	Color (moist)	%	Color (moist)	(inches)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  *Location: PL=Pore Lining, M=Matrix ydric Soil Indicators: Histosol (A1)				Fine Sand					100	10YR 3/2	0-6
Histosol (A1)				Fine Sand					100	10YR 5/8	6-18
Histosol (A1)							_			-	
Histosol (A1)								•			
Histosol (A1)							_				
Histosol (A1)											
Histosol (A1)										-	
Histosol (A1)								•			
Histosol (A1)									· <del></del>		
Histosol (A1)							-		· ——	-	
ydric Soil Indicators:    Histosol (A1)								•			
ydric Soil Indicators:    Histosol (A1)											
ydric Soil Indicators:  Histosol (A1)	,	ore Lining M-Matrix	tion: DI =Dr	2l ocat		raine	ked Sand G	uced Matrix MS-Mas	n DM-Dedu	centration D-Depletic	Type: C=Cor
Histosol (A1)			PL=PC	Local		iallis.	keu Sanu G	iceu Matrix, MS-Mas	ii, Rivi–Redu		ype. C=Coi
Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Coast Prairie Redox (A16) (LRR K, Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (S7) (LRR K, L)  Thick Dark Surface (A11)  Redox Dark Surface (F6)  Thin Dark Surface (S9) (LRR K, L)  Thick Dark Surface (A12)  Depleted Dark Surface (F7)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Thin Dark Surface (F7)  Iron-Manganese Masses (F12) (LR K, L)  Mesic Spodic (TA6) (MLRA 144A, 1 Red Parent Material (F21)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Type:  Depth (inches):  Hydric Soil Present? Yes N	,³:	ematic Hydric Soils3:	for Proble								
Black Histic (A3)	-			-	MLRA 149E	88) <b>(LRR R</b> ,	w Surface (S	Polyvalue Belo		(A1)	Histosol
Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F3)  Depleted Below Dark Surface (A11)  Redox Dark Surface (F6)  Thin Dark Surface (S9) (LRR K, L)  Thick Dark Surface (A12)  Depleted Dark Surface (F7)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR K, L)  Redox Depressions (F8)  Piedmont Floodplain Soils (F19) (ML  Mesic Spodic (TA6) (MLRA 144A, 1  Mesic Spodic (TA6) (MLRA 144A, 1  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes  Note that Surface (S7) (LRR K, L)  Polyvalue Below Surface (S8) (LRR K, L)  Polyvalue Below Surface (S8) (LRR K, L)  Polyvalue Below Surface (S9) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Iron-Manganese Masses (F12) (LR  Piedmont Floodplain Soils (F19) (ML  Mesic Spodic (TA6) (MLRA 144A, 1  Mesic Spodic (TA6) (MLRA	L, R)	dox (A16) (LRR K, L, F	Prairie Re	Coast	A 149B)	RR R, MLRA	ice (S9) (LF	Thin Dark Surfa		ipedon (A2)	Histic Ep
Stratified Layers (A5)	K, L, R)	t or Peat (S3) (LRR K,	Mucky Pea	5 cm N		(LRR K, L)	/lineral (F1)	Loamy Mucky I		stic (A3)	Black Hi
Stratified Layers (A5)		7) (LRR K, L)	Surface (S7	Dark S			Matrix (F2)	Loamy Gleyed		n Sulfide (A4)	 Hydroge
Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Depleted Dark Surface (F7) Iron-Manganese Masses (F12) (LR Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (ML Sandy Gleyed Matrix (S4) Mesic Spodic (TA6) (MLRA 144A, 1 Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)  mdicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes N	K, L)										_
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) Dark Surface (S7) Depth (inches):  Depth (inches):  Trype: Depth (inches):  Depleted Dark Surface (F7) Iron-Manganese Masses (F12) (LR Red Parent Masses (F12) (ML Redox Depressions (F8) Piedmont Floodplain Soils (F19) (ML Redox Depressions (F8)  Nesic Spodic (TA6) (MLRA 144A, 1 Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Nestrictive Layer (if observed): Type: Depth (inches):  Hydric Soil Present? Yes N	, ,						. ,		A11)	• • •	
Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (ML Sandy Gleyed Matrix (S4) Mesic Spodic (TA6) (MLRA 144A, 1 Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)  ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  rype: Depth (inches): Hydric Soil Present? Yes N	R K. L. R)					)			,		
Sandy Gleyed Matrix (S4) Mesic Spodic (TA6) (MLRA 144A, 1 Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)  ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  testrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes N		` , ,	ū			,					
Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.							10110 (1 0)	Rodox Boprood			_
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)  ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes N	140, 1400)										
Dark Surface (S7) (LRR R, MLRA 149B)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Identification of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Identification of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Identification of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Identification of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Identification of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Identification of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Identification of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Identification of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Identification of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Identification of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Identification of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Identification of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.											
ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes  N									DA 440D)		
Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes N		Remarks)	(Explain in	Other					-RA 149B)	Tace (S7) (LRR R, MI	Dark Su
Type:  Depth (inches):				atic.	l or problema	ss disturbed	resent, unle	hydrology must be p	and wetland	hydrophytic vegetation	Indicators of
Type:  Depth (inches):										aver (if observed):	estrictive I
Depth (inches): Hydric Soil Present? Yes N										ayer (ii observea).	
	No X	Yes No	rocont?	Hydric Soil Dr						chee):	
Remarks:	10 <u> </u>	NO _	esenti	Hydric 30ii Pi							Deptil (iii
											emarks:

Project/Site:	COP South Larrabee	City/Coun	ty: Monmouth	County, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASC			State: New Jersey	Sampling Point:	26-W009-1W
Investigator(s):	ALTC	Section, T	ownship, Range:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Depressional area	Local relief (conca	ve, convex, none):	concave	Slope	(%): 0-3
Subregion (LRR or MLRA):	LRR S	Lat: 40.1	1845617 Lor	ng: -74.1958353	33 Datum	: WGS 1984
Soil Map Unit Name:	Berryland sand, 0 to 2 pe	ercent slopes, frequer	ntly flooded	NWI classification	on:	-
Are climatic / hydrologic conditions or	n the site typical for this time	of year? Yes X	No	(If no, explain in Remark	s.)	
Are Vegetation, Soil	, or Hydrologys	significantly disturbed	? Are "Norm	nal Circumstances" prese	nt? Yes X	No
Are Vegetation, Soil	, or Hydrologyr	naturally problematic?	(If needed	d, explain any answers in	Remarks.)	
<b>SUMMARY OF FINDINGS - A</b>	Attach site map show	ing sampling po	int locations, tra	insects, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X N	0	Is the Sampled Area	a		
Hydric Soil Present?		0	within a Wetland?	Yes X	No	
Wetland Hydrology Present?		0	If yes, optional Wetla		26-W009-1W	-
, 0,						
Remarks: (Explain alternative proc	edures here or in a separate	report.)				
HYDROLOGY						
Wetland Hydrology Indicators:  Primary Indicators (minimum of on		-l. ()		Casandan Indias	stava (mainima) ma af ti	magninad)
		• •	20)		ators (minimum of tv Cracks (B6)	wo required)
Surface Water (A1) X High Water Table (A2)		ter-Stained Leaves (E uatic Fauna (B13)	59)		atterns (B10)	
X Saturation (A3)	<del></del> ·	rl Deposits (B15)		Moss Trim L		
Water Marks (B1)	<del></del>	drogen Sulfide Odor (	C1)		Water Table (C2)	
Sediment Deposits (B2)		dized Rhizospheres of	•	Crayfish Bu		
Drift Deposits (B3)		sence of Reduced Iro	• ,		/isible on Aerial Ima	ngery (C9)
Algal Mat or Crust (B4)		cent Iron Reduction in	` '		Stressed Plants (D1	
Iron Deposits (B5)	<del></del>	n Muck Surface (C7)	Tilled Colla (CO)		Position (D2)	,
<del></del>	<del></del>	ier (Explain in Remarl	ke)	Shallow Aqu		
Inundation Visible on Aerial In	nagery (B7) Oth					
Inundation Visible on Aerial In Sparsely Vegetated Concave	<del>-</del>	iei (Explaiii iii Neiliaii	N3)			
Inundation Visible on Aerial In Sparsely Vegetated Concave	<del>-</del>	iei (Expiaiii iii Neman	no)	Microtopogr	aphic Relief (D4)	
	<del>-</del>	е (Ехрап п Кепап	NO)		aphic Relief (D4)	
Sparsely Vegetated Concave Field Observations:	<del>-</del>	lei (Expiain in Neman	No.	Microtopogr	aphic Relief (D4)	
Sparsely Vegetated Concave Field Observations:	Surface (B8)	epth (inches):		Microtopogr	aphic Relief (D4)	
Field Observations: Surface Water Present? Water Table Present?	Surface (B8)           Yes         No         D           Yes         No         D	epth (inches):	12	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	
Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Surface (B8)           Yes         No         D           Yes         No         D	epth (inches):	12	Microtopogr	aphic Relief (D4)	No
Field Observations: Surface Water Present? Water Table Present?	Surface (B8)           Yes         No         D           Yes         No         D	epth (inches):	12	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         D           Yes         X         No         D           Yes         X         No         D	epth (inches):epth (inches):epth (inches):	12 0 Wetlan	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No

				Dominance Test worksheet:
				Number of Dominant Species
				•
	Absolute	Dominant	Indicator	That Are OBL, FACW, or FAC: 3 (A)
ree Stratum (Plot size: 30 Feet )	% Cover	Species?	Status	
. Quercus bicolor / Swamp white oak	20	Yes	FACW	Total Number of Dominant
•		Yes	FAC	Species Across All Strata: 3 (B)
. Acer rubrum / Red maple	<u> </u>		FAU	
-				Percent of Dominant Species
				That Are OBL, FACW, or FAC: 100.0 (A/
				That Are Obl., FACTV, OF FAC.
				Prevalence Index worksheet:
	25	= Total Cov		Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size: 15 Feet )		10101 00.	Ci	OBL species 0 x 1 = 0
	75	\/	<b>5</b> 40	FACW species 20 x 2 = 40
Clethra alnifolia / Coastal sweet-pepperbush	75	Yes	FAC	FAC species 85 x 3 = 255
Acer rubrum / Red maple	5	No	FAC	FACU species 0 x 4 = 0
				UPL species 0 x 5 = 0
				Column Totals: 105 (A) 295 (
				Column totals. 100 (A) 200 ,
				Prevalence Index = B/A = 2.81
	80	_ = Total Cov	er	Hydrophytic Vegetation Indicators:
erb Stratum (Plot size: 5 Feet )				1 - Rapid Test for Hydrophytic Vegetation
				X 2 - Dominance Test is >50%
				X 3 - Prevalence Index ≤3.0¹
				4 - Morphological Adaptations¹ (Provide supporting
				Problematic Hydrophytic Vegetation¹ (Explain )
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
·	_	_		be present, unless disturbed or problematic.
			<u> </u>	·
		_		Definitions of Vegetation Strata
<u> </u>		_		
				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at
l				breast height (DBH), regardless of height.
2				
	0	_ = Total Cov	er	Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
oody Vine Stratum (Plot size:30 Feet)				. , ,
				Herb - All herbaceous (non-woody) plants, regardless of
				size, and woody plants less than 3.28 ft tall.
				Woody vines - All woody vines greater than 3.28 ft in
				height.
	0	_ = Total Cov	er	Hydrophytic
				Vegetation
				Present? Yes X No

SOIL Sampling Point: 26-W009-1W

Profile Description: (Describe to the depth			or confirm	the absen	ce of indicators.	)
Depth Matrix		x Features			_	
(inches) Color (moist) %	Color (moist)	<u></u> %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-2410YR 2/1100					Muck	
					, ,	
			·		· ·	_
			·		· ·	_
¹Type: C=Concentration, D=Depletion, RM=R	Reduced Matrix, MS=Mas	ked Sand Gr	ains.		²Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:					Indicators f	or Problematic Hydric Soils³:
X Histosol (A1)	Polyvalue Belov	v Surface (S	8) <b>(I DD D</b>	MI DA 1401		luck (A10) (LRR K, L, MLRA 149B)
		•	, .		· —	
Histic Epipedon (A2)	Thin Dark Surfa			( 149B)		Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Loamy Mucky N		(LKK K, L)			lucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Gleyed					urface (S7) (LRR K, L)
Stratified Layers (A5)	Depleted Matrix					ue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Redox Dark Su				Thin Da	ark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Depleted Dark S	Surface (F7)			Iron-Ma	anganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)	Redox Depress	ions (F8)			Piedmo	ont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)					Mesic S	Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)					Red Pa	arent Material (F21)
Stripped Matrix (S6)					Very SI	nallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149)	В)					Explain in Remarks)
<u> </u>						,
<sup>3</sup> Indicators of hydrophytic vegetation and wet	land hydrology must be p	resent, unles	ss disturbed	or problem	atic.	
<sup>3</sup> Indicators of hydrophytic vegetation and wet	land hydrology must be p	resent, unles	ss disturbed	or problem	atic.	
	land hydrology must be p	resent, unles	ss disturbed	or problem	atic.	
Restrictive Layer (if observed):	land hydrology must be p	resent, unles	ss disturbed	or problem	atic. Hydric Soil Pre	esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	ss disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	ss disturbed	or problem		esent? Yes <u>X</u> No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes <u>X</u> No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes <u>X</u> No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes <u>X</u> No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes <u>X</u> No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes <u>X</u> No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	s disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	es disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	es disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	es disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	es disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	es disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	es disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	es disturbed	or problem		esent? Yes X No
Restrictive Layer (if observed):  Type:  Depth (inches):	land hydrology must be p	resent, unles	es disturbed	or problem		esent? Yes X No

Project/Site:	COP South Larrabee	City/Cou	nty: Monmouth	County, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	AS	SOW	·	State: New Jersey		26-W010-1U
Investigator(s):	ALTC	Section,	Township, Range:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Hillslope	Local relief (conc	ave, convex, none):	convex	Slope (9	%): 0-5
Subregion (LRR or MLRA):	LRR S	Lat: 40.	.1154725 Lo	ong: -74.1760663	33 Datum:	WGS 1984
Soil Map Unit Name:	Berryland sand, 0 to 2 p	percent slopes, freque	ently flooded	NWI classification	on:	
Are climatic / hydrologic conditions or	n the site typical for this tim	e of year? Yes	X No	(If no, explain in Remarks	s.)	
Are Vegetation , Soil	, or Hydrology	significantly disturbed	d? Are "Norr	mal Circumstances" prese	ent? Yes X	No
Are Vegetation, Soil	, or Hydrology	naturally problemation	? (If needed	d, explain any answers in	Remarks.)	_
<b>SUMMARY OF FINDINGS - A</b>	Attach site map show	wing sampling p	oint locations, tra	ansects, important f	features, etc.	
Hydrophytic Vegetation Present?	-	No	Is the Sampled Are			
Hydric Soil Present?		No X	within a Wetland?	Yes	No	
Wetland Hydrology Present?		No X	If yes, optional Wetla			
Tremana rryanology r recent.		<u> </u>	- 1 you, optional trotte			
Remarks: (Explain alternative proc	edures here or in a separa	te report.)				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	· · · · · · · · · · · · · · · · · · ·				ators (minimum of two	o required)
Surface Water (A1)		ater-Stained Leaves (	(B9)		Cracks (B6)	
High Water Table (A2)	<del></del>	quatic Fauna (B13)		Drainage Pa		
Saturation (A3)		arl Deposits (B15)		Moss Trim L		
Water Marks (B1)	<del></del> '	ydrogen Sulfide Odor		<del></del> ·	Water Table (C2)	
Sediment Deposits (B2)	O:	xidized Rhizospheres	on Living Roots (C3)	Crayfish Bur	rows (C8)	
Drift Deposits (B3)	Pr	resence of Reduced Ir	ron (C4)	Saturation V	isible on Aerial Imag	jery (C9)
Algal Mat or Crust (B4)	R	ecent Iron Reduction i	in Tilled Soils (C6)	Stunted or S	Stressed Plants (D1)	
Iron Deposits (B5)	Th	nin Muck Surface (C7)	)	Geomorphic	Position (D2)	
Inundation Visible on Aerial In	nagery (B7) O	ther (Explain in Rema	rks)	Shallow Aqu	ıitard (D3)	
Sparsely Vegetated Concave	Surface (B8)			Microtopogra	aphic Relief (D4)	
				FAC-Neutral	Test (D5)	
Field Observations						
Field Observations:	V N- V	D th- (! h ) -				
		Depth (inches):				
		Depth (inches):				N. V
	Yes NoX I	Depth (inches):	wetian	nd Hydrology Present?	Yes	No <u>X</u>
(includes capillary fringe)						
Describe Recorded Data (stream g	nauge monitoring well aeri	al nhotos previous in	snections) if available			
Beschibe Recorded Bata (Stream g	jaage, monitoring well, aen	ai priotos, previous in	opeoliono), ii avaliable.			
Remarks:						

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W010-1U **Dominance Test worksheet: Number of Dominant Species** That Are OBL, FACW, or FAC: 3 (A) Absolute Dominant Indicator Tree Stratum (Plot size: 30 Feet ) % Cover Species? Status **Total Number of Dominant** 1. Pinus rigida / Pitch pine 20 Yes FACU Species Across All Strata: 4 \_\_\_\_ (B) 2. Acer rubrum / Red maple FAC Yes 3 Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 35 = Total Cover OBL species 0 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: 15 Feet 0 \_\_\_ x 2 = \_ FACW species Betula alleghaniensis / Yellow birch 55 \_ x 3 = FAC species FACU species 20 x 4 = UPL species 0 x 5 = (A) Column Totals: 75 5. 6. Prevalence Index = B/A = 3.27**Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation 1. Smilax rotundifolia / Horsebrier \_\_\_ 10 X 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 4. 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes X No Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 26-W010-1U

Depth	Matrix	dopin no	eded to document th	ne indicator x Features	or confirm	tne absei	ice of indicators	.,		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remark	(S
0-6	10YR 3/1	100	Color (moist)		Турс	LOC	Very Fine Sanc		rteman	
6-18	10YR 4/2	100			· ·		Very Fine Sanc			
0-10	1011(4/2	100	-		· ·		very i life Sanc			
			-		· —— ·					
					· ——					
				-						
				-						
¹Type: C=Con	centration, D=Depletion	, RM=Redu	ıced Matrix, MS=Mas	ked Sand Gr	ains.		²Locat	ion: PL=P	ore Lining, M	l=Matrix.
Hydric Soil In	ndicators:						Indicators	for Proble	ematic Hydri	ic Soils³:
Histosol (	(A1)		Polyvalue Belov	v Surface (S	8) <b>(LRR R,</b>	MLRA 149	<b>9B)</b> 2 cm l	Muck (A10	) (LRR K, L,	MLRA 149B)
Histic Epi	ipedon (A2)		Thin Dark Surfa	ce (S9) (LF	RR R, MLRA	149B)	Coast	Prairie Re	dox (A16) (I	LRR K, L, R)
Black His	stic (A3)		Loamy Mucky N	/lineral (F1)	(LRR K, L)		5 cm I	Mucky Pea	t or Peat (S3	3) (LRR K, L, R
 Hydroger	n Sulfide (A4)		Loamy Gleyed I						7) <b>(LRR K</b> , I	
	Layers (A5)		X Depleted Matrix	(F3)						) (LRR K, L)
Depleted	Below Dark Surface (A	11)	Redox Dark Sur	rface (F6)			Thin D	ark Surfac	ce (S9) (LRF	R K, L)
Thick Da	rk Surface (A12)		Depleted Dark S				Iron-M	langanese	Masses (F1	2) <b>(LRR K, L,</b>
Sandy M	ucky Mineral (S1)		Redox Depress					-		19) <b>(MLRA 149</b>
	leyed Matrix (S4)		_ ·	. ,						144A, 145, 149
	edox (S5)							arent Mate		
	Matrix (S6)								rk Surface (T	ΓF12)
	face (S7) (LRR R, MLF	RA 149B)							Remarks)	,
<del></del>	, , ,	,						` '	,	
3Indicators of I	hydronhytic vegetation a	nd wetland	I hydrology must be p	resent, unle	ss disturbed	or probler	natic.			
	nyaropnytic vegetation a									
Restrictive La	ayer (if observed):									
Restrictive La	ayer (if observed):						Hydria Sail D	ocont?	Vos	No. V
Restrictive La	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	NoX
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No X
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Restrictive La	ayer (if observed):						Hydric Soil Pr	esent?	Yes	NoX
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	NoX
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	NoX
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	NoX
Restrictive La Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	NoX

Project/Site:	COP South Larrabee	City/County:	Monmouth Count	y, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW	<u> </u>	St	tate: New Jersey	Sampling Point:	26-W010-1W
Investigator(s):	ALTC	Section, Township			h County, NJ	
Landform (hillslope, terrace, etc):	Depressional area Lo	cal relief (concave, con	/ex, none):	concave	Slope	e (%): 0-2
Subregion (LRR or MLRA):	LRR S La	t: 40.1154398	Long:	-74.176102	33 Datur	m: WGS 1984
Soil Map Unit Name:	Berryland sand, 0 to 2 percent	slopes, frequently floor	led	NWI classificati	on:	
Are climatic / hydrologic conditions o	n the site typical for this time of ye	ar? Yes X	No (If no	, explain in Remarl	(s.)	
Are Vegetation, Soil	, or Hydrologysignifi	cantly disturbed?	Are "Normal Cir	rcumstances" prese	ent? Yes	X No
Are Vegetation, Soil	, or Hydrologynatura	Illy problematic?	(If needed, expl	lain any answers in	Remarks.)	
<b>SUMMARY OF FINDINGS - A</b>	Attach site map showing	sampling point lo	cations, transe	cts, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X No	Is the	Sampled Area			
Hydric Soil Present?	Yes X No	within	a Wetland?	Yes X	No	
Wetland Hydrology Present?	Yes X No		optional Wetland Sit			
Remarks: (Explain alternative proc	edures here or in a separate repo	rt.)				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	e required: check all that apply)			Secondary Indic	ators (minimum of	two required)
Surface Water (A1)		ained Leaves (B9)			il Cracks (B6)	
X High Water Table (A2)		auna (B13)			atterns (B10)	
X Saturation (A3)		osits (B15)		Moss Trim		
Water Marks (B1)	Hydroge	n Sulfide Odor (C1)			Water Table (C2)	
Sediment Deposits (B2)	Oxidized	Rhizospheres on Living	Roots (C3)	Crayfish Bu	irrows (C8)	
Drift Deposits (B3)	Presence	e of Reduced Iron (C4)		Saturation \	Visible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)	Recent In	on Reduction in Tilled S	Soils (C6)	Stunted or	Stressed Plants (D	1)
Iron Deposits (B5)	Thin Muc	ck Surface (C7)		X Geomorphi	c Position (D2)	
Inundation Visible on Aerial Ir	nagery (B7) Other (E	xplain in Remarks)		Shallow Aq	uitard (D3)	
Sparsely Vegetated Concave	Surface (B8)			Microtopog	raphic Relief (D4)	
				X FAC-Neutra	al Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X Depth (	inches):				
Water Table Present?		inches): 12	_			
Saturation Present?		inches): 0	Wetland Hyd	drology Present?	Yes X	No
(includes capillary fringe)			_   ''''			
(metalor copinally image)						
Describe Recorded Data (stream of	gauge, monitoring well, aerial phot	os, previous inspections	s), if available:			
Remarks:						
remarks.						

/EGETATION - Use scientific names of plants.				Sampling Point: 26-W010-1W
				Dominance Test worksheet:
				Number of Dominant Species
				That Are OBL, FACW, or FAC: 2 (A)
	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30 Feet )	% Cover	Species?	Status	Total Number of Dominant
1				Species Across All Strata: 2 (B)
2.				(,
3.		_		Percent of Dominant Species
4				That Are OBL, FACW, or FAC: 100.0 (A/B)
5		_		
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	_ = Total Cov	er	OBL species 5 $x 1 = 5$
Sapling/Shrub Stratum (Plot size: 15 Feet )				FACW species 0 x 2 = 0
Clethra alnifolia / Coastal sweet-pepperbush	10	Yes	FAC	FAC species 10 x 3 = 30
2.				FACU species 0 x 4 = 0
3				UPL species 0 x 5 = 0
4				Column Totals: 15 (A) 35 (B)
5				( )
6.				Prevalence Index = B/A = 2.33
7.				
	10	= Total Cov	er	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: 5 Feet )		_		1 - Rapid Test for Hydrophytic Vegetation
1. Juncus effusus / Common bog rush, Soft or lamp rush	5	Yes	OBL	X 2 - Dominance Test is >50%
2.				X 3 - Prevalence Index ≤3.0¹
3.				4 - Morphological Adaptations¹ (Provide supporting
4.				Problematic Hydrophytic Vegetation¹ (Explain )
E				
6				¹Indicators of hydric soil and wetland hydrology must
7				be present, unless disturbed or problematic.
^				bo process, amose distarbed of problematic.
0			- <del> </del>	Definitions of Vegetation Strata
10		-		
				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at
40		-		breast height (DBH), regardless of height.
12		= Total Cov	or.	Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: 30 Feet )		10(a) 00	Ci	greater than or equal to 3.28 ft (1 m) tall.
1.				Herb - All herbaceous (non-woody) plants, regardless of
2.				size, and woody plants less than 3.28 ft tall.
				Woody vines - All woody vines greater than 3.28 ft in
3.	<del></del>	-		height.
4		- Total Car		
	0	_ = Total Cov	er	Hydrophytic
				Vegetation
				Present? Yes X No
Remarks: (Explain alternative procedures here or in a separa	ate report.)			

SOIL Sampling Point: 26-W010-1W

Depth	Matrix		Redox	k Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks
0-6	10YR 2/1	100					Loam		
6-12	10YR 4/1	100			. <u> </u>		Sandy Loam		
12-18	10YR 4/1		-		·		Sandy Loam	-	
					· —— -				
	·		-		· —— -		<u> </u>		
			-				-	-	
								•	
ype: C=Con	centration, D=Depletio	n, RM=Redu	uced Matrix, MS=Masl	ked Sand Gr	ains.		²Loca	tion: PL=Pore	e Lining, M=Matrix.
dric Soil Ir	ndicators:						Indicators	for Problem	natic Hydric Soils³:
Histosol			Polyvalue Belov	v Surface (S	8) <b>(LRR R,I</b>	MLRA 149	<b>B)</b> 2 cm l	Muck (A10) (	(LRR K, L, MLRA 149B)
Histic Ep	ipedon (A2)		Thin Dark Surfa	ce (S9) (LR	RR R, MLRA	149B)	Coast	Prairie Redo	ox (A16) (LRR K, L, R)
Black His	stic (A3)		Loamy Mucky N	lineral (F1)	(LRR K, L)		5 cm l	Mucky Peat	or Peat (S3) (LRR K, L, R)
Hydroger	n Sulfide (A4)		Loamy Gleyed I	Matrix (F2)			Dark	Surface (S7)	(LRR K, L)
Stratified	Layers (A5)		X Depleted Matrix	(F3)			Polyva	alue Below S	urface (S8) (LRR K, L)
_	Below Dark Surface (A	A11)	Redox Dark Sur						(S9) (LRR K, L)
	rk Surface (A12)		Depleted Dark S					•	lasses (F12) (LRR K, L, F
	lucky Mineral (S1)		Redox Depress	ions (F8)				-	in Soils (F19) (MLRA 149E
_	leyed Matrix (S4)							-	i) (MLRA 144A, 145, 149I
_	edox (S5)							Parent Materi	
	Matrix (S6)	D. 4.40D)							Surface (TF12)
_ Dark Sur	face (S7) (LRR R, ML	.RA 149B)					Other	(Explain in F	Remarks)
ndicators of	hydrophytic vegetation	and wetland	d hydrology must be p	resent, unles	ss disturbed	or problen	natic.		
		and wetland	d hydrology must be p	resent, unles	ss disturbed	or problen	natic.		
estrictive L	hydrophytic vegetation ayer (if observed):	and wetland	d hydrology must be p	resent, unles	ss disturbed	or problen	natic.		
estrictive La	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	ss disturbed	or problen		resent?	Yes X No
estrictive L	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	ss disturbed	or problen	natic. Hydric Soil Pi	resent?	Yes <u>X</u> No
estrictive La Type: Depth (inc	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	ss disturbed	or problen		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or problen		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or problen		resent?	Yes X No
estrictive La	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or problen		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	ss disturbed	or problen		resent?	Yes <u>X</u> No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	ss disturbed	or probler		resent?	Yes <u>X</u> No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	ss disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
estrictive La Type: Depth (inc	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No
Type:	ayer (if observed):	and wetland	d hydrology must be p	resent, unles	es disturbed	or probler		resent?	Yes X No

Project/Site:	COP South Larrabee	City/Cou	inty: Monmouth	n County, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	A	SOW		State: New Jersey	Sampling Point:	26-W011-1U
Investigator(s):	TCAL	Section,	Township, Range:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Hillslope	Local relief (cond	ave, convex, none):	concave	Slope (	(%): 5-10
Subregion (LRR or MLRA):	LRR S	 Lat: 40.	11552933 Lo	ong: -74.1751886	7 Datum:	WGS 1984
Soil Map Unit Name:	Berryland sand, 0 to 2	percent slopes, freque	ently flooded	NWI classificatio	n:	
Are climatic / hydrologic conditions o	n the site typical for this tir	me of year? Yes	X No	(If no, explain in Remarks	3.)	
Are Vegetation, Soil	, or Hydrology	significantly disturbe	d? Are "Nor	mal Circumstances" prese	nt? Yes X	No
Are Vegetation, Soil	, or Hydrology	naturally problemation	? (If neede	ed, explain any answers in	Remarks.)	
<b>SUMMARY OF FINDINGS - A</b>	Attach site map sho	wing sampling p	oint locations, tr	ansects, important f	eatures, etc.	
Hydrophytic Vegetation Present?		No	Is the Sampled Are			
Hydric Soil Present?	Yes		within a Wetland?		No	
Wetland Hydrology Present?		No X	If yes, optional Wetl			
			, 500, 000 1100.			
Remarks: (Explain alternative proc	edures here or in a separa	ate report.)				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	•				tors (minimum of tw	o required)
Surface Water (A1)		Nater-Stained Leaves	(B9)	Surface Soil	, ,	
High Water Table (A2)	A	Aquatic Fauna (B13)		Drainage Pa	tterns (B10)	
Saturation (A3)	N	Marl Deposits (B15)		Moss Trim L	ines (B16)	
Water Marks (B1)	<u> </u>	Hydrogen Sulfide Odor	(C1)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	(	Oxidized Rhizospheres	on Living Roots (C3)	Crayfish Bur	rows (C8)	
Drift Deposits (B3)	F	Presence of Reduced I	ron (C4)	Saturation V	isible on Aerial Imag	gery (C9)
Algal Mat or Crust (B4)	F	Recent Iron Reduction	in Tilled Soils (C6)	Stunted or S	tressed Plants (D1)	
Iron Deposits (B5)	т	Thin Muck Surface (C7	)	Geomorphic	Position (D2)	
Inundation Visible on Aerial Ir	nagery (B7)	Other (Explain in Rema	arks)	Shallow Aqu	itard (D3)	
Sparsely Vegetated Concave	Surface (B8)			Microtopogra	aphic Relief (D4)	
<u> </u>				FAC-Neutral	Test (D5)	
Field Observations:						
		Depth (inches):				
Surface Water Present?	Yes NoX					
	Yes No X	Depth (inches):				
Surface Water Present? Water Table Present? Saturation Present?	· · · · · · · · · · · · · · · · · · ·	Depth (inches):	Wetla	nd Hydrology Present?	Yes	No X
Surface Water Present? Water Table Present?	Yes No X		Wetla	nd Hydrology Present?	Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No X Yes No X	Depth (inches):			Yes	NoX
Surface Water Present? Water Table Present? Saturation Present?	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No X Yes No X	Depth (inches):			Yes	No <u>X</u>
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No <u>X</u>
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Yes No X	Depth (inches):			Yes	No X

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W011-1U **Dominance Test worksheet: Number of Dominant Species** That Are OBL, FACW, or FAC: 0 \_\_\_\_ (A) Absolute Dominant Indicator <u>Tree Stratum</u> (Plot size: \_\_\_\_30 Feet ) % Cover Species? Status **Total Number of Dominant**  Quercus velutina / Black oak Species Across All Strata: 4 (B) 2. Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 50 = Total Cover OBL species 0 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: 15 Feet 0 \_\_\_ x 2 = \_\_ FACW species 1. Berberis thunbergii / Japanese barberry 0 \_\_\_ x 3 = \_\_ FAC species FACU species 35 x 4 = x 5 = UPL species 55 275 (A) \_\_\_ Column Totals: 90 5. 6. Prevalence Index = B/A = 4.61 **Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation 1. Allium / Onion 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet Herb - All herbaceous (non-woody) plants, regardless of Celastrus orbiculatus / Asian bittersweet 20 Yes FACU size, and woody plants less than 3.28 ft tall. 2. Woody vines - All woody vines greater than 3.28 ft in 20 = Total Cover Hydrophytic Vegetation Present? Yes \_\_\_\_\_ No \_\_\_ Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 26-W011-1U

Profile Desc	ription: (Describe to th	e depth neede	ed to document th	e indicator	or confirm	the abser	nce of indicators	s.)		
Depth	Matrix			Features						
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-3	10YR 2/1	100					Sandy Loam			
3-10	10YR 3/1	100					Sandy Loam			
¹Type: C=Cor	ncentration, D=Depletion	n, RM=Reduced	d Matrix, MS=Mask	ed Sand Gra	ains.		²Locat	tion: PL=Por	re Lining, M=Ma	ıtrix.
Hydric Soil I	ndicators:						Indicators	for Probler	natic Hydric S	oils³:
Histosol			Polyvalue Below	Surface (S8	R) (I RR R	MI RA 149			(LRR K, L, ML	
	pipedon (A2)		Thin Dark Surface	•	, .		· —		ox (A16) (LRR	· · · · · · · · · · · · · · · · · · ·
Black Hi			Loamy Mucky M			1430)			or Peat (S3) (L	
	n Sulfide (A4)	_	Loamy Gleyed M						) (LRR K, L)	IX, E, IX)
		_								DD K I)
	Layers (A5)		Depleted Matrix						Surface (S8) (L	
	Below Dark Surface (A		Redox Dark Surf						e (S9) (LRR K,	
	ark Surface (A12)		_ Depleted Dark S					-	Masses (F12)	
	lucky Mineral (S1)		Redox Depression	JIIS (FO)					ain Soils (F19)	
	leyed Matrix (S4)								6) (MLRA 144	A, 145, 149B)
	edox (S5)							arent Mater		
	Matrix (S6)	DA 440D)							k Surface (TF12	:)
Dark Sui	face (S7) (LRR R, ML	KA 149B)					Other	(Explain in I	Remarks)	
³Indicators of	hydrophytic vegetation	and wetland hy	drology must be pr	esent, unles	s disturbed	or problen	natic.			
Restrictive L	ayer (if observed):									
Type:										
Depth (in	ches):		<del>-</del>				Hydric Soil Pr	esent?	Yes	No
Remarks:										
rtemarto.										

Project/Site:	COP South Larrabee	Citv/Co	ounty: Monn	mouth County, NJ	Sampling Date: 02/21/2023
Applicant/Owner:		ASOW		State: New Jersey	
Investigator(s):	TCAL	Section	n, Township, Range		n County, NJ
Landform (hillslope, terrace, etc):	Depressional area		ncave, convex, non		Slope (%): 3-5
Subregion (LRR or MLRA):	LRR S		, , , , ,	Long:	Datum: WGS 1984
Soil Map Unit Name:		2 percent slopes, frequ		NWI classification	on:
Are climatic / hydrologic conditions or	•	· · · · · ·	•	<del></del>	
Are Vegetation , Soil	, or Hydrology	significantly disturb	ped? Are	"Normal Circumstances" prese	•
· · · · · · · · · · · · · · · · · · ·	, or Hydrology			needed, explain any answers in	
SUMMARY OF FINDINGS - A				•	•
Hydrophytic Vegetation Present?	Yes X		Is the Sample		
Hydric Soil Present?	Yes X	No	within a Wetla		No
Wetland Hydrology Present?	Yes X	No		Wetland Site ID:	
vectiand right ology i resent:	103 <u>X</u>		ii yes, optional	Wetland Oile ID.	
Remarks: (Explain alternative proc	edures here or in a sepa	rate report.)			
HYDROLOGY					
Wetland Hydrology Indicators:					
Primary Indicators (minimum of one	o required: check all that	: annly)		Socondary India	ators (minimum of two required)
Surface Water (A1)		. арргу) Water-Stained Leaves	e (B0)		ators (minimum of two required)  I Cracks (B6)
High Water Table (A2)		Aquatic Fauna (B13)	3 (09)		atterns (B10)
Saturation (A3)		Marl Deposits (B15)		Moss Trim L	
Water Marks (B1)		Hydrogen Sulfide Odd	or (C1)		Water Table (C2)
Sediment Deposits (B2)		Oxidized Rhizosphere		<del></del> ′	` ,
Drift Deposits (B3)	<del></del>	Presence of Reduced	-	· · · · · · · · · · · · · · · · · · ·	/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	<del></del>	Recent Iron Reduction			Stressed Plants (D1)
Iron Deposits (B5)		Thin Muck Surface (C		X Geomorphic	· ·
Inundation Visible on Aerial In		Other (Explain in Rem		Shallow Aqu	·
Sparsely Vegetated Concave		Caror (Explain in Troil	iano)	<del></del>	raphic Relief (D4)
	(==)			X FAC-Neutra	
			<del></del>	<del>_</del>	
Field Observations:					
	Yes No X	· · · /			
	Yes No X	. '			
	Yes NoX	Depth (inches):	V	Netland Hydrology Present?	Yes <u>X</u> No
(includes capillary fringe)					
Describe Recorded Data (stream g	auge, monitoring well, a	erial photos, previous	inspections), if ava	ailable:	
		p	,		
Remarks:					

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W011-1W **Dominance Test worksheet: Number of Dominant Species** That Are OBL, FACW, or FAC: 7 (A) Absolute Dominant Indicator 30 Feet Tree Stratum (Plot size: % Cover Species? Status **Total Number of Dominant** 1. Acer rubrum / Red maple 20 Yes FAC 7 \_\_\_ (B) Species Across All Strata: 2. Quercus bicolor / Swamp white oak **FACW** 10 Yes 3 Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 30 = Total Cover OBL species 5 x1=\_\_\_\_ Sapling/Shrub Stratum (Plot size: \_\_ 15 Feet 25 \_\_\_ x 2 = \_\_ FACW species 1. Clethra alnifolia / Coastal sweet-pepperbush FAC 120 FAC species 40 x 3 = 2. Acer rubrum / Red maple FAC 0 FACU species x 4 = x 5 = \_ UPL species 0 (A) \_\_\_ Column Totals: 70 5. 6. Prevalence Index = B/A = **Hydrophytic Vegetation Indicators:** 1 - Rapid Test for Hydrophytic Vegetation Herb Stratum (Plot size: 5 Feet ) FACW 1. Osmunda cinnamomea / Cinnamon fern 15 X 2 - Dominance Test is >50% 2. Microstegium vimineum / Japanese stilt grass **FAC** X 3 - Prevalence Index ≤3.01 3. Carex stricta / Uptight sedge 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and 25 = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes X No \_\_\_ Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 26-W011-1W

Depth	Matrix		Redo	x Features			nce of indicators		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture		Remarks
0-2	10YR 2/1	100					Sandy Loam		
2-6	10YR 4/1						Sandy Loam		
6-12	10YR 3/1	100					Sandy Loam		
12-18	10YR 6/3	75	7.5YR 5/8	25			Sandy Loam		
					·				
Type: C=Cor	ncentration, D=Depletion	on, RM=Redu	ced Matrix, MS=Mas	ked Sand G	ains.		²Loca	tion: PL=Pore	Lining, M=Matrix.
Hydric Soil II	ndicators:						Indicatore	for Problems	atic Hydric Soils³:
Histosol			Polyvalue Belo	w Surface (S	8) <b>(I PP P</b>	MI PA 140			.RR K, L, MLRA 149B)
	pipedon (A2)		Thin Dark Surfa	-				· , ·	(A16) (LRR K, L, R)
Black Hi			Loamy Mucky I			. 1-00)			Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Gleyed		,, <b>_</b> /			Surface (S7)	
	Layers (A5)		X Depleted Matrix						rface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Redox Dark Su						S9) (LRR K, L)
	ark Surface (A12)	,	Depleted Dark						asses (F12) (LRR K, L, R)
Sandy M	lucky Mineral (S1)		Redox Depress				Piedm	nont Floodplair	n Soils (F19) (MLRA 149B)
Sandy G	lleyed Matrix (S4)						Mesic	Spodic (TA6)	(MLRA 144A, 145, 149B)
Sandy R	edox (S5)						Red F	arent Material	I (F21)
Stripped	Matrix (S6)						Very S	Shallow Dark S	Surface (TF12)
Dark Sur	rface (S7) (LRR R, M	LRA 149B)					Other	(Explain in Re	emarks)
3Indicators of	hydrophytic vegetation	n and wetland	I hydrology must be p	oresent, unle	ss disturbed	or probler	natic.		
	hydrophytic vegetation	n and wetland	l hydrology must be p	oresent, unle	ss disturbed	or probler	natic.		
Restrictive L	hydrophytic vegetation	n and wetland	l hydrology must be p	oresent, unle	ss disturbed	or probler	natic.		
	ayer (if observed):	n and wetland	l hydrology must be p	oresent, unle	ss disturbed	or probler	natic.  Hydric Soil P	resent?	Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	l hydrology must be p	oresent, unle	ss disturbed	or probler		resent?	Yes <u>X</u> No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	l hydrology must be p	oresent, unle	ss disturbed	or probler		resent?	Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	l hydrology must be p	oresent, unle	ss disturbed	or probler		resent?	Yes <u>X</u> No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	l hydrology must be p	oresent, unle	ss disturbed	or probler		resent?	Yes <u>X</u> No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	l hydrology must be p	oresent, unle	ss disturbed	or probler		resent?	Yes <u>X</u> No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	oresent, unle	ss disturbed	or probler		resent?	Yes <u>X</u> No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	oresent, unle	ss disturbed	or probler		resent?	Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	oresent, unle	ss disturbed	or probler		resent?	Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes <u>X</u> No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes X No
Restrictive L	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes X No
Restrictive L Type: Depth (inc	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes X No
Restrictive L Type: Depth (inc	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes <u>X</u> No
Restrictive L Type: Depth (inc	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes <u>X</u> No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	oresent, unle	ss disturbed	or probler		resent?	Yes <u>X</u> No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes <u>X</u> No
Restrictive L Type: Depth (in	ayer (if observed):	n and wetland	I hydrology must be p	resent, unle	ss disturbed	or probler		resent?	Yes X No

Project/Site:	COP South Larrabee	City/County	: Monmouth County	y, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASO'			ate: New Jersey	Sampling Point:	26-W012-1U
Investigator(s):	ALTC	Section, To	wnship, Range:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Hillslope	Local relief (concave	e, convex, none):		Slope	(%): 0-5
Subregion (LRR or MLRA):	LRR S	Lat: 40.11	80645 Long:	-74.168320	5 Datum	: WGS 1984
Soil Map Unit Name:	Atsion sand, 0 to 2 percent	slopes, Northern Tide		NWI classificatio	n:	
Are climatic / hydrologic conditions or	n the site typical for this time	of year? Yes X	No (If no,	explain in Remarks	S.)	
Are Vegetation, Soil	, or Hydrologysi	ignificantly disturbed?	Are "Normal Cire	cumstances" prese	nt? Yes X	No
Are Vegetation, Soil	, or Hydrology na	aturally problematic?	(If needed, expla	ain any answers in l	Remarks.)	
<b>SUMMARY OF FINDINGS - A</b>	Attach site map showi	ng sampling poi	nt locations, transec	ts, important f	eatures, etc.	
Hydrophytic Vegetation Present?			Is the Sampled Area	•		
Hydric Soil Present?			within a Wetland?	Yes	No	
Wetland Hydrology Present?			If yes, optional Wetland Site			-
						_
Remarks: (Explain alternative proc	edures here or in a separate	report.)				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on		•	2)		tors (minimum of ty	vo required)
Surface Water (A1)		er-Stained Leaves (B9	9)	Surface Soil		
High Water Table (A2)		atic Fauna (B13)		Drainage Pa		
Saturation (A3)		Deposits (B15)	v4\	Moss Trim L		
Water Marks (B1)	<del></del> •	rogen Sulfide Odor (C	•		Water Table (C2)	
Sediment Deposits (B2)		lized Rhizospheres or		Crayfish Bur		~~~ (CO)
Drift Deposits (B3)	<del></del>	sence of Reduced Iron	` '		isible on Aerial Ima	
Algal Mat or Crust (B4)		ent Iron Reduction in	Tilled Solis (Co)		tressed Plants (D1	)
Iron Deposits (B5)		Muck Surface (C7)	٥)		Position (D2)	
Inundation Visible on Aerial In	- · · · —	er (Explain in Remarks	5)	Shallow Aqu		
Sparsely Vegetated Concave	Surface (Bo)			FAC-Neutral	aphic Relief (D4)	
				TAC-Neutral	Test (D3)	
Field Observations:						
	Yes No X De	epth (inches):				
Surface Water Present?	··· <del></del> · <del></del> ·	epth (inches):				
Surface Water Present? Water Table Present?	Yes No X De	· · · · <del></del>	Wetland Hyd	rology Present?	Yes	No X
Surface Water Present? Water Table Present?	Yes No X De	pth (inches):	Wetland Hyd	rology Present?	Yes	No <u>X</u>
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	No X
Surface Water Present? Water Table Present? Saturation Present?	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	NoX
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	NoX
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	No <u>X</u>
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	No <u>X</u>
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	NoX
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	NoX
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	NoX
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	No X
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	NoX
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	No <u>X</u>
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	NoX
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         No         X         De           Yes         No         X         De	pth (inches):		rology Present?	Yes	NoX

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W012-1U **Dominance Test worksheet: Number of Dominant Species** That Are OBL, FACW, or FAC: 2 \_\_\_\_ (A) Absolute Dominant Indicator Tree Stratum (Plot size: \_\_\_\_\_30 Feet\_\_\_) % Cover Species? Status **Total Number of Dominant** 1. Pinus rigida / Pitch pine 40 Yes FACU Species Across All Strata: 5 (B) 2. Quercus velutina / Black oak Yes NI 3 Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 50 = Total Cover OBL species 0 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: 0 \_\_\_ x 2 = \_ FACW species 1. Acer rubrum / Red maple FAC 25 x 3 = FAC species 2. Clethra alnifolia / Coastal sweet-pepperbush FAC FACU species 40 x 4 = 160 UPL species 15 x 5 = (A) Column Totals: 80 5. 6. Prevalence Index = B/A = **Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet \_\_\_) 1 - Rapid Test for Hydrophytic Vegetation 1. Chimaphila maculata / Striped prince's pine 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 4. 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes \_\_\_\_ No \_\_\_ Remarks: (Explain alternative procedures here or in a separate report.)

Depth	Matrix		Redox	x Features			ce of indicator				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture		Remar	ks	
0-16	10YR 2/1	50	10YR 2/2	50		М	Loam				
16-18	10YR 3/4	100					Sandy Loam				
								_			
								_			
								-			
				-							
Type: C=Con	centration, D=Depletion	n, RM=Redu	uced Matrix, MS=Masl	ked Sand Gr	ains.		²Loca	tion: PL=P	ore Lining, N	л=Matrix.	
Ludria Sail Ir	adicatoro:						Indicator	for Brobl	omatic Hudi	ria Caila³:	
lydric Soil In			Daharahaa Dalaa	·· 0· ·-f (0)		MI DA 440			ematic Hydi		·D\
Histosol (	•		Polyvalue Belov						) (LRR K, L		-
	ipedon (A2)		Thin Dark Surfa			(149B)			edox (A16)		
Black His			Loamy Mucky N		(LRR K, L)				at or Peat (S		L, R)
	n Sulfide (A4)		Loamy Gleyed I						7) (LRR K,	-	
	Layers (A5)		Depleted Matrix	` '					Surface (S		L)
	Below Dark Surface (A	A11)	Redox Dark Sui						ce (S9) <b>(LR</b>		
	rk Surface (A12)		Depleted Dark S					ū	Masses (F1	, .	
	ucky Mineral (S1)		Redox Depress	ions (F8)					olain Soils (F		
	leyed Matrix (S4)								A6) (MLRA	144A, 145,	149B)
	edox (S5)							Parent Mate			
	Matrix (S6)								ırk Surface (	TF12)	
Dark Sur	face (S7) (LRR R, ML	.RA 149B)					Other	(Explain ir	n Remarks)		
Indicators of	hydrophytic vegetation	and wetland	d hydrology must be n	recent unles	e dieturbed	or problem	atic				
indicators or i	nydropnytic vegetation	and welland	a nyurology must be p	TC3CIT, UTILC3	- disturbed	or problem	auc.				
	ayer (if observed):										
Туре:											
							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc			<u></u>				Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc			_				Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc			<u> </u>				Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc			<u> </u>				Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type:							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X
Type: Depth (inc							Hydric Soil P	resent?	Yes	No _	X

Project/Site:	COP South Larrabee	City/County:	Monmouth Count	y, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW	<u> </u>	St	ate: New Jersey	Sampling Point:	26-W012-1W
Investigator(s):	ALTC	Section, Township,			n County, NJ	
Landform (hillslope, terrace, etc):	Swale Loca	 I relief (concave, conve	x, none):	concave	Slope	e (%): 0-2
Subregion (LRR or MLRA):	LRR S Lat:	40.1180355	Long:	-74.168294	33 Datur	m: WGS 1984
Soil Map Unit Name:	Atsion sand, 0 to 2 percent slopes	, Northern Tidewater Ar	rea	NWI classificati	on:	·
Are climatic / hydrologic conditions o	n the site typical for this time of year	? Yes <u>X</u> N	No (If no,	, explain in Remark	s.)	
Are Vegetation, Soil	, or Hydrologysignifica	ntly disturbed?	Are "Normal Cir	cumstances" prese	ent? Yes	X No
Are Vegetation, Soil	, or Hydrologynaturally	problematic?	(If needed, expl	ain any answers in	Remarks.)	
<b>SUMMARY OF FINDINGS - A</b>	Attach site map showing sa	mpling point loca	ations, transed	cts, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X No	Is the Sa	ampled Area			
Hydric Soil Present?	Yes X No	within a	Wetland?	Yes	No	
Wetland Hydrology Present?	Yes No		otional Wetland Sit			
Remarks: (Explain alternative proc	cedures here or in a separate report.					
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	e required: check all that apply)			Secondary Indic	ators (minimum of	two required)
Surface Water (A1)		ned Leaves (B9)	-		l Cracks (B6)	
X High Water Table (A2)	Aquatic Fa	una (B13)			atterns (B10)	
X Saturation (A3)	Marl Depos	sits (B15)		Moss Trim I		
Water Marks (B1)	Hydrogen S	Sulfide Odor (C1)		Dry-Seasor	Water Table (C2)	
Sediment Deposits (B2)	Oxidized R	hizospheres on Living F	Roots (C3)	Crayfish Bu	rrows (C8)	
Drift Deposits (B3)	Presence of	f Reduced Iron (C4)		Saturation \	/isible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)	Recent Iron	Reduction in Tilled So	ils (C6)	Stunted or \$	Stressed Plants (D	1)
Iron Deposits (B5)	Thin Muck	Surface (C7)		Geomorphic	Position (D2)	
Inundation Visible on Aerial Ir	magery (B7) Other (Exp	ain in Remarks)		Shallow Aq	uitard (D3)	
Sparsely Vegetated Concave	Surface (B8)			Microtopogi	raphic Relief (D4)	
				X FAC-Neutra	I Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X Depth (inc	ches).				
Water Table Present?	Yes X No Depth (inc		•			
Saturation Present?	Yes X No Depth (inc	· —	Wetland Hvd	Irology Present?	Yes	No
(includes capillary fringe)			.		.00	
(metalor copinally image)						
Describe Recorded Data (stream of	gauge, monitoring well, aerial photos	, previous inspections),	if available:			
Remarks:						
remarks.						
1						

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W012-1W **Dominance Test worksheet:** Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A) Absolute Dominant Indicator Tree Stratum (Plot size: 30 Feet ) % Cover Species? Status **Total Number of Dominant** 1. Acer rubrum / Red maple 4 \_\_\_\_ (B) Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 15 = Total Cover OBL species 10 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: \_\_\_ 15 Feet 0 x 2 = \_\_\_ FACW species 1. Clethra alnifolia / Coastal sweet-pepperbush 35 \_\_\_ x 3 = \_\_\_ FAC species 0 x 4 = FACU species x 5 = UPL species 0 (A) Column Totals: 45 6. Prevalence Index = B/A = 2.56**Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation Juncus effusus / Common bog rush, Soft or lamp rush 5 X 2 - Dominance Test is >50% 2. Symplocarpus foetidus / Skunk-cabbage 5 X 3 - Prevalence Index ≤3.0¹ 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and 10 = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_\_\_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes X No Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 26-W012-1W

Profile Desc	ription: (Describe to t	he depth ne	eded to document th		or confirm	the absen	ce of indicators.	.)
Depth	Matrix		Redox	x Features				
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture	Remarks
0-1	10YR 2/1	100					Loam	
1-10	10YR 5/1	100					Loam	
10-18	10YR 2/1	100					Loam	
,		· ·		-				
	\ <u></u>							
		·						
-	-	· -					-	
-								_
-	•							
¹Type: C=Cor	ncentration, D=Depletion	n, RM=Redu	ced Matrix, MS=Masl	ked Sand Gr	ains.		²Locati	on: PL=Pore Lining, M=Matrix.
Unadria Cail I	adiantaua.						lundinataun t	for Dunblometic Hudric Coiles.
Hydric Soil I								for Problematic Hydric Soils <sup>3</sup> :
Histosol	•		Polyvalue Belov	•	, .		· —	fluck (A10) (LRR K, L, MLRA 149B)
Histic Ep	pipedon (A2)		Thin Dark Surfa					Prairie Redox (A16) (LRR K, L, R)
Black Hi	stic (A3)		Loamy Mucky N	lineral (F1)	(LRR K, L)		5 cm M	flucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	n Sulfide (A4)		Loamy Gleyed I	Matrix (F2)			Dark S	urface (S7) (LRR K, L)
	d Layers (A5)		X Depleted Matrix				Polyva	lue Below Surface (S8) (LRR K, L)
Depleted	d Below Dark Surface (	A11)	Redox Dark Sur					ark Surface (S9) (LRR K, L)
	ark Surface (A12)	,	Depleted Dark S					anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)		Redox Depress					ont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depress	10113 (1 0)				Spodic (TA6) (MLRA 144A, 145, 149B)
	ledox (S5)							arent Material (F21)
	Matrix (S6)	D. 4.40D)						hallow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, ML	-RA 149B)					Other (	(Explain in Remarks)
3Indicators of	hydrophytic vegetation	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem	atic.	
		and wetland	hydrology must be p	resent, unles	ss disturbed	l or problem	atic.	
Restrictive L	hydrophytic vegetation	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem	atic.	
Restrictive L	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		asent? Yes X No
Restrictive L	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem	atic.  Hydric Soil Pre	esent? Yes X No
Restrictive L	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No
Restrictive L Type: Depth (in	ayer (if observed):	and wetland	hydrology must be p	resent, unles	s disturbed	l or problem		esent? Yes X No

Project/Site:	COP South Larrabee	City/Cou	nty: Monmouth	County, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	AS	OW		State: New Jersey		26-W014-1U
Investigator(s):	ALTC	Section.	Township, Range:		County, NJ	
Landform (hillslope, terrace, etc):	Hillslope		ave, convex, none):	convex	Slope	(%): 0-5
Subregion (LRR or MLRA):	LRR S			ng: -74.1659731	·	n: WGS 1984
Soil Map Unit Name:	Atsion sand, 0 to 2 perce			NWI classification		
Are climatic / hydrologic conditions of				(If no, explain in Remarks	s.)	
Are Vegetation , Soil		significantly disturbed		nal Circumstances" prese	nt? Yes	X No
	, or Hydrology	naturally problematic	? (If needed	d, explain any answers in		
SUMMARY OF FINDINGS - A		_		insects, important	features, etc.	
Hydrophytic Vegetation Present?	-	No X	Is the Sampled Area	<u>-</u>		
Hydric Soil Present?		No X	within a Wetland?		No	
Wetland Hydrology Present?		No X	If yes, optional Wetla	Yes	NO	=
welland Hydrology Fresent?	Ies I	NO	ii yes, optionai vvetia	Tid Site ID.		
Remarks: (Explain alternative prod	edures here or in a separat	te report.)				
	·					
LIVEROLOGY						
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	e required; check all that ar	oply)			tors (minimum of t	wo required)
Surface Water (A1)	W	ater-Stained Leaves (	(B9)	Surface Soil	Cracks (B6)	
High Water Table (A2)	Ac	quatic Fauna (B13)		Drainage Pa	itterns (B10)	
Saturation (A3)	M	arl Deposits (B15)		Moss Trim L	ines (B16)	
Water Marks (B1)	H <sub>2</sub>	drogen Sulfide Odor	(C1)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	O:	xidized Rhizospheres	on Living Roots (C3)	Crayfish Bur	rows (C8)	
Drift Deposits (B3)	Pr	esence of Reduced I	on (C4)	Saturation V	isible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)	Ro	ecent Iron Reduction i	n Tilled Soils (C6)	Stunted or S	Stressed Plants (D1	1)
Iron Deposits (B5)	Th	nin Muck Surface (C7)	)	Geomorphic	Position (D2)	
Inundation Visible on Aerial In	nagery (B7) Of	ther (Explain in Rema	rks)	Shallow Aqu	itard (D3)	
Sparsely Vegetated Concave	Surface (B8)			Microtopogra	aphic Relief (D4)	
				FAC-Neutral	Test (D5)	
Field Observations:						
		Depth (inches):				
		Depth (inches):				
	Yes NoX [	Depth (inches):	Wetlan	d Hydrology Present?	Yes	No X
(includes capillary fringe)						
Describe Recorded Data (stream g	rauge monitoring well seri	al nhotos previous in	enections) if available:			
Describe Necorded Data (Stream g	jauge, monitoring well, aen	ai priotos, previous iri	spections), ii available.			
Remarks:						

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W014-1U **Dominance Test worksheet:** Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Absolute Dominant Indicator Tree Stratum (Plot size: 30 Feet Status % Cover Species? **Total Number of Dominant** 1. Quercus velutina / Black oak 20 Yes NI 4 \_\_\_\_ (B) Species Across All Strata: 2. Acer rubrum / Red maple FAC 10 Yes 3 Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 30 = Total Cover OBL species 0 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: 15 Feet FACW species 0 x 2 = \_\_\_ 15 \_\_\_ x 3 = \_\_ FAC species 0 FACU species x 4 = x 5 = UPL species 25 \_ (A) \_\_\_ Column Totals: 40 6. Prevalence Index = B/A = 4.25**Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation 1. Aster / Aster 2 - Dominance Test is >50% 2. Smilax rotundifolia / Horsebrier 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and 10 = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes \_\_\_\_ No \_X\_\_ Remarks: (Explain alternative procedures here or in a separate report.)

Depth	Matrix		Redox	x Features							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture		Remar	ks	
0-6	10YR 2/1	100				<u></u>	Sandy Loam				
6-18	10YR 3/1	100					Sand				
			•								
			-					-			
			•								
				-							
				_				,			
ype: C=Con	centration, D=Depletion	ı, RM=Redu	iced Matrix, MS=Mas	ked Sand Gr	ains.		<sup>2</sup> Locat	ion: PL=P	ore Lining, N	/I=Matrix.	
ydric Soil Ir	ndicatore:						Indicators	for Proble	ematic Hydı	ric Soile <sup>3</sup> :	
			Dalumakua Dalam	Cumfooo (C	0)	DA 440			-		D)
Histosol	` '		Polyvalue Belov	•			· -	-	) (LRR K, L		
	ipedon (A2)		Thin Dark Surfa			49B)			edox (A16)		
_ Black His			Loamy Mucky N		(LRR K, L)				at or Peat (S		L, R)
	n Sulfide (A4)		Loamy Gleyed						7) <b>(LRR K,</b>		
	Layers (A5)		Depleted Matrix	` '					Surface (S8		L)
Depleted	Below Dark Surface (A	.11)	Redox Dark Su	rface (F6)			Thin D	ark Surfa	ce (S9) (LR	RK, L)	
Thick Da	rk Surface (A12)		Depleted Dark \$	Surface (F7)			Iron-M	langanese	Masses (F1	(LRR K	, L, R)
Sandy M	ucky Mineral (S1)		Redox Depress	ions (F8)			Piedm	ont Flood	plain Soils (F	19) <b>(MLRA</b>	149B)
Sandy G	leyed Matrix (S4)						Mesic	Spodic (T	A6) (MLRA	144A, 145,	149B)
Sandy R	edox (S5)						Red P	arent Mate	erial (F21)		
	Matrix (S6)								ark Surface (	TF12)	
	face (S7) (LRR R, MLI	RA 149B)							n Remarks)	,	
	(07) (211111)	,						(Explain ii	r romano,		
Indicators of	hydrophytic vegetation a	and wetland	hydrology must be p	resent, unles	ss disturbed or	problem	atic.				
Postrictivo I :	aver (if observed):										
	ayer (if observed):						Undeia Cail De	nt2	Yes	No	V
Type:										No _	Х
							Hydric Soil Pr	esent:			
Type: Depth (inc			<u> </u>				Hydric Soil Pr	esent:			
Type: Depth (inc							Hydric Soil Pr				
Type: Depth (inc							nyaric Soil Pr	esenti			
Type: Depth (inc							nyaric Soil Pr	esent:			
Type: Depth (inc							Hydric Soil Pr	esent:			
Type: Depth (inc							Hydric Soil Pr	esent:			
Type: Depth (inc							Hydric Soil Pr	esent:			
Type: Depth (inc							Hydric Soil Pr	esent:			
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Type: Depth (inc							nyaric Soil Pr				
Type: Depth (inc							nyaric Soil Pr	esenti			

Project/Site:	COP South Larrabe	ее	City/County:	Monmouth Count	y, NJ	Sampling Date:	02/16/2023
Applicant/Owner:		ASOW		St	tate: New Jersey	Sampling Point:	26-W014-1W
Investigator(s):	ALTC		Section, Township	, Range:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Depressional are	ea Local re	elief (concave, conv	vex, none):	concave	Slope	(%): 0-5
Subregion (LRR or MLRA):	LRR S	Lat:	40.11892867	Long:	-74.165902	2 Datum	n: WGS 1984
Soil Map Unit Name:	Atsion sand, 0 to 2	percent slopes, N	orthern Tidewater	Area	NWI classification	n:	
Are climatic / hydrologic conditions or	n the site typical for th	his time of year?	Yes X	No (If no	, explain in Remark	s.)	
Are Vegetation, Soil	, or Hydrology	significantly	/ disturbed?	Are "Normal Cir	rcumstances" prese	nt? Yes <u>&gt;</u>	K No
Are Vegetation, Soil	, or Hydrology	naturally pr	oblematic?	(If needed, expl	lain any answers in	Remarks.)	
<b>SUMMARY OF FINDINGS - A</b>	Attach site map	showing sam	pling point lo	cations, transe	cts, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X	No	Is the	Sampled Area			
Hydric Soil Present?	Yes X			a Wetland?	Yes	No	
Wetland Hydrology Present?	Yes X			optional Wetland Sit	· · · · · · · · · · · · · · · · · · ·		_
, ,				·			
Remarks: (Explain alternative proc	edures here or in a s	eparate report.)					
HYDROLOGY							
Wetland Hydrology Indicators:							
Primary Indicators (minimum of one	o roquirod: chock all	that apply)			Secondary Indias	ators (minimum of t	wo roquirod)
X Surface Water (A1)		X Water-Stained	1 Leaves (RO)			Cracks (B6)	wo required)
X High Water Table (A2)	<u>=</u>	Aquatic Faun	` '			atterns (B10)	
X Saturation (A3)	_	Marl Deposits			Moss Trim L		
Water Marks (B1)	_	X Hydrogen Sul	•			Water Table (C2)	
Sediment Deposits (B2)	<del>_</del>		ospheres on Living	Roots (C3)	Crayfish Bu		
Drift Deposits (B3)	_		Reduced Iron (C4)	j 10003 (00)		isible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)	_		eduction in Tilled S	Soils (C6)	<del></del>	Stressed Plants (D1	
<del>-</del>	_	<del></del>		0010 (00)		•	' /
I A HOLLDEDOSITS (B5)						Position (DZ)	
X Iron Deposits (B5) Inundation Visible on Aerial In	- nagery (B7)	Thin Muck Su Other (Explain				Position (D2)	
Inundation Visible on Aerial In		Other (Explain			Shallow Aqu	itard (D3)	
<del></del>					Shallow Aqu Microtopogr	uitard (D3) aphic Relief (D4)	
Inundation Visible on Aerial In					Shallow Aqu	uitard (D3) aphic Relief (D4)	
Inundation Visible on Aerial In Sparsely Vegetated Concave Field Observations:					Shallow Aqu Microtopogr	uitard (D3) aphic Relief (D4)	
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present?	Surface (B8)  Yes X No	Other (Explain	es): 6	_	Shallow Aqu Microtopogr	uitard (D3) aphic Relief (D4)	
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present?	Yes X No Yes X No	Other (Explain  Depth (inche	es): 6 es): 3		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Surface (B8)  Yes X No	Other (Explain	es): 6 es): 3	 Wetland Hyd	Shallow Aqu Microtopogr	uitard (D3) aphic Relief (D4)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present?	Yes X No Yes X No	Other (Explain  Depth (inche	es): 6 es): 3	— — Wetland Hyd	Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No No Yes X No	Depth (incheduce)  Depth (incheduce)  Depth (incheduce)	es): 6 es): 3 es): 0		Shallow Aqu Microtopogr X FAC-Neutra	uitard (D3) aphic Relief (D4) I Test (D5)	No

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W014-1W **Dominance Test worksheet:** Number of Dominant Species That Are OBL, FACW, or FAC: 5 \_\_\_\_ (A) Absolute Dominant Indicator 30 Feet Tree Stratum (Plot size: % Cover Species? Status **Total Number of Dominant** 1. Acer rubrum / Red maple 10 Yes FAC Species Across All Strata: 5 (B) 2. Quercus bicolor / Swamp white oak **FACW** Yes 3 Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 20 = Total Cover OBL species 5 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: 15 Feet 10 \_\_\_ x 2 = \_\_ FACW species 1. Clethra alnifolia / Coastal sweet-pepperbush 55 \_\_\_ x 3 = \_\_ 165 FAC species 0 FACU species x 4 = x 5 = \_ UPL species 0 (A) Column Totals: 70 5. 6. Prevalence Index = B/A = 2.71 **Hydrophytic Vegetation Indicators:** 1 - Rapid Test for Hydrophytic Vegetation Herb Stratum (Plot size: 5 Feet ) 1. Symplocarpus foetidus / Skunk-cabbage 5 OBL X 2 - Dominance Test is >50% Yes 2. Smilax rotundifolia / Horsebrier FAC X 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and 10 = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes X No \_\_\_ Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 26-W014-1W

	iption: (Describe to th	e depth nee			or commi	the absenc	e of indicators	s.)
Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture	Remarks
0-12	10YR 2/1	100					Muck	
				_				
				_			-	
						-		
¹Type: C=Cor	centration, D=Depletion	n, RM=Redu	ced Matrix, MS=Mas	ked Sand Gr	ains.		²Loca	tion: PL=Pore Lining, M=Matrix.
Hydric Soil II	ndicators:						Indicators	for Problematic Hydric Soils3:
X Histosol			Polyvalue Belov	v Surface (S	8) <b>(I RR R I</b>	VI RΔ 149F		Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)		Thin Dark Surfa	•	,		· —	Prairie Redox (A16) (LRR K, L, R)
						1430)		
Black His			Loamy Mucky N		(LRR R, L)			Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Gleyed					Surface (S7) (LRR K, L)
_	Layers (A5)		Depleted Matrix					alue Below Surface (S8) (LRR K, L)
	Below Dark Surface (A	<b>A11</b> )	Redox Dark Su				Thin I	Dark Surface (S9) (LRR K, L)
Thick Da	rk Surface (A12)		Depleted Dark S	Surface (F7)			Iron-N	Manganese Masses (F12) (LRR K, L, R)
Sandy M	ucky Mineral (S1)		Redox Depress	ions (F8)			Piedn	nont Floodplain Soils (F19) (MLRA 149B)
Sandy G	leyed Matrix (S4)						Mesic	Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy R	edox (S5)						Red F	Parent Material (F21)
	Matrix (S6)						_	Shallow Dark Surface (TF12)
	face (S7) (LRR R, ML	RA 149B)						(Explain in Remarks)
							_	
<sup>3</sup> Indicators of	hydrophytic vegetation	and wetland	hydrology must be p	resent, unles	ss disturbed	or problema	atic.	
Restrictive L	ayer (if observed):							
Type:								
Depth (in	ches):						Hydric Soil P	resent? Yes X No
	, <u> </u>		<u> </u>					
Remarks:								
,	Nater prevents soil from	n being colle	cted past 12 inches					

Project/Site:	COP South Larrabee	City/County: N	onmouth County, NJ Sampling Date: 02/16/2							
Applicant/Owner:	ASOW		State:	New Jersey	Sampling Point: 26-W0	15-1U				
Investigator(s):	TCAL	Section, Township, R		Monmouth						
Landform (hillslope, terrace, etc):	Hillslope Loc	cal relief (concave, convex,	none):	convex	Slope (%):	5-10				
Subregion (LRR or MLRA):	LRR S Lat	40.12807383	Long:	-74.1354556	7 Datum: WG	S 1984				
Soil Map Unit Name:	Humaquepts, 0 to 3 percent s	lopes, frequently flooded	N\	WI classification	า:					
Are climatic / hydrologic conditions or	n the site typical for this time of yea	ar? Yes <u>X</u> No	(If no, expl	ain in Remarks	.)					
		antly disturbed?	Are "Normal Circums	stances" preser	nt? Yes X No					
Are Vegetation, Soil	, or Hydrologynatura	ly problematic?	(If needed, explain ar	ny answers in F	Remarks.)					
<b>SUMMARY OF FINDINGS - A</b>	Attach site map showing s	ampling point locat	ions, transects, i	important f	eatures, etc.					
Hydrophytic Vegetation Present?	Yes X No	Is the San	npled Area							
Hydric Soil Present?		X within a W	•	Yes	No					
Wetland Hydrology Present?			onal Wetland Site ID:		_					
, 0,			•							
Remarks: (Explain alternative procedures here or in a separate report.)										
HYDROLOGY										
Wetland Hydrology Indicators:	a wa suring duals als all that a wall (		Con		one (minimum of two negation	d\				
Primary Indicators (minimum of on		ained Leaves (B9)		•	ors (minimum of two requi	eu)				
Surface Water (A1) High Water Table (A2)		auna (B13)		Surface Soil Drainage Par						
Saturation (A3)		osits (B15)		Moss Trim Li						
Water Marks (B1)	<del></del>	Sulfide Odor (C1)		_	Water Table (C2)					
Sediment Deposits (B2)		Rhizospheres on Living Ro		Crayfish Buri						
Drift Deposits (B3)		of Reduced Iron (C4)			sible on Aerial Imagery (CS	3)				
Algal Mat or Crust (B4)		on Reduction in Tilled Soils		_	ressed Plants (D1)	,,				
Iron Deposits (B5)		k Surface (C7)		_	Position (D2)					
Inundation Visible on Aerial In		plain in Remarks)		Shallow Aqui						
Sparsely Vegetated Concave	<del>-</del> - ·	piani in riomanio)	<del></del>	-	phic Relief (D4)					
				FAC-Neutral						
				=						
Field Observations:										
		nches):								
	· · ·	nches):								
	Yes NoX Depth (i	nches):	Wetland Hydrolog	gy Present?	Yes No	X				
(includes capillary fringe)										
Describe Recorded Data (stream g	gauge monitoring well aerial photo	ne previous inspections) if	available:							
Describe Necorded Data (Stream g	gauge, monitoring well, aeriai photo	os, previous irispections), ii	available.							
Remarks:										

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W015-1U **Dominance Test worksheet:** Number of Dominant Species That Are OBL, FACW, or FAC: 2 \_\_\_\_ (A) Absolute Dominant Indicator <u>Tree Stratum</u> (Plot size: \_\_\_\_30 Feet ) % Cover Species? Status **Total Number of Dominant**  Quercus velutina / Black oak Species Across All Strata: 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 20 = Total Cover OBL species 0 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: 15 Feet 0 x 2 = \_\_\_ FACW species 1. Clethra alnifolia / Coastal sweet-pepperbush 30 \_\_\_ x 3 = \_\_ FAC species 0 FACU species x 4 = x 5 = UPL species 20 100 (A) \_\_\_ Column Totals: 5. 6. Prevalence Index = B/A = 3.8 **Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation 1. Smilax rotundifolia / Horsebrier X 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 4. 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes X No Remarks: (Explain alternative procedures here or in a separate report.)

 SOIL
 Sampling Point:
 26-W015-1U

Depth	Matrix		Redo	x Features							
(inches)	Color (moist)	%	Color (moist)	%	Type¹	Loc²	Texture		Remarl	ks	
0-3	10YR 3/2	100					Sand				
3-10	10YR 6/8	50	10YR 3/2	50	· <u></u> -		Sand				
10-18	10YR 6/8	100			. <u> </u>		Sand				
	<u> </u>										
	-			_	·						
				_	·						
				_							
				_							
ype: C=Cor	ncentration, D=Depletion	on, RM=Redu	ıced Matrix, MS=Mas	ked Sand G	ains.		²Locat	ion: PL=P	ore Lining, M	1=Matrix.	
dric Soil I	ndicators:						Indicators	for Proble	ematic Hydr	ic Soils³:	
Histosol	(A1)		Polyvalue Belov	w Surface (S	8) <b>(LRR R,N</b>	ILRA 149E	3) 2 cm f	Muck (A10	) (LRR K, L	, MLRA 149	9B)
Histic Er	pipedon (A2)		Thin Dark Surfa	ace (S9) (LF	RR R, MLRA	149B)	Coast	Prairie Re	dox (A16) (	LRR K, L, I	R)
Black Hi	istic (A3)		Loamy Mucky N	Mineral (F1)	(LRR K, L)		5 cm l	Aucky Pea	t or Peat (S	3) <b>(LRR K,</b>	L, R)
Hydroge	en Sulfide (A4)		Loamy Gleyed	Matrix (F2)			Dark S	Surface (S	7) <b>(LRR K,</b>	L)	
Stratified	d Layers (A5)		Depleted Matrix	(F3)					Surface (S8		L)
Depleter	d Below Dark Surface (	(A11)	Redox Dark Su	rface (F6)					ce (S9) (LR		
	ark Surface (A12)	•	Depleted Dark						Masses (F1		(, L, R)
_	Aucky Mineral (S1)		Redox Depress					-	olain Soils (F		
	Gleyed Matrix (S4)			, ,					46) <b>(MLRA</b>		
	Redox (S5)								erial (F21)	, -,	, ,
	Matrix (S6)								rk Surface (	TF12)	
_	rface (S7) (LRR R, M	LRA 149B)							Remarks)	,	
								<b>(                                    </b>	,		
	hydrophytic ycaotation	n and wetland	I hydrology must be p	resent, unle	ss disturbed o	or problema	atic.				
nuicators or	Trydropriytic vegetation										
Restrictive L	_ayer (if observed):										
Restrictive L	_ayer (if observed):								.,		.,
estrictive L	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	Х
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	Х
Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	Х
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	Х
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
Restrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
Restrictive L	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
Restrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
Restrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (in	_ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X

Project/Site:	COP South Larrabee	City/County:	Monmouth County,	NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW				Sampling Point:	26-W015-1W
Investigator(s):	TCAL	Section, Township, R			n County, NJ	
Landform (hillslope, terrace, etc):	Swale Local	relief (concave, convex	, none):	concave	Slope	e (%): 0-3
Subregion (LRR or MLRA):	LRR S Lat:	40.12801933	Long:	-74.135362	17 Datur	m: WGS 1984
Soil Map Unit Name:	Humaquepts, 0 to 3 percent slo	pes, frequently flooded		NWI classification	on:	,
Are climatic / hydrologic conditions o	n the site typical for this time of year'	? Yes X No	o (If no, e	explain in Remark	s.)	
Are Vegetation, Soil	, or Hydrologysignificar	ntly disturbed?	Are "Normal Circ	umstances" prese	ent? Yes	X No
Are Vegetation, Soil	, or Hydrologynaturally	problematic?	(If needed, explai	n any answers in	Remarks.)	
<b>SUMMARY OF FINDINGS - A</b>	Attach site map showing sa	mpling point locat	tions, transect	s, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X No	Is the Sar	npled Area			
Hydric Soil Present?	Yes X No		Vetland?	Yes	No	
Wetland Hydrology Present?	Yes X No		ional Wetland Site			<del>_</del>
Remarks: (Explain alternative proc	cedures here or in a separate report.)	1				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	e required: check all that apply)			Secondary Indica	ators (minimum of	two required)
Surface Water (A1)		ned Leaves (B9)			l Cracks (B6)	
High Water Table (A2)	Aquatic Fau	, ,			atterns (B10)	
Saturation (A3)	 Marl Depos			Moss Trim I		
Water Marks (B1)	Hydrogen S	Sulfide Odor (C1)			Water Table (C2)	
Sediment Deposits (B2)	Oxidized R	nizospheres on Living R	oots (C3)	Crayfish Bu	rrows (C8)	
Drift Deposits (B3)	Presence o	f Reduced Iron (C4)		Saturation \	/isible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)	Recent Iron	Reduction in Tilled Soil	s (C6)	Stunted or S	Stressed Plants (D	1)
Iron Deposits (B5)	Thin Muck	Surface (C7)		X Geomorphic	Position (D2)	
Inundation Visible on Aerial Ir	nagery (B7) Other (Expl	ain in Remarks)		Shallow Aq	uitard (D3)	
Sparsely Vegetated Concave	Surface (B8)			Microtopogi	raphic Relief (D4)	
				X FAC-Neutra	I Test (D5)	
Field Observations:						
	Yes No X Depth (inc	thes):				
Water Table Present?	Yes No X Depth (inc					
Saturation Present?	Yes No X Depth (inc	· ——	Wetland Hydro	ology Present?	Yes X	No
(includes capillary fringe)	<u></u>					
( ) ) ) )						
Describe Recorded Data (stream g	gauge, monitoring well, aerial photos	previous inspections), i	f available:			
Remarks:						
remarks.						
i						

				Sampling Point: 26-W015-1W
	Absolute	Dominant	Indicator	Dominance Test worksheet:  Number of Dominant Species  That Are OBL, FACW, or FAC: 3 (A)
ree Stratum (Plot size: 30 Feet )	% Cover	Species?	Status	
. Acer rubrum / Red maple	35	Yes	FAC	Total Number of Dominant
		_	-	Species Across All Strata: 3 (B)
		_	-	
				Percent of Dominant Species
			-	That Are OBL, FACW, or FAC: 100.0 (A/B)
			•	Prevalence Index worksheet:
		_	•	
-	35	= Total Cov	er	
apling/Shrub Stratum (Plot size: 15 Feet )		_		· — — — —
Clethra alnifolia / Coastal sweet-pepperbush	45	Yes	FAC	
	_	_		FAC species 80 x 3 = 240
				FACU species 0 x 4 = 0
				UPL species0 x 5 =0
-				Column Totals: 95 (A) 255 (B)
				Prevalence Index = B/A = 2.68
<u> </u>				
	45	_ = Total Cov	er	Hydrophytic Vegetation Indicators:
erb Stratum (Plot size: 5 Feet )				1 - Rapid Test for Hydrophytic Vegetation
Symplocarpus foetidus / Skunk-cabbage	15	Yes	OBL	X 2 - Dominance Test is >50%
				X 3 - Prevalence Index ≤3.0¹
				4 - Morphological Adaptations¹ (Provide supporting
				Problematic Hydrophytic Vegetation¹ (Explain )
			-	
				¹Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
·				De present, unless disturbed of problematic.
•				Definitions of Vegetation Strata
				Definitions of Fogotation Strata
0				Tree Moody plants 2 in (7.6 cm) or more in diameter at
1				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2				
	15	_ = Total Cov	er	Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
/oody Vine Stratum (Plot size:30 Feet)				
·				Herb - All herbaceous (non-woody) plants, regardless of
			-	size, and woody plants less than 3.28 ft tall.
		_	-	Woody vines - All woody vines greater than 3.28 ft in
-		_	-	height.
		= Total Cov		
		_ = 10101 00.	51	Hydrophytic
				Vegetation
				Present?         Yes         X         No

SOIL Sampling Point: 26-W015-1W

Profile Description  Depth	ription: (Describe to to Matrix	he depth ne		he indicator x Features	or confirm	the absen	ce of indicators.	)
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture	Remarks
0-3	10YR 2/1	100	(		.,,,,		Loam	
3-20	10YR 4/2	100					Fine Sand	_
3-20	10111 4/2	100					Tille dalle	
		· <del></del>	-				<del></del>	
		· <del></del>	-				<del></del>	
		· ——						_
		·						
		·						
		· <del></del>						
	-							
	-		-					
	·							
¹Type: C=Cor	ncentration, D=Depletion	on, RM=Redu	uced Matrix, MS=Mas	ked Sand Gr	ains.		²Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indicators 1	or Problematic Hydric Soils³:
Histosol			Polyvalue Belov	w Surface (St	3) <b>(LRR R</b> ,	MLRA 149	B) 2 cm M	luck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		Thin Dark Surfa	•				Prairie Redox (A16) (LRR K, L, R)
Black Hi			Loamy Mucky N			• ,		lucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Gleyed		, <b></b> /			urface (S7) (LRR K, L)
	d Layers (A5)		X Depleted Matrix					lue Below Surface (S8) (LRR K, L)
	d Below Dark Surface (	Δ11)	Redox Dark Su					ark Surface (S9) (LRR K, L)
	ark Surface (A12)	A11)	Depleted Dark					anganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)							. , , ,
	• • •		Redox Depress	SIONS (FO)				ont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)							Spodic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5)							arent Material (F21)
	Matrix (S6)	DA 440D\						hallow Dark Surface (TF12) Explain in Remarks)
Dark Sili		RA 144KI						Explain in Remarks)
Daik Sui	rface (S7) (LRR R, ML	_ (TA 140D)						Explain in Remarks)
	hydrophytic vegetation		d hydrology must be p	oresent, unles	s disturbed	or problem		Explain in Remarkly
3Indicators of			d hydrology must be p	oresent, unles	s disturbed	or problem		Explain in remainer
3Indicators of	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem		Explain in remainer
³Indicators of	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem		
<sup>3</sup> Indicators of  Restrictive L  Type:	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	oresent, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	
<sup>3</sup> Indicators of  Restrictive L  Type:  Depth (in	hydrophytic vegetation		d hydrology must be p	present, unles	s disturbed	or problem	atic.	

Project/Site:	COP South Larrabee	City/Cou	ınty: Monmo	outh County, NJ	Sampling Date: 02	/21/2023
Applicant/Owner:	AS	SOW	·	State: New Jersey		-W016-1U
Investigator(s):	TCAL	Section,	Township, Range:		n County, NJ	
Landform (hillslope, terrace, etc):	Flat		cave, convex, none		Slope (%):	0-3
	LRR S	<del></del>	12990367	Long: -74.0519713	33 Datum: \	NGS 1984
Soil Map Unit Name:	Downer-Urban land	complex, 0 to 5 perce	ent slopes	NWI classification	on:	
Are climatic / hydrologic conditions o	n the site typical for this tim	ne of year? Yes	X No	(If no, explain in Remark	is.)	
Are Vegetation, Soil	, or Hydrology	significantly disturbe	ed? Are "	 'Normal Circumstances" prese	ent? Yes X	No
Are Vegetation , Soil				eeded, explain any answers in	Remarks.)	
SUMMARY OF FINDINGS - A	Attach site map sho	wing sampling p	oint locations	, transects, important	features, etc.	
Hydrophytic Vegetation Present?	-	No X	Is the Sampled	-	•	
Hydric Soil Present?		No X	within a Wetlan		No X	
Wetland Hydrology Present?		No X		Netland Site ID:		
			, 500, 00			
Remarks: (Explain alternative prod	edures here or in a separa	te report.)				
HYDROLOGY						
Wetland Hydrology Indicators:				0 1 1 "		
Primary Indicators (minimum of on	•		(DO)		ators (minimum of two re	quirea)
Surface Water (A1)		/ater-Stained Leaves	(B9)		l Cracks (B6)	
High Water Table (A2)		quatic Fauna (B13)			atterns (B10)	
Saturation (A3)		larl Deposits (B15)	(C1)	Moss Trim L		
Water Marks (B1)		ydrogen Sulfide Odor		<del></del> ·	Water Table (C2)	
Sediment Deposits (B2)		xidized Rhizospheres				(C0)
Drift Deposits (B3) Algal Mat or Crust (B4)		resence of Reduced I ecent Iron Reduction			/isible on Aerial Imagery Stressed Plants (D1)	(C9)
Iron Deposits (B5)		hin Muck Surface (C7		<del></del>	c Position (D2)	
Inundation Visible on Aerial Ir		ther (Explain in Rema	•	Shallow Aqu		
Sparsely Vegetated Concave		ulei (Explaiii ili Nellia	aiks)	<del></del>	raphic Relief (D4)	
charsely vegetated contained	Curiace (BO)			FAC-Neutra		
			1			
Field Observations:						
Surface Water Present?		Depth (inches):				
Water Table Present?	Yes NoX	Depth (inches):				
Saturation Present?	Yes NoX	Depth (inches):	W	etland Hydrology Present?	Yes No	X
(includes capillary fringe)						
Describe Recorded Data (streem	acuse monitoring well cor	ial photos, provinuo in	anastiana) if avail	able:		
Describe Recorded Data (stream of	Jauge, monitoring well, aer	iai priotos, previous ir	ispections), ii avail	able.		
Remarks:						
1						

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W016-1U **Dominance Test worksheet: Number of Dominant Species** That Are OBL, FACW, or FAC: 0 \_\_\_\_ (A) Absolute Dominant Indicator Tree Stratum (Plot size: 30 Feet Status % Cover Species? **Total Number of Dominant** 1. Picea abies / Norway spruce 20 Yes NI Species Across All Strata: (B) 2. Robinia pseudoacacia / Black locust FACU 10 Yes 3 Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 30 = Total Cover OBL species 0 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: 15 Feet 0 \_\_\_ x 2 = \_ FACW species 1. Taxus / Yew x 3 = 0 FAC species 2. \_\_ 110 FACU species x 4 = 3. UPL species 25 x 5 = 125 (A) Column Totals: 135 5. 6. Prevalence Index = B/A = 4.19**Hydrophytic Vegetation Indicators:** 1 - Rapid Test for Hydrophytic Vegetation Herb Stratum (Plot size: 5 Feet ) Poa pratensis / Kentucky blue grass 100 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 4. 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and 100 = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes \_\_\_\_ No \_X\_\_ Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 26-W016-1U

ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.    All coalition: PL=Pore Lining, M=Matrix,   Indicators for Problematic Hydric Soils*;   Histosoil (A1)	(inches) Color (moist) % Color (moist) % Type¹ Loc² Texture Remarks  "Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  "Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  "Indicators: Indicators: Indicators: Indicators for Problematic Hydric Soils*:  Histosol (A1) Polyvalue Below Surface (S8) (LRR R,MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)  Black Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R,MLRA 149B) 2 coast Prairie Redox (A16) (LRR K, L, R)  Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  Strattlifed Layers (A5) Depleted Matrix (F2) Dark Surface (S7) (LRR K, L)  Thick Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S8) (LRR K, L)  Thick Dark Surface (A12) Depleted Dark Surface (F7) Iron-Manganese Masses (F12) (LRR K, L)  Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 144 A) 145, 14  Sandy Gleyed Matrix (S4) Redox (S5) Redox Peat (S7) (LRR R, MLRA 149B)  Dark Surface (S7) (LRR R, MLRA 149B) Piedmont Floodplain Soils (F19) (MLRA 144 A) 145, 14  Sandy Redox (S5) Redox (S6) Red Parent Material (F21) Very Shallow Dark Surface (T712) Other (Explain in Remarks)  Throicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type:		ription: (Describe to t	he depth ne			or confirm	the absen	ce of indicators.)	
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  **Jocation: PL=Pore Lining, M=Matrix.  **Jocation: PL=Pore Lining, M=Matrix.  **Jocation: PL=Pore Lining, M=Matrix.  **Indicators for Problematic Hydric Soils*:  **Indicators for Problematic Hydric Soils*:  **Jocation: PL=Pore Lining, M=Matrix.  **Jocation: PL=Portalitic Hydric Soils*:  **Jocation: Pleased, Alseased, Alseased, Alseased,	Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  **Location: PL=Pore Lining, M=Matrix.  **Indicators:  Histosol (A1)	Depth (inches)	Matrix Color (moist)	0/2			Type <sup>1</sup>	1 002	Texture	Remarks
ydric Soil Indicators:  Histosol (A1)	ydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)  Stratified Layers (A5)  Depleted Below Dark Surface (S9)  Thin Dark Surface (F6)  Thin Dark Surface (F7)  Depleted Dark Surface (S9)  Endown Mucky Mineral (F7)  Thick Dark Surface (A11)  Redox Dark Surface (F7)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7)  Stripped Matrix (S6)  Dark Surface (S7)  Endown Depressions (F8)  Thin Dark Surface (TF12)  Dark Surface (S7)  Wery Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Hydric Soil Present?  Hydric Soil Present?  Yes  No  Semants:	(IIICIICS)	Color (moist)		Color (moist)		Туре	LUC	Texture	Remarks
Indicators for Problematic Hydric Soils:  Histosol (A1)	Indicators for Problematic Hydric Soils*:  Histosol (A1)									
Adric Soil Indicators:    Histosol (A1)	Adric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Redox (S5)  Stripped Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Medicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators for Problematic Hydric Soils 1:  Indicators for Problematic Hydric Soils 1:  Indicators for Problematic Hydric Soils 1:  A muck (A10) (LRR K, L, MLRA 149B)  Coast Prairie Redox (A16) (LRR K, L, R)  5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  5 cm Mucky Peat or Peat (S4) (LRR K, L, R)  5 cm Mucky Peat or Peat (S4) (LRR K, L, R)  5 cm Mucky Peat or Peat (S4) (LRR K, L, R)  5 cm Mucky Peat or Peat (S4) (LRR K, L, R)  5 cm Mucky Peat or Peat (S4) (LRR K, L, R)  5 cm Mucky Peat or Peat (S4) (LRR K, L, R)  5 cm Mucky Peat or Peat (S4) (LRR K, L, R)  5 cm Mucky Peat or Peat (S4) (LRR K, L, R)  5 cm Mucky Peat or Peat (S4) (LRR K, L, R)  5 cm Mucky Peat or Peat (S4) (LRR K, L, R)  Polyvalue Below Surface (S9) (LRR K, L)  Thin Dark Surface (S7) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Thin Dark Surfac									
ydric Soil Indicators:  Histosol (A1)	registrictive Layer (if observed):  Histosol (A1)					_				
ydric Soil Indicators:  Histosol (A1)	ydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)  Stratified Layers (A5)  Depleted Below Dark Surface (S9)  Thin Dark Surface (F6)  Thin Dark Surface (F7)  Depleted Dark Surface (S9)  Endown Mucky Mineral (F7)  Thick Dark Surface (A11)  Redox Dark Surface (F7)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7)  Stripped Matrix (S6)  Dark Surface (S7)  Endown Depressions (F8)  Thin Dark Surface (TF12)  Dark Surface (S7)  Wery Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Hydric Soil Present?  Hydric Soil Present?  Yes  No  Semants:					_				
ydric Soil Indicators:  Histosol (A1)	ydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)  Stratified Layers (A5)  Depleted Below Dark Surface (S9)  Thin Dark Surface (F6)  Thin Dark Surface (F7)  Depleted Dark Surface (S9)  Endown Mucky Mineral (F7)  Thick Dark Surface (A11)  Redox Dark Surface (F7)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7)  Stripped Matrix (S6)  Dark Surface (S7)  Endown Depressions (F8)  Thin Dark Surface (TF12)  Dark Surface (S7)  Wery Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Hydric Soil Present?  Hydric Soil Present?  Yes  No  Semants:		-							
ydric Soil Indicators:  Histosol (A1)	ydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thin Dark Surface (F6)  Thin Dark Surface (F7)  Depleted Dark Surface (F7)  Sandy Mucky Mineral (S1)  Sandy Redox (S5)  Stripped Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, L)  Redox Depressions (F8)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, L)  Hydric Soil Present?  Hydric Soils:  Indicators for Problematic Hydric Soils:  Indicators for Problematic Hydric Soils:  Indicators for Problematic Hydric Soils:  A muck (A10) (LRR K, L, MLRA 149B)  Coast Prairie Redox (A16) (LRR K, L, R)  5 cm Muck (A10) (LRR K, L, MLRA 149B)  Dark Surface (S7) (LRR K, L)  Thin Dark Surface (S7) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Inon-Manganese Masses (F12) (LRR K, L)  Inon-Manganese Masses (F12) (LRR K, L)  Peledmont Floodplain Soils (F19) (MLRA 144  Mesic Spodic (TA6) (MLRA 144A, 145, 14  Mesic Spodic (TA6) (MLRA 144A, 145,		-							
ydric Soil Indicators:  Histosol (A1)	ydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thic Dark Surface (F6)  Thic Dark Surface (F7)  Depleted Dark Surface (S9)  Depleted Dark Surface (F7)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, L)  Stratified Layers (A5)  Depleted Dark Surface (A12)  Depleted Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Redox (S5)  Stripped Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Mesic Spodic (TA6) (MLRA 144A, 145, 14 Red Parent Material (F21)  Very Shallow Dark Surface (TF12)  Dark Surface (S7) (LRR R, MLRA 149B)  Mesic Spodic (TA6)  Mesic Spodic (TA6					_	·			
ydric Soil Indicators:  Histosol (A1)	ydric Soil Indicators:  Histosol (A1)  Histosol (A2)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thin Dark Surface (F6)  Thin Dark Surface (F7)  Depleted Dark Surface (F7)  Sandy Mucky Mineral (S1)  Sandy Redox (S5)  Stripped Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, L)  Redox Depressions (F8)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, L)  Hydric Soil Present?  Hydric Soils:  Indicators for Problematic Hydric Soils:  Indicators for Problematic Hydric Soils:  Indicators for Problematic Hydric Soils:  A muck (A10) (LRR K, L, MLRA 149B)  Coast Prairie Redox (A16) (LRR K, L, R)  5 cm Muck (A10) (LRR K, L, MLRA 149B)  Dark Surface (S7) (LRR K, L)  Thin Dark Surface (S7) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Inon-Manganese Masses (F12) (LRR K, L)  Inon-Manganese Masses (F12) (LRR K, L)  Peledmont Floodplain Soils (F19) (MLRA 144  Mesic Spodic (TA6) (MLRA 144A, 145, 14  Mesic Spodic (TA6) (MLRA 144A, 145,					_				
ydric Soil Indicators:  Histosol (A1)	ydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thic Dark Surface (F6)  Thic Dark Surface (F7)  Depleted Dark Surface (S9)  Depleted Dark Surface (F7)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, L)  Stratified Layers (A5)  Depleted Dark Surface (A12)  Depleted Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Redox (S5)  Stripped Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Mesic Spodic (TA6) (MLRA 144A, 145, 14 Red Parent Material (F21)  Very Shallow Dark Surface (TF12)  Dark Surface (S7) (LRR R, MLRA 149B)  Mesic Spodic (TA6)  Mesic Spodic (TA6					_				
ydric Soil Indicators:  Histosol (A1)	ydric Soil Indicators:  Histosol (A1)									
ydric Soil Indicators:  Histosol (A1)	Indicators for Problematic Hydric Soils*:   Histosol (A1)									
Histosol (A1)	Histosol (A1)	ype: C=Cor	ncentration, D=Depletion	on, RM=Redu	ced Matrix, MS=Mas	ked Sand Gr	ains.		²Location:	PL=Pore Lining, M=Matrix.
Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Stratified Layers (A5) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Redox (A5) Striped Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L) Friedmant Floodplain Soils (F19) (MLRA 149B)  Mesic Spodic (TA6) (MLRA 144A, 145, 149B  Dark Surface (S7) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Friedmant Floodplain Soils (F19) (MLRA 149B  Sandy Mucky Mineral (S1) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B)  Mesic Spodic (TA6) (MLRA 144A, 145, 149B  Addicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Bestrictive Layer (if observed): Type: Depth (inches):  Hydric Soil Present?  Yes No _X  Memarks:	Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (A11)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Sandy Redox (Depressions (F8)  Striped Matrix (S6)  Dark Surface (S7) (LRR K, L)  Find Dark Surface (S9) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Find Dark Surface (S9) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Find Dark Surface (S9) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Find Dark Surface (S9) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Find Dark Surface (S9) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Find Dark Surface (S9) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Find Dark Surface (S9) (LRR K, L)  Find Dark Surface (S9) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)  Find Dark Surface (S9) (LRR K, L)  Find Dark Surface (S9) (LRR K, L)  Type:  Depth (inches):  Find Dark Surface (S9) (LRR K, L)  Type:  Depth (inches):  Find Dark Surface (S9) (LRR K, L)  Thin Dark Surface (S9) (LRR K, L)	ydric Soil I	ndicators:						Indicators for	Problematic Hydric Soils <sup>3</sup> :
Black Histic (A3)	Black Histic (A3)	Histosol	(A1)		Polyvalue Belov	w Surface (S	8) <b>(LRR R</b> ,	MLRA 149	B) 2 cm Muc	k (A10) (LRR K, L, MLRA 149B)
Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F3)  Depleted Below Dark Surface (S7) (LRR K, L)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Redox Depressions (F8)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR K, L)  Thick Dark Surface (A12)  Depleted Dark Surface (F7)  Iron-Manganese Masses (F12) (LRR K, L, R)  Piedmont Floodplain Soils (F19) (MLRA 149B)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR K, L)  Priedmont Floodplain Soils (F19) (MLRA 149B)  Mesic Spodic (TA6) (MLRA 144A, 145, 149B  Sandy Redox (S5)  Stripped Matrix (S6)  Dark Surface (S7) (LRR R, MLRA 149B)  Adicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Bestrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Hydric Soil Present?  Yes No _X  Emarks:	Hydrogen Sulfide (A4)	Histic Ep	pipedon (A2)		Thin Dark Surfa	ace (S9) (LF	RR R, MLRA	149B)	Coast Pra	nirie Redox (A16) (LRR K, L, R)
Stratified Layers (A5)	Stratified Layers (A5)	Black Hi	stic (A3)		Loamy Mucky N	Mineral (F1)	(LRR K, L)		5 cm Muc	ky Peat or Peat (S3) (LRR K, L, R)
Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Depleted Dark Surface (F7) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Gleyed Matrix (S4) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B)  midicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  metric Layer (if observed): Type: Depth (inches):  memarks:  Hydric Soil Present? Yes No X  memarks:	Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Depleted Dark Surface (F7) Iron-Manganese Masses (F12) (LRR K, L) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 144 Sandy Gleyed Matrix (S4) Mesic Spodic (TA6) (MLRA 144A, 145, 14 Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Instrictive Layer (if observed): Type: Depth (inches):  Depth (inches):  Hydric Soil Present? Yes No Semantic Semantics Semanti	Hydroge	n Sulfide (A4)		Loamy Gleyed	Matrix (F2)			Dark Surfa	ace (S7) (LRR K, L)
Thick Dark Surface (A12)	Thick Dark Surface (A12)	Stratified	d Layers (A5)		Depleted Matrix	(F3)			Polyvalue	Below Surface (S8) (LRR K, L)
Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 149B Sandy Gleyed Matrix (S4) Mesic Spodic (TA6) (MLRA 144A, 145, 149B Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  adicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  bestrictive Layer (if observed):  Type: Depth (inches): Hydric Soil Present? Yes No X	Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 144 Sandy Gleyed Matrix (S4) Mesic Spodic (TA6) (MLRA 144A, 145, 144 Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Itestrictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Hydric Soil Present? Yes No Standard No.	Depleted	d Below Dark Surface (	(A11)	Redox Dark Su	rface (F6)			Thin Dark	Surface (S9) (LRR K, L)
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B)  Mesic Spodic (TA6) (MLRA 144A, 145, 149B Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Mesic Spodic (TA6) (MLRA 144A, 145, 149B Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Mesic Spodic (TA6) (MLRA 144A, 145, 149B Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Mesic Spodic (TA6) (MLRA 144A, 145, 149B Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Hydric Soil Present? Yes No _ X  Mesic Spodic (TA6) (MLRA 144A, 145, 149B	Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B)  mdicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  lestrictive Layer (if observed): Type: Depth (inches):  Hydric Soil Present? Yes No Stripped Matrix (S4)  Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Hydric Soil Present? Yes No Stripped Matrix (S6)  Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Hydric Soil Present? Yes No Stripped Matrix (S6)  Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)	Thick Da	ark Surface (A12)		Depleted Dark	Surface (F7)			Iron-Mang	ganese Masses (F12) (LRR K, L, R)
Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B)  Microticators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Westrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes NoX  Moderate (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Hydric Soil Present?  Westrictive Soil Present?  Westrictive Soil Present?  Westrictive Soil Present?  NoX	Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present?  Yes No> Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  Hydric Soil Present?  Yes No> Remarks:		•		Redox Depress	sions (F8)				
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Undicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No Demarks:									
Dark Surface (S7) (LRR R, MLRA 149B)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Sestrictive Layer (if observed):  Type: Depth (inches):  Depth (inches):  Hydric Soil Present?  Yes No X  No X	Dark Surface (S7) (LRR R, MLRA 149B)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No>  Remarks:									
ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  estrictive Layer (if observed):  Type: Depth (inches): Hydric Soil Present? Yes No X emarks:	Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No									
Estrictive Layer (if observed):    Type:	Restrictive Layer (if observed):  Type: Depth (inches):  Hydric Soil Present? Yes No No Remarks:	Dark Su	rface (S7) (LRR R, MI	LRA 149B)					Other (Ex	plain in Remarks)
emarks:	Remarks:	Type:								
		Depth (in	ches):		<u></u>				Hydric Soil Prese	ent? Yes NoX
			Manicured Park land w	rith undergrou	and utilities present, r	manmade we	tland, adjac	ent area no	on hydric. Soils were	not collected.

Project/Site:	COP South Larrabee	City/County: N	Ionmouth County, NJ	Sampling Date: 02/21/2023
Applicant/Owner:	ASOW		State: New Jersey	
Investigator(s):	TCAL	Section, Township, Ra		h County, NJ
Landform (hillslope, terrace, etc):	Bowl shaped depression Local	relief (concave, convex,		Slope (%): 0-5
Subregion (LRR or MLRA):		40.129932	Long: -74.05194	
Soil Map Unit Name:	Water		NWI classification	
	n the site typical for this time of year?	Yes X No		
Are Vegetation , Soil	**		Are "Normal Circumstances" prese	•
		problematic?	(If needed, explain any answers in	
· — —	Attach site map showing sai		•	•
	-			10010100, 010.
Hydrophytic Vegetation Present?	Yes NoX		ipled Area	No
Hydric Soil Present?	Yes X No	within a W		<del></del>
Wetland Hydrology Present?	Yes <u>X</u> No	ii yes, opui	onal Wetland Site ID:	26-W016-1W
Remarks: (Explain alternative proc Manmade pond.	sedures here or in a separate report.)			
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e required; check all that apply)		Secondary Indic	ators (minimum of two required)
X Surface Water (A1)		ed Leaves (B9)		I Cracks (B6)
High Water Table (A2)	Aquatic Fau	, ,		atterns (B10)
Saturation (A3)	Marl Deposi		Moss Trim I	
Water Marks (B1)		ulfide Odor (C1)	<del></del>	Water Table (C2)
Sediment Deposits (B2)	Oxidized Rh	nizospheres on Living Ro	<del>-</del> ·	· ·
Drift Deposits (B3)	Presence of	Reduced Iron (C4)	Saturation \	/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Recent Iron	Reduction in Tilled Soils	(C6) Stunted or S	Stressed Plants (D1)
Iron Deposits (B5)	Thin Muck S	Surface (C7)	Geomorphic	c Position (D2)
Inundation Visible on Aerial Ir	nagery (B7) Other (Expla	ain in Remarks)	Shallow Aq	uitard (D3)
Sparsely Vegetated Concave	Surface (B8)		Microtopogr	raphic Relief (D4)
			FAC-Neutra	al Test (D5)
Field Observations:				
	Yes X No Depth (incl	hes): 12+		
Water Table Present?	Yes No X Depth (incl	· ———		
Saturation Present?	Yes No X Depth (incl	· ———	Wetland Hydrology Present?	Yes X No
(includes capillary fringe)	100 110X Dopan (incl.)		Tronana riyarology r rocentr	100 <u>X</u> 110
(moduce supmary milge)				
Describe Recorded Data (stream of	gauge, monitoring well, aerial photos,	previous inspections), if	available:	
Remarks:				
Nemarks.				

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W016-1W **Dominance Test worksheet:** Number of Dominant Species That Are OBL, FACW, or FAC: 0 \_\_\_\_ (A) Absolute Dominant Indicator <u>Tree Stratum</u> (Plot size: \_ 30 Feet ) % Cover Species? Status **Total Number of Dominant** Species Across All Strata: 0 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Multiply by: Total % Cover of: OBL species 0 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: 15 Feet FACW species 0 x 2 = 0 x 3 = FAC species 0 x 4 = \_\_\_ FACU species 0 \_\_ x 5 = \_ UPL species 0 (A) Column Totals: 6. Prevalence Index = B/A = 0.0 **Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% X 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations¹ (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_\_\_\_\_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes \_\_\_\_\_ No \_\_X\_\_ Remarks: (Explain alternative procedures here or in a separate report.) No vegetation present at sample point, center of pond with duckweed.

SOIL Sampling Point: 26-W016-1W

	ription: (Describe to th	ne depth need			or confirm	the absen	ce of indicators.)	
Depth (inches)	Matrix Color (moist)	<u></u> %	Redox Color (moist)	K Features %	Typo1	Loc²	Texture	Remarks
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type <sup>1</sup>	LOC-	rexture	Remarks
				<del></del>				
				-				_
				-				
				- <del></del>				
				- ——				
				- ——				
1T O. O.		- DM Dadwa	al Matrice MO March				21 4: -	as Di Dana Linina M Matrix
	ncentration, D=Depletion	n, RIVI=Reduce	ed Matrix, MS=Mask	ked Sand Gr	ains.		Locatio	n: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:							or Problematic Hydric Soils <sup>3</sup> :
Histosol		_	Polyvalue Below	•	, ,		· —	uck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)	_	_ Thin Dark Surfa			A 149B)		Prairie Redox (A16) (LRR K, L, R)
Black Hi		_	_ Loamy Mucky M		(LRR K, L)			ucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	_	_ Loamy Gleyed N					urface (S7) (LRR K, L)
	Layers (A5)		_ Depleted Matrix					ue Below Surface (S8) (LRR K, L)
	Below Dark Surface (A	A11)	_ Redox Dark Sur					rk Surface (S9) (LRR K, L)
	rk Surface (A12) lucky Mineral (S1)	_	Depleted Dark S Redox Depressi					nganese Masses (F12) (LRR K, L, R) nt Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)	_	_ Redox Deplessi	ons (Fo)				Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							rent Material (F21)
	Matrix (S6)						_	allow Dark Surface (TF12)
	face (S7) (LRR R, ML	.RA 149B)						Explain in Remarks)
_							<del></del>	,
Indicators of	hydrophytic vegetation	and wetland n	yarology must be pi	resent, unies	ss disturbed	or problem	atic.	
Restrictive L	ayer (if observed):							
Type:								
Depth (in	ches):		<u>—</u>				Hydric Soil Pre	sent? Yes X No
Remarks:						•		
	Soil unable to be collect	ted due to wate	er levels and existin	g undergrou	nd utilities l	ocated thro	ughout the park.	

Project/Site:	COP South	City/Coun	ty: Wall Township, M	Ionmouth County, NJ	Sampling Date:	03/08/2023
Applicant/Owner:	ASOV	<u>v</u>	,	State: New Jersey		26-W017-1U
Investigator(s):	TCAL	Section, T	ownship, Range:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Hillslope		ve, convex, none):		•	(%): 0-3
Subregion (LRR or MLRA):	LRR S			g: -74.09847		WGS 1984
	Fallsington loams, 0 to 2 perce			NWI classificatio		
Are climatic / hydrologic conditions o				If no, explain in Remarks	S.)	
		nificantly disturbed		al Circumstances" preser	•	No X
	, or Hydrologyna			explain any answers in I		
SUMMARY OF FINDINGS - A				•	•	
	-			ioooto, iiiiportaiit i	<u> </u>	
Hydrophytic Vegetation Present?	Yes No Yes No		Is the Sampled Area	Vee	No. V	
Hydric Soil Present?	<del></del>		within a Wetland?	·	NoX	
Wetland Hydrology Present?	Yes No		If yes, optional Wetlan	d Sile id:		
Remarks: (Explain alternative prod	cedures here or in a separate r	eport.)				
	·	. ,				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on					tors (minimum of tw	vo required)
Surface Water (A1)		r-Stained Leaves (E	39)	Surface Soil	` ,	
High Water Table (A2)	<del></del> ·	itic Fauna (B13)		Drainage Pa		
Saturation (A3)		Deposits (B15)		Moss Trim Li	, ,	
Water Marks (B1)	<del></del>	ogen Sulfide Odor (	· ·		Water Table (C2)	
Sediment Deposits (B2)		•	on Living Roots (C3)	Crayfish Bur		
Drift Deposits (B3)	Prese	ence of Reduced Iro	on (C4)	Saturation V	isible on Aerial Ima	gery (C9)
Algal Mat or Crust (B4)	Rece	nt Iron Reduction in	Tilled Soils (C6)		tressed Plants (D1)	)
Iron Deposits (B5)	Thin	Muck Surface (C7)		Geomorphic	Position (D2)	
Inundation Visible on Aerial Ir	nagery (B7) Othe	r (Explain in Remar	ks)	Shallow Aqu	itard (D3)	
Sparsely Vegetated Concave	Surface (B8)			Microtopogra	aphic Relief (D4)	
				FAC-Neutral	Test (D5)	
Field Observations:						
Surface Water Present?	Yes No X Deg	oth (inches):				
Water Table Present?	··· <del></del> · <del></del> ·	oth (inches):	<del></del>			
Saturation Present?		oth (inches):	Wetland	Hydrology Present?	Voc	No X
(includes capillary fringe)	162 NOXDel	our (inches)	vvetiand	i nyurology Present?	Yes	No X
(includes capillary liftige)						
Describe Recorded Data (stream of	gauge, monitoring well, aerial r	hotos, previous ins	pections), if available:			
, ,		•	•			
Remarks:						

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W017-1U **Dominance Test worksheet:** Number of Dominant Species That Are OBL, FACW, or FAC: 0 \_\_\_\_ (A) Absolute Dominant Indicator <u>Tree Stratum</u> (Plot size: \_ 30 Feet ) % Cover Species? Status **Total Number of Dominant** 1\_\_\_\_ (B) Species Across All Strata: 3 Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: \_\_\_\_\_15 Feet FACW species 0 x 2 = \_\_\_\_ 0 \_\_\_\_ x 3 = \_\_\_ FAC species 10 \_\_\_ x 4 = \_\_ FACU species \_\_ x 5 = \_ UPL species 0 10 (A) Column Totals: 6. Prevalence Index = B/A = 4.0 **Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% Poa pratensis / Kentucky blue grass 10 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations<sup>1</sup> (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8 **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and 10 = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_\_\_\_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes \_\_\_\_\_ No \_\_X\_\_ Remarks: (Explain alternative procedures here or in a separate report.) Roadside, ground covered with weed blocking tarp.

**SOIL** Sampling Point: <u>26-W017-1U</u>

Profile Description: (Describe to the depth no			or confirm	the absen	ce of indicators.)	
Depth Matrix (inches) Color (moist) %	Color (moist)	x Features %	Type <sup>1</sup>	Loc²	Texture	Remarks
(History Solor (History 70	Color (moist)		Турс		Texture	remano
		_				
·						
			-			
-						
	_		-			
		_				
¹Type: C=Concentration, D=Depletion, RM=Red	uced Matrix, MS=Mas	ked Sand Gr	ains.		²Locatio	n: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:					Indicators fo	or Problematic Hydric Soils³:
Histosol (A1)	Polyvalue Belov	•	, .		B) 2 cm Mu	uck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	Thin Dark Surfa			A 149B)		rairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Loamy Mucky N		(LRR K, L)			ucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Gleyed I					urface (S7) (LRR K, L)
Stratified Layers (A5) Depleted Below Dark Surface (A11)	Depleted Matrix Redox Dark Sur					ue Below Surface (S8) (LRR K, L) rk Surface (S9) (LRR K, L)
Thick Dark Surface (A11)	Depleted Dark S					nganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)	Redox Depress					nt Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)	<del>_</del>	, ,				podic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)					Red Par	rent Material (F21)
Stripped Matrix (S6)						allow Dark Surface (TF12)
					011 /5	Evolain in Damarka)
Dark Surface (S7) (LRR R, MLRA 149B)					Other (E	Explain in Remarks)
Dark Surface (S7) (LRR R, MLRA 149B)  *Indicators of hydrophytic vegetation and wetlan	d hydrology must be p	resent, unles	ss disturbed	or problem	<del>_</del>	explain in Remarks)
alndicators of hydrophytic vegetation and wetlan	d hydrology must be p	resent, unles	ss disturbed	or problem	<del>_</del>	-хріані III Remarks)
	d hydrology must be p	resent, unles	ss disturbed	or problem	<del>_</del>	-хріані III Remarks)
³Indicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):	d hydrology must be p	resent, unles	ss disturbed	or problem	<del>_</del>	
alndicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type:  Depth (inches):	d hydrology must be p	resent, unles	ss disturbed	or problem	atic.	
"  "Indicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
*Indicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
alndicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
*Indicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
*Indicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
*Indicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
*Indicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
*Indicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
*Indicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
alndicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
alndicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
alndicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
alndicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
alndicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
alndicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
alndicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
*Indicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
alndicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
*Indicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>
*Indicators of hydrophytic vegetation and wetlan  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:					atic.  Hydric Soil Pres	sent? Yes No <u>X</u>

Project/Site:	COP South	City/Cou	ınty: Wall Town	ship, Monmouth County, NJ	Sampling Date: 03/08/2023
Applicant/Owner:		SOW	, <u> </u>	State: New Jersey	
Investigator(s):	TCAL	Section,	Township, Range		o, Monmouth County, NJ
Landform (hillslope, terrace, etc):	Depression	Local relief (cond	cave, convex, none	e): concave	Slope (%): 0-3
Subregion (LRR or MLRA):	LRR S	Lat: 40.	15534833	Long: -74.098379	033 Datum: WGS 1984
Soil Map Unit Name:	Fallsington loams, 0 to 2	percent slopes, Northe	rn Coastal Plain	NWI classificati	on:
Are climatic / hydrologic conditions of	n the site typical for this ti	me of year? Yes	X No	(If no, explain in Remark	ks.)
Are Vegetation, Soil	, or Hydrology	significantly disturbe	d? Are	"Normal Circumstances" pres	ent? Yes X No
Are Vegetation, Soil	, or Hydrology	naturally problemation	c? (If n	eeded, explain any answers ir	ı Remarks.)
<b>SUMMARY OF FINDINGS - A</b>	Attach site map sho	wing sampling p	oint locations	s, transects, important	features, etc.
Hydrophytic Vegetation Present?	Yes X	No	Is the Sampled	d Area	
Hydric Soil Present?	Yes	No X	within a Wetla	nd? Yes X	No
Wetland Hydrology Present?	Yes X	No	If yes, optional	Wetland Site ID:	
Demonstra (Fundain alternative man					
Remarks: (Explain alternative prod	cedures here or in a separ	rate report.)			
HYDROLOGY					
Wetland Hydrology Indicators:					
Primary Indicators (minimum of or	ne required; check all that	apply)		Secondary Indic	ators (minimum of two required)
Surface Water (A1)	,	Water-Stained Leaves	(B9)	Surface So	il Cracks (B6)
X High Water Table (A2)	<i>i</i>	Aquatic Fauna (B13)		Drainage P	atterns (B10)
X Saturation (A3)	!	Marl Deposits (B15)		Moss Trim	Lines (B16)
Water Marks (B1)	!	Hydrogen Sulfide Odor	(C1)	Dry-Seasor	n Water Table (C2)
Sediment Deposits (B2)	'	Oxidized Rhizospheres	on Living Roots (	(C3) Crayfish Bu	ırrows (C8)
Drift Deposits (B3)	!	Presence of Reduced I	ron (C4)	Saturation	Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	!	Recent Iron Reduction	in Tilled Soils (C6	Stunted or	Stressed Plants (D1)
Iron Deposits (B5)		Thin Muck Surface (C7	•	Geomorphi	c Position (D2)
Inundation Visible on Aerial II		Other (Explain in Rema	arks)	Shallow Aq	uitard (D3)
Sparsely Vegetated Concave	Surface (B8)				raphic Relief (D4)
				X FAC-Neutra	al Test (D5)
Field Observations:					
Surface Water Present?	Yes No X	Depth (inches):			
Water Table Present?	Yes X No	Depth (inches):	0		
Saturation Present?	Yes X No	Depth (inches):	0 W	Vetland Hydrology Present?	Yes X No
(includes capillary fringe)		,		, 0,	<del></del>
. , , ,					
Describe Recorded Data (stream	gauge, monitoring well, ae	erial photos, previous in	spections), if avai	ilable:	
Remarks:					
romano.					

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W017-1W **Dominance Test worksheet:** Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Absolute Dominant Indicator <u>Tree Stratum</u> (Plot size: \_ 30 Feet ) % Cover Species? Status **Total Number of Dominant** 1. 2\_\_\_\_ (B) Species Across All Strata: 3. \_\_\_ Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 40 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: 15 Feet FACW species 0 x 2 = 0\_\_\_\_ x 3 = \_\_\_ FAC species 0 x 4 = FACU species 0 \_ x 5 = \_ UPL species 40 (A) Column Totals: 6. Prevalence Index = B/A = 1.0 **Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet ) X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 1. Typha latifolia / Broadleaf cattail, Broad-leaved cattail 30 2. Juncus effusus / Common bog rush, Soft or lamp rush 10 X 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations¹ (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must 7. \_\_\_ be present, unless disturbed or problematic. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and 40 = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_\_\_\_\_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes X No \_\_\_\_ Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 26-W017-1W

	iption: (Describe to th	e depth nee			or confirm	the absenc	ce of indicator	s.)			
Depth	Matrix			k Features			<b>-</b> .				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture		Remark	(S	
0-6	10YR 2/1	100					Sand				
		<u> </u>									
				_							
¹Type: C=Cor	centration, D=Depletior	n, RM=Reduc	ed Matrix, MS=Mas	ked Sand Gr	ains.		²Loca	ation: PL=P	ore Lining, N	1=Matrix.	
Hydric Soil II	ndicators:						Indicators	s for Probl	ematic Hydr	ic Soils³:	
Histosol			Polyvalue Belov	v Surface (S	8) <b>(I RR R</b> I	MI RA 149F			-	MLRA 149B)	
	ipedon (A2)	-	Thin Dark Surfa	•	,		· —	•	, .	LRR K, L, R)	
		=				1430)					
Black His		-	Loamy Mucky N		(LKK N, L)			•	•	3) (LRR K, L, R)	,
	n Sulfide (A4)	=	Loamy Gleyed I					-	7) (LRR K,	-	
	Layers (A5)	_	Depleted Matrix							B) (LRR K, L)	
Depleted	Below Dark Surface (A	.11)	Redox Dark Su				Thin	Dark Surfa	ce (S9) (LR	R K, L)	
Thick Da	rk Surface (A12)	_	Depleted Dark S	Surface (F7)			Iron-l	Manganese	Masses (F1	2) <b>(LRR K, L,</b>	R)
Sandy M	ucky Mineral (S1)	_	Redox Depress	ions (F8)			Piedr	mont Flood	olain Soils (F	19) <b>(MLRA 149</b>	B)
Sandy G	leyed Matrix (S4)						Mesi	c Spodic (T	A6) (MLRA	144A, 145, 149	B)
Sandy R	edox (S5)						Red	Parent Mate	erial (F21)		
	Matrix (S6)								ark Surface (	TF12)	
	face (S7) (LRR R, ML	RA 149R)							n Remarks)	,	
<sup>3</sup> Indicators of	hydrophytic vegetation	and wetland l	nydrology must be p	resent, unles	ss disturbed	or problema	atic.				
Restrictive L	ayer (if observed):										
Type:	-										
	ches):						Hydric Soil P	resent?	Yes	No X	
Remarks:	Water prevents soils pa advancement of addition	st 6inches. Ao nal soil boring	dditionally, there wer	re marked-ou	ut undergrou	ind utilities v	within close pro	eximity to th	e wetland, p	reventing the	

Project/Site:	COP South	City/County: Wall 1	Township, Monmouth County, NJ	Sampling Date: 03/08/2023
Applicant/Owner:	ASOW		State: New Jersey	Sampling Point: 26-W018-1U
Investigator(s):	TCAL	Section, Township, Ra		, Monmouth County, NJ
Landform (hillslope, terrace, etc):	Hillslope	Local relief (concave, convex,		Slope (%): 10-20
Subregion (LRR or MLRA):		Lat: 40.171136	Long: -74.082671	
Soil Map Unit Name:	Humaquepts, 0 to 3 percer		NWI classification	on:
Are climatic / hydrologic conditions of			(If no, explain in Remark	(S.)
	, or Hydrologysigr		Are "Normal Circumstances" prese	
	, or Hydrologynati		(If needed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS -			ions, transects, important	features, etc.
Hydrophytic Vegetation Present?	Yes No		npled Area	,
Hydric Soil Present?	Yes No		•	NoX
Wetland Hydrology Present?	Yes No		onal Wetland Site ID:	No <u></u>
vettaria riyarology r resent:	103 110 _	II yes, opus	Shar Welland Oile 15.	
Remarks: (Explain alternative prod	cedures here or in a separate re	port.)		
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	ne required; check all that apply)		Secondary Indica	ators (minimum of two required)
Surface Water (A1)		Stained Leaves (B9)		I Cracks (B6)
High Water Table (A2)	Aquati	c Fauna (B13)	Drainage Pa	atterns (B10)
Saturation (A3)	· Marl D	eposits (B15)	Moss Trim L	
Water Marks (B1)	— Hydro	gen Sulfide Odor (C1)	Dry-Season	Water Table (C2)
Sediment Deposits (B2)	Oxidiz	ed Rhizospheres on Living Ro	oots (C3) Crayfish Bu	rrows (C8)
Drift Deposits (B3)	Presei	nce of Reduced Iron (C4)	Saturation \	/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Recen	t Iron Reduction in Tilled Soils		Stressed Plants (D1)
Iron Deposits (B5)	Thin M	luck Surface (C7)	Geomorphic	Position (D2)
Inundation Visible on Aerial II	magery (B7) Other	(Explain in Remarks)	Shallow Aqu	
Sparsely Vegetated Concave	Surface (B8)		Microtopogr	aphic Relief (D4)
<del>-</del>			FAC-Neutra	l Test (D5)
Field Observations:				
Surface Water Present?	Yes No X Dept	h (inches):		
Water Table Present?		h (inches):		
Saturation Present?		h (inches):	Wetland Hydrology Present?	Yes No X
(includes capillary fringe)	res No _X Dept	ii (iiiciies).	wettand Hydrology Fresent?	165 NO _X
(includes capillary irrige)				
Describe Recorded Data (stream	gauge, monitoring well, aerial ph	notos, previous inspections), if	available:	
Remarks:				
Nomana.				

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W018-1U **Dominance Test worksheet: Number of Dominant Species** That Are OBL, FACW, or FAC: 1 (A) Absolute Dominant Indicator 30 Feet ) Tree Stratum (Plot size: % Cover Species? Status **Total Number of Dominant** 1. Quercus alba / White oak 30 Yes FACU Species Across All Strata: 3 (B) 2. Ilex opaca / American holly FACU Yes 3 Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 45 = Total Cover OBL species 0 x 1 = \_\_\_\_ Sapling/Shrub Stratum (Plot size: 15 Feet 0 \_\_\_ x 2 = \_\_ FACW species 1. Clethra alnifolia / Coastal sweet-pepperbush 30 \_\_\_ x 3 = \_\_ FAC species 45 FACU species x 4 = 180 UPL species 0 x 5 = (A) Column Totals: 75 5. 6. Prevalence Index = B/A = 3.6 **Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes \_\_\_\_ No \_X\_\_ Remarks: (Explain alternative procedures here or in a separate report.)

Depth	Matrix		Redox	x Features			ce of indicators				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture		Remarl	KS	
0-3	10YR 3/2	100					Sandy Loam				
3-18	10YR 2/1	100					Loam				
				-							
	-										
	-										
		- DM D					21 4	: DI D	1 inin N	L Madala	
ype: C=Cor	ncentration, D=Depletion	n, RIM=Redi	iced Matrix, MS=Mas	ked Sand Gr	ains.		Locat	ion: PL=P	ore Lining, M	I=Matrix.	
ydric Soil Iı	ndicators:						Indicators	for Proble	ematic Hydr	ic Soils³:	
Histosol	(A1)		Polyvalue Belov	v Surface (S	8) <b>(LRR R,N</b>	/ILRA 149	B) 2 cm f	Muck (A10	(LRR K, L	MLRA 149	B)
Histic Ep	pipedon (A2)		Thin Dark Surfa	ce (S9) (LR	R R, MLRA	149B)	Coast	Prairie Re	dox (A16) (	LRR K, L, I	₹)
Black His	stic (A3)		Loamy Mucky N	/lineral (F1)	(LRR K, L)				t or Peat (S		
	n Sulfide (A4)		Loamy Gleyed I						7) <b>(LRR K</b> ,		•
	Layers (A5)		Depleted Matrix						Surface (S8		L)
	Below Dark Surface (A	111)	Redox Dark Sui	` ,					e (S9) (LR		_,
	ark Surface (A12)	,	Depleted Dark S						Masses (F1		I PI
	lucky Mineral (S1)		Redox Depress					ū	olain Soils (F	, .	
			Redux Depless	10115 (F0)			·				
	leyed Matrix (S4)								46) <b>(MLRA</b>	144A, 145,	1496)
	edox (S5)							arent Mate		40	
	Matrix (S6)								rk Surface (	IF12)	
Dark Sur	face (S7) (LRR R, ML	RA 149B)					Other	(Explain ir	Remarks)		
Indicators of	hydrophytic vegetation	and wetland	l hydrology must be p	resent, unles	ss disturbed o	or problem	natic.				
municatora Of			,								
Restrictive L	ayer (if observed):										
Restrictive L	ayer (if observed):							10	V		
Restrictive L	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	Х
Restrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	Х
Restrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	Х
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	Х
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	Х
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	Х
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	Х
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (ind	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (ind	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (ind	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (ind	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
Restrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
Restrictive L	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
Restrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
estrictive L Type: Depth (ind	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X
Type: Depth (inc	ayer (if observed):						Hydric Soil Pr	esent?	Yes	No _	X

Project/Site:	COP South	City/County: Wall To	ownship, Monmouth County, NJ	Sampling Date: 03/08/2023
Applicant/Owner:	ASOW	<u> </u>	State: New Jersey	Sampling Point: 26-W018-1W
Investigator(s):	TCAL	Section, Township, Ra	inge: Wall Township	Monmouth County, NJ
Landform (hillslope, terrace, etc):	Depressional area Lo	cal relief (concave, convex,	none): concave	Slope (%): 0-3
Subregion (LRR or MLRA):	LRR S La	t: 40.1712025	Long: -74.082704	17 Datum: WGS 1984
Soil Map Unit Name:	Humaquepts, 0 to 3 percent s	slopes, frequently flooded	NWI classification	on:
Are climatic / hydrologic conditions o	n the site typical for this time of ye	ar? Yes X No	(If no, explain in Remark	s.)
Are Vegetation, Soil	, or Hydrologysignific	cantly disturbed?	Are "Normal Circumstances" prese	nt? Yes X No
Are Vegetation, Soil	, or Hydrologynatura	illy problematic?	(If needed, explain any answers in	Remarks.)
<b>SUMMARY OF FINDINGS - A</b>	Attach site map showing	sampling point locati	ons, transects, important	features, etc.
Hydrophytic Vegetation Present?	Yes X No	Is the Sam	pled Area	
Hydric Soil Present?	Yes X No			No
Wetland Hydrology Present?	Yes X No		nal Wetland Site ID:	<del>_</del>
, 0,				
Remarks: (Explain alternative proc	edures here or in a separate repo	rt.)		
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	a required; shock all that apply)		Secondary Indias	ators (minimum of two required)
Surface Water (A1)		ained Leaves (B9)		Cracks (B6)
X High Water Table (A2)		Fauna (B13)		atterns (B10)
X Saturation (A3)	<del></del>	posits (B15)	Moss Trim L	
Water Marks (B1)	<del></del>	n Sulfide Odor (C1)		Water Table (C2)
Sediment Deposits (B2)	<del>-</del> ' '	Rhizospheres on Living Ro		
Drift Deposits (B3)	<del></del>	e of Reduced Iron (C4)		isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		ron Reduction in Tilled Soils		Stressed Plants (D1)
Iron Deposits (B5)	<del></del>	ck Surface (C7)	X Geomorphic	` '
Inundation Visible on Aerial Ir		xplain in Remarks)	Shallow Aqu	
		,	<del></del> -	aphic Relief (D4)
Sparsely Vegetated Concave	Surface (B8)			/
Sparsely Vegetated Concave	Surface (B8)		X FAC-Neutra	Test (D5)
Sparsely Vegetated Concave	Surface (B8)		X FAC-Neutra	l Test (D5)
Field Observations:	Surface (B8)		X FAC-Neutra	I Test (D5)
	Yes NoX Depth (	(inches):	X FAC-Neutra	l Test (D5)
Field Observations: Surface Water Present? Water Table Present?	Yes No _X	(inches): 12		
Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Yes No _X	· —	X FAC-Neutra Wetland Hydrology Present?	Yes <u>X</u> No
Field Observations: Surface Water Present? Water Table Present?	Yes No _X	(inches): 12		
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream of	Yes No X Depth ( Yes X No Depth ( Yes X No Depth (	(inches): 12 (inches): 0	Wetland Hydrology Present?	

**VEGETATION** - Use scientific names of plants. Sampling Point: 26-W018-1W **Dominance Test worksheet:** Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A) Absolute Dominant Indicator Tree Stratum (Plot size: 30 Feet ) % Cover Species? Status **Total Number of Dominant** 1. Acer rubrum / Red maple 4\_\_\_\_\_(B) Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: 6. Prevalence Index worksheet: Total % Cover of: Multiply by: 35 = Total Cover OBL species 5 x1=\_\_\_\_ Sapling/Shrub Stratum (Plot size: \_\_\_ 15 Feet 0 x 2 = FACW species 1. Clethra alnifolia / Coastal sweet-pepperbush 315 105 \_\_\_ x 3 = \_\_ FAC species 0 \_\_ x 4 = FACU species x 5 = UPL species 0 (A) Column Totals: 110 5. 6. Prevalence Index = B/A = 2.91 **Hydrophytic Vegetation Indicators:** Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation FAC X 2 - Dominance Test is >50% Smilax rotundifolia / Horsebrier 2. Symplocarpus foetidus / Skunk-cabbage 5 X 3 - Prevalence Index ≤3.0¹ 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 5. 6. <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 11. breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and 10 = Total Cover greater than or equal to 3.28 ft (1 m) tall. Woody Vine Stratum (Plot size: 30 Feet ) Herb - All herbaceous (non-woody) plants, regardless of 1. \_\_\_ size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Present? Yes X No Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: 26-W018-1W

D 41-	-	ic acptii lice			or commit th	e absen	ce of indicators.)	
Depth (inches)	Matrix Color (moist)	%		x Features	Typo1	1 002	Toytura	Domorko
(inches)	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc²	Texture	Remarks
0-3	10YR 2/1	100					Loam	
3-18	10YR 4/1	100					Fine Sand	
							<u> </u>	
_								
¹Type: C=Coi	ncentration, D=Depletio	n, RM=Redu	ced Matrix, MS=Mas	ked Sand Gr	ains.		²Location	: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Polyvalue Belov	w Surface (S8	B) (LRR R,MI	RA 149	<b>B)</b> 2 cm Muc	k (A10) (LRR K, L, MLRA 149B)
Histic Ep	pipedon (A2)		Thin Dark Surfa	ice (S9) (LR	R R, MLRA 1	49B)	Coast Pra	airie Redox (A16) (LRR K, L, R)
	istic (A3)		Loamy Mucky N			-	5 cm Muc	ky Peat or Peat (S3) (LRR K, L, R)
Hydroge	en Sulfide (A4)		Loamy Gleyed	Matrix (F2)	•			ace (S7) (LRR K, L)
	d Layers (A5)		X Depleted Matrix					Below Surface (S8) (LRR K, L)
	d Below Dark Surface (	A11)	Redox Dark Su					Surface (S9) (LRR K, L)
	ark Surface (A12)	,	Depleted Dark					ganese Masses (F12) (LRR K, L, F
	Mucky Mineral (S1)		Redox Depress					Floodplain Soils (F19) (MLRA 1498
	Gleyed Matrix (S4)			,				odic (TA6) (MLRA 144A, 145, 149I
	Redox (S5)							nt Material (F21)
	l Matrix (S6)							low Dark Surface (TF12)
	rface (S7) (LRR R, ML	RA 149B)						plain in Remarks)
								,
<sup>3</sup> Indicators of	hydrophytic vegetation	and wetland	hydrology must be p	resent, unles	s disturbed or	problem	natic.	
	_ayer (if observed):							
Type:								10
Depth (in	icnes):						Hydric Soil Prese	ent? Yes X No
Remarks:								
Remarks:								
Remarks:								
Remarks:								
Remarks:								
Remarks:								
Remarks:								
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Remarks:								

Project/Site:	COP South Larrabee	City/Cou	nty: Monmouth Co	ounty, NJ	Sampling Date:	02/15/2023
Applicant/Owner:	ASC		,	State: New Jersey	· · · -	26-W019-1U
Investigator(s):	TCAL	Section,	Township, Range:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Flat	Local relief (conc	ave, convex, none):	convex	Slope	(%): 0-5
Subregion (LRR or MLRA):	LRR S	Lat: 40.	13705267 Long	g:74.1094893	33 Datum	n: WGS 1984
Soil Map Unit Name:				NWI classification	on:	
Are climatic / hydrologic conditions or	n the site typical for this time	e of year? Yes	X No (I	If no, explain in Remark	s.)	
Are Vegetation, Soil		significantly disturbe		al Circumstances" prese	ent? Yes >	( No
	, or Hydrology			explain any answers in	•	
SUMMARY OF FINDINGS - A	Attach site map show	ing sampling p	oint locations, tran	sects, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X N	lo	Is the Sampled Area			
Hydric Soil Present?	Yes N	o X	within a Wetland?	Yes	No	
Wetland Hydrology Present?	Yes X N	lo	If yes, optional Wetland	d Site ID:		
Remarks: (Explain alternative proc	edures here or in a separate	e report )				
Transment (Explain allemative pres	oud. oo noro or iii a ooparat	,				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	e required: check all that an	nlv)		Secondary Indica	ators (minimum of t	wo required)
Surface Water (A1)		ater-Stained Leaves	(R0)		Cracks (B6)	wo required)
High Water Table (A2)		uatic Fauna (B13)	,00)		atterns (B10)	
Saturation (A3)	<del>-</del> '	rl Deposits (B15)		Moss Trim L		
Water Marks (B1)		drogen Sulfide Odor	(C1)		Water Table (C2)	
Sediment Deposits (B2)		-	on Living Roots (C3)	Crayfish Bur		
Drift Deposits (B3)	<del></del>	esence of Reduced I			isible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)	<del></del>	cent Iron Reduction			Stressed Plants (D1	
Iron Deposits (B5)		in Muck Surface (C7	, ,	<del></del>	Position (D2)	•
Inundation Visible on Aerial In		ner (Explain in Rema		Shallow Aqu	uitard (D3)	
Sparsely Vegetated Concave	Surface (B8)			Microtopogr	aphic Relief (D4)	
				FAC-Neutra	l Test (D5)	
Field Observations:						
	Yes No X D	epth (inches):				
		epth (inches):	<del></del>			
		epth (inches):	Wetland	Hydrology Present?	Yes X	No
(includes capillary fringe)	100 <u>X</u> D			Tryurology Tresent.	103 <u>X</u>	
(morades capitally image)						
Describe Recorded Data (stream g	gauge, monitoring well, aeria	Il photos, previous in	spections), if available:			
Remarks:						
ivemarks.						

SOIL Sampling Point: 26-W019-1U

	ription: (Describe to the	ne depth ne			or confirm	the absenc	e of indicator	S.)		
Depth (inches)	Matrix Color (moist)	0/		Features	Tunc1	1.002	Toyture		Domesto	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture	-	Remarks	
0-3	10YR 3/1	100			· —— -		Sand	-		
3-12	10YR 4/4	100					Sand			
12-18	10YR 6/8	100			· —— -		Sand			
					· <del></del> -					
¹Type: C=Con	centration, D=Depletio	n, RM=Redu	ced Matrix, MS=Masl	ked Sand Gr	rains.		²Loca	tion: PL=P	ore Lining, M=Ma	itrix.
Hydric Soil Ir	ndicators:						Indicators	for Proble	ematic Hydric S	oils³:
Histosol	(A1)		Polyvalue Belov	v Surface (S	8) <b>(LRR R,I</b>	MLRA 149E	3) 2 cm	Muck (A10	) (LRR K, L, ML	RA 149B)
	ipedon (A2)		Thin Dark Surfa	•			-	•	dox (A16) (LRR	
Black His	. , ,		Loamy Mucky M			•			it or Peat (S3) (L	
	n Sulfide (A4)		Loamy Gleyed N		. ,			-	7) (LRR K, L)	,
	Layers (A5)		Depleted Matrix						Surface (S8) (L	RR K, L)
	Below Dark Surface (/	A11)	Redox Dark Sur						ce (S9) (LRR K,	
	rk Surface (A12)	,	Depleted Dark S						Masses (F12)	
	lucky Mineral (S1)		Redox Depressi					-	olain Soils (F19)	
	leyed Matrix (S4)		_ '	, ,				-	A6) <b>(MLRA 144</b>	
	edox (S5)							Parent Mate		, , ,
	Matrix (S6)								rk Surface (TF12	2)
	face (S7) (LRR R, ML	RA 149B)							Remarks)	,
³Indicators of	hydrophytic vegetation	and wetland	hydrology must be p	resent, unles	ss disturbed	or problema	atic.			
Restrictive L	ayer (if observed):									
Type:										
Depth (inc	ches):						Hydric Soil P	resent?	Yes	No X
Remarks:										

Project/Site:	COP South Larrabee	City/Co	unty: Moi	nmouth County,	NJ	Sampling Date:	02/15/2023
Applicant/Owner:		ASOW	<u> </u>	Stat	te: New Jersey	Sampling Point:	26-W019-1W
Investigator(s):	TCAL	Section	, Township, Ran			County, NJ	
Landform (hillslope, terrace, etc):	Depressional area	Local relief (con			concave	Slope	(%): 0-5
Subregion (LRR or MLRA):	LRR S		.13704317	Long:	-74.1094888	33 Datum	n: WGS 1984
Soil Map Unit Name:					NWI classification	on:	
Are climatic / hydrologic conditions or	n the site typical for this t	time of year? Yes	X No	(If no, e	explain in Remark	s.)	
Are Vegetation , Soil	, or Hydrology	significantly disturbe	ed? A	re "Normal Circ	umstances" prese	ent? Yes X	( No
	, or Hydrology		c? (I	f needed, explai	n any answers in	Remarks.)	
SUMMARY OF FINDINGS - A				ns, transect	s, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X	No	Is the Samp	·	, p		
Hydric Soil Present?	Yes X	No	within a Wet		Yes	No	
Wetland Hydrology Present?	Yes X	No		al Wetland Site		No	_
Wettaria Hydrology Frescht:	103 <u>X</u>		ii yes, option	ai vvetiana one			_
Remarks: (Explain alternative proc	edures here or in a sepa	rate report.)					
HYDROLOGY							
Wetland Hydrology Indicators:		h amalu)			Coopedaniladia	stava (mainimas uma af to	
Primary Indicators (minimum of one	e required; check all that		(DO)			ators (minimum of ty	wo required)
X Surface Water (A1)	_	Water-Stained Leaves	(B9)			Cracks (B6)	
X High Water Table (A2)	_	Aquatic Fauna (B13)				atterns (B10)	
X Saturation (A3)	_	Marl Deposits (B15)	~ (C1)		Moss Trim L	` '	
Water Marks (B1)	_	Hydrogen Sulfide Odo		to (C2)		Water Table (C2)	
Sediment Deposits (B2)	_	Oxidized Rhizosphere	-	IS (C3)	Crayfish Bu		(CO)
Drift Deposits (B3)	_	Presence of Reduced	` ,	06)		isible on Aerial Ima	
Algal Mat or Crust (B4)	_	Recent Iron Reduction		C6)		Stressed Plants (D1	)
Iron Deposits (B5)		Thin Muck Surface (C	•		Geomorphic	Position (D2)	
<del></del>		Other (Evaleis in Dess	aulta)		Challau Aau	iteral (DO)	
Inundation Visible on Aerial In		Other (Explain in Rem	arks)		Shallow Aqu		
<del></del>		Other (Explain in Rem	arks)		Microtopogr	aphic Relief (D4)	
Inundation Visible on Aerial In		Other (Explain in Rem	arks)			aphic Relief (D4)	
Inundation Visible on Aerial In		Other (Explain in Rem	arks)		Microtopogr	aphic Relief (D4)	
Inundation Visible on Aerial In Sparsely Vegetated Concave Field Observations:		Other (Explain in Rem	12+		Microtopogr	aphic Relief (D4)	
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present?	Surface (B8)				Microtopogr	aphic Relief (D4)	
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present?	Surface (B8)  YesX No	Depth (inches):	12+	Wetland Hydr	Microtopogr	aphic Relief (D4)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present?	Yes         X         No           Yes         X         No	Depth (inches):	12+	Wetland Hydro	Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes X No Yes X No Yes X No No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Yes X No Yes X No Yes X No No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes X No Yes X No Yes X No No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No Yes X No No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes X No Yes X No Yes X No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No Yes X No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No Yes X No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No Yes X No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No Yes X No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No Yes X No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No Yes X No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No Yes X No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No Yes X No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes X No Yes X No Yes X No Yes X No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         X         No           Yes         X         No           Yes         X         No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         X         No           Yes         X         No           Yes         X         No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         X         No           Yes         X         No           Yes         X         No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No
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Inundation Visible on Aerial In Sparsely Vegetated Concave  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)  Describe Recorded Data (stream g	Yes         X         No           Yes         X         No           Yes         X         No	Depth (inches): Depth (inches): Depth (inches):	12+ 6 0		Microtopogr X FAC-Neutra	aphic Relief (D4) I Test (D5)	No

SOIL Sampling Point: 26-W019-1W

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ydric Soil In								Problematic Hydric Soils <sup>3</sup> :
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_ Black His	` '		Loamy Mucky M		(LRR K, L)			ky Peat or Peat (S3) (LRR K, L, R)
Hydrogen	n Sulfide (A4)		Loamy Gleyed N	Matrix (F2)			Dark Surfa	ace (S7) (LRR K, L)
Stratified	Layers (A5)		Depleted Matrix				Polyvalue	Below Surface (S8) (LRR K, L)
Depleted	Below Dark Surface (A	<b>411</b> )	Redox Dark Sur	face (F6)			Thin Dark	Surface (S9) (LRR K, L)
Thick Dar	rk Surface (A12)		Depleted Dark S	Surface (F7)			Iron-Mang	anese Masses (F12) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)		Redox Depressi	ions (F8)			Piedmont	Floodplain Soils (F19) (MLRA 149B)
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Sandy Re							— Dad Daran	
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## **APPENDIX C**

Photo Documentation



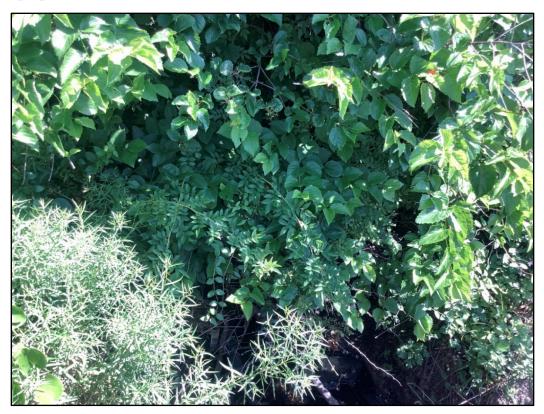


Photograph 1. Standing on Asbury Avenue looking southwest at W022 (PFO).



**Photograph 2.** Standing on Asbury Avenue on the edge of W024 (PFO) looking west-northwest.





Photograph 3. Standing north of Asbury Avenue on the boundary of W025 (PFO).



Photograph 4. Standing north of Tiltons Corner Road on the boundary of W018 (PFO) looking north.





**Photograph 5.** Standing in the western right-of-way of Allenwood Lakewood Road looking north-northwest at W017 (PFO).



Photograph 6. Standing in W017A (PFO).





**Photograph 7.** Standing along the bank of S008 (Beaverdam Creek).



Photograph 8. Standing in W013 (PFO).





Photograph 9. Standing in W008 (PEM) on the west side of Highway 70 looking west.



Photograph 10. Standing in the east right-of-way of Old Bridge Road looking east at W009 (PFO).

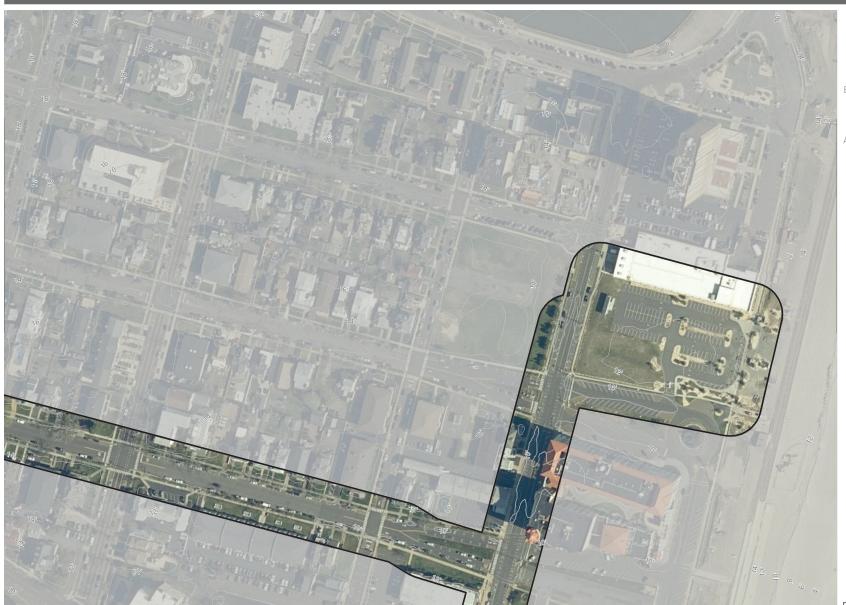




**Photograph 11.** Standing on the bulkhead of S007 (Roberts Swamp Brook) on the west side of Old Bridge Road.

## APPENDIX D

Field Delineated Wetlands and Streams Plans



#### Atlantic Shores North Offshore Wind – New Jersey Onshore Project Study Area

Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report







Prepared March 23, 2023 Basemap: NJ Office of GIS 2020 Natural Color Imagery



EDR



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

New Jersey

Wetland Delineation Report

Study Area





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New Jersey

Wetland Delineation Report

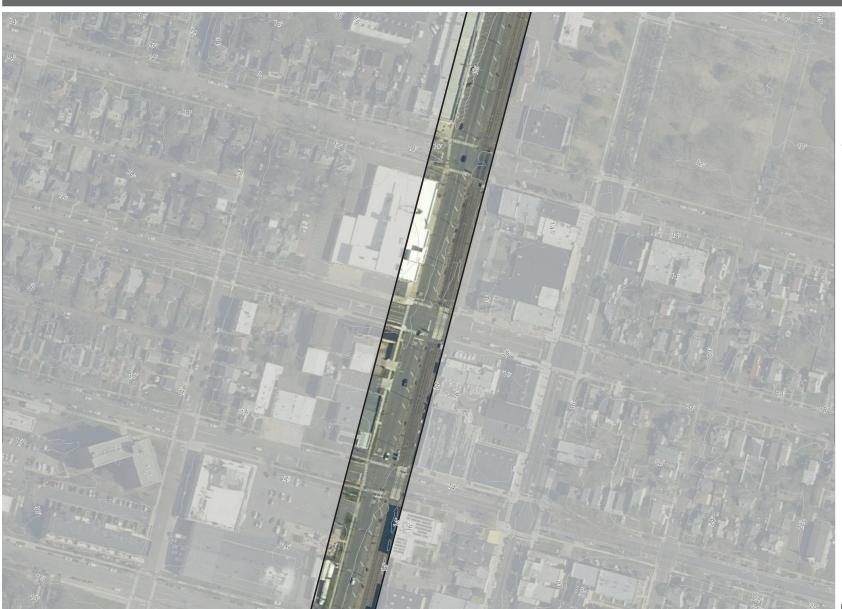
Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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**Wetland Delineation Report** 

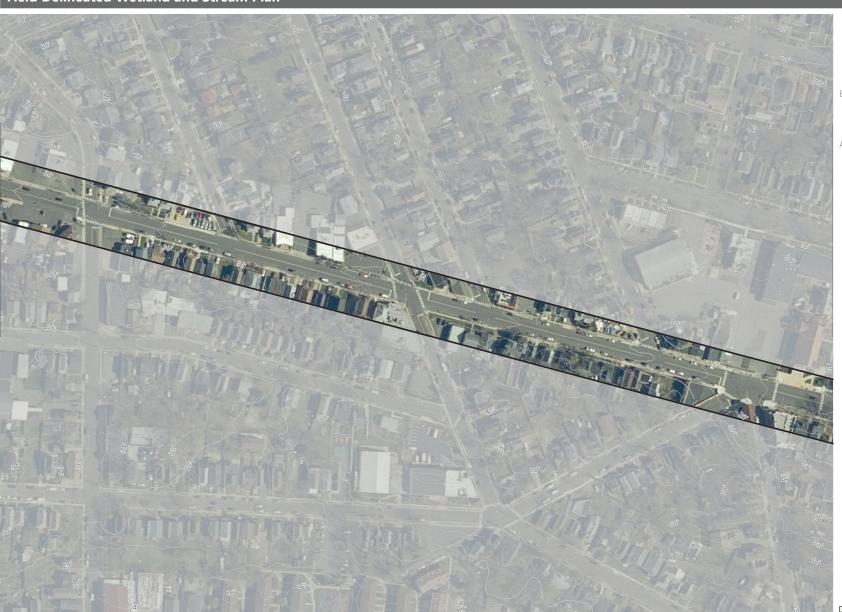
Study Area





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Wetland Delineation Report

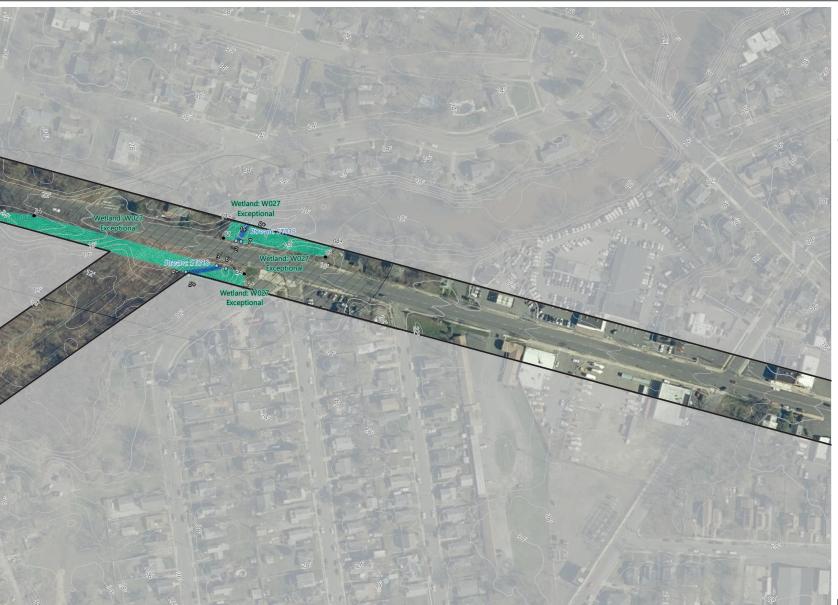
Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- \_\_\_\_\_
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

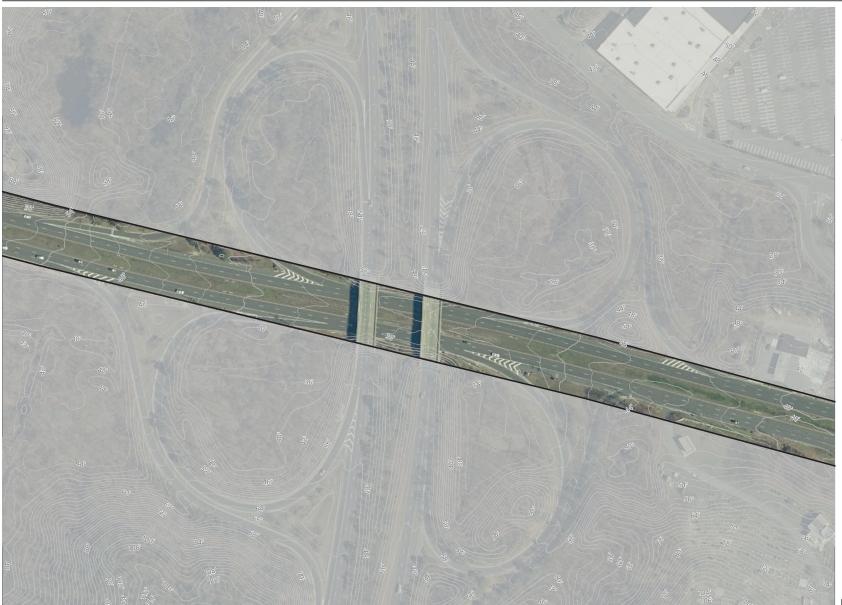
Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

- Wetland Flag
- Delineated Wetland
- Wetland Transition Area
- Study Area





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EDF



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

New Jersey

Wetland Delineation Report

Wetland Transition Area

Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

New Jersey

Wetland Delineation Report

Desktop Delineated Area
Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area





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ATLANTIC SHORES offshore wind



Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

Desktop Delineated Area Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

New Jersey

#### **Wetland Delineation Report**

Desktop Delineated Area Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

- Wetland Transition Area
- Desktop Delineated Area
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

New Jersey

#### **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
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- Wetland Transition Area
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# New Jersey Wetland Delineation Report

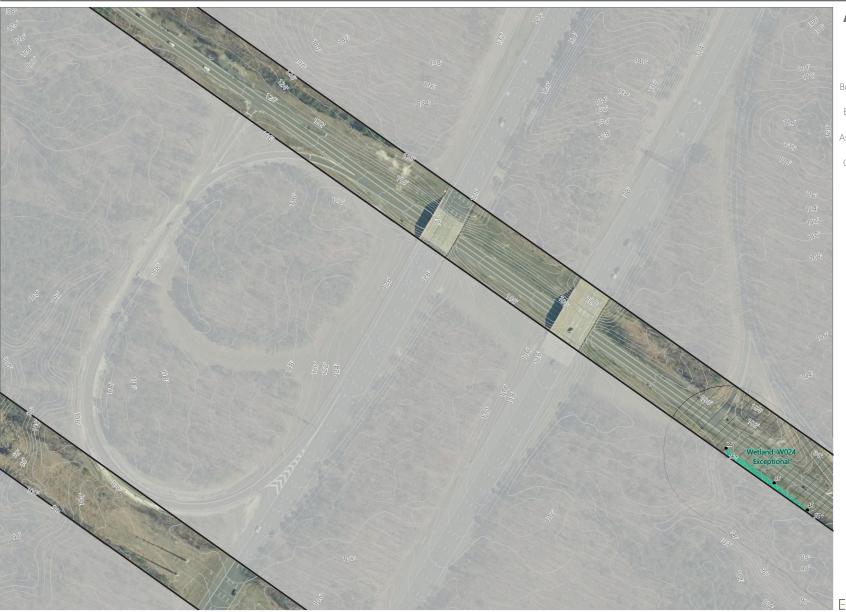
- Wetland Flag
- Delineated Wetland
- Wetland Transition Area
- Desktop Delineated Area
- Study Area





Prepared March 23, 2023 Basemap: NJ Office of GIS 2020 Natural Color Imagery





Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area





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# New Jersey Wetland Delineation Report

Wetland Flag

Delineated Wetland

Wetland Transition Area

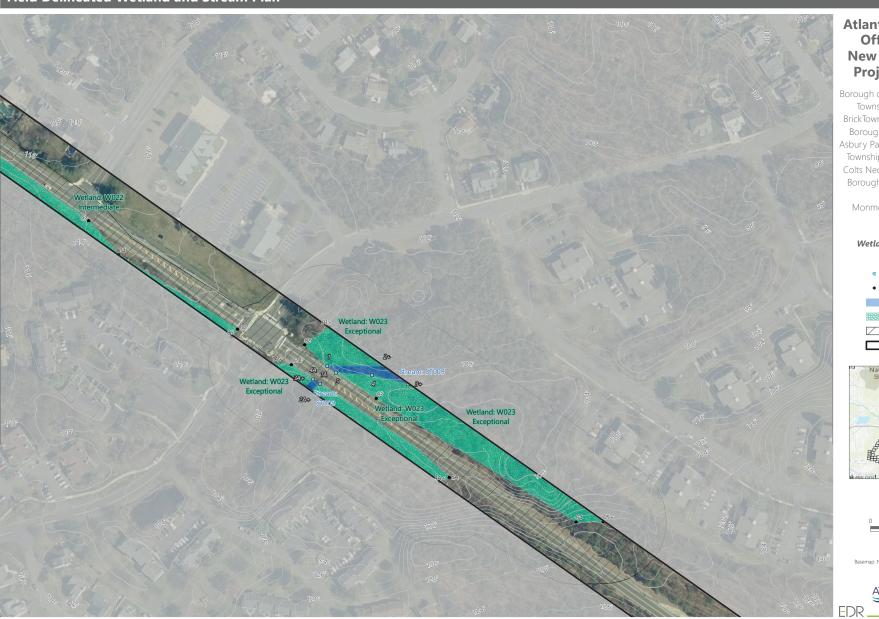
Study Area





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Monmouth and Ocean County, New Jersey

### **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- \_
- Study Area





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# New Jersey Wetland Delineation Report

Wetland Flag

Delineated Wetland

Wetland Transition Area

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Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

Wetland Flag

Delineated Wetland

Wetland Transition Area

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#### **Wetland Delineation Report**

Study Area





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**Wetland Delineation Report** 

Study Area





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#### **Wetland Delineation Report**

Study Area





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#### **Wetland Delineation Report**

Desktop Delineated Area
Study Area





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ATLANTIC SHORES offshore wind



Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

Desktop Delineated Area Study Area





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Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

### **Wetland Delineation Report**

Desktop Delineated Area





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### **Wetland Delineation Report**

Desktop Delineated Area
Study Area

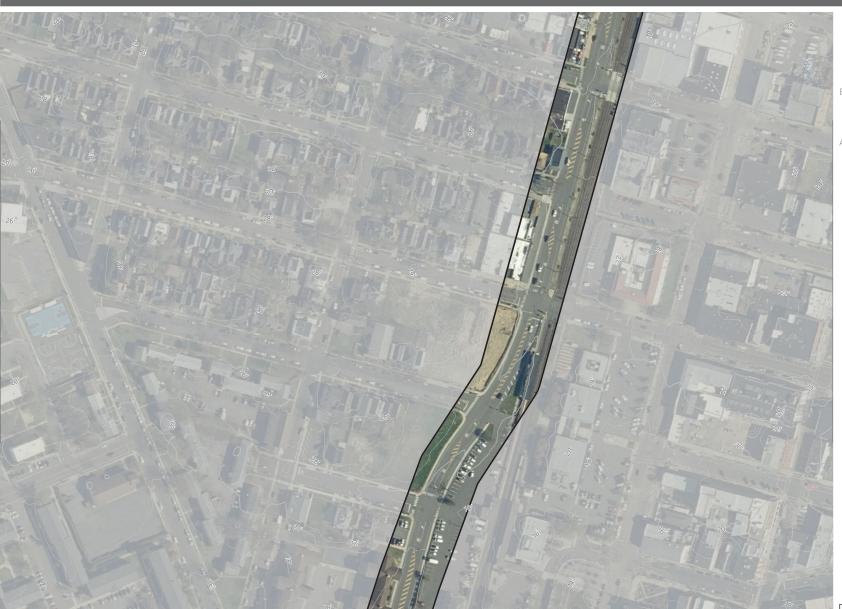




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EDF



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

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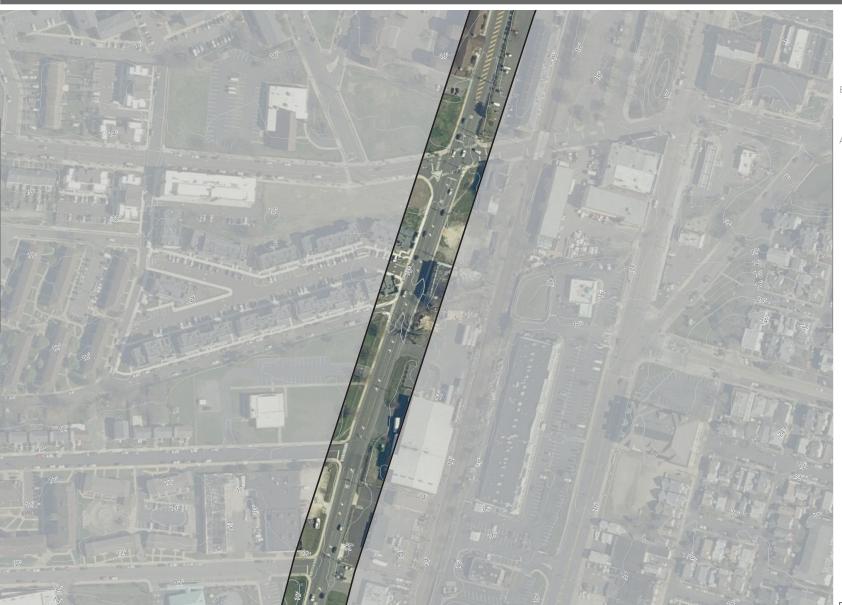
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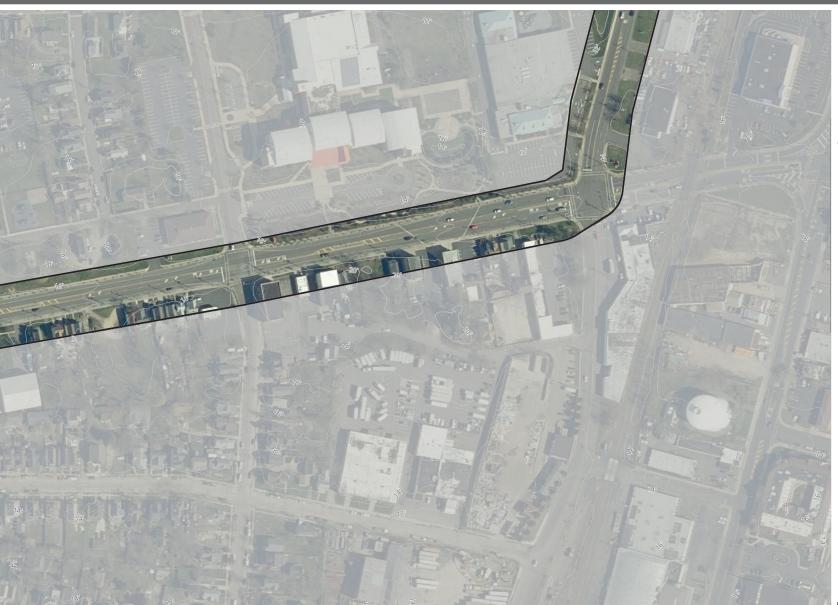
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Wetland Delineation Report

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Wetland Delineation Report

Study Area





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**Wetland Delineation Report** 

Study Area





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New Jersey

**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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New Jersey

Wetland Delineation Report

Study Area





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ATLANTIC SHORES offshore wind



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**Wetland Delineation Report** 

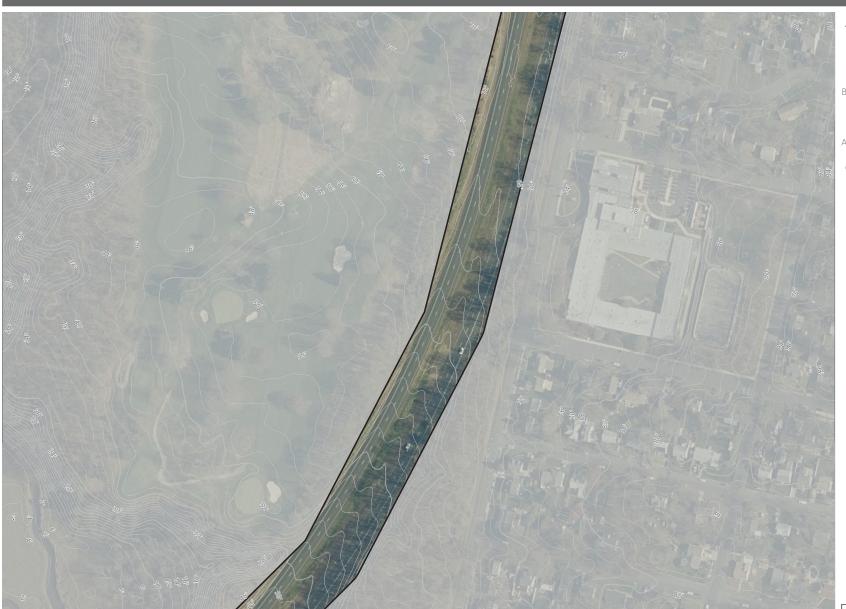
Study Area





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ATLANTIC SHORES offshore wind



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**Wetland Delineation Report** 

Study Area





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### **Wetland Delineation Report**

Delineated Stream

Study Area





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**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

### **Wetland Delineation Report**

Stream Flag

Delineated Stream

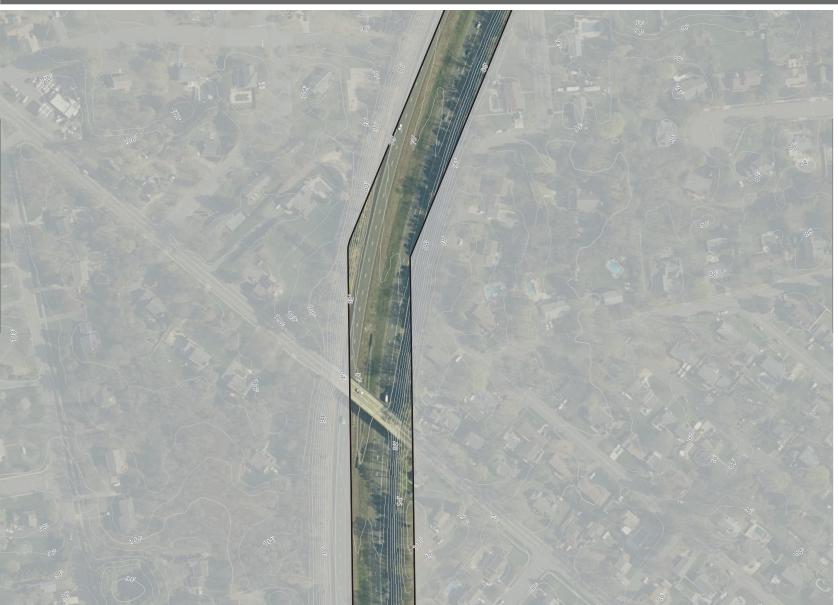
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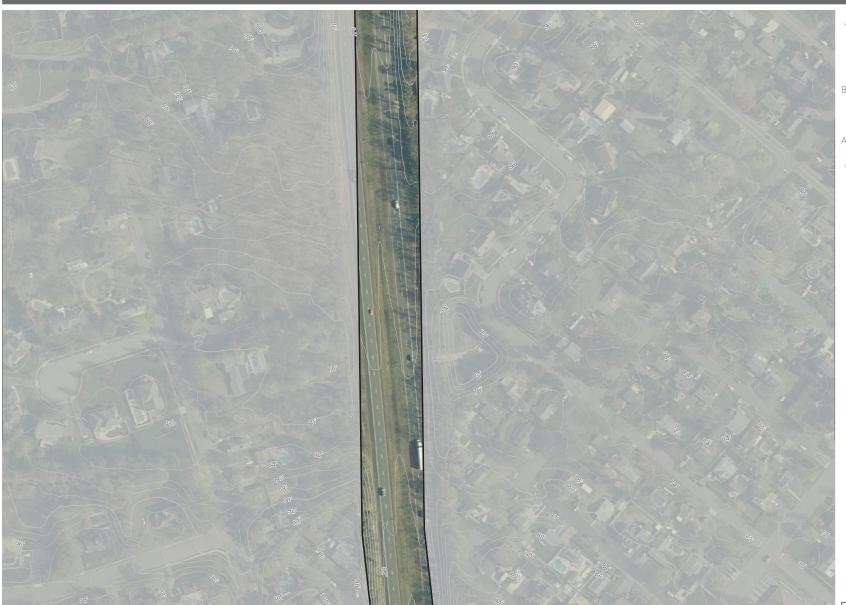
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### **Wetland Delineation Report**

Study Area





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**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



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**Wetland Delineation Report** 

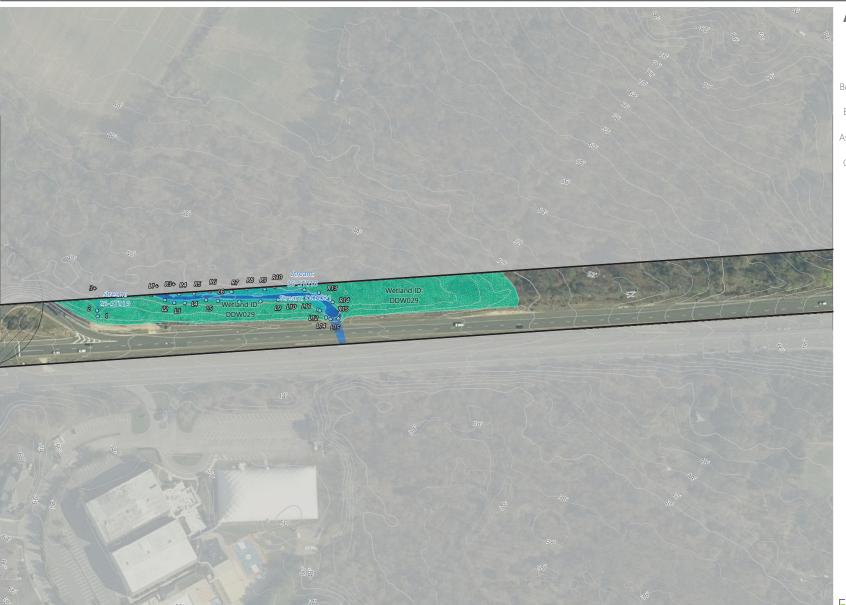
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New Jersey

Wetland Delineation Report

Stream Flag

Delineated Stream

Wetland Transition Area

Study Area





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Monmouth and Ocean County, New Jersey

### **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
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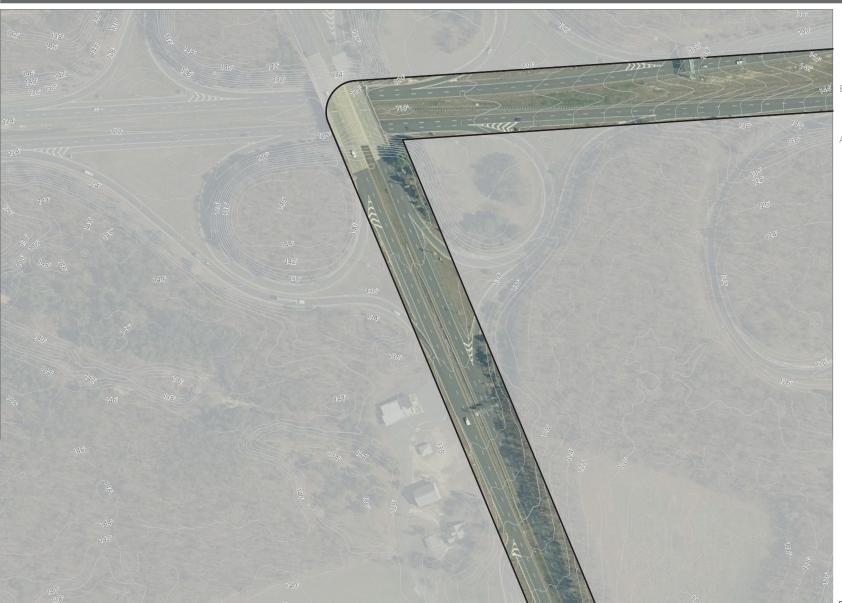






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**Wetland Delineation Report** 

Study Area





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**Wetland Delineation Report** 

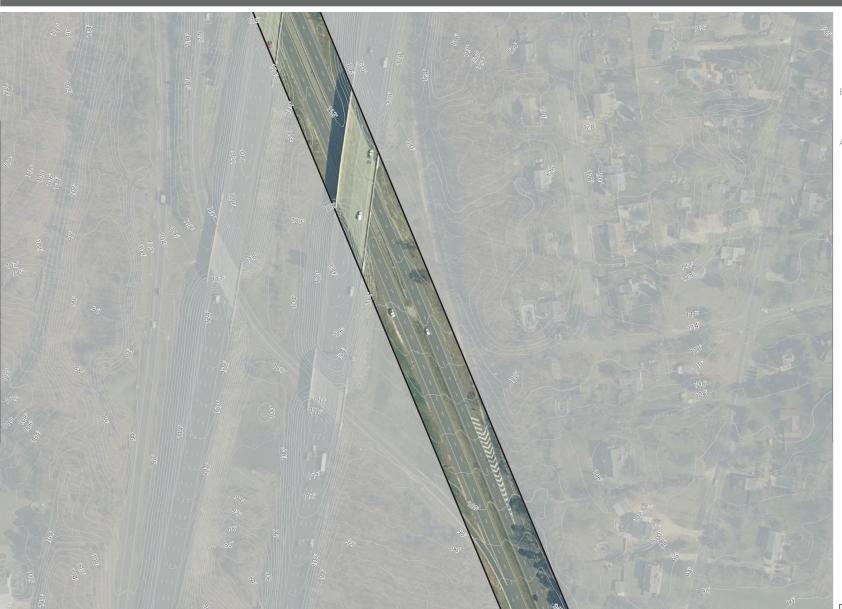
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**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

New Jersey

### **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
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Wetland Delineation Report

Study Area





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ATLANTIC SHORES offshore wind



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**Wetland Delineation Report** 

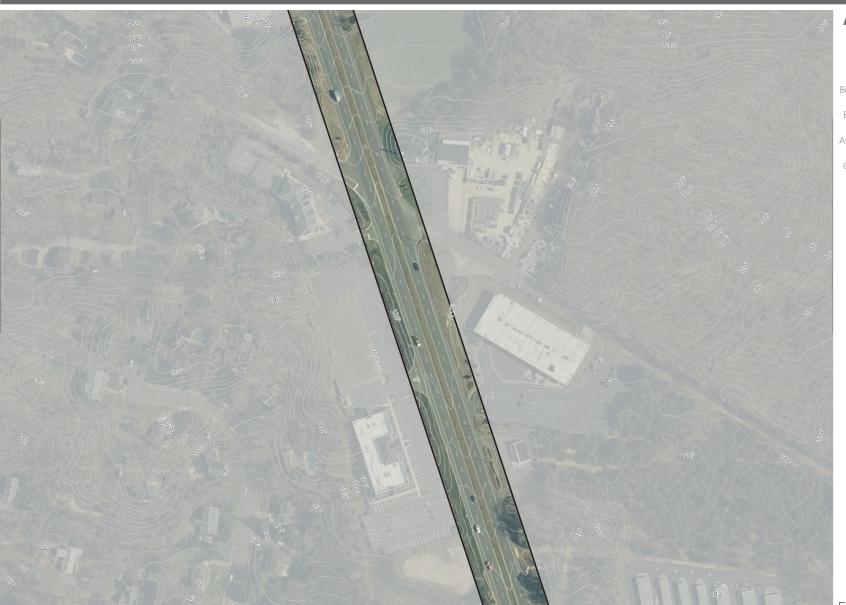
Study Area





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ATLANTIC SHORES offshore wind



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**Wetland Delineation Report** 

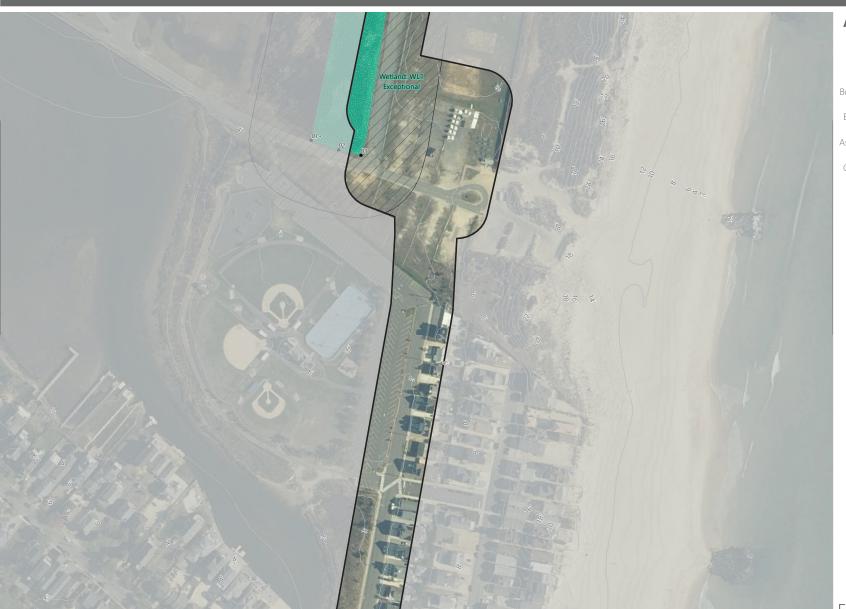
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## Wetland Delineation Report

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area

Naval Wesens Station Banks



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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

Wetland Flag

Belineated Wetland

Wetland Transition Area

Study Area





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New Jersey

Wetland Delineation Report

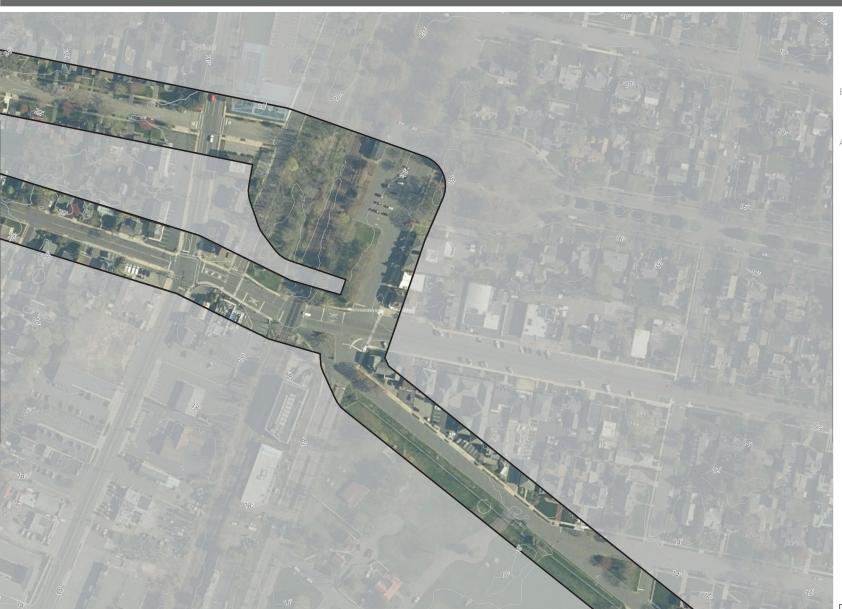
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Wetland Delineation Report

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ATLANTIC SHORES offshore wind



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### **Wetland Delineation Report**

Wetland Flag

Delineated Wetland

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Study Area





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ATLANTIC SHORES offshore wind



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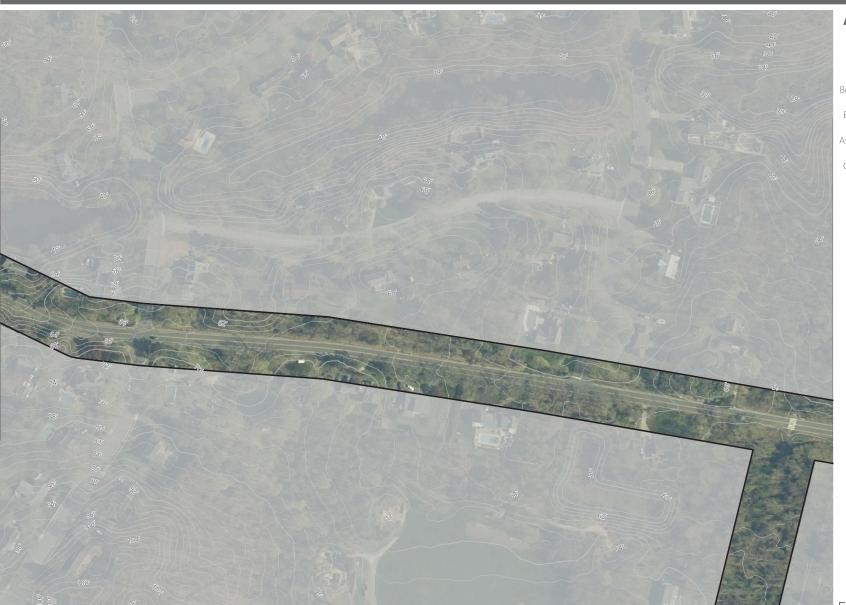
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**Wetland Delineation Report** 

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# New Jersey Wetland Delineation Report

Wetland Flag

Delineated Wetland

Study Area





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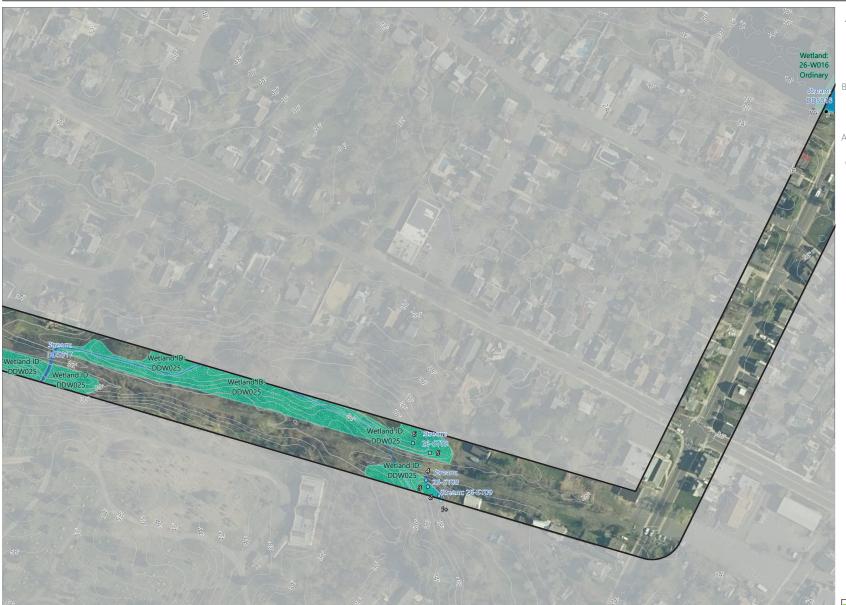
Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

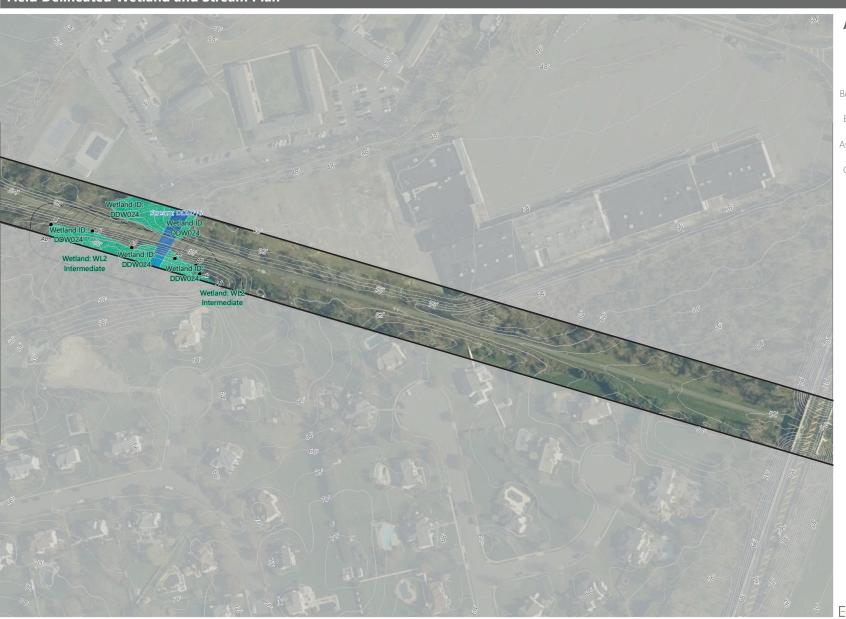
Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

New Jersey

Wetland Delineation Report

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area

Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

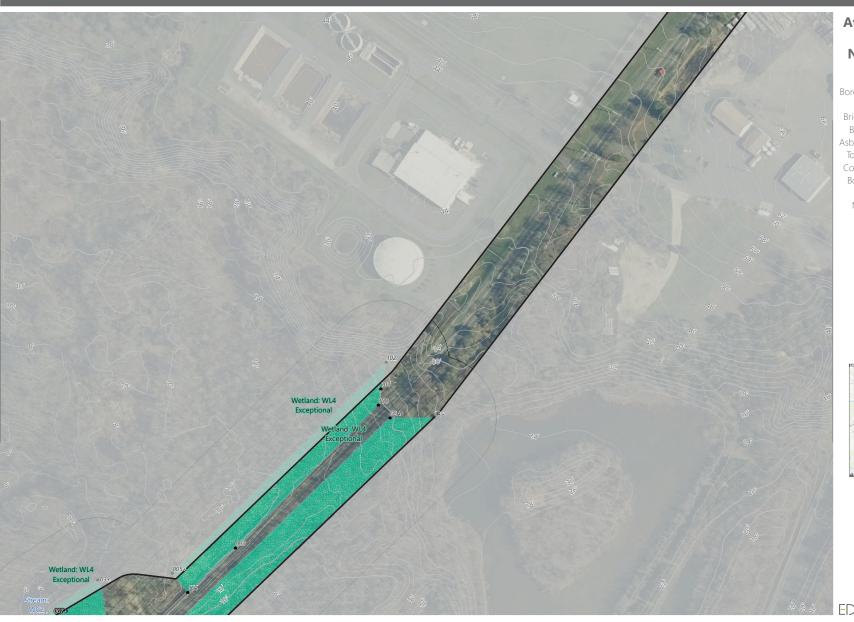
- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

## New Jersey **Wetland Delineation Report**

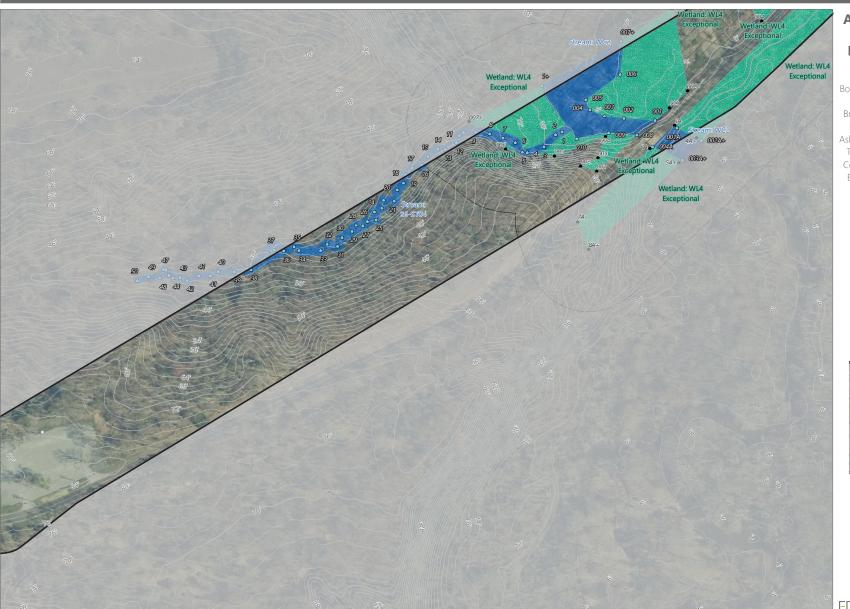
- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- \_\_\_\_\_
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area

Naval Wessens Station Banks Hamilton



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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

Wetland Flag

Delineated Wetland

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



Sheet 100 of 150

Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

New Jersey

#### **Wetland Delineation Report**

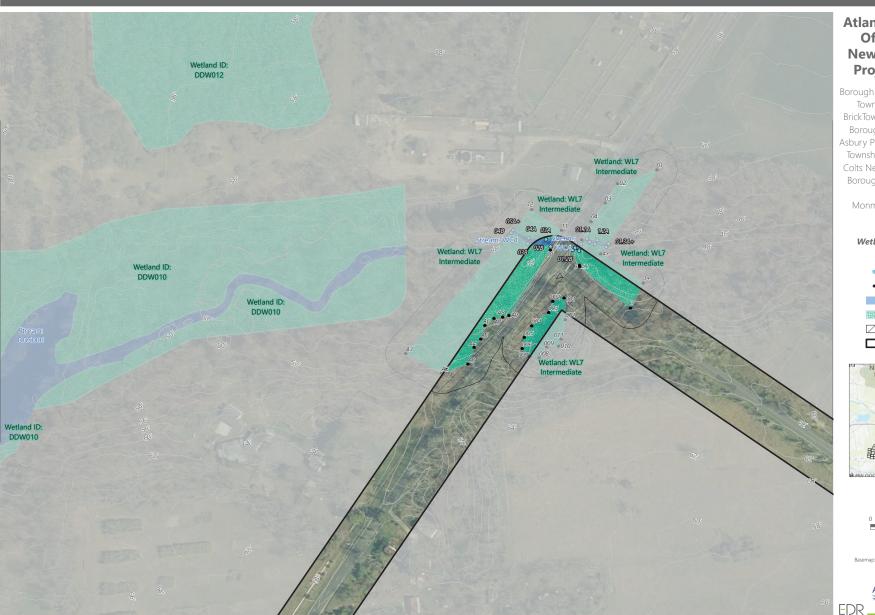
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean County, New Jersey

#### **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- \_\_\_\_\_\_

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area

Naval Weepons Station (Manual Manual Manual

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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

#### **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- \_
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

## New Jersey **Wetland Delineation Report**

Wetland Flag

Belineated Wetland

Wetland Transition Area

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

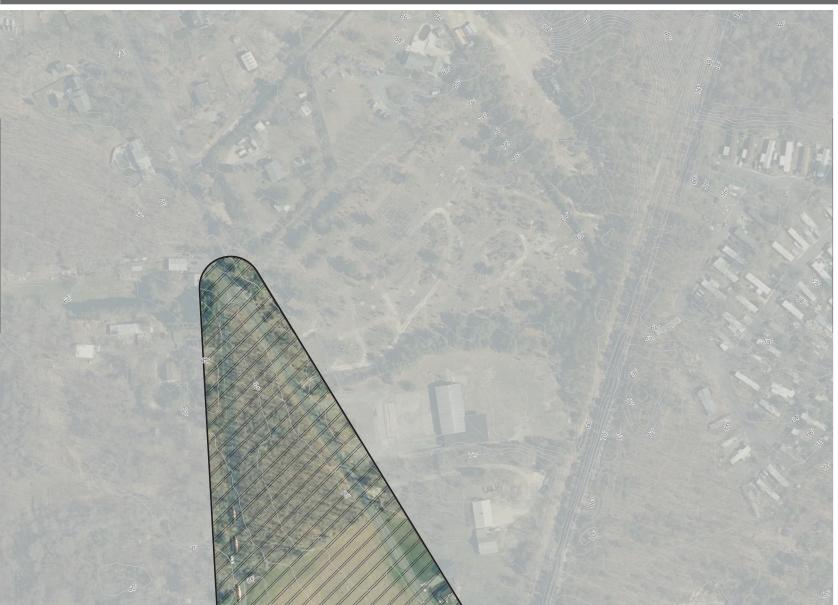
- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

New Jersey

Wetland Delineation Report

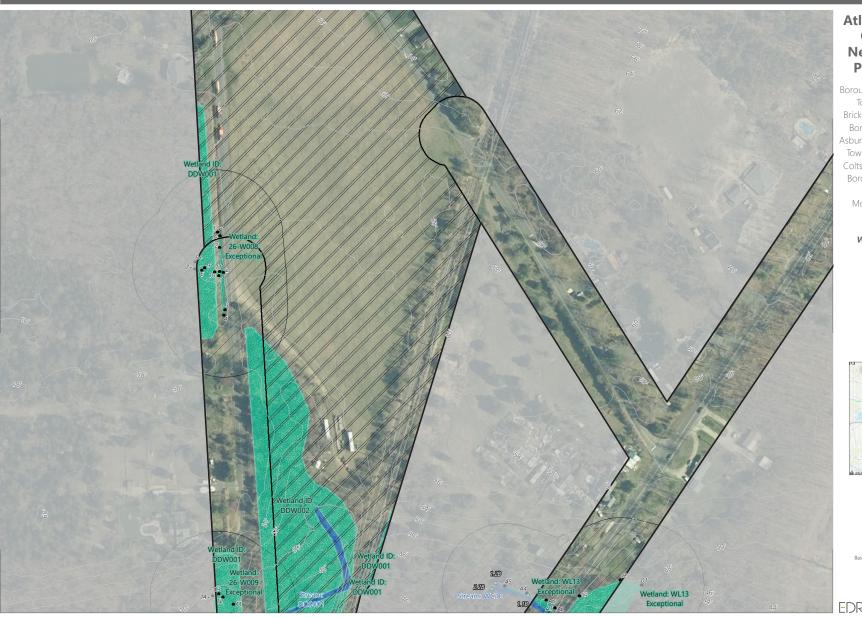
Desktop Delineated Area
Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- Desktop Delineated Area

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean County, New Jersey

### **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- Desktop Delineated Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

New Jersey

### **Wetland Delineation Report**

Wetland Flag

Delineated Stream

Delineated Wetland

Wetland Transition Area

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

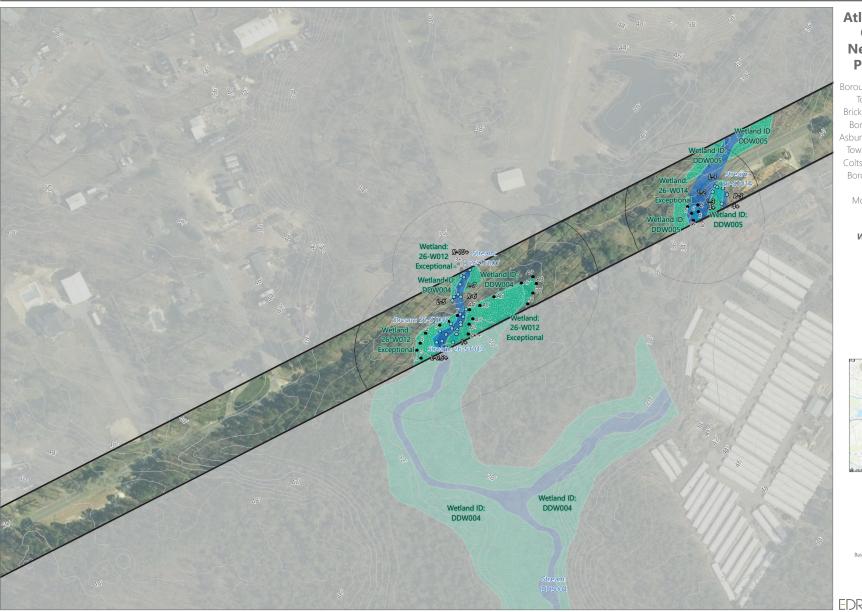
Study Area





Prepared March 23, 2023 Basemap: NJ Office of GIS 2020 Natural Color Imagery

ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean County, New Jersey

### **Wetland Delineation Report**

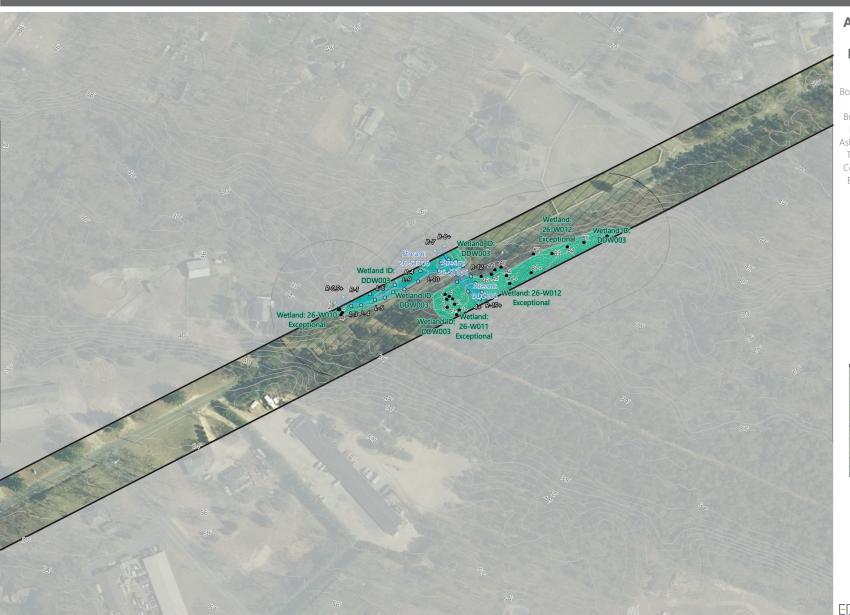
- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey **Wetland Delineation Report**

- Stream Flag
- Wetland Flag
- Delineated Stream
- Delineated Wetland
- Wetland Transition Area
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

Stream Flag

Delineated Stream

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

### **Wetland Delineation Report**

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind





Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

New Jersey

### **Wetland Delineation Report**

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

- Wetland Flag
- Belineated Wetland
- Wetland Transition Area
- Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

Wetland Flag

Belineated Wetland

Wetland Transition Area

Study Area

Naval Wessens
Station Balling
Hamilton
Reas and
Beach



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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

Stream Flag

Delineated Stream

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County, New Jersey

Wetland Delineation Report

Study Area





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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

# New Jersey Wetland Delineation Report

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area

Naval Wessens Station Estation Hamilton



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Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township

Monmouth and Ocean County, New Jersey

### **Wetland Delineation Report**

Wetland Flag

Belineated Wetland

Wetland Transition Area

Study Area

Naval Wessens Station Hamilton

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**Wetland Delineation Report** 

Study Area





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New Jersey

### **Wetland Delineation Report**

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area

Navel Wespons Station Barrier Hamilton Hamilton



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# New Jersey Wetland Delineation Report

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area





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# New Jersey Wetland Delineation Report

Stream Flag

Delineated Stream

Study Area





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**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



Borough of Point Pleasant, Lakewood Township, Borough of Brielle, BrickTownship, Borough of Sea Girt, Borough of Neptune City, City of Asbury Park, Howell Township, Ocean Township, Borough of Tinton Falls, Colts NeckTownship, Wall Township, Borough of Manasquan, Neptune Township Monmouth and Ocean County,

New Jersey

Wetland Delineation Report

Study Area





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ATLANTIC SHORES offshore wind



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**Wetland Delineation Report** 

Study Area





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**Wetland Delineation Report** 

Study Area





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ATLANTIC SHORES offshore wind



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**Wetland Delineation Report** 

Study Area





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**Wetland Delineation Report** 

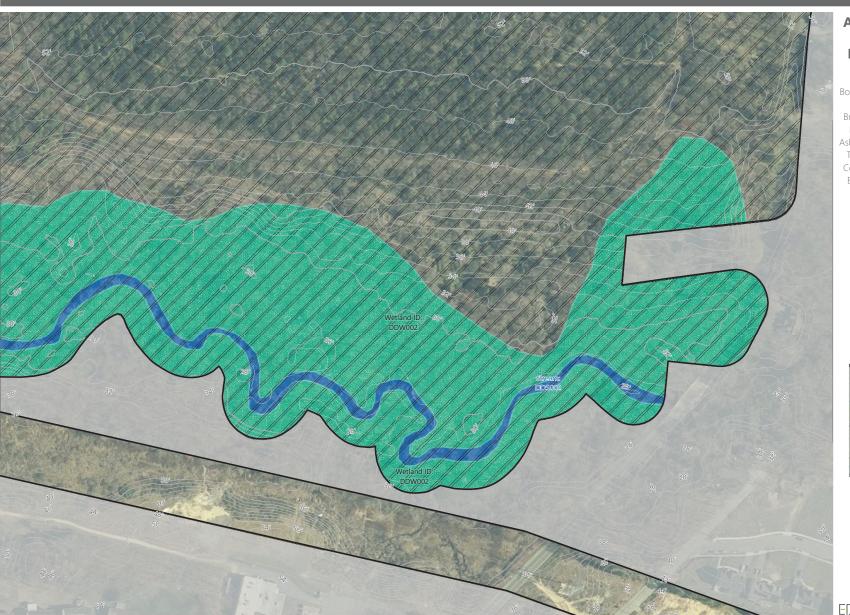
Study Area





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ATLANTIC SHORES offshore wind



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### **Wetland Delineation Report**

Desktop Delineated Area
Study Area





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### **Wetland Delineation Report**

Desktop Delineated Area
Study Area





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# Wetland Delineation Report

Desktop Delineated Area
Study Area





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ATLANTIC SHORES offshore wind



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# New Jersey Wetland Delineation Report

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