

Appendix II-D2

Wetland and Stream Delineation Report

Atlantic Shores Offshore Wind – Larrabee Study Area Borough of Sea Girt, Borough of Manasquan, Township of Wall, and Township of Howell, Monmouth County, New Jersey

Prepared for:



Atlantic Shores Offshore Wind, LLC Dock 72 Brooklyn, NY 11205

Prepared by:



Environmental Design & Research, D.P.C. 217 Montgomery Street, Suite 1100 Syracuse, New York 13202 www.edrdpc.com

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TABLE OF CONTENTS

1.0	Introduc	tion	1
1.1	Regul	atory Framework	2
1.2	Purpo	se	3
2.0	General	Site conditions	5
2.1	Physic	ography and Soils	5
2.2	Hydro	ology	7
2.3	Feder	al- and State-Mapped Wetlands and Streams	8
2.4	Марр	ed Floodplains	8
2.5	Veget	ation	8
3.0	Field Inv	estigations	11
3.1	Metho	odology	11
4.0	Results		14
4	.1.1 We	tlands	19
4	.1.2 Sur	face Waters	25
5.0	Conclusi	ons	29
6.0	Reference	Ces	30
		LIST OF TABLES	
Table	1. Study A	rea Soils	6
Table	2. Vegetat	tion/Land Cover Within the Study Area	9
Table	3. Delinea	ted Wetlands and Streams	15
		LIST OF APPENDICES	
Apper	ndix A.	Figures	
	Figure 1	I. USGS Project Location Map	
	Figure 2	2. SSURGO Soils Map	
	Figure 3	B. Watershed Management Areas and Hydrologic Units	
	Figure 4	1. NJDEP/NWI-Mapped Wetlands and Streams	
	Figure 5	•	
	Figure 6	Eand Use/Land Cover	
Apper		Routine Wetland Determination Data Sheets and Stream Inventory Forms	
Apper	ndix C.	Photo Documentation	
Apper	ndix D.	Field Delineated Wetlands and Streams Plans	

i

ACRONYM LIST

Atlantic Shores Atlantic Shores Offshore Wind, LLC

CFR Code of Federal Regulations dbh Diameter breast height

EDR Environmental Design & Research, Landscape Architecture,

Engineering & Environmental Services, D.P.C.

EPA Environmental Protection Agency

FAC Facultative

FACU Facultative Upland FACW Facultative Wetland

FEMA Federal Emergency Management Agency

1989 Interagency Manual Federal Manual for Identifying and Delineating Jurisdictional

Wetlands

HUC Hydrologic Unit Codes
LOI Letter of Interpretation
NLCD National Land Cover Dataset
NWI National Wetlands Inventory

NRCS Natural Resources Conservation Service

N.J.A.C. New Jersey Administrative Code

NJDEP New Jersey Department of Environmental Protection

OBL Obligate

PEM Palustrine emergent wetland
PFO Palustrine forested wetland
POW Palustrine Open Water

PSS Palustrine scrub-shrub wetland

POI Point of Interconnection

ROW Right-of-Way ft² Square feet

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

USGS United States Geologic Service

UPL Upland

1.0 INTRODUCTION

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

Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C., was contracted by Atlantic Shores to conduct wetland and stream delineations associated with the onshore infrastructure necessary to support the Projects' interconnection to the existing Larrabee Substation located in Howell Township, New Jersey. The delineation Study Area (herein referred to as the Larrabee Study Area) includes the proposed onshore interconnection route rights-of-ways (ROWs) from the Monmouth Landfall in the Borough of Sea Girt, New Jersey; and the Larrabee point of interconnection (POI) (Figure 1).

This report characterizes the Larrabee Study Area and identifies and discusses the evaluation of the three wetland parameters (i.e., hydrology, soils, and vegetation) involved in determining the location and extent of jurisdictional wetland area boundaries.

Nerver County

Nerver

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

1.1 Regulatory Framework

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" (Environmental Protection Agency, 40 Code of Federal Regulations [CFR] 239.3 and Army Corps of Engineers, 33 CFR 328.3).

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" (Army Corps of Engineers, 33 CFR 320.4).

Freshwater wetlands and waterbodies are typically under the regulatory jurisdiction of the U.S. 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 comprehensive permitting program, a memorandum of understanding between the United States Environmental Protection Agency (EPA), United States Fish & Wildlife Service (USFWS), and the New Jersey Department of Environmental Protection (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 U.S. and other wetlands within 1,000 feet 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.

In addition, Coastal Wetlands are regulated according to the Wetlands Act of 1970, which authorized the NJDEP to regulated activities on coastal wetlands that have been delineated and mapped by the Department. Generally, these wetlands are also regulated by the USACE under Section 10 of the Rivers and Harbors Act.

Wetland transition areas, established under N.J.A.C. 7:7-9.28 and N.J.A.C. 7:7A-3.3(d), varies 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 (ft²), is considered a drainage ditch or swale, a detention facility created for stormwater purposes or existing in lawns, maintained landscaped areas and other disturbed locations.
- Intermediate Resource Value (50-foot transition area) wetlands are those wetlands that are not classified as either exceptional or ordinary resource value.
- Exceptional Resource Value (150-foot 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.

Depending on project design and assessed impacts to the wetlands and waters identified, the NJDEP permits and/or Section 10/404 permits from the USACE may be required.¹

1.2 Purpose

This report describes the results of the wetland and stream delineations conducted which includes identification of the federal and/or state jurisdictional wetland and water resources within the Study Area,

¹ 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).

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 NJDEP regulations for the purpose of supporting required permit applications.

2.0 GENERAL SITE CONDITIONS

Publicly available information used in determining the presence and approximate boundaries of wetlands and waters of the United States were obtained and reviewed prior to commencing field investigations and are summarized in the following sub-sections.

Materials and data supporting this investigation have been derived from United States Geological Survey (USGS) topographic mapping (i.e., Point Pleasant, Asbury Park, Farmingdale, and Lakewood NJ 7.5 minute quadrangles), USFWS National Wetlands Inventory (NWI) mapping, NJDEP Wetlands mapping, the Natural Resources Conservation Service (NRCS) Web Soil Survey (Web Soil Survey 2020), the NRCS List of Hydric Soils of the State of New Jersey (NRCS, 2020), the National Land Cover Dataset (NLCD) land cover and vegetation classes (Yang et al., 2018), and recent aerial photography.

Vascular plant names follow nomenclature found in the Integrated Taxonomic Information System (ITIS 2020), and wetland indicator status for plant species was determined by reference to the National Wetland Plant List (Lichvar et al., 2016). Jurisdictional areas were characterized according to the wetlands and deepwater habitats classification system used in NWI mapping (Cowardin et al., 1979).

2.1 Physiography and Soils

The Larrabee Study Area is located within the Outer Coastal Plain 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 which supports a diverse system of drainages and wetlands (NCTC, 2020).

Hydric soils are 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 is typically indicative of a wetland. Extended periods of inundation/saturation cause chemical reactions in the soil that alter 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 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 online databases, this is for general use and does not supersede specific conditions documented in the field. Within the Larrabee Study Area, elevations range from approximately sea level at the Monmouth Landfall location to 135 feet above mean sea level near Allaire State Park associated with a large sandy knoll. The USGS map presented in Figure 1 shows the approximate range of mapped elevations within the Larrabee Study Area.

The Web Soil Survey of Monmouth County (Soil Survey Staff, 2020) indicates the occurrence of 27 soil series within the Study Area (Figure 2). Klej lomy sand (KkgB) is the dominant soils series mapped within the Larrabee Study Area with significant areas of Downer sandy loam (DoeBo), Lakewood sand (LasB) and

Downer urban land complex (DouB) also mapped. Soils range from very poorly drained to excessively drained, and soil textures range from sand to loam. Table 1 lists the soil series found within the Study Area and their characteristics. "Hydric" and "Potentially Hydric" designations are based on information obtained on the NRCS Web Soil Survey (Soil Survey Staff, 2020) and the National Hydric Soils List (NRCS, 2020).

Table 1. Study Area Soils

Mapping Unit Symbol	Series	Slope (%)	Drainage ¹	Hydric Percentage	Hydric Rating ²
AtsAO	Atsion sand, Northern Tidewater Area	0-2	PD	95	Hydric
BerAt	Berryland sand, frequently flooded	0-2	VPD	100	Hydric
DocBO	Downer loamy sand, Northern Tidewater Area	0-5	WD	5	Partially Hydric
DocCO	Downer loamy sand, Northern Tidewater Area	5-10	WD	0	Not Hydric
DoeAO	Downer sandy loam, Northern Tidewater Area	0-2	WD	0	Not Hydric
DoeBO	Downer sandy loam, Northern Tidewater Area	2-5	WD	0	Not Hydric
DouB	Downer urban land complex	0-5	WD	0	Not Hydric
EveB	Evesboro sand	0-5	ED	10	Partially Hydric
EveC	Evesboro sand	5-10	ED	0	Not Hydric
EveD	Evesboro sand	10-15	ED	0	Not Hydric
EveE	Evesboro sand	15-25	ED	0	Not Hydric
FapA	Fallsington loams, Northern Coastal Plain	0-2	PD	85	Hydric
Ньов	Hammonton sandy loam	2-5	MWD	5	Partially Hydric
HumAt	Humaquepts, frequently flooded	0-3	PD	100	Hydric
KkgB	Klej loamy sand	0-5	SPD	10	Partially Hydric
LakB	Lakehurst sand	0-5	MWD	10	Partially Hydric
LasB	Lakewood sand	0-5	ED	5	Partially Hydric
PHG	Pits, sand and gravel	N/A	N/A	0	Not Hydric
SacBO	Sassafras sandy Ioam, Northern Tidewater Area	2-5	WD	0	Not Hydric

Mapping Unit Symbol	Series	Slope (%)	Drainage ¹	Hydric Percentage	Hydric Rating ²
SacC	Sassafras sandy loam, Northern Coastal Plain	5-10	WD	4	Partially Hydric
SacD	Sassafras sandy loam	10-15	WD	0	Not Hydric
SacE	Sassafras sandy loam	15-25	WD	0	Not Hydric
SadC	Sassafras gravelly sandy loam	5-10	WD	0	Not Hydric
SafA	Sassafras Ioam	0-2	WD	4	Partially Hydric
UdaB	Udorthents	0-8	WD	0	Not Hydric
UdauB	Udorthents-Urban land complex	0-8	WD	0	Not Hydric
WATERs	Water, saline	N/A	N/A	Water	Water

¹ 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.

2.2 Hydrology

The Study Area is located in the NJDEP Barnegat Bay and Monmouth Watershed Management Areas (WMAs) as shown in Figure 3. In addition, the Study Area spans across the following Hydrologic Unit Codes (HUC) that are within the two WMAs (Figure 3):

- HUC 8:
 - o Mullica-Toms 02010301
- HUC 10:
 - o Manasquan River-Frontal Atlantic Ocean (0204030101)
 - Metedeconk River (0204030104)
- HUC 12:
 - o Lower Manasquan River-Atlantic Ocean (020403010800)
 - Middle Manasquan River (020103010105)
 - North Branch Metedeconk River (020403010202)
 - o Shark River-Frontal Atlantic Ocean (020403010104).

Most of the surface hydrology within the Larrabee Study Area is generated by precipitation and surface water run-off from adjacent land. Due to the sandy texture of the soil and portions of the Study Area near sea level, there are likely some areas where surface hydrology is influenced by groundwater discharge (particularly associated with the Manasquan River). Total annual precipitation (from 2000 to 2022) averages 48.83 inches at Trenton, New Jersey, and 47.48 inches in the Atlantic City Region (NOAA, 2022). The on-site

² Hydric = 50-100, Partially Hydric = 1-49, Not Hydric = 0, Water = Water

wetland delineation took place during and after the growing season between June 24 and 26, December 7, 8, and 10, 2020; September 14 and 15, 2021; June 12 through the 14, 2022; and February 15, 16 and 21, 2023. Precipitation for the month of May 2020 was below average (1.62 inches [Atlantic City]/1.62 inches [Trenton]) compared to the typical monthly average in the Atlantic City (3.39 inches) and Trenton, New Jersey (3.97 inches). Precipitation for the month of November 2020 was above average (5.60 inches [Atlantic City]/ 4.14 inches [Trenton]) compared to the monthly average of 3.69 inches (Atlantic City) and 3.18 inches (Trenton). Precipitation for September 2021 was above average (6.28 inches [Atlantic City]/5.06 inches{Trenton]) compared to the monthly average of 3.15 inches (Atlantic City) and 4.25 inches (Trenton). Precipitation for May 2022 was above average (4.57 [Atlantic City]/ 7.17 [Trenton] inches) compared to the monthly average of 3.39 inches (Atlantic City) and 3.97 inches (Trenton). Precipitation for January 2023 was slightly above average (3.74 inches [Atlantic City]/3.60 inches [Trenton]) compared to the monthly average of 3.38 inches (Atlantic City) and 3.29 inches (Trenton).

2.3 Federal- and State-Mapped Wetlands and Streams

New Jersey State-mapped wetlands indicate that there are 79 mapped wetlands totaling approximately 79 acres within the Larrabee Study Area (Figure 4). The mapped wetlands include deciduous wooded wetlands (46.8 acres), modified agricultural wetlands (7.1. acres), mixed wooded wetlands (16.6 acres deciduous dominant, 4.3 acre coniferous dominant), deciduous scrub/shrub wetland (0.78 acre), wetland rights-of-way (1.5 acre), coniferous wooded wetlands (0.9 acre), vegetated dune communities (0.5 acre), herbaceous wetlands (0.1 acre), modified disturbed wetlands (0.05 acre), and cemetery on wetland (0.01 acre).

NWI mapping indicates the presence of 68 wetland communities and 20 riverine resources totaling approximately 60.3 acres within the Larrabee Study Area (Figure 4). Freshwater forested/shrub wetland communities are the dominant community types mapped on site, totaling approximately 57.4 acres. Other NWI-mapped communities within the Study Area include freshwater emergent wetlands (0.4 acre), freshwater ponds (0.4 acre) and riverine resources (2.0 acres).

New Jersey mapping identifies nine waterways within the Study Area. The waterways include Dicks Brook, Haystack Brook, Judas Creek, Manasquan River and associated tributaries, Muddy Ford Brook and associated tributaries, Squankum Brook and associated tributaries, Sandyhill Brook, and Tarkiln Brook.

2.4 Mapped Floodplains

According to the Federal Emergency Management Agency (FEMA) map service, the majority of the Larrabee Study Area is outside of the 1% Annual Chance Flood zone, indicating, minimal flood hazard. These areas are associated with the with tributaries to and the Manasquan River, Squankum Brook, Haystack Brook, and the Atlantic Ocean and are in special flood hazard areas (100-year flood zone) (Figure 5).

2.5 Vegetation

Land cover and vegetation occurring within the Study Area were evaluated using 2015 Land Use/Land Cover of New Jersey (NJDEP, 2015), and further verified during the on-site field investigations. The Larrabee Study Area encompasses approximately 628 acres and consists primarily of rural single residences, other urban or built-up land, as well as low-density single residences, commercial/services, medium-density single

residences, deciduous wooded wetlands and deciduous forest with greater than 50% crown closure (Table 2). The location and extent of various land use and land cover locations is provided in Figure 6.

Table 2. Vegetation/Land Cover Within the Study Area

Land Cover Class	Acres	Percent Cover (%)
Deciduous Forest (>50% Crown Closure)	83.2	13.2
Residential, Rural, Single Unit	73.6	11.7
Deciduous Wooded Wetlands	46.8	7.5
Other Urban or Built-Up Land	40.3	6.4
Residential, Single Unit, Low Density	32.9	5.2
Residential, Single Unit, Medium Density	29.9	4.8
Coniferous Brush/Shrubland	24.7	3.9
Mixed Forest (>50% deciduous with >50% crown closure)	24.3	3.9
Industrial	23.8	3.8
Cropland and Pastureland	22.5	3.6
Recreational Land	21.6	3.4
Commercial/Services	20.7	3.3
Upland Rights-of-Way Undeveloped	20.7	3.3
Mixed Deciduous/Coniferous Brush/Shrubland	19.3	3.1
Coniferous Forest (>50% crown closure)	17.7	2.8
Transportation/Communication/Utilities	16.9	2.7
Mixed Wooded Wetlands (Deciduous Dom.)	16.6	2.6
Other Agriculture	11.5	1.8
Deciduous Forest (10-50% Crown Closure)	10.8	1.7
Mixed Forest (>50% Coniferous with >50% Crown Closure)	8.0	1.3
Altered Lands	5.5	0.9
Agricultural Wetlands (Modified)	5.1	0.8
Orchards/Vineyards/Nurseries/Horticultural Areas	4.7	0.7
Military Installations	4.3	0.7
Mixed Wooded Wetlands (Coniferous Dom.)	4.3	0.7
Residential, High Density or Multiple Dwelling	3.9	0.6
Streams and Canals	3.6	0.6
Railroads	3.3	0.5
Plantation	3.2	0.5
Mixed Forest (>50% Deciduous with 10-50% Crown		
Closure)	3.1	0.5
Mixed Forest (>50% Coniferous with 10-50% Crown		
Closure)	3.0	0.5
Undifferentiated Barren Lands	3.0	0.5
Major Roadway	2.7	0.4

Land Cover Class	Acres	Percent Cover (%)
Coniferous Forest (10-50% Crown Closure)	1.8	0.3
Disturbed Wetlands (Modified)	1.6	0.3
Wetland Rights-of-Way	1.5	0.2
Deciduous Brush/Shrubland	1.0	0.2
Coniferous Wooded Wetlands	0.9	0.1
Deciduous Scrub/Shrub Wetlands	0.8	0.1
Artificial Lakes	0.7	0.1
Stormwater Basin	0.7	0.1
Athletic Fields (Schools)	0.6	0.1
Cemetery	0.5	0.1
Former Agricultural Wetland	0.5	0.1
Vegetated Dune Communities	0.5	0.1
Mixed Scrub/Shrub Wetlands (Deciduous Dom.)	0.4	0.1
Transitional Areas	0.4	0.1
Old Field (<25% Brush Covered)	0.2	0.02
Confined Feeding Operations	0.1	0.02
Natural Lakes	0.1	0.2
Herbaceous Wetlands	0.1	0.01
Bridge Over Water	0.03	>0.01
Cemetery on Wetland	>0.01	>0.01
Coniferous Scrub/Shrub Wetlands	>0.01	>0.01
Total	627.9	100

Source: Land Use/Land Cover of New Jersey 2015 (NJDEP, 2015).

3.0 FIELD INVESTIGATIONS

An initial desktop analysis using the data sources described in Section 2.0 was conducted by EDR prior to performing on-site wetland delineations to identify areas likely to contain wetland and stream resources within the Larrabee Study Area. This desktop analysis guided the field wetland delineation conducted between June 24 and June 26, 2020; December 7, 8, and 10, 2020; September 14 and 15, 2021; June 12 through the 14, 2022; and February 15,16 and 21, 2023. This section describes the methodology used to identify the location of wetland areas and determine the upland/wetland boundary in the field.

3.1 Methodology

The identification of wetland boundaries was based on the methodology described in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (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 inch/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 of 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, 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 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 (i.e., 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 Larrabee Study Area were classified based on the Cowardin et al. (1979) classification system.

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

4.0 RESULTS

EDR environmental scientists identified 27 wetlands and 19 streams within the Larrabee 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 3 and a detailed description of each resource is provided in Section 4.1. In accordance with the Cowardin et al. (1979) classification system, the waters delineated within the Study Area consist of the following community types: open water wetland (POW), palustrine emergent wetland (PEM), palustrine forested wetland (PFO), and palustrine scrub-shrub wetland (PSS).

Table 3. Delineated Wetlands and Streams

Delineation ID ¹	Latitude of Centroid	Longitude of Centroid	Wetland	l Acreage	Within St	udy Area l	oy Type²	Feet of Stream Stream	Linear Feet of Stream Within	eet of tream Resource Value	Anticipated Federal Jurisdiction ⁴	Anticipated State Jurisdiction ⁵
			PEM	PSS	PFO	POW	Total		Study Area		Jurisalction	Jurisdiction
WL1*	40.12029	-74.034	1.15				1.15			Exceptional	Yes	Yes
WL2	40.146066	-74.106972	0.3			0.16	0.46			Intermediate	Yes	Yes
WL3	40.146101	-74.107643			0.04		0.04			Intermediate	Yes	Yes
WL4	40.144086	-74.116153			3.51		3.51			Exceptional	Yes	Yes
WL5	40.136999	-74.137716			0.16		0.16			Intermediate	Yes	Yes
WL6A	40.137924	-74.144525			0.29		0.29			Ordinary	Yes	Yes
WL6B	40.143679	-74.162616			0.91		0.91			Exceptional	Yes	Yes
WL7	40.146319	-74.167957			0.51	0.11	0.62			Intermediate	Yes	Yes
WL8	40.143712	-74.170264			0.22		0.22			Intermediate	Yes	Yes
WL9	40.138808	-74.174871			1.40		1.40			Exceptional	Yes	Yes
WL10	40.133906	-74.179492			1.25		1.25			Exceptional	Yes	Yes
WL11	40.128772	-74.184049		1	0.48		0.48	-		Exceptional	Yes	Yes
WL12	40.124342	-74.187698	0.40				0.40			Ordinary	Yes	Yes
WL13	40.118727	-74.192792			0.26		0.26			Exceptional	Yes	Yes
W017	40.139095	-74.108156			0.33		0.33			Intermediate	Yes	Yes
W017A	40.138902	-74.107758		1	0.42		0.42	-		Intermediate	Yes	Yes
W018	40.141019	-74.079996			0.71		0.71			Ordinary	Yes	Yes
W019	40.136662	-74.110322			2.33		2.33			Exceptional	Yes	Yes
26-W008	40.121004	-74.1857893			0.04		0.04			Exceptional	Yes	Yes
26-W009	40.118593	-74.195839			0.18		0.18			Exceptional	Yes	Yes
26-W010	40.11546	-74.176054	0.004				0.004			Exceptional	Yes	Yes

Delineation ID ¹	Latitude of Centroid		Wetland	l Acreage	Within St	udy Area I	by Type²	Feet Stream Strea	Linear Feet of Stream Within	Resource Value Classification	Anticipated Federal	Anticipated State
		PEM PSS PFO POW Total			Study Area		Jurisdiction ⁴	Jurisdiction ⁵				
26-W011	40.115474	-74.175072			0.02		0.02			Exceptional	Yes	Yes
26-W012	40.117387	-74.170078			0.41		0.41			Exceptional	Yes	Yes
26-W014	40.118956	-74.165905		0.01			0.01			Exceptional	Yes	Yes
26-W015	40.128265	-74.13556			0.05		0.05			Exceptional	Yes	Yes
26-W016	40.130071	-74.051801				0.14	0.14			Ordinary	Yes	Yes
26-W019	40.13722	-74.109186		0.22			0.22			Exceptional	Yes	Yes
	Wetland Tota	ls	1.86	0.23	13.52	0.41	16.02					
WC1	40.146344	-74.107541						R3	170		Yes	Yes
WC2	40.143395	-74.117668						R3	306		Yes	Yes
WC3	40.144251	-74.163437	-	1				R4	138		Yes	Yes
WC4	40.14676	-74.167875						R2	60		Yes	Yes
WC5	40.138386	-74.175247		-		1		R2	109		Yes	Yes
WC6	40.135076	-74.178153	1	1		1		R2	123		Yes	Yes
WC7	40.128147	-74.184362						R2	318		Yes	Yes
WC8	40.124887	-74.187199						R4	144		Yes	Yes

Delineation ID ¹	Latitude of Centroid	Longitude of Centroid	Wetland	l Acreage	Within Stu	udy Area I	oy Type²	Stream Type ³		et of Resource Value	Anticipated Federal	Anticipated State
			PEM	PSS	PFO	POW	Total		Study Area		Jurisdiction ⁴	Jurisdiction ⁵
WC9	40.123935	-74.18829						R2	142		Yes	Yes
WC10	40.118672	-74.192965						R2	118		Yes	Yes
S009B	40.136724	-74.110136						R3	451		Yes	Yes
ST04	40.142784	-74.119388						R3	920		Yes	Yes
ST005	40.118579	-74.195617						R3	120		Yes	Yes
ST006	40.11562	-74.175356						R3	421		Yes	Yes
ST007	40.118281	-74.168004						R3	201		Yes	Yes
ST008	40.128231	-74.135348						R4	94		Yes	Yes
ST09	40.127458	-74.055411						R6	119		Yes	Yes
ST013	40.118167	-74.167969						R6	61		Yes	Yes
ST014	40.119064	-74.165681						R3	48		Yes	Yes
		Т	4,063									

¹ Field ID assigned by EDR.

² Wetland community types are based upon the Cowardin et al. (1979) classification system: open water wetland (POW), palustrine emergent wetland (PEM), palustrine forested wetland (PFO), and palustrine scrub-shrub wetland (PSS).

³ Stream type is based upon the Cowardin et al. (1979) classification system: lower perennial (R2), upper perennial stream (R3), intermittent (R4), and ephemeral (R6).

⁴ Based on visual observation of hydrologic connectivity in the field and review of available spatial data. Final jurisdictional determination to be made by the USACE.

⁵ Based on existing NJDEP mapping of freshwater wetlands and streams. See Sections 2.2 and 3.3 for additional information.

^{*} Indicates approximated wetland feature, wetland acreage is not exact.

None of these wetlands and streams are tidal or within 1,000 feet of the head of tide; therefore, USACE jurisdiction may not apply as it relates to Section 404 of the Clean Water Act because NJDEP has assumed jurisdiction under the state's Freshwater Wetlands Protection Act. As such, all delineated wetlands and streams included in Table 3 are expected to be potentially under the jurisdiction of the NJDEP. Descriptions of the delineated wetlands within the Study Area are provided below in Sections 4.1.1 and Section 4.1.2 provides descriptions of the delineated streams within the Study Area.

4.1.1 Wetlands

EDR identified 27 wetlands totaling approximately 16 acres within the Study Area. The area of each community type is summarized in Table 3, and a detailed description is provided in this subsection which includes information to support resource classifications of ordinary or exceptional. Wetlands that do not satisfy the definition of ordinary or exceptional are assumed to be intermediate resource value. One wetland, Wetland 1, was approximated due restricted access within a secured location in the National Guard training facility. The approximated value (wetland acreage) is therefore not exact as denoted in Table 3.

Wetland 1 (WL1) (PEM)

Wetland 1 (WL1) is a PEM wetland that is dominated by common reed (*Phragmites australis*, FACW). Soils were not viewed due to restricted access within a secure location in the National Guard training facility. Wetland hydrology indicators observed were inundation visible on aerial imagery, among others. This wetland is assumed to be classified as exceptional due to its proximity and connection to the dune system on the beach, with multiple documented federal- and state-threatened and endangered species—the northern harrier (*Circus hudsonius*), breeding sighting; black-crowned night-heron (*Nycticorax nycticorax*), foraging; tricolored heron (*Egretta tricolor*), foraging; yellow-crowned night-heron (*Nyctanassa violacea*), foraging; and bald eagle (*Haliaeetus leucocephalus*), foraging.

Wetland 2 (WL2) (POW/PEM)

Wetland 2 (WL2) is a POW wetland with a small section of a PEM wetland that feeds a stream flowing along a paved pedestrian bike path. Dominant vegetation consists of jewelweed (*Impatiens capensis*, FACW), lurid sedge (*Carex lurida*, OBL), and fox sedge (*Carex vulpinoidia*, FACW), meeting the criteria for hydrophytic vegetation. Soils were a heavily saturated, loose muck composed of mainly organic material. Soils were unable to be obtained to determine matrix and chroma due to depth of water and general makeup of the soil matrix. Soils were considered hydric due to the thick layer of muck observed meeting the criteria of a histosol. Wetland hydrology indicators observed were inundation of ground surface and soil saturation. This wetland is assumed to be classified as intermediate because it does not satisfy the definition of an ordinary or exceptional resource wetland. Although black-crowned night-heron foraging mapped habitat is documented in the vicinity, this wetland feature's location is not conducive or characteristic of foraging habitat for this species.

Wetland 3 (WL3) (PFO)

Wetland 3 (WL3) is a PFO wetland, dominated by red maple (*Acer rubrum*, FAC) in the canopy, pepperbush (*Clethra alnifolia*, FACW) in the shrub layer and skunk cabbage (*Symplocarpus foetidus*, OBL) and cinnamon fern (*Osumunda cinnamomea*, FACW) in the herbaceous layer indicating a hydrophytic vegetation community. Soils were considered hydric and consisted of a thick layer of muck (10 YR 2/1) and met the criteria for a histosol. Wetland hydrology indicators observed included an inundated ground surface and soil saturation. This wetland is assumed to be classified as intermediate because it does not satisfy the definition of an ordinary or exceptional resource wetland. Although the black-crowned night-heron foraging habitat is documented in the vicinity, this wetland feature's location is not conducive or characteristic of foraging habitat for this species.

Wetland 4 (WL4) (PFO)

Wetland 4 (WL4) is a PFO wetland, dominated by sweetgum (*Liquidambar styraciflua*, FAC) and river birch (*Betula nigra*, FACW) in the canopy, and jewelweed (*Impatiens Capensis*, FACW) in the herbaceous layer indicating a hydrophytic vegetation community. Soils were considered hydric and consisted of a thick layer of muck (10 YR 2/1) and met the criteria for a histosol. Wetland hydrology indicators observed included an inundated ground surface and soil saturation. This wetland is assumed to be classified as exceptional due to its proximity to the Manasquan River and documented foraging habitat for the black-crowned night-heron and bald eagle, and mapped habitat for the bog turtle and wood turtle.

Wetland 5 (WL5) (PFO)

Wetland 5 (WL5) is a PFO wetland, dominated by swamp white oak (*Quercus bicolor*, FAC) and red maple in the canopy, and highbush blueberry (*Vaccinium corymbosum*, FACW) in the herbaceous layer indicating a hydrophytic vegetation community. Soils were considered hydric and consisted of a thick layer of depleted sand with mottles (10YR 4/2, 80%, 7.5YR 5/6, 20%) and met the criteria for a depleted matrix. Wetland hydrology indicators observed included oxidized rhizospheres on living root channels. This wetland is assumed to be classified as intermediate because it does not satisfy the definition of an ordinary or exceptional resource wetland.

Wetland 6 (WL6) (PEM)

Wetland 6 (WL6) is a PEM floodplain wetland that is dominated by Japanese stiltgrass (*Microstegium viminium*, FAC) and jewelweed. Sandy soils displayed a low chroma matrix (10YR 4/2) with 20% mottles (7.5YR 5/6) indicating that the observed soils are hydric. Wetland hydrology indicators observed were surface water, saturated soils, and geomorphic position. This wetland is assumed to be classified as exceptional due to the documented Pine Barrens treefrog vernal pool breeding habitat and the wetland's association with Squankum Brook Tributary.

Wetland 7 (WL7) (PFO)

Wetland 7 (WL7) is a PFO wetland associated with Squankum Brook located along County Road 547 and is dominated by sweetgum, red maple, and sweet pepperbush and meets the criteria for hydrophytic vegetation. Soils were an organic sand mixture that transitions to sand with a low chroma matrix (10 YR 2/1) and mottles (2.5Y 5/4); meeting the hydric soils criteria. Wetland hydrology indicators observed were ground surface inundation, soil saturation, and high-water table. This wetland is assumed to be classified as intermediate due to its large extent and lack of documented threatened or endangered species habitat.

Wetland 8 (WL8) (PFO)

Wetland 8 (WL8) is a PFO depressional wetland along County Route 547 that is dominated by sweetgum in the tree stratum and waterhorehound (*Lycopus sherardii*, OBL), common reed, and marsh fern in the herbaceous stratum, and meets the criteria for hydrophytic vegetation. Soils were an organic muck with a low chroma gleyed matrix (N 2.5) meeting the hydric soils criteria. Wetland hydrology indicators observed were drainage patterns, dry-season water table, geomorphic position, and FAC-neutral test. Similar to Wetland 19 (W019), this wetland is assumed to be classified as intermediate resource because it does not satisfy the definition of an ordinary or exceptional resource wetland.

Wetland 9 (WL9) (PFO)

Wetland 9 (WL9) is a PFO wetland associated with and unnamed tributary of Muddy Fork Brook that is dominated by sweetgum, red maple, and pepperbush and meets the criteria for hydrophytic vegetation. Soils were an organic sand mix that transitions to sand with a low chroma matrix (2.5Y 2.5/1); meeting the hydric soils criteria. Wetland hydrology indicators observed were ground surface inundation, soil saturation, and high-water table. This wetland is assumed to be classified as exceptional due to the documented observations of the Pine Barrens tree frog and black-crowned night-heron.

Wetland 10 (WL10) (PFO)

Wetland 10 (WL10) is a PFO wetland associated with an unnamed tributary of Muddy Fork Run that is dominated by sweetgum and black gum in the tree stratum; highbush blueberry in the shrub layer, and common greenbrier in the herbaceous layer, and meets the criteria for hydrophytic vegetation. Soils were an organic sand mix that transition to sand with a low chroma matrix (2.5Y 2.5/1); meeting the hydric soils criteria. Wetland hydrology indicators observed were water-stained leaves, drainage patterns, geomorphic position, and FAC-neutral test. This wetland is assumed to be classified as exceptional due to the documented observations of Pine Barrens tree frog.

Wetland 11 (WL11) (PFO)

Wetland 11 (WL11) is a PFO wetland associated with Tarkiln Brook, located along County Road 547, and is dominated by red maple in the tree stratum, willow, sweetgum, and umbrella magnolia in the shrub layer, and sensitive fern (*Onoclea sensibilis*, FACW) in the herbaceous layer and meets the criteria for hydrophytic

vegetation. Soils were an organic sand mix that transitions to sand with a low chroma matrix (2.5Y 3/1 and 10YR 2/1); meeting the hydric soils criteria. Wetland hydrology indicators observed were water-stained leaves, drainage patterns, geomorphic position, and FAC-neutral test. Similar to Wetland 10 (WL10), this wetland is assumed to be classified as exceptional due to the documented observations of the Pine Barrens tree frog.

Wetland 12 (WL12) (PEM)

Wetland 12 (WL12) is a large PEM wetland associated with Haystack Brook along Route 547 that is bisected by a Jersey Central Power & Light Company access road through the powerline ROW to the south of the Larrabee Study Area. The east side of the wetland is dominated by red maple and pepperbush in the tree and shrub stratum. Dominant vegetation in the herbaceous stratum includes narrowleaf cattail (*Typha angustifolia*, OBL), an unidentified sedge species, arrow arum (*Peltandra virginica*, OBL), and intermediate fern (*Dryopteris intermedia*, FACU). Soils were a thick layer of muck qualifying as a histosol with a hydrogen sulfide odor. Wetland hydrology indicators observed include ground surface inundation, saturated soil, and a high-water table. The west side of the wetland is dominated by pepperbush and common reed. This wetland is assumed to be classified as an ordinary.

Wetland 13 (WL13) (PFO)

Wetland 13 (WL13) is a PFO wetland associated with Dicks Brook that is dominated by red maple, swamp white oak, and black gum in the tree stratum, and pepperbush in the shrub stratum and meets the criteria for hydrophytic vegetation. Soils were an organic sand mix that transitions to sand with a low chroma matrix (2.5Y 3/2, 10YR 2/2, and 10YR 3/1); meeting the hydric soils criteria. Wetland hydrology indicators observed were geomorphic position and FAC-neutral test. Similar to Wetland 10 (WL10), this wetland is assumed to be classified as exceptional value due to the documented observations of the Pine Barrens tree frog.

Wetland 17/17A (W017/W017A) (PFO)

Wetland 17 (W017) is a PFO wetland bisected by Allenwood Lakewood Road. The wetland is dominated by green ash and sweet gum in the tree stratum and sweet pepperbush and highbush blueberry in the shrub stratum and met criteria for hydrophytic vegetation. Soils had a low chroma matrix (10YR 2/1 and 10YR 5/3) that met criteria for a histosol, meeting hydric soils criteria. Wetland hydrology indicators observed were drainage patterns and geomorphic position. This wetland is assumed to be classified as intermediate resource value since it did not meet the criteria to be classified as an ordinary or exception resource value.

Wetland 18 (W018) (PFO)

Wetland 18 (W018) is a PFO wetland associated with Hannabrand Brook Tributary outside of the Study Area and runs along the north side of Tiltons Corner Road. The wetland is dominated by green ash and sweet gum in the tree stratum, and sweet pepperbush and highbush blueberry in the shrub stratum. The herbaceous stratum was dominated by skunk cabbage (*Symplocarpus foetidus*) and soft rush (*Juncus effusus*) meeting criteria for hydrophytic vegetation. Soils had a low chroma matrix (10YR 2/2, 10YR 3/1, 10YR 3/2,

10YR 3/4 and 10YR 4/2) with mottles present (10YR 5/6and 7.5YR 4/6) qualifying for a Redox Dark Surface, and meeting criteria for hydric soils. Wetland hydrology indicators observed were standing water, soil saturation, high-water table, water-stained leaves, drainage patterns and geomorphic position. This wetland is assumed to be classified as an ordinary due to direct impacts of human activity and development surrounding the immediate area.

Wetland 19 (W019) (PFO)

Wetland 19 (W019) is a PFO wetland associated with the Manasquan River. The wetland is dominated by sweet gum in the tree stratum and grey dogwood in the shrub stratum. The herbaceous stratum is dominated by soft rush, flat-top goldentop (*Euthamia graminifolia*) and wrinkle-leaf goldenrod (*Solidago rugosa*) meeting criteria for hydrophytic vegetation. Soils had a low chroma matrix (10YR 2/1 and 10YR 4/2) with mottles (7.5YR 4/6) present qualifying for a depleted matrix, and meeting criteria for hydric soils. Wetland hydrology indicators observed were drainage patterns and geomorphic position. This wetland is assumed to be classified as exceptional due to the non-disturbed location, connectivity with the Manasquan River and documented threatened and endangered species.

Wetland 26-W008 (PFO)

Wetland 26-W008 is a PEM wetland situated west of Lanes Pond Road north of Dicks Brook. Dominant vegetation consisted of red maple (*Acer rubrum*, FAC). Soils observed on site met the criteria for thick dark surface with a soil profile 0 to 18 inches of 10YR 2/1 fine sandy loam. Hydrology indicators observed during the site investigation included a sparsely vegetated concave surface and water-stained leaves. This wetland is assumed to be classified as exceptional due to documented threatened species and/or their habitat.

Wetland 26-W009 (PFO)

Wetland 26-W009 is a PFO wetland situated west of Lanes Pond Road along Dicks Brook. Dominant vegetation consisted of swamp white oak (*Quercus bicolor*, FACW), red maple (*Acer rubrum*, FAC), and coastal sweet pepperbush (*Clethra alnifolia*, FAC). Soils observed on site met the criteria for a histosol with a soil profile of 0 to 24 inches of 10YR 2/1 muck. Hydrology indicators observed during the site investigation included a high-water table, saturation, and water-stained leaves. This wetland is assumed to be classified as exceptional due to the non-disturbed location documented threatened species and/or their habitat.

Wetland 26-W010 (PEM)

Wetland 26-W010 is a PEM wetland situated north of Lakewood-Allenwood Road adjacent to Haystack Brook. Dominant vegetation consisted of coastal sweet pepperbush (*Clethra alnifolia*, FAC) and soft rush (*Juncus effusus*, OBL). Soils observed on site met the criteria for a depleted matrix with a soil profile of 0 to 6 inches 10YR 2/1 loam and 6 to 18 inches 10YR 4/1 sandy loam. Hydrology indicators observed during the site investigation included a high-water table, saturation, and water-stained leaves. This wetland is assumed to be classified as exceptional due to documented threatened species and/or their habitat.

Wetland 26-W011 (PFO)

Wetland 26-W011 is a PFO wetland situated south of Lakewood-Allenwood Road adjacent to Haystack Brook. Dominant vegetation consisted of swamp white oak (*Quercus bicolor*, FACW), red maple (*Acer rubrum*, FAC), and coastal sweet pepperbush (*Clethra alnifolia*, FAC). Soils observed on site met the criteria for a depleted matrix with a soil profile of 0 to 2 inches 10YR 2/1 sandy loam, 2 to 6 inches 10YR 4/1 sandy loam, 6 to 12 inches 10YR 3/1 sandy loam and 12 to 18 inches 10YR 6/3 sandy loam. Hydrology indicators observed during the site investigation included geomorphic position and microtopographic relief. This wetland is assumed to be classified as exceptional due to documented threatened species and/or their habitat.

Wetland 26-W012 (PFO)

Wetland 26-W012 is a PFO wetland is situated on both sides of Lakewood-Allenwood Road adjacent to Haystack Brook and Muddy Ford Brook. Dominant vegetation consisted of red maple (*Acer rubrum*, FAC), coastal sweet pepperbush (*Clethra alnifolia*, FAC), soft rush (*Juncus effusus*, OBL), and skunk cabbage (*Symplocarpus foetidus*, OBL). Soils observed on site met the criteria for a depleted matrix with a soil profile of 0 to 1 inch 10YR 2/1 loam, 1 to 10 inches 10YR 5/1 loam, and 10 to 18 inches 10YR 2/1 loam. Hydrology indicators observed during the site investigation included a high-water table, saturation, and water-stained leaves. This wetland is assumed to be classified as exceptional due to documented threatened species and/or their habitat.

Wetland 26-W014 (PSS)

Wetland 26-W014 is a PSS wetland situated south of Lakewood-Allenwood Road adjacent to Sandy Hill Brook. Dominant vegetation consisted of swamp white oak (*Quercus bicolor*, FACW), red maple (*Acer rubrum*, FAC), and coastal sweet pepperbush (*Clethra alnifolia*, FAC). Soils observed on site met the criteria for a histosol with a soil profile of 0 to 12 inches 10YR 2/1 muck. Surface water and a high-water table prevented soil from being obtained below 12 inches. Hydrology indicators observed during the site investigation included surface water, a high-water table, saturation, iron deposits, water-stained leaves, and hydrogen sulfide odor. This wetland is assumed to be classified as exceptional due to documented threatened species and/or their habitat.

Wetland 26-W015 (PFO)

Wetland 26-W015 is a PFO wetland situated on both sides of Lakewood-Allenwood Road adjacent to Sawmill Creek. Dominant vegetation consisted of red maple (*Acer rubrum*, FAC), coastal sweet pepperbush (*Clethra alnifolia*, FAC), and skunk cabbage (*Symplocarpus foetidus*, OBL). Soils observed on site met the criteria for a depleted matrix with a soil profile of 0 to 3 inches 10YR 2/1 loam and 3 to 20 inches 10YR 4/2 fine sand. Hydrology indicators observed during the site investigation included geomorphic position and meeting conditions of a FAC-neutral test. This wetland is assumed to be classified as exceptional due to documented threatened species and/or their habitat.

Wetland 26-W016 (POW)

Wetland 26-W016 is a POW wetland associated with Mac's Pond and Judas Creek along North Main Street. No vegetation was observed. Soils were not obtained due the depth of the pond and nearby buried gas mains and fiber optic cables. Hydrologic indicators observed during the site investigation included surface water. This wetland is assumed to be classified as ordinary as it is a man-made pond within a public park.

Wetland 26-W019 (PSS)

Wetland 26-W019 is a PSS wetland situated north of Lakewood-Allenwood Road along the Manasquan River. Dominant vegetation consisted of green ash (*Fraxinus pennsylvanica*, FACW) and soft rush (*Juncus effusus*, OBL). Soils observed on site met the criteria of a histosol with a soil profile of 0 to 18 inches of 10YR 2/1 muck. Hydrologic indicators observed during the site investigation included surface water, a high-water table, and saturation. This wetland is assumed to be classified as exceptional due to documented threatened species and/or their habitat.

4.1.2 Surface Waters

EDR field delineated 19 surface waters that include rivers, brooks, streams, and other surface drainage features within the Larrabee Study Area. Descriptions of each watercourse are presented in this subsection.

Watercourse 1 (WC1) – Upper Perennial (R3)

The watercourse, an unnamed tributary to the Manasquan River, drains a large wetland pond and flows along a pedestrian bike path. It has a gentle slope, an approximate bank width of 4 feet and a stream width of 3 feet. At the time of field studies, the watercourse had an approximate water depth of 6 inches, and was characterized by a gentle gradient, overhanging vegetation, course woody debris and channelization. Substrate consisted of silt/clay and sand.

Watercourse 2 (WC2) – Lower Perennial (R2)

The watercourse, the Manasquan River, flows underneath Hospital Road and has a hydrologic connection to floodplain wetlands (Wetland 4 [WL4]). It has a gentle slope, an approximate bank width of 70 feet and a stream width of 40 feet. At the time of field studies, the watercourse had an approximate water depth of greater than 24 inches, and was characterized by a gentle gradient, overhanging vegetation, and course woody debris. Substrate consisted of silt/clay and sand.

Watercourse 3 (WC3) – Intermittent (R4)

The watercourse, a tributary to Squankum Brook, flows underneath Easy Street and has a hydrologic connection to floodplain wetlands (Wetland 6B [WL6B]). It has a gentle slope, an approximate bank width of 25 feet and a stream width of 20 feet. At the time of field studies, the watercourse had an approximate water depth of 12 inches, and was characterized by a gentle gradient, undercut banks, overhanging vegetation, course woody debris, and channelization. Substrate consisted of silt/clay and sand.

Watercourse 4 (WC4) – Lower Perennial (R2)

The watercourse, known as Squankum Brook, and flows through forested Wetland 7 (WL7), and continues through a series of culverts to the southeastern side of County Route 547. It has a gentle slope, an approximate bank width of 15 feet and a stream width of 9 feet. At the time of field studies, the watercourse had an approximate depth of 24 inches and was characterized by undercut banks and overhanging vegetation. Substrate consisted of silt/clay and sand.

Watercourse 5 (WC5) – Lower Perennial (R2)

The watercourse is an unnamed tributary that flows through a wetland before its confluence with Mingmahone Brook. It has a gentle slope, an approximate bank width of 1 foot and stream width of 1 foot. At the time of field studies, the watercourse had an approximate depth of 0.25 inch and was characterized by overhanging vegetation and shallow banks. Substrate consisted of silt/clay and sand.

Watercourse 6 (WC6) – Lower Perennial (R2)

The watercourse, Woodcock Brook, flows through forested Wetland 10 (WL10), and flows through a culvert under County Road 547. This tributary eventually confluences with Muddy Ford Brook to the southeast outside of the Study Area. It has a gentle slope, an approximate bank width of 5 feet, and a stream width of 3 feet. At the time of field studies, the watercourse had an approximate depth of 4 inches and was characterized by undercut banks and overhanging vegetation. Substrate consisted of silt/clay and sand.

Watercourse 7 (WC7) – Lower Perennial (R2)

This watercourse, known as Tarkiln Brook, flows through forested Wetland 11 (WL11), and continues through a series of culverts to the southeast side of County Route 547. It has a gentle slope, an approximate bank width of 15 feet and a stream width of 10 feet. At the time of field studies, the watercourse had an approximate depth of 10 inches and was characterized by undercut banks and overhanging vegetation. Substrate consisted of silt/clay and sand.

Watercourse 8 (WC8) – Intermittent (R4)

This watercourse is an unnamed tributary that provides the source of hydrology for a forested wetland, Wetland 12 (WL12), and flows from Haystack Brook further northwest outside of the Study Area. It has a gentle slope, an approximate bank width of 5 feet and a stream width of 3 feet. At the time of field studies, the watercourse had an approximate depth of 3 inches and was characterized by undercut banks and overhanging vegetation. Substrate consisted of silt/clay and sand.

Watercourse 9 (WC9) – Lower Perennial (R2)

The watercourse, known as Haystack Brook, flows through a forested wetland, Wetland 12 (WL12). It has a gentle slope, an approximate bank width of 40 feet and a stream width of 20 feet. At the time of fields

studies, the watercourse had an approximate depth of over 24 inches and was characterized by undercut banks, overhanging vegetation and deep pools. Substrate consisted of silt/clay, sand, and gravel.

Watercourse 9B (S009B) – Upper Perennial (R3)

Watercourse 9B (S009B), is another segment of the Manasquan River, and flows through forested Wetland 19 (W019). It has a gentle slope, an approximate bank width of 50 feet and an approximate depth of 60 inches. At the time of field studies, the watercourse was characterized by depositional bars/benches, overhanging vegetation, deep pools and a strong floodplain. Substrate consisted of gravel, sand and silt/clay.

Watercourse 10 (WC10) – Lower Perennial (R2)

The watercourse, known as Dicks Brook, flows through forested Wetland 13 (WL13). It has a gentle slope, an approximate bank width of 40 feet and a stream width of 28 feet. At the time of fields studies, the watercourse had an approximate depth of over 24 inches and was characterized by undercut banks, overhanging vegetation and deep pools. Substrate consisted of silt/clay, sand, and gravel.

Stream 04 (26-ST04) – Perennial (R3)

Stream 04 (26-ST04), a tributary to the Manasquan River, is a perennial stream that flows through wetland WL4 on its course to the Manasquan River. 26-ST002 had a depth of approximately 6 inches at Thalweg with a gentle stream gradient of 0 to 5%. The bank width of the stream was approximately 1 to 4 feet, depending on location. The substrate consisted of gravel, sand, silt, and clay.

Stream 005 (26-ST005) – Perennial (R3)

Stream 005 (26-ST005), also known as Dicks Brook, is a perennial stream that flows through wetland 26-W009. 26-ST005 has a depth of approximately 6 inches at Thalweg with a gentle stream gradient of 0 to 5%. The bank width of the stream was approximately 6 to 12 feet, depending on location. The substrate consisted of gravel, sand, silt, and clay.

Stream 006 (26-ST006) - Perennial (R3)

Stream 006 (26-ST006), also known as Haystack Brook, is a perennial stream that flows adjacent to wetlands 26-W010, 26-W011, and 26-W012. 26-ST006 has a depth of approximately 10 inches at Thalweg with a gentle stream gradient of 0 to 5%. The bank width of the stream was approximately 15 to 25 feet, depending on location. The substrate consisted of gravel, sand, silt, and clay.

Stream 007 (26-ST007) – Perennial (R3)

Stream 007 (26-ST007), also known as Muddy Ford Brook, is a perennial stream that flows through wetland 26-W012. 26-ST007 has a depth of approximately 6 inches at Thalweg with a gentle stream gradient of 0 to

5%. The bank width of the stream was approximately 4 to 12 feet, depending on location. The substrate consisted of gravel, sand, silt, and clay.

Stream 008 (26-ST008) – Intermittent (R4)

Stream 008 (26-ST008), also known as Sawmill Creek, is an intermittent stream that flows adjacent to wetland 26-W015. 26-ST008 was dry at the time of the site investigation and had a gentle stream gradient of 0 to 5%. The bank width of the stream was approximately 2 to 6 feet, depending on location. The substrate consisted of cobble, gravel, and sand.

Stream 09 (26-ST09) – Ephemeral (R6)

Stream 09 (26-ST09) is an ephemeral stream located along the Capital to the Coast Trail. 26-ST09 was dry at the time of the site investigation and had a gentle stream gradient of 0 to 5%. The bank width of the stream was approximately 2 to 10 feet, depending on location. The substrate consisted of gravel and sand.

Stream 013 (26-ST013) – Ephemeral (R6)

Stream 013 (26-ST013) is an ephemeral stream located between wetland 26-W012 and stream ST007. It may be an unnamed tributary to Muddy Ford Brook. 26-ST013 was dry at the time of the site investigation and had a gentle stream gradient of 0 to 5%. The bank width of the stream was approximately 2 to 4 feet, depending on location. The substrate consisted of sand, silt, and clay.

Stream 014 (26-ST014) – Perennial (R3)

Stream 014 (26-ST014), also known as Sandyhill Brook, is a perennial stream that flows adjacent to wetland 26-W014. 26-ST014 has a depth of approximately 6 inches at Thalweg with a gentle stream gradient of 0 to 5%. The bank width of the stream was approximately 2 to 15 feet, depending on location. The substrate consisted of bedrock, cobble, gravel, and sand.

5.0 CONCLUSIONS

EDR conducted a wetland and watercourse delineation in June and December 2020, September 2021, June 2022, and February 2023 for the Atlantic Shores proposed onshore interconnection route ROWs from the Monmouth Landfall in the Borough of Sea Girt, New Jersey to the Larrabee POI, located in Howell Township, New Jersey. A total of approximately 16 acres across 27 individual non-tidal, freshwater wetlands and 19 watercourses (totaling 4,063 linear feet) were identified and delineated within the Study Area.

All wetlands and watercourses are under the jurisdiction of the NJDEP under the New Jersey Freshwater Wetlands Protection Act. New Jersey has assumed jurisdiction of wetlands and watercourses that would typically be under the jurisdiction of the USACE greater than 1,000 feet from the head of tide. Even though New Jersey has assumed jurisdiction over all of the wetlands and watercourses within the Study Area, each wetland and watercourse has a presumed federal jurisdictional determination.

This wetland and waterway delineation and presumed jurisdictional determination should not be considered final until a Letter of Interpretation (LOI) is issued by the NJDEP 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 3.

6.0 REFERENCES

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Appendix A

Figures

Figure 1Project Location Map

Figure 1. Project Location Map

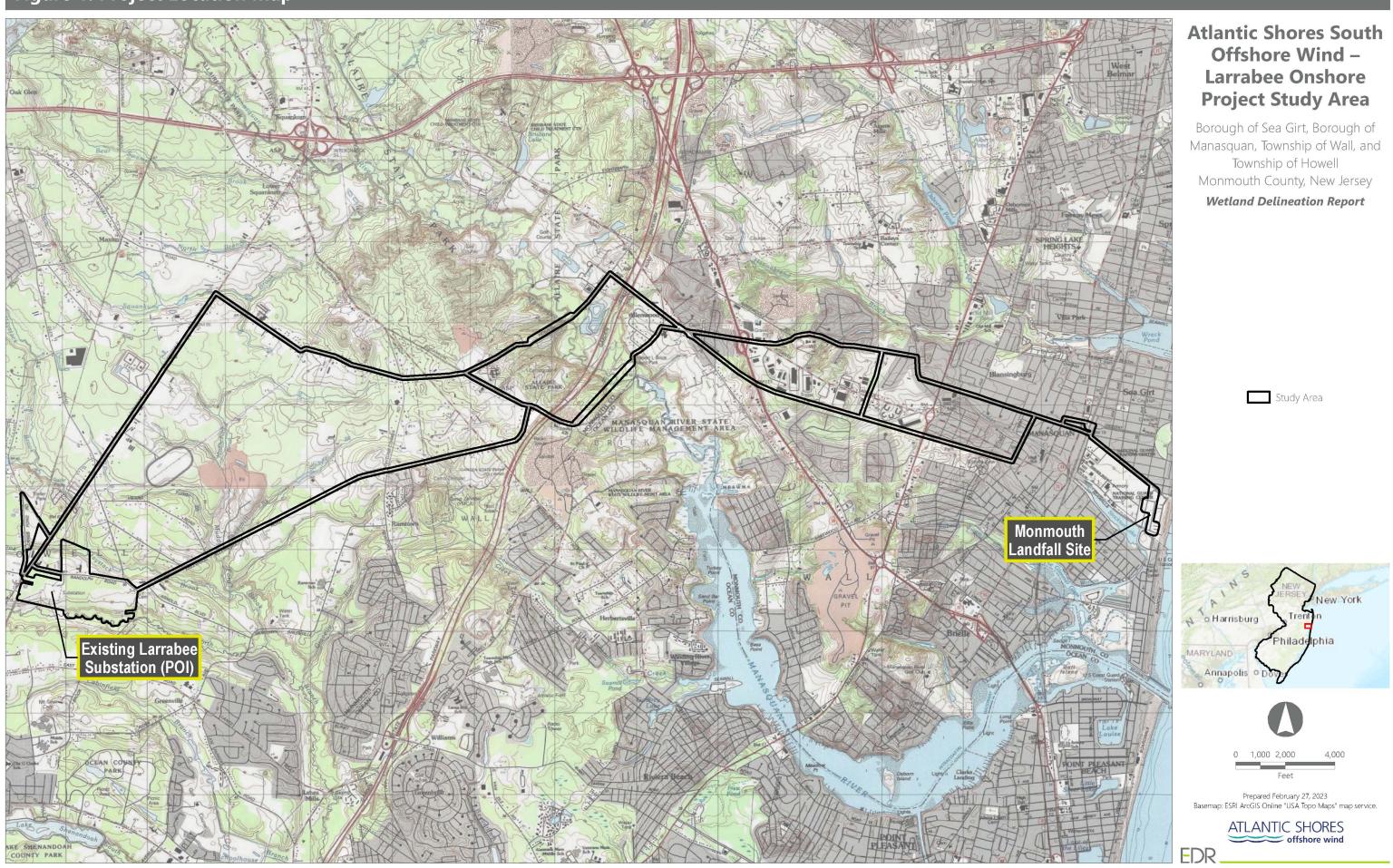


Figure 2 SSURGO Soils Map

Figure 2. Soils Map

Sheet 1 of 21



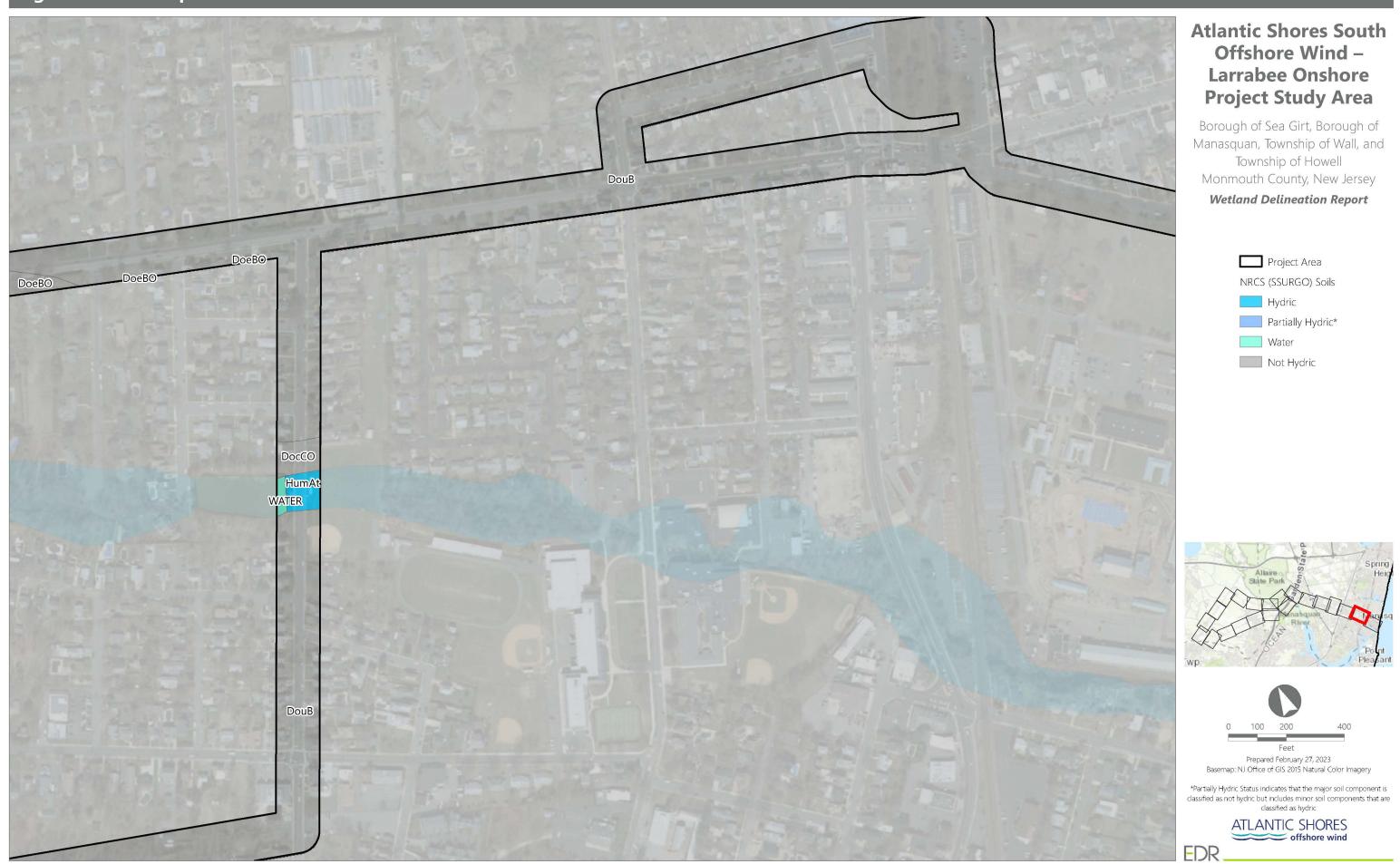




Figure 2. Soils Map

Sheet 4 of 21

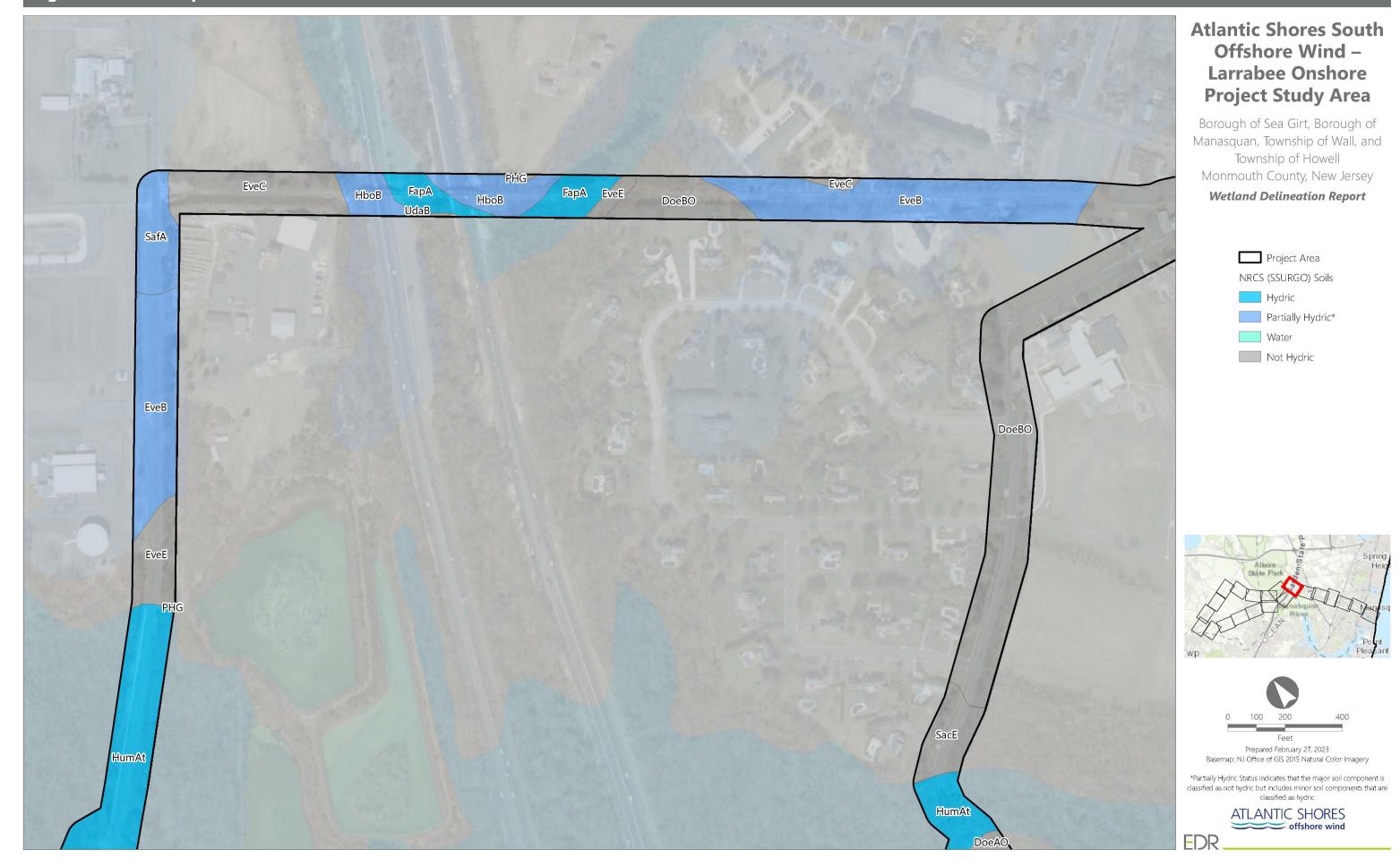


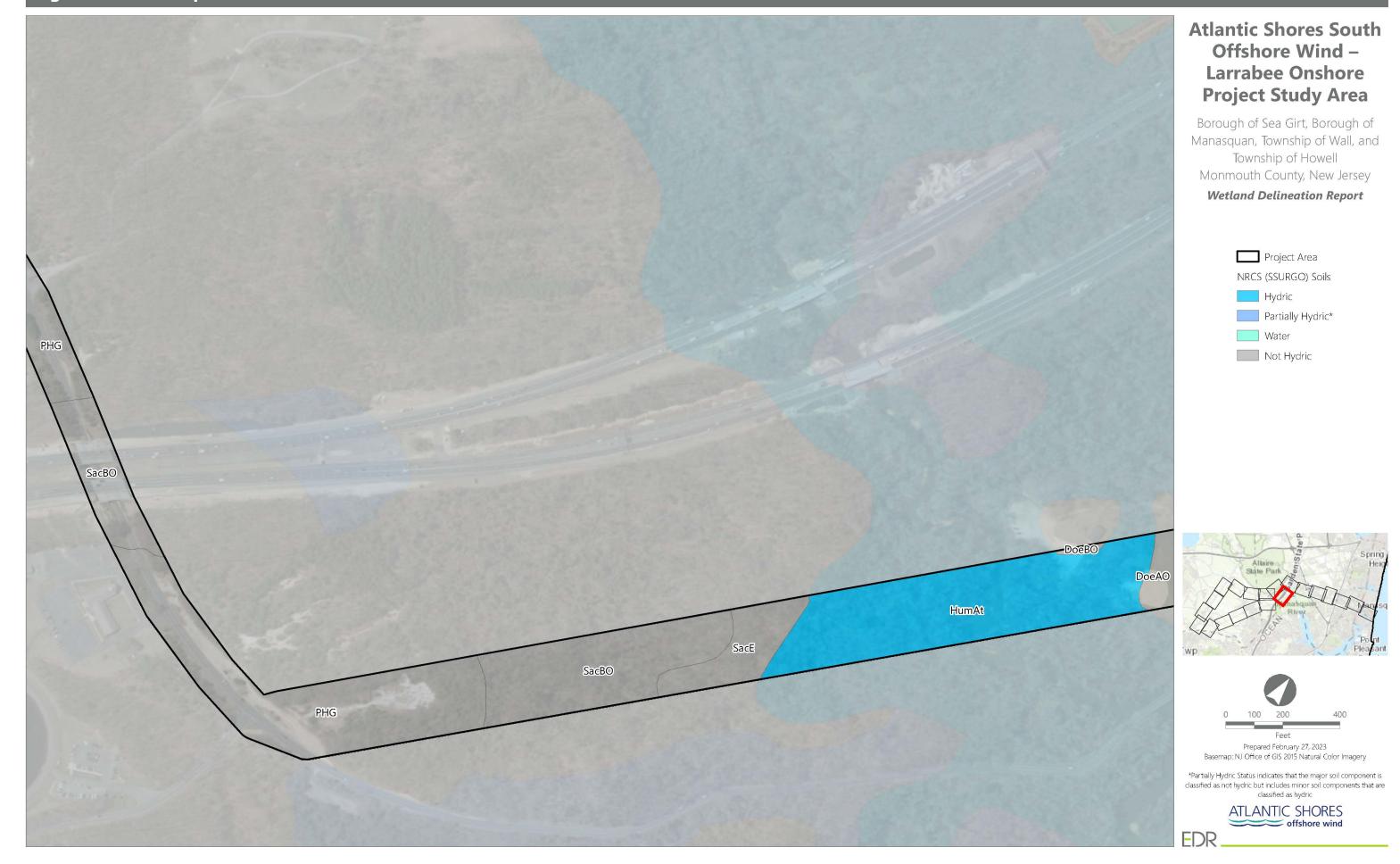




Figure 2. Soils Map

Sheet 7 of 21





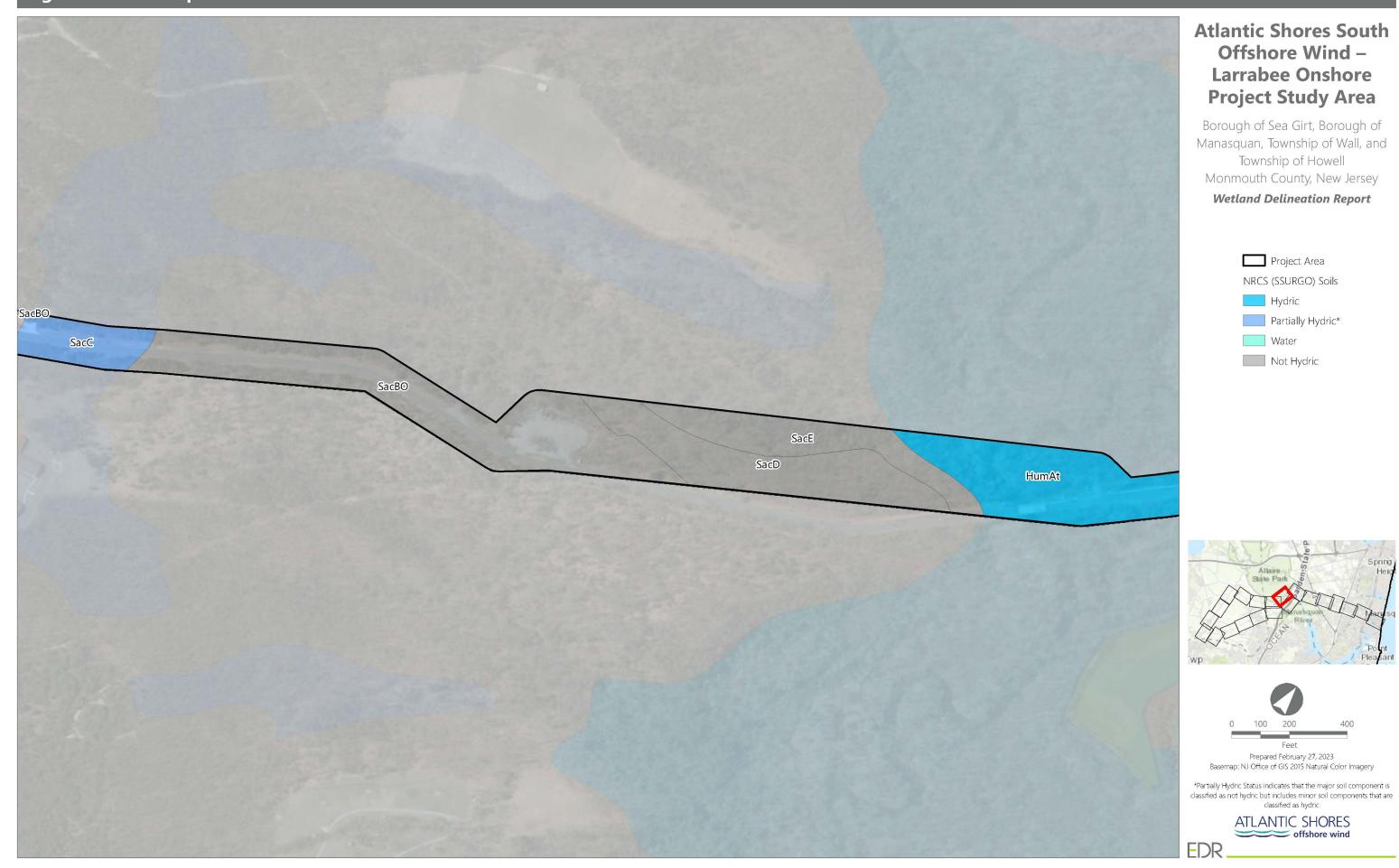


Figure 2. Soils Map

Sheet 10 of 21



Figure 2. Soils Map

Sheet 11 of 21





Figure 2. Soils Map

Sheet 13 of 21



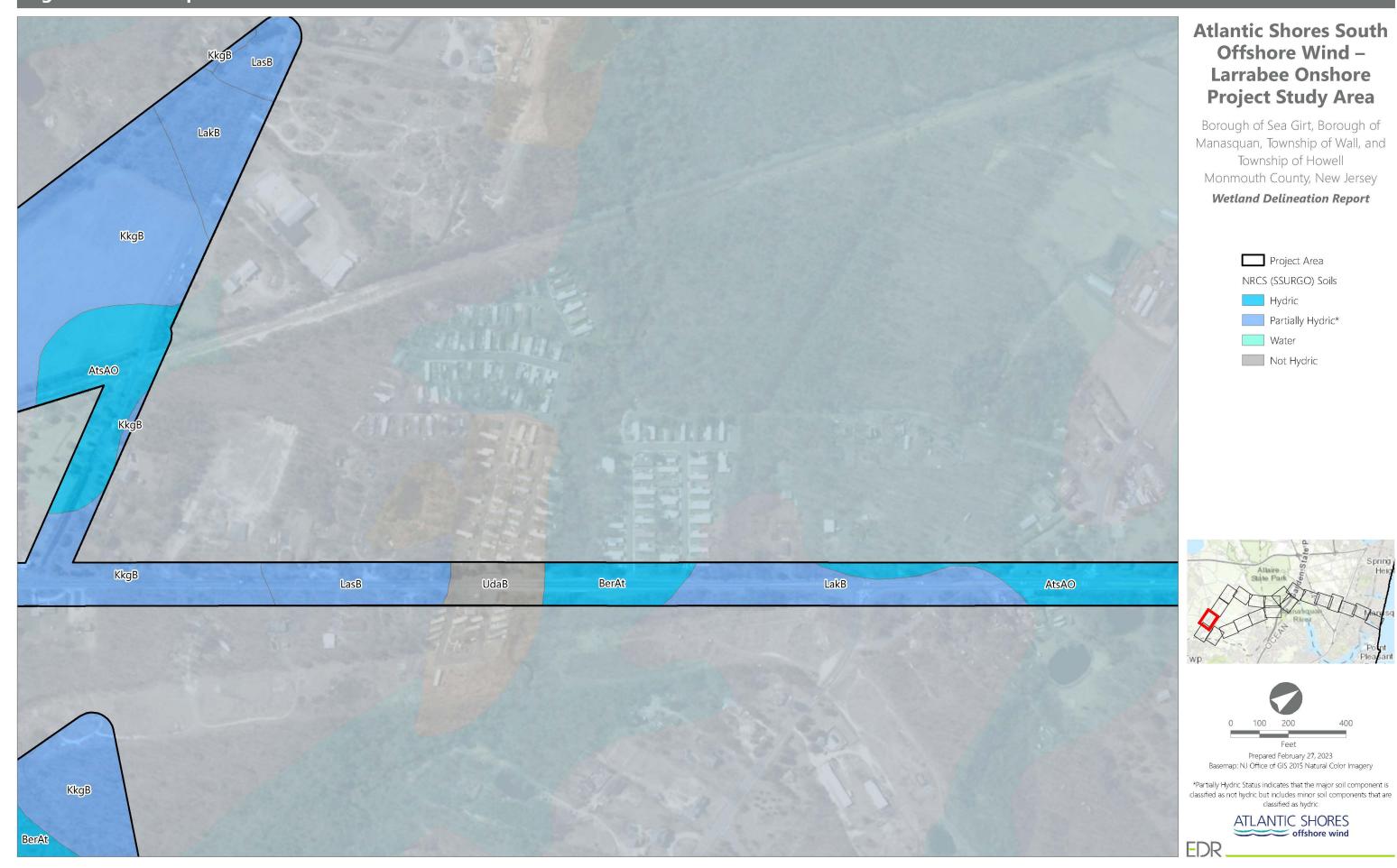
Figure 2. Soils Map

Sheet 14 of 21



Figure 2. Soils Map

Sheet 15 of 21



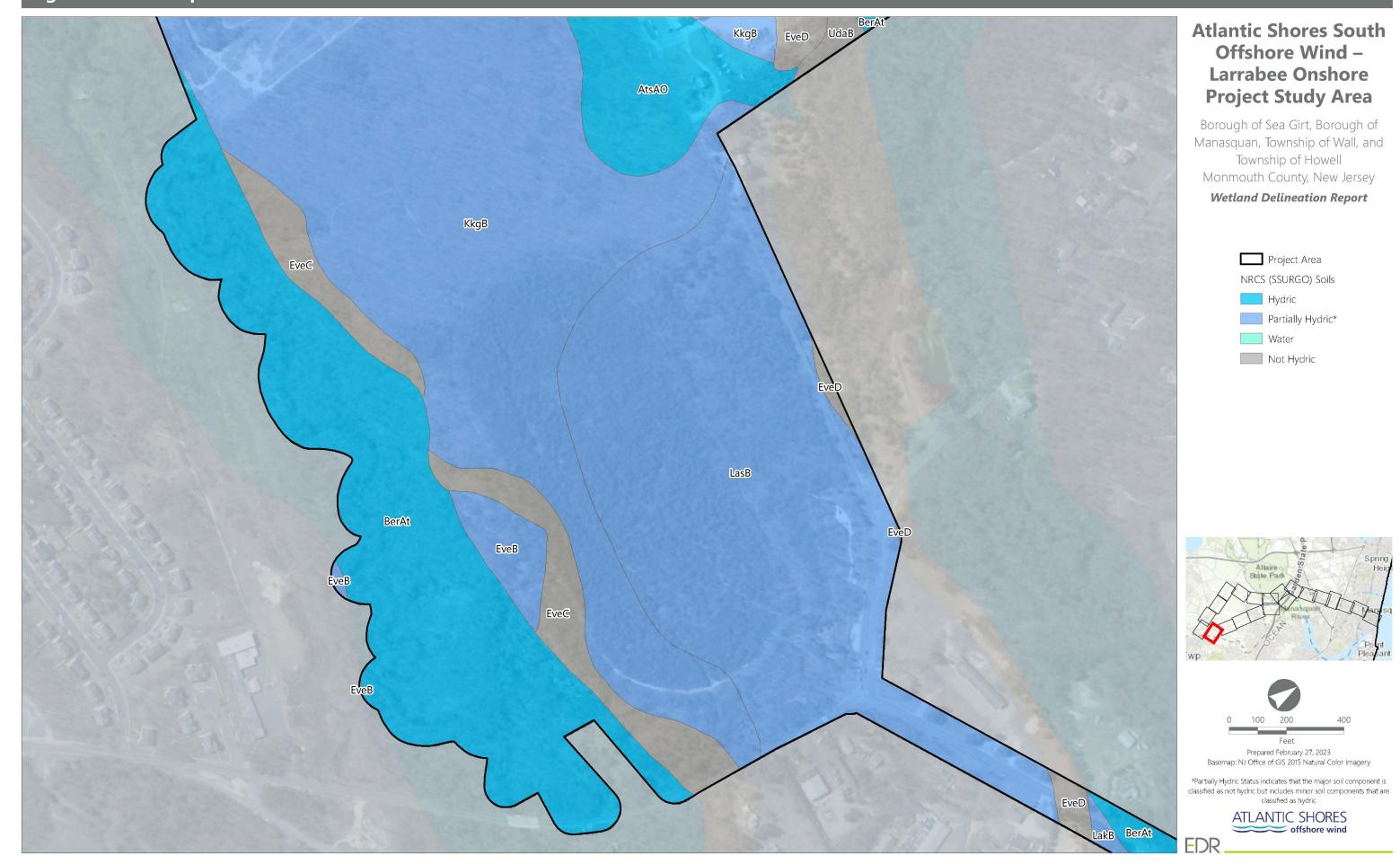


Figure 2. Soils Map
Sheet 17 of 21

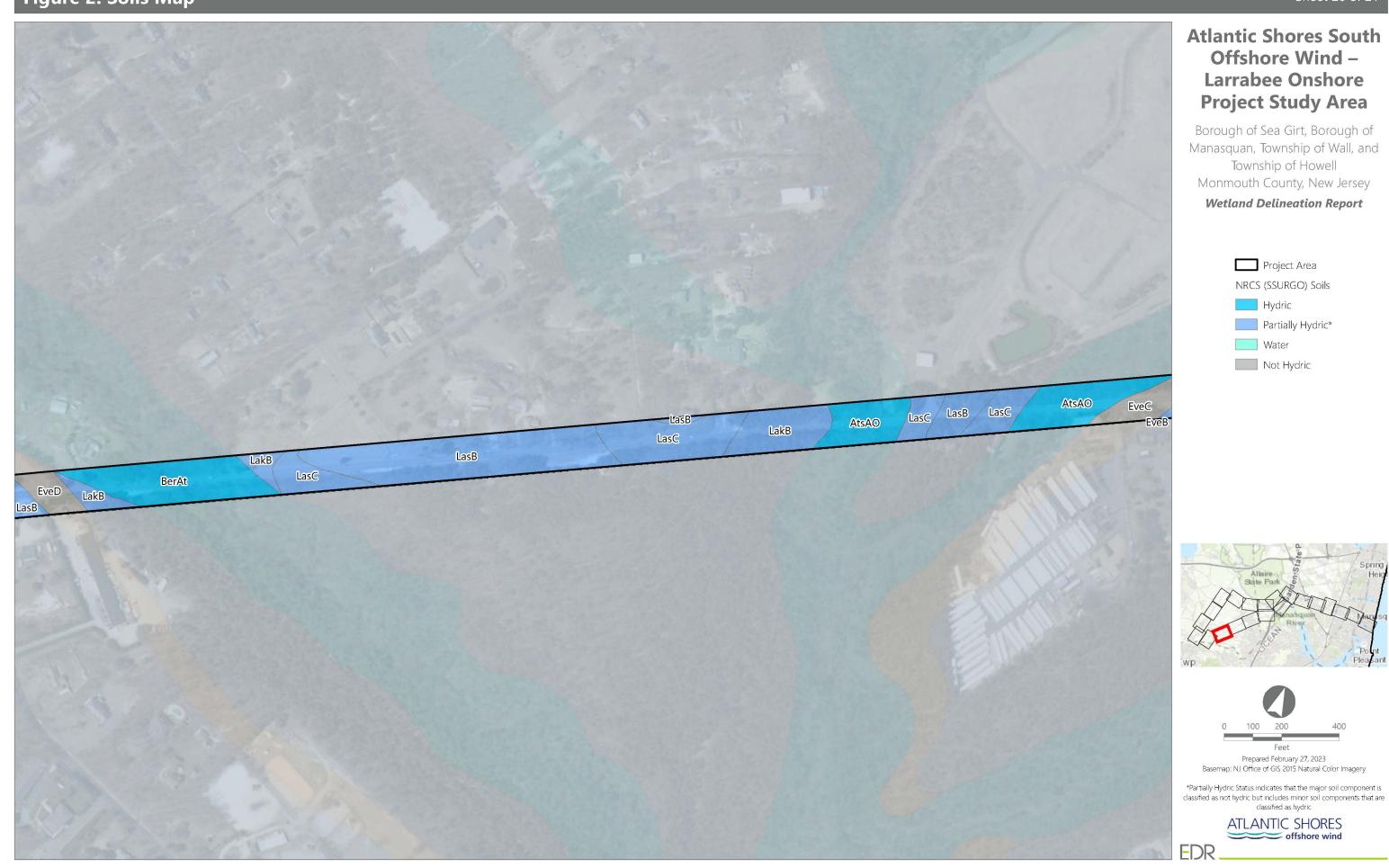


Figure 2. Soils Map

Sheet 18 of 21







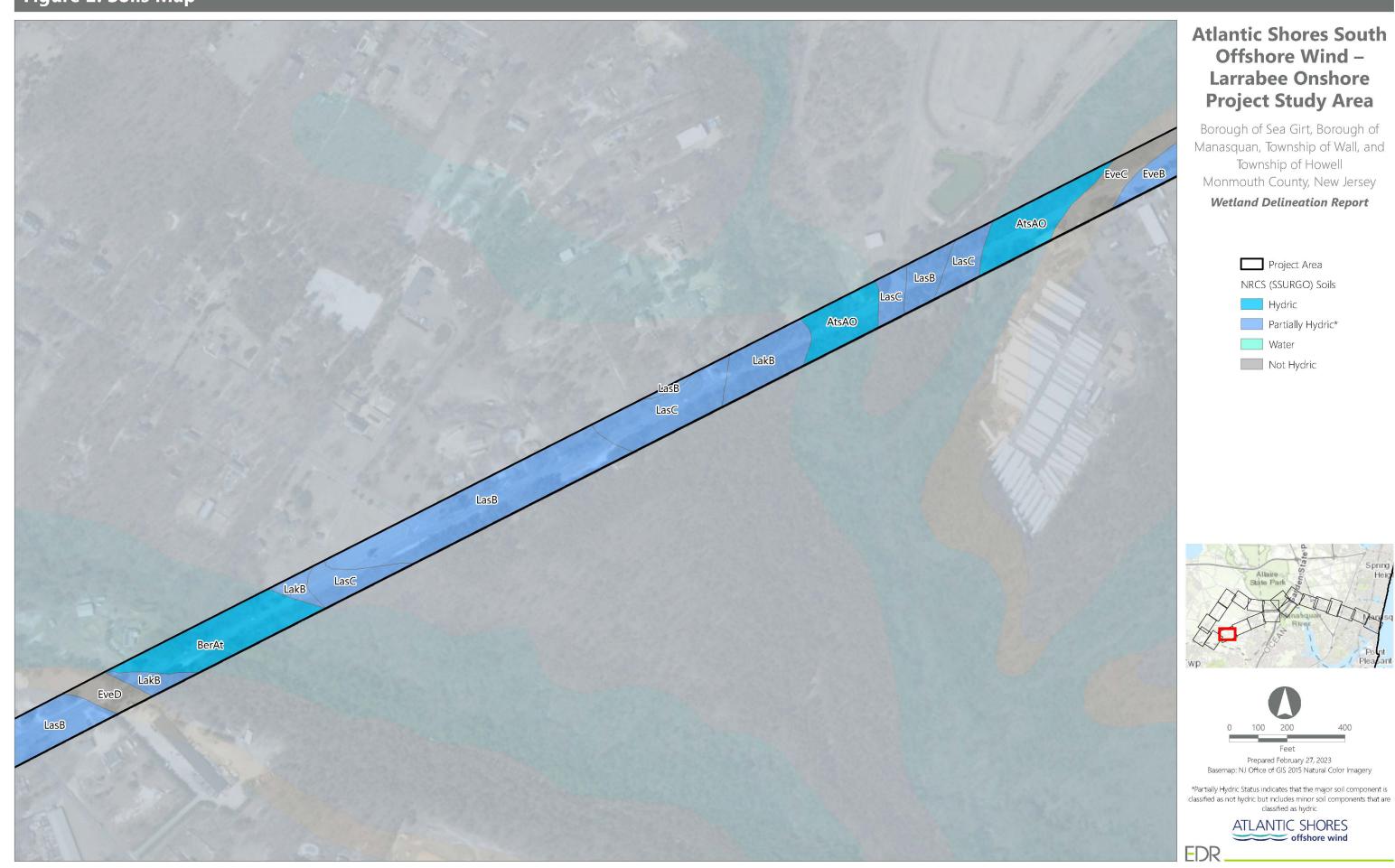


Figure 3

Watershed Management Areas and Hydrologic Units

Figure 3. Watershed Management Areas and Hydrologic Units

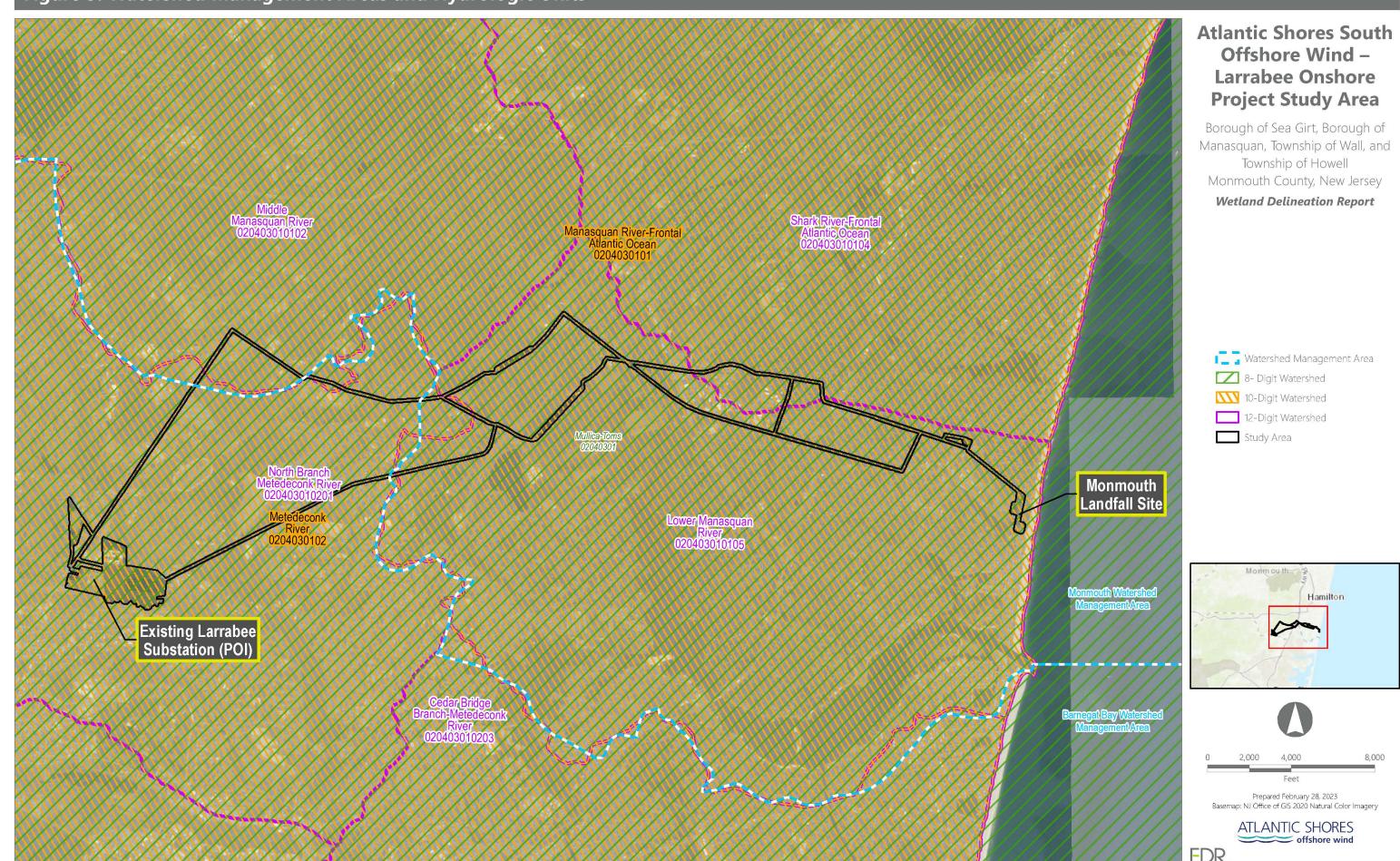


Figure 4

NJDEP/NWI-Mapped Wetlands and Streams



Atlantic Shores South Offshore Wind – Cardiff and O&M Facility Study Areas

City of Atlantic City, City of Pleasantville, and Egg Harbor Township, Atlantic County, New Jersey

Wetland Delineation Report

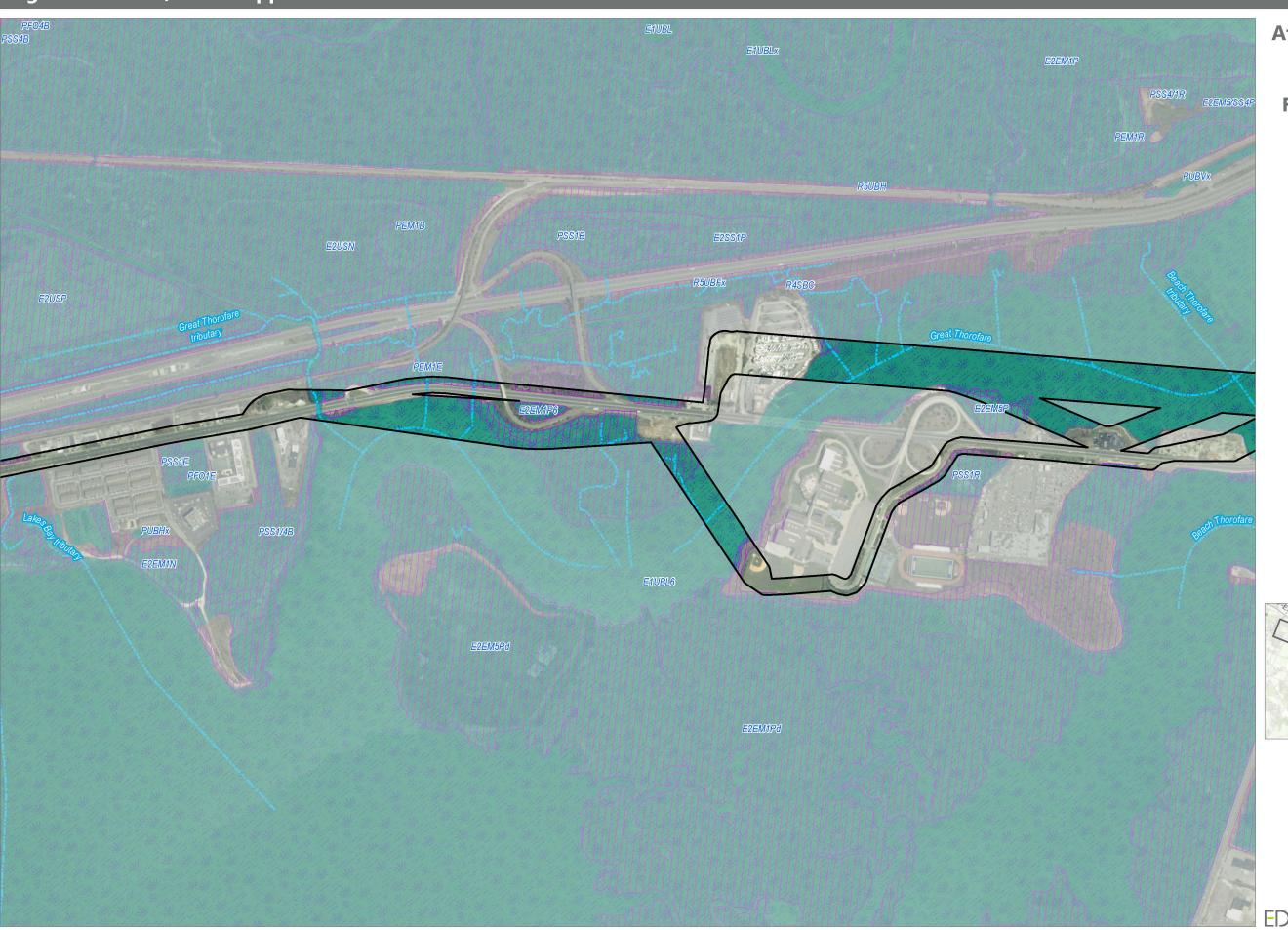








Figure 4. NJDEP/NWI Mapped Wetlands and Streams



Atlantic Shores South Offshore Wind – Cardiff and O&M Facility Study Areas

City of Atlantic City, City of Pleasantville, and Egg Harbor Township, Atlantic County, New Jersey

Wetland Delineation Report









Figure 4. NJDEP/NWI Mapped Wetlands and Streams



Atlantic Shores South Offshore Wind – Cardiff and O&M Facility Study Areas

City of Atlantic City, City of Pleasantville, and Egg Harbor Township, Atlantic County, New Jersey

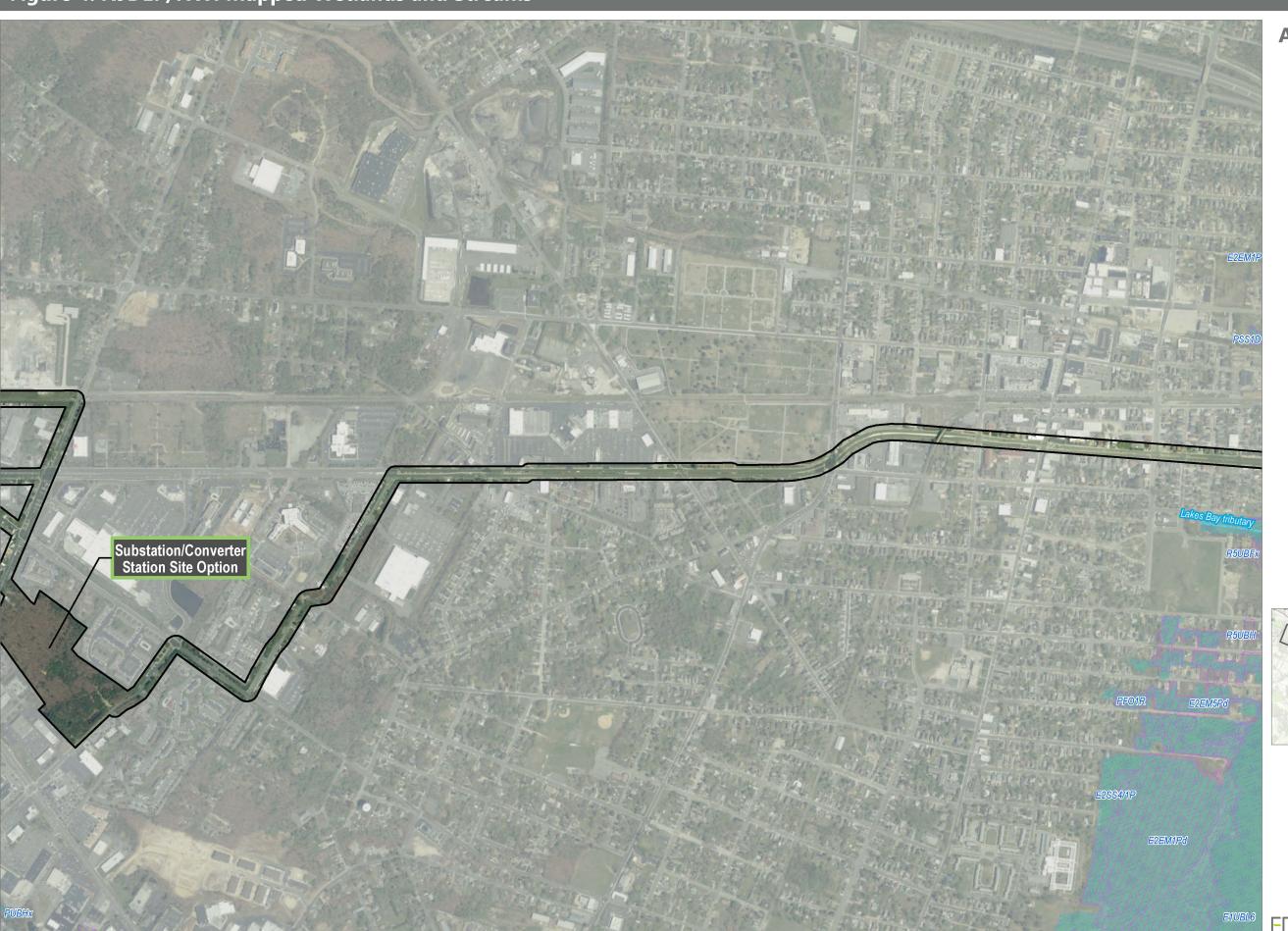
Wetland Delineation Report











Atlantic Shores South Offshore Wind -**Cardiff and O&M Facility Study Areas**

City of Atlantic City, City of Pleasantville, and Egg Harbor Township, Atlantic County, New Jersey

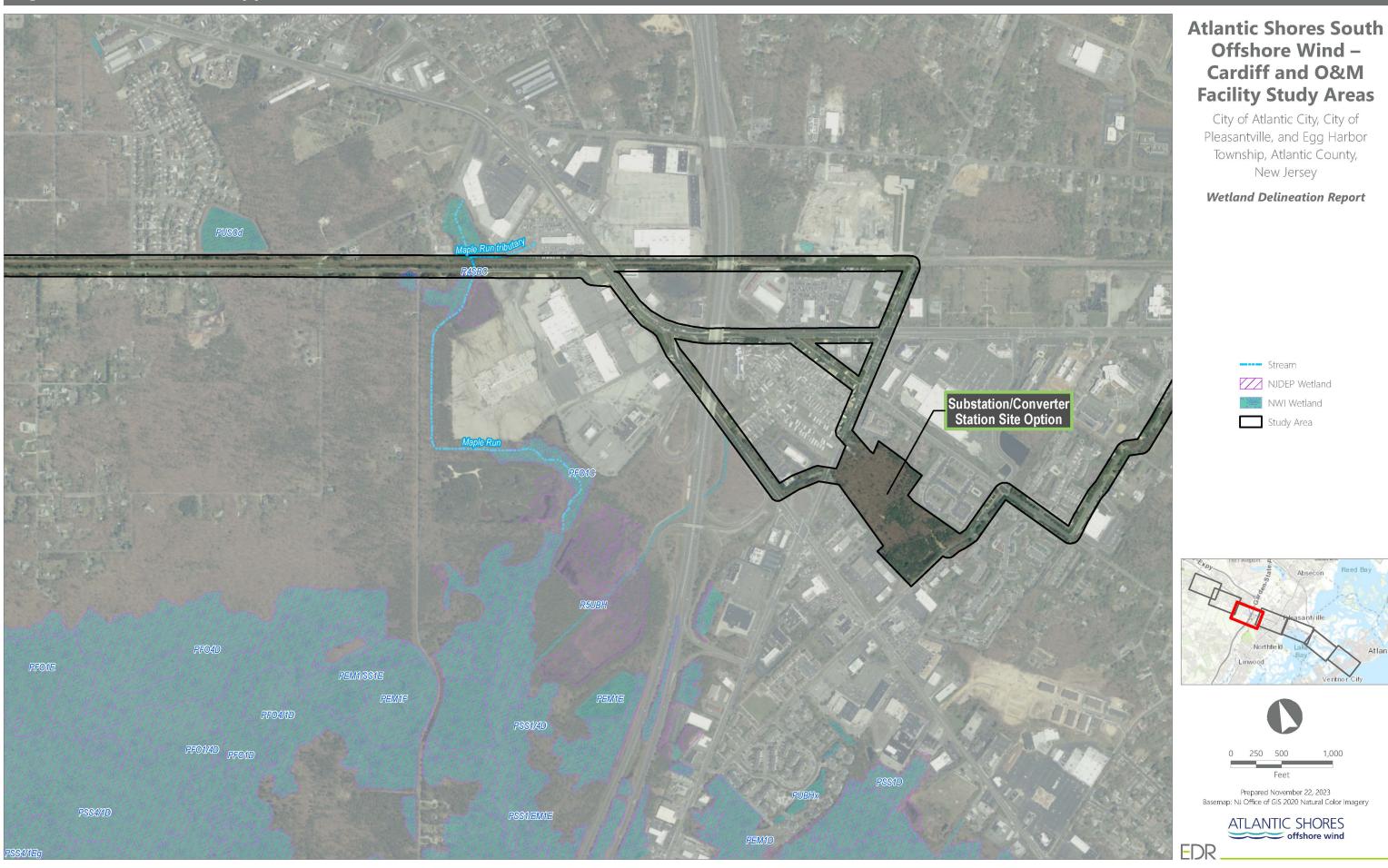
Wetland Delineation Report

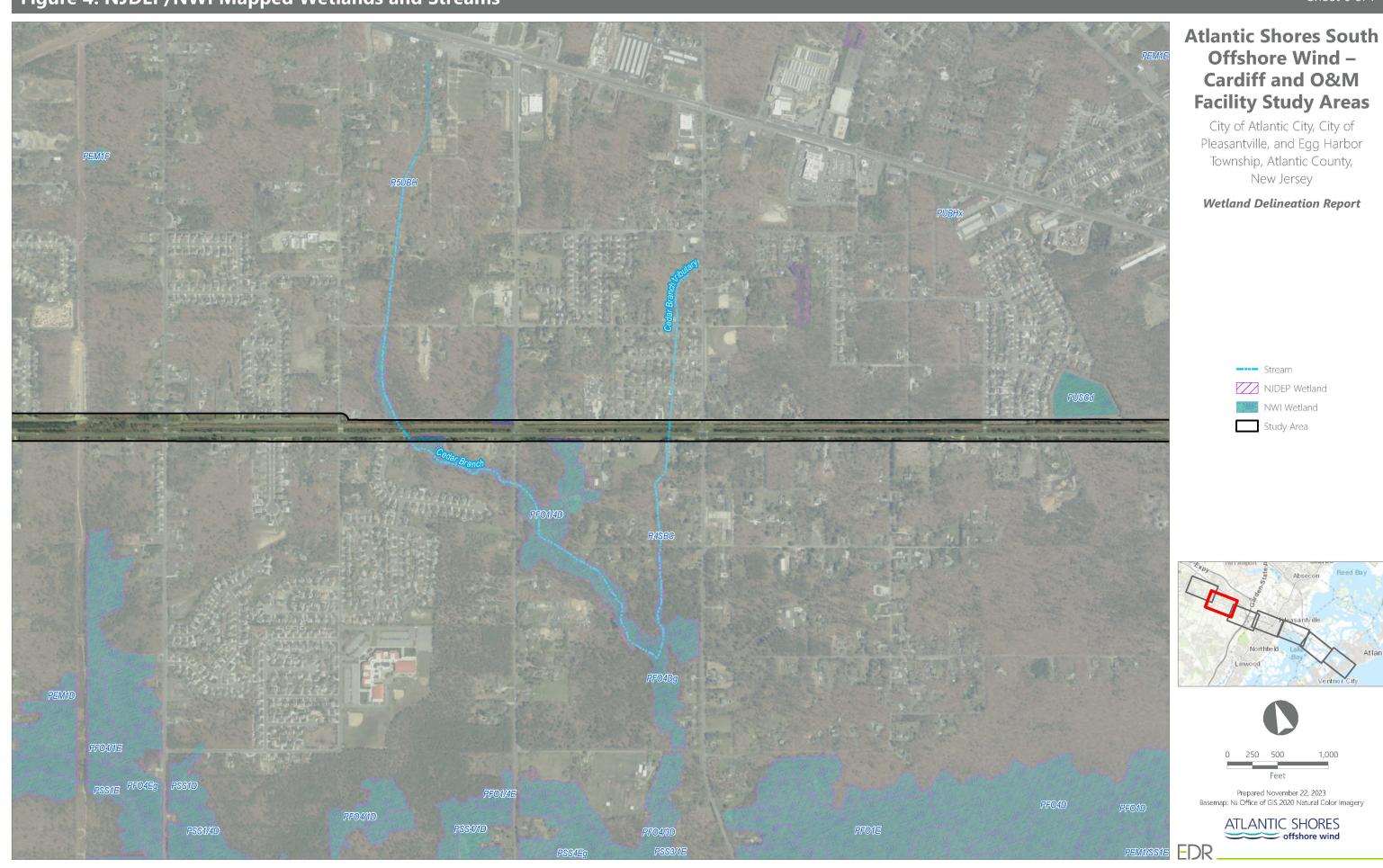


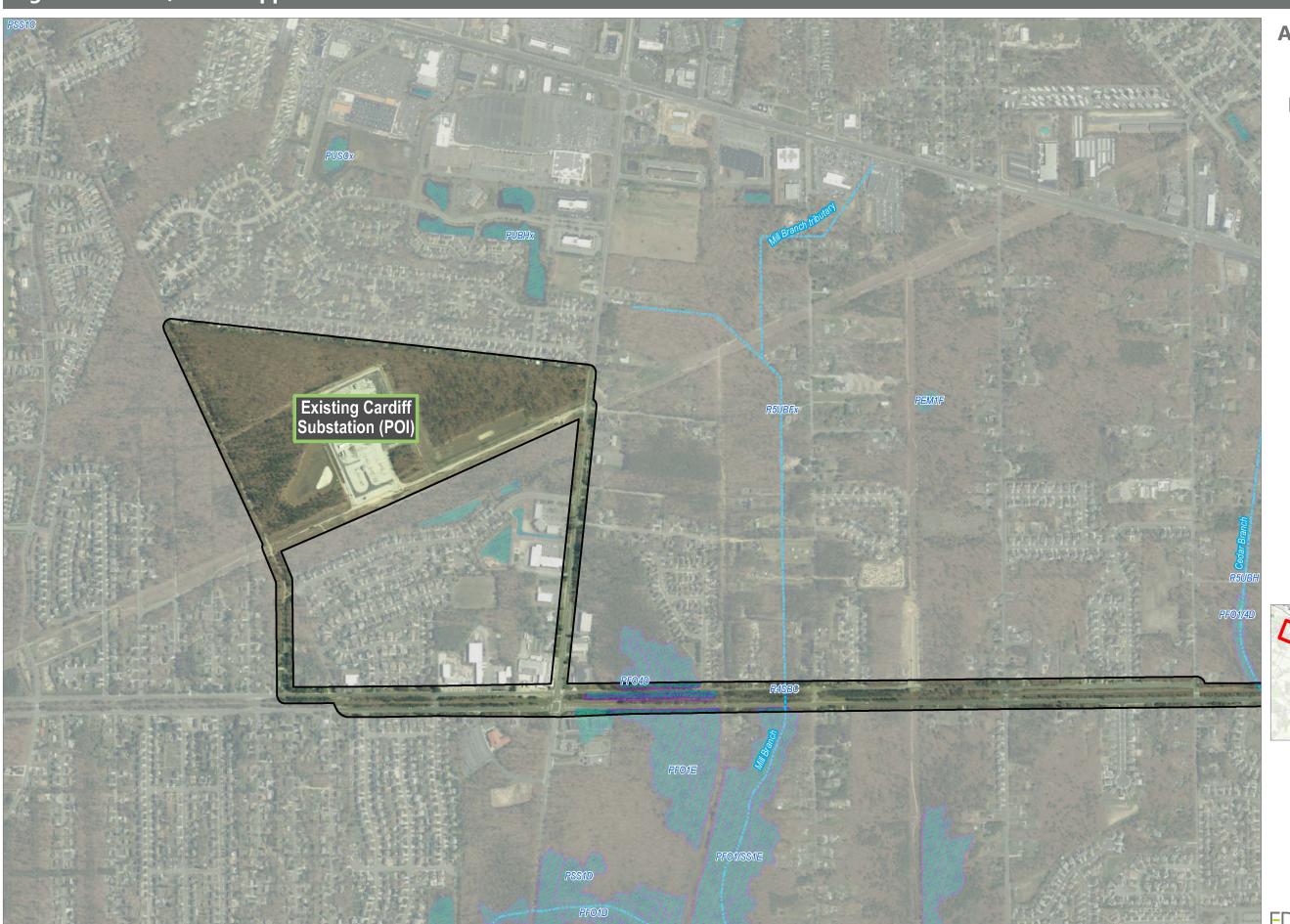












Atlantic Shores South Offshore Wind – Cardiff and O&M Facility Study Areas

City of Atlantic City, City of Pleasantville, and Egg Harbor Township, Atlantic County, New Jersey

Wetland Delineation Report





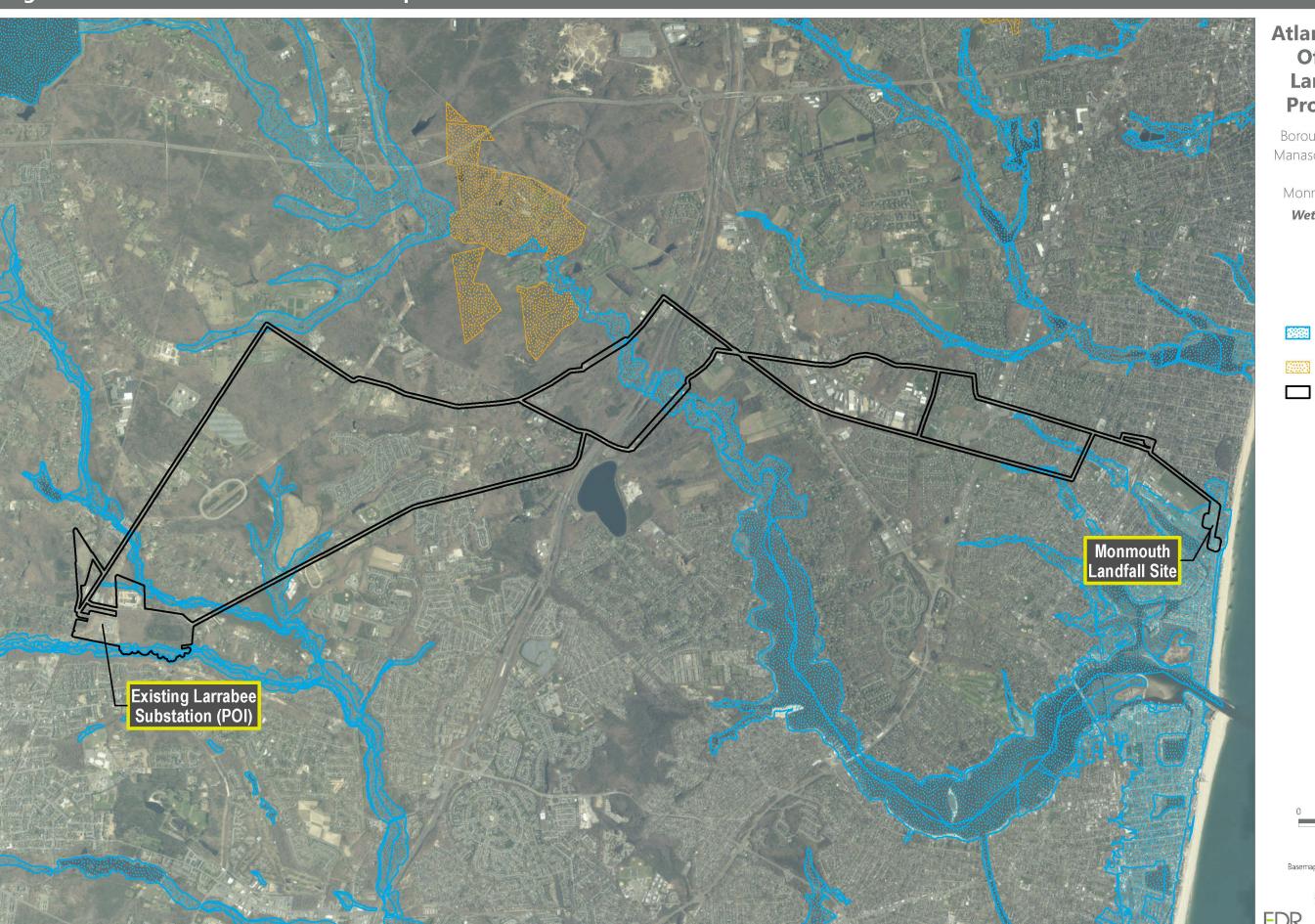




Figure 5

FEMA 1% Chance Annual Floodplain

Figure 5. FEMA 1% Chance Annual Floodplain



Atlantic Shores South Offshore Wind -**Larrabee Onshore Project Study Area**

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

Wetland Delineation Report

FEMA Floodplain (1% Annual Chance of Flood)

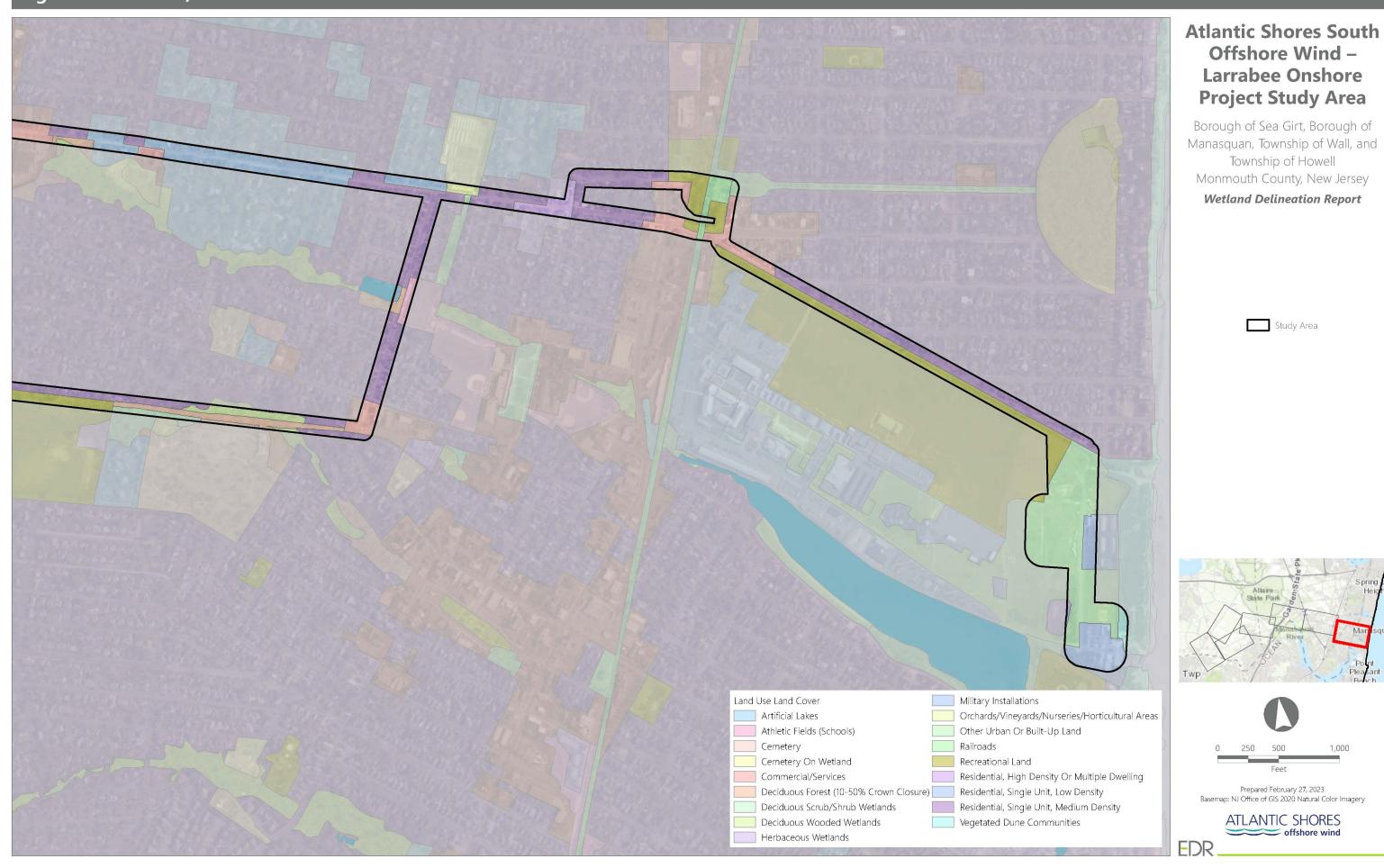
Floodzone D -Undetermined Flood Hazard Risk

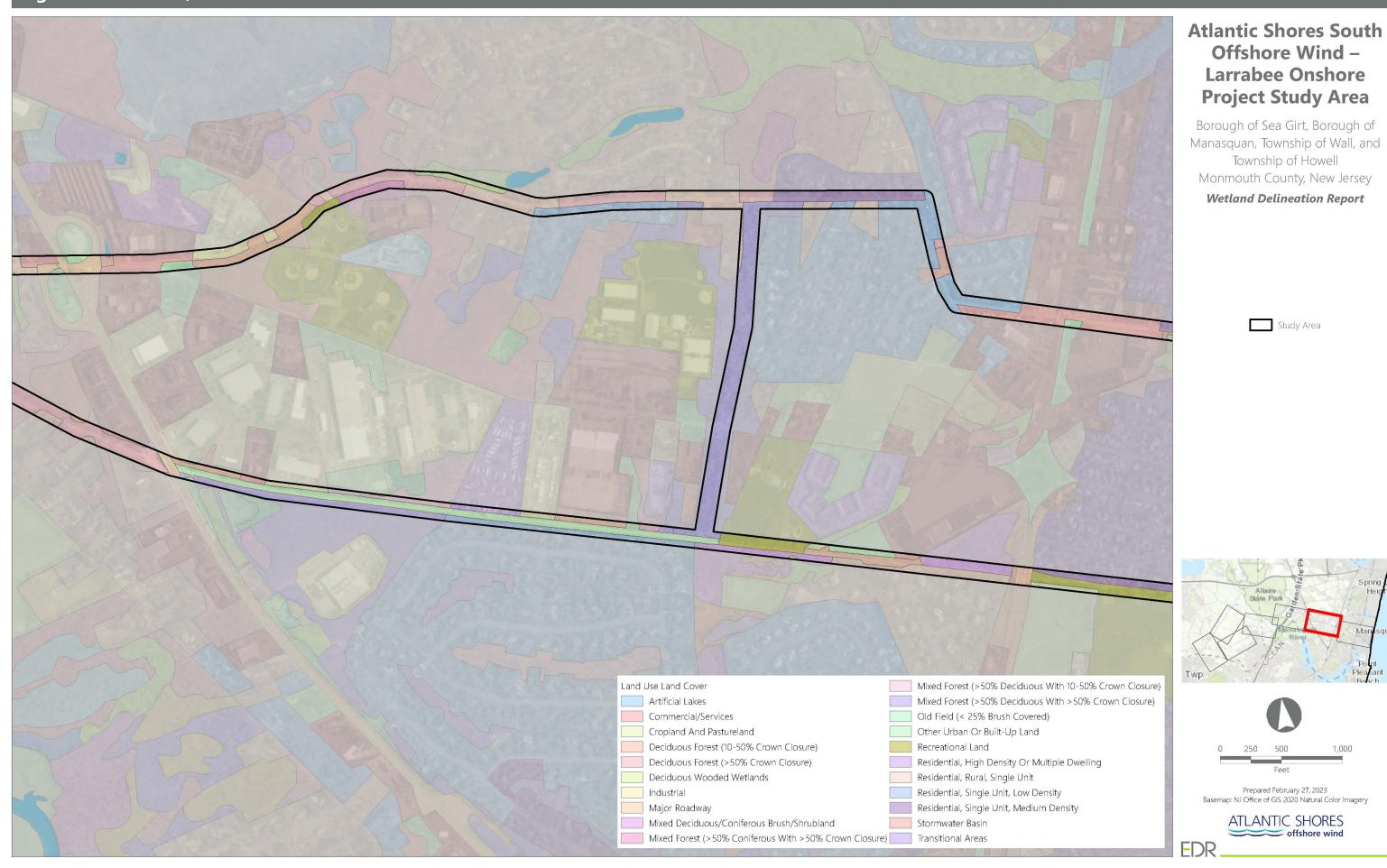
Study Area

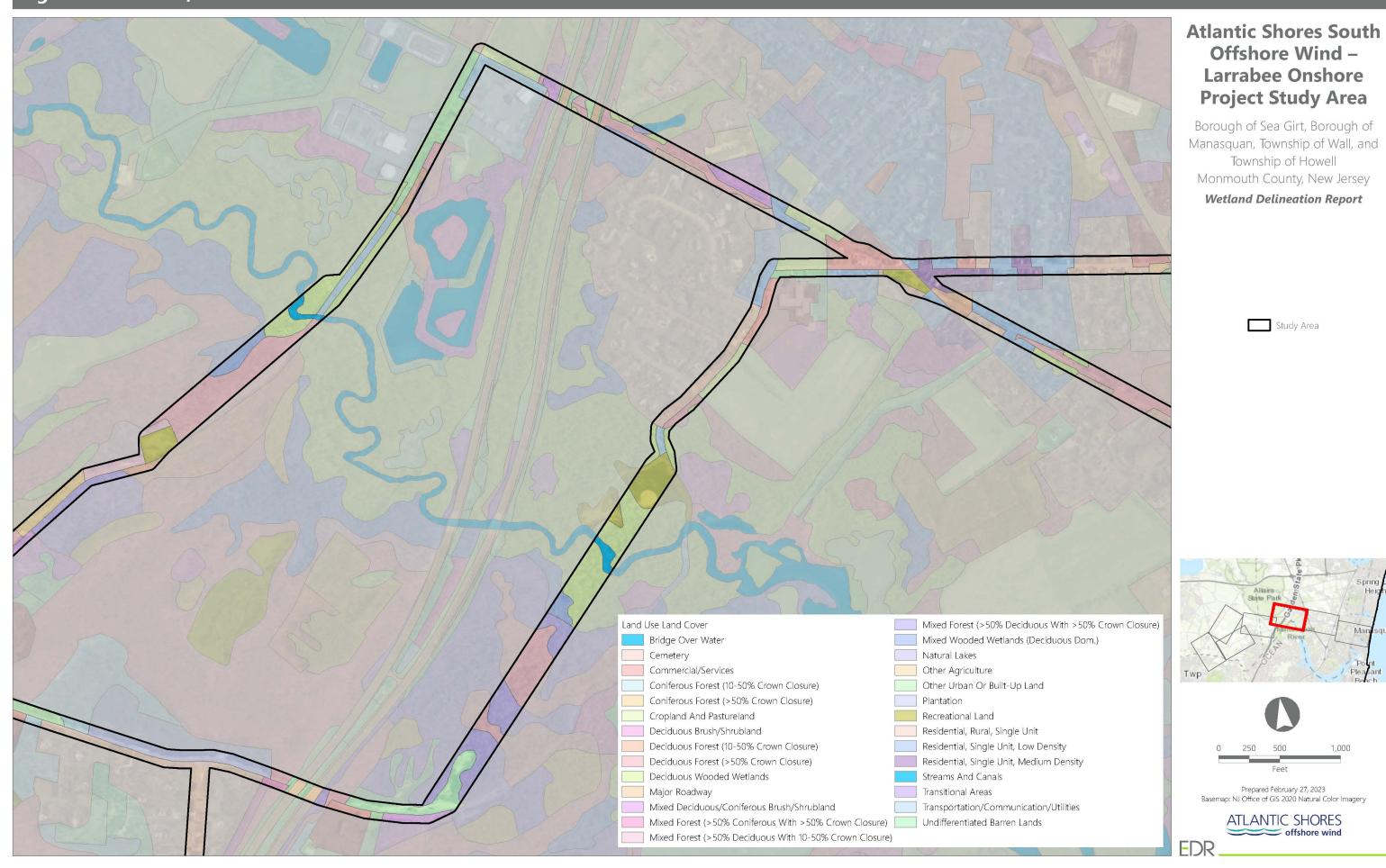


Figure 6

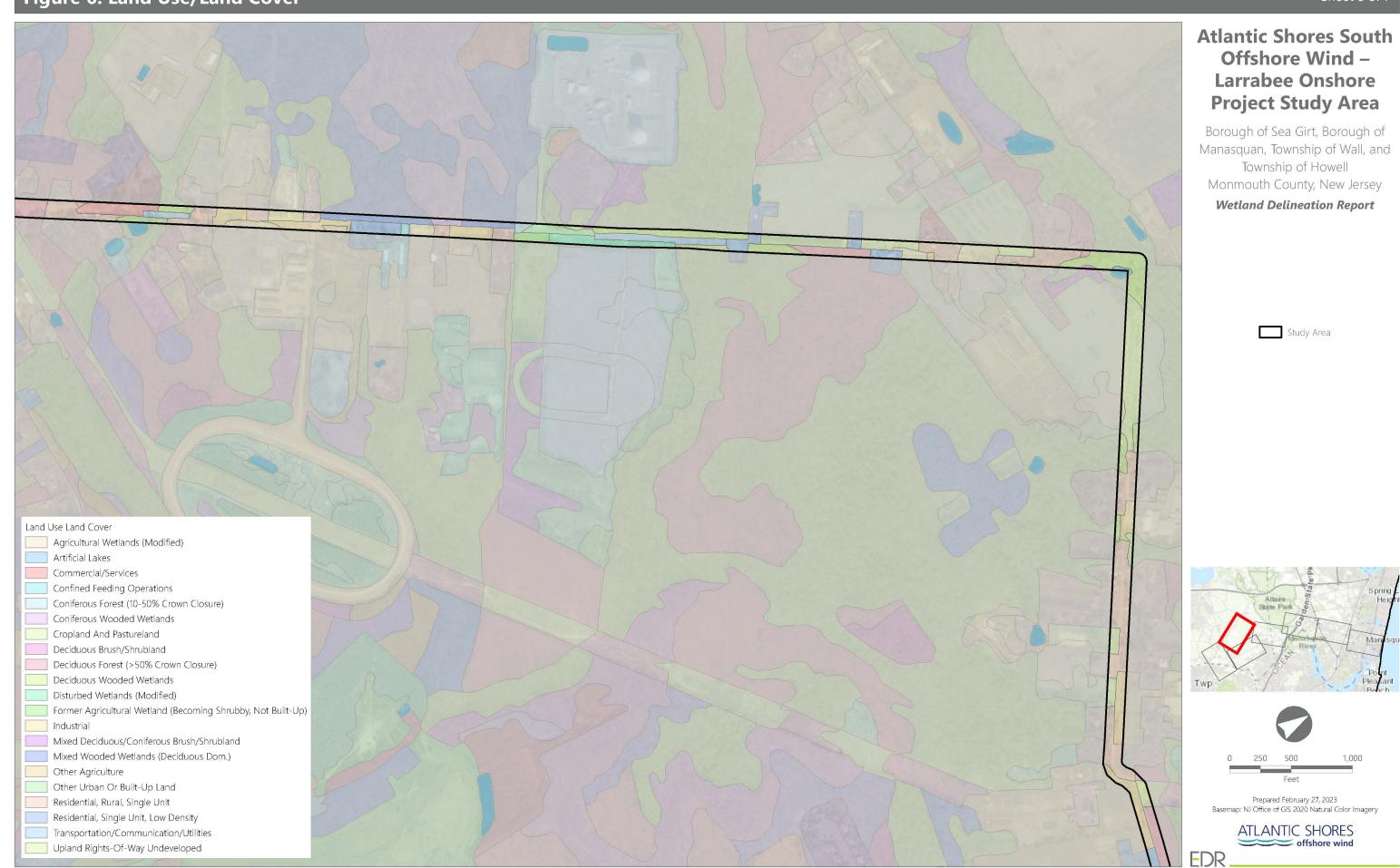
Land Use/Land Cover











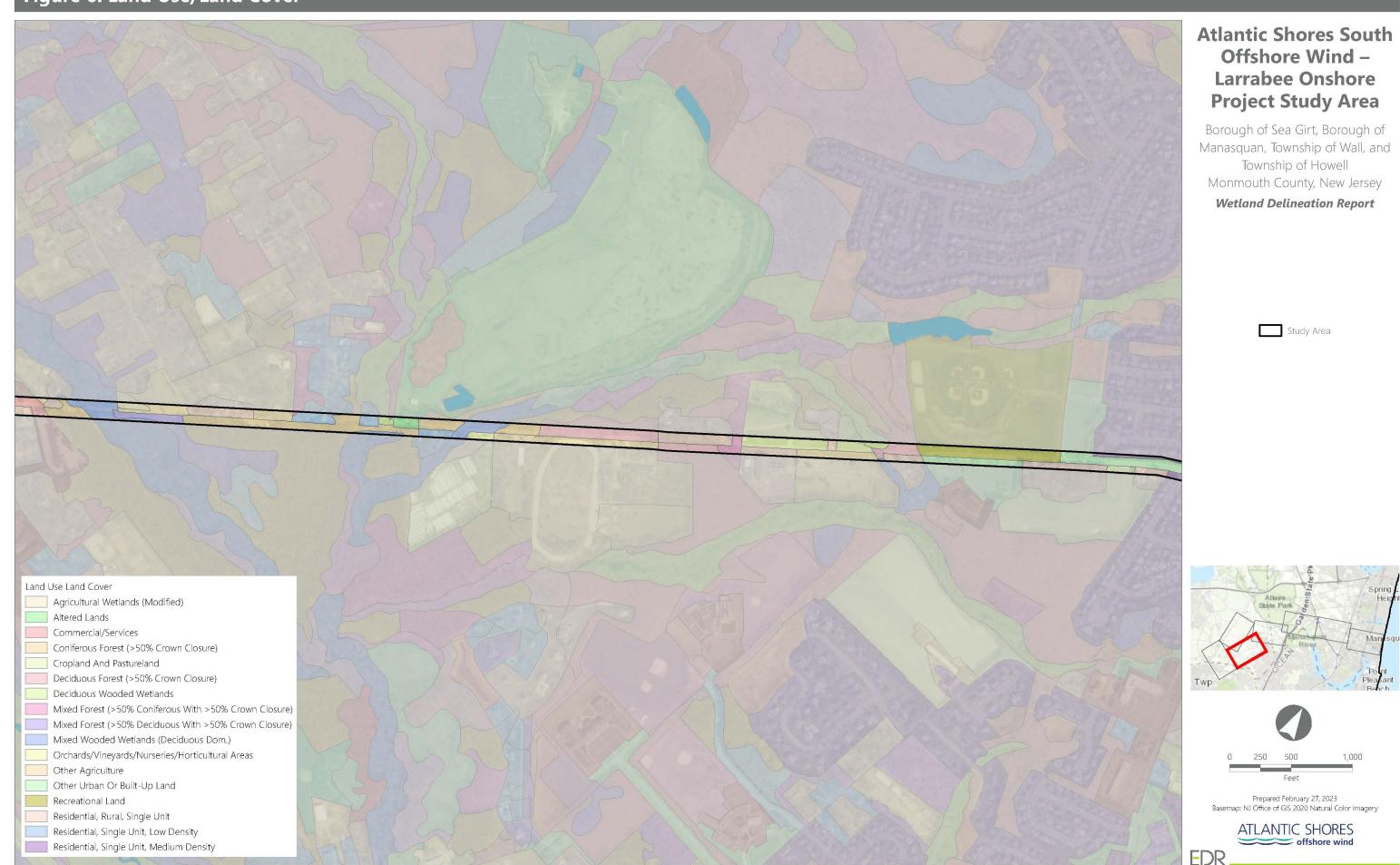
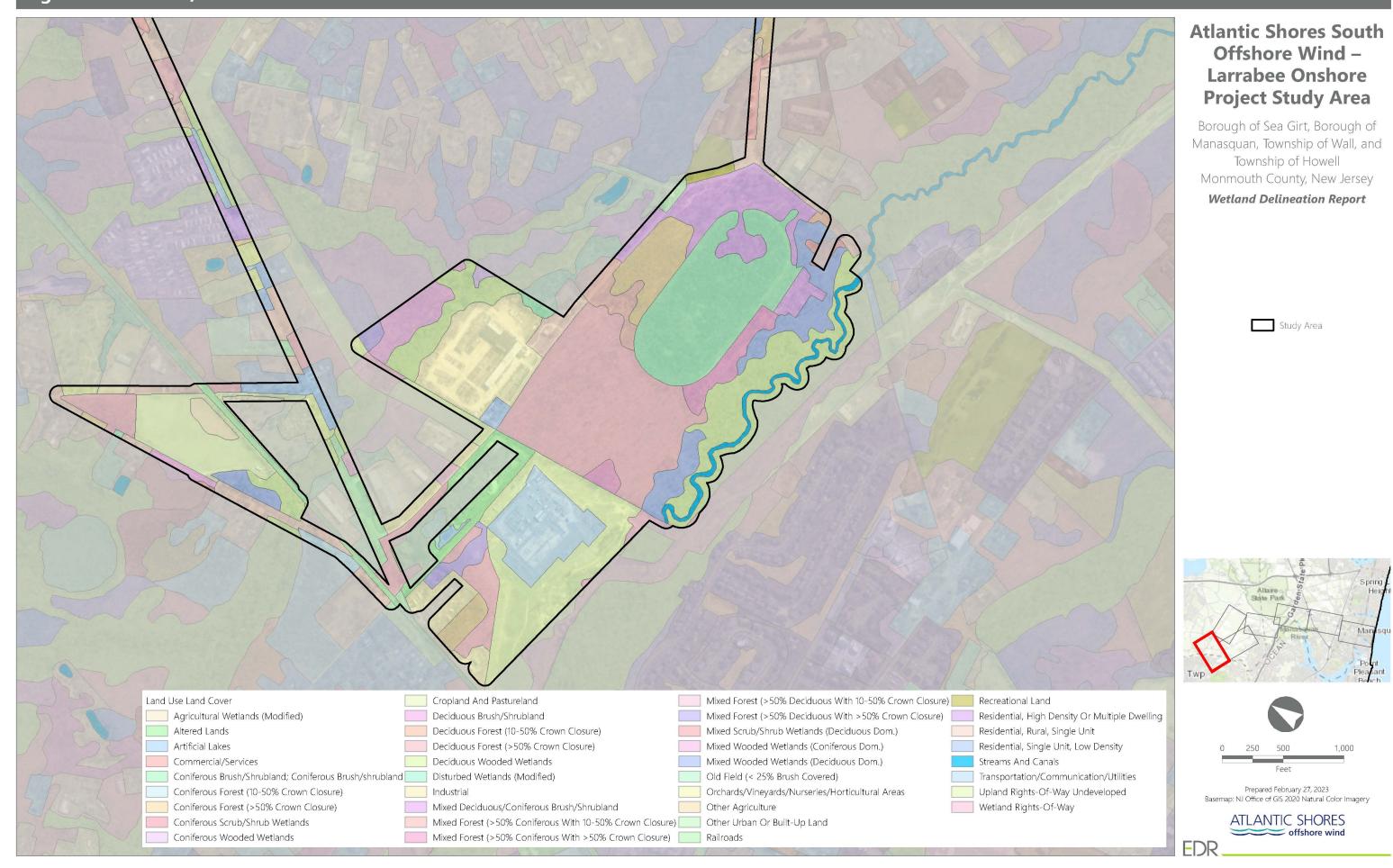


Figure 6. Land Use/Land Cover

Sheet 7 of 7



Routine Wetland Deter	APPENDIX mination Data Shee	ntory Forms

-ield 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 Off:	shore Wind					
Plant Community#/Name: Wetland 1	- 1U (Upland Point)					
Note: if a more detailed site description area, on a convex hillslope with >12%		ide detail here: <u>Steep</u>	hill between bike p	ath and wetland		
Do normal environmental conditions e	exist at the plant com	munity?				
Yes ⊠ No □ (I	f no, explain)					
Has the vegetation, soils, and/or hydr	ology been significar	itly disturbed?				
Yes□ No⊠ (I	f yes, explain)					
	VEGE	TATION				
Dominant Plant Species	Per	cent Cover	Indicator Status	Stratum		
 Cherry (Prunus serotina) Tree of Heaven (Ailanthus a Black Locust (Robinia pseud Bamboo (Bambusoideae sp. Grape Vine (Vitis sp.) Pokeweed (Phytolacca ame Multiflora Rose (Rosa multifl Green Briar (Smilax rotundif 	doacacia) 20%) 30% 20% 20% ricana) 15% ora) 5%		FACU FACU UPL NA NA FACU FACU FACU	Tree Tree Sapling/Shrub Woody Vine Herbaceous Herbaceous Woody Vine		
Percent of Dominant Species that are		51 S5 51				
Is the hydrophytic vegetation criterion	illet? res 🗆	No ⊠				
Rationale:						
SOILS						
Series/Phase: Entisols Subgroup: Psamments						
Is the soil on the hydric soils list? Yes □ No ⊠ Undetermined □						
s the soil a Histosol? Yes □ No ⊠ Histic epidedon present? Yes □ No ⊠						

Is the soil: Mottled? Yes \square No \boxtimes Gleyed? Yes \square No \boxtimes
Matrix Color: <u>0-3 10YR 3/1 (Sandy fill)</u> Mottle Colors: <u>N/A</u>
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: 6/20/2020						
Project/Site: <u>Larabe</u>	e Wetland Delinea	tion State: <u>NJ</u>	County: Monmo	uth County		
Applicant/Owner: <u>A</u>	Atlantic Shores Offs	hore Wind				
Plant Community#/	/Name: <u>WL 1 – 1W</u>					
Note: if a more deta	ailed site descriptio	n is necessary, provic	le detail here: <u>Previ</u>	ous: Wetland 1 – 1	W (Wetland Point)	
Do normal environr	mental conditions e	xist at the plant comm	nunity?			
Yes ⊠ N	lo □ (If	no, explain)				
Has the vegetation,	, soils, and/or hydro	ology been significantl	y disturbed?			
Yes□ N	Jo⊠ (If	yes, explain)				
		VEGETA	ATION			
Dominant	Plant Species	Р	ercent Cover	Indicator Status	Stratum	
1. Willow sp.	(Salix sp.)		35%	NA	Tree	
	weed (Polygonum p	pensylvanicum)	65%	FACW	Herbaceous	
Table Annual Service Control Control	(Juncus effusus)		10%	OBL	Herbaceous	
4. Reed Can	ary Grass (Phalaris	s arundinacea)	10%	OBL	Herbaceous	
5. Blunt Broom Sedge (Carex tribuloides)			10%	FACW	Herbaceous	
Percent of Dominal	nt Species that are	OBL, FACW, and/or f	FAC: <u>100%</u>			
Is the hydrophytic v	egetation criterion	met? Yes ⊠	No □			
Rationale:						
		SOI	LS			
Series/Phase: <u>Ultis</u>	sols Si	ubgroup: <u>Udultus</u>				
ls the soil on the hy	ydric soils list? Ye	es 🗆 No 🛭	☑ Undete	rmined \square		
Is the soil a Histoso	ol? Yes □	No ⊠	Histic epidedon	present? Yes □	No ⊠	
Is the soil: N	∕lottled? Yes ⊠	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 chroma soils and mottled soils						

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/25/2020						
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u>	County: Monmou	th County				
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	between pond an	d bike path			
Do normal 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) <u>Semi-ma</u>	intained area					
VEGETA	TION					
Dominant Plant Species	Percent Cover	Indicator Status	Stratum			
1. Tree of Heaven (Ailanthus altissima)	<u>50%</u>	<u>FACU</u>	<u>Tree</u>			
2. Mowed Grass	90%	NA	<u>Herbaceous</u>			
Mugwort (Artemisia vulgaris)	<u>50%</u>	<u>UPL</u>	<u>Herbaceous</u>			
4. White Clover (Trifolium repens)	30%	<u>FACU</u>	<u>Herbaceous</u>			
5. Narroleaf Plantain (Plantago lanceolate)	<u>15%</u>	<u>FACU</u>	<u>Herbaceous</u>			
6. Common Plantain (Plantago major) 10% FAC Herbaceous						
7. Common Reed (Phragmites australis)	<u>1%</u>	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/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 □ No ⊠ Gleyed? Yes □ No ⊠						

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 $\ \square$	No ⊠							
Rationale:								
	HYDROLOGY							
Is the ground surface inundated? Yes $\ \square$	No ⊠ Surface water depth: N/A							
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 saturation: N/A								
Is the wetland hydrology criterion met?	'es □ No ⊠							
Rationale:								

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/25/2020						
Project/S	ite: <u>Larabee Wetland Delir</u>	neation State: <u>NJ</u>	County: Monmou	th County		
Applicant	t/Owner: <u>Atlantic Shores C</u>	offshore Wind				
Plant Cor	mmunity#/Name: <u>WL2</u>					
	more detailed site descrip : Wetland 3 – 1W (wetland	tion is necessary, provide o	detail here: <u>PFO</u>			
Do norma	al environmental conditions	s exist at the plant commun	ity?			
Yes ⊠	No 🗆	(If no, explain)				
Has the v	egetation, soils, and/or hy	drology been significantly c	listurbed?			
Yes□	No⊠	(If yes, explain)				
AV		VEGETATI	ON			
	Dominant Plant Species		Percent Cover	Indicator Status	Stratum	
1.	Red Maple (Acer rubrum)		80%	FAC	Tree	
	Pepperbush (Clethra alnifo	olia)	60%	FACW	Sapling/Shrub	
	Sweetgum (liquidambar st	115	20%	FAC	Sapling/Shrub	
2400000	Skunk Cabbge (Symploca		60%	OBL	Herbaceous	
the same of the sa	Cinnamon Fern (Osmunda		30%	FACW	Herbaceous	
	Jack in the Pulpet (Arisaer	THE R. LEWIS CO. LANSING P.	10%	FACW	Herbaceous	
	Jewelweed (Impatiens cap		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						
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 $oximes$ No $oximes$ Histic epipedon present? Yes $oximes$ No $oximes$						
ls the soil: Mottled? Yes □ No ⊠ Gleyed? Yes □ No ⊠						

Matrix Color: <u>0-18" 10yr 2/1 mucky</u>							
Mottle Colors: N/A							
Other hydric soil indicators: N/A							
Is the hydric soil criterion met? Yes $oxtimes$ No $oxtimes$							
Rationale:							
HYDROLOGY							
Is the ground surface inundated? Yes ⊠ No □ Surface water depth: <u>1</u> "							
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 saturation: N/A							
Is the wetland hydrology criterion met? Yes $\ oxdot$ No $\ oxdot$							
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 Sho</u>	ores Offshore V	<u>/ind</u>			
Plant Co	ommunity#/Name: <u>WL</u>	3 – 1W				
emerge	a more detailed site d nt fringe s: Wetland 4 – 1W	escription is ne	cessary, provide o	detail here: <u>Open v</u>	vater wetland with	very thin
Do norn	nal environmental con	ditions exist at	the plant commur	nity?		
Yes ⊠	No 🗆	(If no, ex	rplain)			
Has the	vegetation, soils, and	or hydrology b	een significantly o	disturbed?		
Yes□	No⊠	(If yes, e	xplain)			
			VEGETAT	ION		
	Dominant Plant Spec	cies		Percent Cover	Indicator Status	Stratum
1.	Common Reed (Phra	agmites austral	is)	5%	FACW	Herbaceous
2.	Yellow Pond Lilly (No		**************************************	60%	OBL	Herbaceous
3.	Soft Rush (Juncus e			20%	OBL	Herbaceous
TO NOTE OF THE PROPERTY OF THE					Herbaceous	
ters de description de la company de la comp					Herbaceous	
6. Virginia Creeper (Parthenocissus quinquefolia) 1% FACU Herbaceous						Herbaceous
Percent of Dominant Species that are OBL, FACW, and/or FAC: 100% Is the hydrophytic vegetation criterion met? Yes ⊠ No □ Rationale:						
SOILS						
Series/F	Phase: <u>Water</u> Su	bgroup: <u>Water</u>				
Is the soil on the hydric soils list? Yes \square No \square Undetermined \boxtimes						
Is the so	oil a Histosol? Ye	s 🗆	No ⊠	Histic epipedon p	resent? Yes 🗆	No ⊠
Is the so	Is the soil: Mottled? Yes □ No ⊠ Gleyed? Yes □ No ⊠					

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 $oxtimes$ No $oxtimes$						
Rationale: Wetland area is an open water pond, soils were not accessible						
HYDROLOGY						
Is the ground surface inundated? Yes ⊠ No □ Surface water depth: <u>5"+</u>						
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 saturation: N/A						
Is the wetland hydrology criterion met? Yes $oximes$ No $oximes$						
Rationale:						

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/25/2020						
Project/Site: <u>Larrabee Wetland Delineation</u> State: <u>NJ</u>	County: Monmout	h County				
Applicant/Owner: Atlantic Shores Offshore Wind						
Plant Community#/Name: <u>UL4</u>						
Note: if a more detailed site description is necessary, provide	detail here: <u>hillslop</u> e	<u> </u>				
Do normal environmental conditions exist at the plant commun	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	Herbaceous			
2. Goldenrod (Solidago canadensis)	50%	FACU	Herbaceous			
Honeysuckle Vine (Lonicera japonica)	20%	<u>FACU</u>	<u>Herbaceous</u>			
4. Mugwort (Artemisia vulgaris)	30	<u>UPL</u>	<u>Herbaceous</u>			
Percent of Dominant Species that are OBL, FACW, and/or FAC: <u>0%</u> Is the hydrophytic vegetation criterion met? Yes □ No ⊠ Rationale:						
20110						
SOILS						
Series/Phase: <u>Ultisols</u> Subgroup: <u>Udults</u>						
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 p	resent? Yes 🗆	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: <u>N/A</u>					
Is the hydric soil criterion met? Yes \square No \boxtimes					
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: N/A					
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 Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/25/2020					
Project/Site: <u>Larrabee Wetland Delineation</u> S	State: <u>NJ</u>	County: Monmout	h County		
Applicant/Owner: Atlantic Shores Offshore Wi	<u>nd</u>				
Plant Community#/Name: WL4					
Note: if a more detailed site description is nec	essary, provide de	etail here: PFO			
Do normal environmental conditions exist at the	272.71				
Yes ⊠ No □ (If no, exp		,			
	•	oturbod?			
Has the vegetation, soils, and/or hydrology be		sturbed?			
Yes□ No⊠ (If yes, ex	plain)				
	VEGETATIO	ON			
Dominant Plant Species		Percent Cover	Indicator Status	Stratum	
1. Red Maple (Acer rubrum)		80%	<u>FAC</u>	<u>Tree</u>	
2. Pepperbush (Clethra alnifolia)		<u>60%</u>	<u>FACW</u>	Sapling/Shrub	
3. Sweetgum (liquidambar styraciflua)		20%	<u>FAC</u>	Sapling/Shrub	
4. Skunk Cabbge (Symplocarpus foetid	us)	<u>60%</u>	OBL	<u>Herbaceous</u>	
5. Cinnamon Fern (Osmunda cinnamon	nea)	<u>30%</u>	<u>FACW</u>	<u>Herbaceous</u>	
6. Jack in the Pulpet (Arisaema triphyllu	10%	<u>FACW</u>	<u>Herbaceous</u>		
7. <u>Jewelweed (Impatiens capensis)</u> 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					
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 $oximes$ No $oximes$ Histic epipedon present? Yes $oximes$ No $oximes$					
Is 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 $oxtimes$ No $oxtimes$						
Rationale:						
HYDROLOGY						
Is the ground surface inundated? Yes \boxtimes No \square Surface water depth: $\underline{1}"$						
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 saturation: N/A						
Is the wetland hydrology criterion met? Yes $\ oxdot$ No $\ oxdot$						
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 🗆 (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 FACU 1. Kentucky Bluegrass (Poa pratensis) 80 Herbaceous 2. Red Fescue (Festuca rubra) 20 FACU Herbaceous % Cover Stratum 3. Species Name **STATUS** 4. Species Name % Cover STATUS Stratum Species Name_ % Cover STATUS Stratum % Cover Stratum 6. Species Name STATUS 7. Species Name % Cover Stratum **STATUS** 8. Species Name % Cover Stratum STATUS Stratum 9. Species Name % Cover **STATUS** 10. Species Name Stratum % Cover **STATUS** 11. Species Name % Cover **STATUS** Stratum % Cover 12. Species Name **STATUS** Stratum 13. Species Name % Cover **STATUS** Stratum 14. Species Name % Cover Stratum **STATUS** 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 🗵 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 $\ oxin{tabular}{l} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Undetermined				
Is the soil a Histosol? Yes □ No ☒	Histic epidedon present? Yes $\ \square$ No $\ \boxtimes$				
Is the soil: Mottled? Yes \square No \boxtimes	Gleyed? Yes □ No ⊠				
Matrix Color: 0-18" 10YR 3/3, 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 any colors or hydric indicators.					
HYDROLOG	SY				
Is the ground surface inundated? Yes \square No \boxtimes	Surface water depth: None				
Is the soil saturated? Yes □ No ⊠					
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 🗆 (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 1. Common Reed (Phragmites australis) 40 FACW Herbaceous 2. Marsh Fern (Thelypteris palustris) 25 **FACW** Herbaceous Skunk Cabbage (Symplocarpus foetidus) 20 OBL Herbaceous 4. Allegheny Blackberry (Rubus allegheniensis) FACU Herbaceous 5 White Goldenrod (Solidago bicolor) FAC 5. Herbaceous 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 Stratum **STATUS** 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: 100% Is the hydrophytic vegetation criterion met? Yes ⊠ No \square Rationale: All species present are FAC, FACW, or OBL.

SOILS

Series/Phase: FapA: Fallsington loams, 0 to	2 percent slopes	Subgroup: Fallsington		
Is the soil on the hydric soils list? Yes $\ oxdot$	No 🗆	Undetermined		
Is the soil a Histosol? Yes □ No	o ⊠ Histic ep	oidedon present? Yes □ No ⊠		
Is the soil: Mottled? Yes □ No	o ⊠ Gleyed?	P Yes □ No ⊠		
Matrix Color: 0-2" 10YR 2/2, loam; 2-18" 2.5Y	4/2, sand with cobbles			
Mottle Colors: None				
Other hydric soil indicators: Problematic sandy	soils			
Is the hydric soil criterion met? Yes $\ oximes$	No 🗆			
Rationale: Both colors and texture qualify	this soil to be hydric.			
	HYDROLOGY			
Is the ground surface inundated? Yes ⊠ No □ Surface water depth: 4 inches				
Is the soil saturated? Yes ⊠ No □				
Depth to free-standing water in pit/soil probe 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 hydrology criterion met?	es ⊠ No □			
Rationale: Six primary and four secondary indic	ators 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 🗆 (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 1. American Holly (Ilex opaca) 30 FAC Tree 2. Mountain Laurel (Kalmia latifolia) 15 FACU Tree % Cover Stratum 3. Species Name **STATUS** 4. Species Name % Cover STATUS Stratum 5. Species Name_ % Cover STATUS Stratum Stratum 6. Species Name % Cover STATUS 7. Species Name % Cover Stratum **STATUS** 8. Species Name % Cover Stratum STATUS Stratum 9. Species Name % Cover **STATUS** Stratum 10. Species Name % Cover **STATUS** 11. Species Name % Cover **STATUS** Stratum 12. Species Name % Cover **STATUS** Stratum 13. Species Name % Cover **STATUS** Stratum 14. Species Name Stratum % Cover **STATUS** 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 No 🗵 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 $oximes$ No $oximes$ Undetermined $oximes$					
Is the soil a Histosol? Yes □ No ☒ Histic epidedon present? Yes □ No ☒					
Is the soil: Mottled? Yes \square No \boxtimes Gley	yed? Yes □ No ⊠				
Matrix Color: 0-2" 10YR 2/1; 2-6" 10YR 3/2+; 6-18" 10YR 3/3, san	dy 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 any co	lors or hydric indicators.				
HYDROLOGY					
Is the ground surface inundated? Yes □ No ⊠ Surface water depth: None					
Is the soil saturated? Yes □ No ⊠					
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 🗆 (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 FAC 2. American Holly (Illex opaca) 30 Tree 3. Roundleaf Green Briar (Smilax rotundifolia) 5 FAC Herbaceous % Cover **STATUS** Stratum 4. Species Name_ Species Name_ % Cover STATUS Stratum 6. Species Name % Cover STATUS Stratum 7. Species Name % Cover STATUS Stratum 8. Species Name % Cover Stratum STATUS 9. Species Name % Cover **STATUS** Stratum 10. Species Name % Cover **STATUS** Stratum % Cover 11. Species Name **STATUS** Stratum 12. Species Name % Cover **STATUS** Stratum 13. Species Name % Cover **STATUS** Stratum % Cover Stratum 14. Species Name **STATUS** % 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: All species present are FAC or FACW.

SOILS

Series/Phase: AtsAO: Atsion sand, 0 to 2 percent slopes Subgroup: Atsion				
Is the soil on the hydric soils list? Yes $\ oxin{tabular}{l} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Undetermined			
Is the soil a Histosol? Yes $oxtimes$ No $oxtimes$	Histic epidedon present? Yes $\ \square$ No $\ \boxtimes$			
Is the soil: Mottled? Yes \square No \boxtimes	Gleyed? Yes □ No ⊠			
Matrix Color: 0-5" 10YR 2/1, muck; 5-18" 10YR 3/1, silt loam				
Mottle Colors: None				
Other hydric soil indicators: Histosol (A1) and 2cm Muck (A10)				
Is the hydric soil criterion met? Yes $oxtimes$ No $oxtimes$				
Rationale: Both colors and texture qualify this soil to be	hydric.			
HYDROLO	OGY			
Is the ground surface inundated? Yes ⊠ No □ Surface water depth: 1 inch				
Is the soil saturated? Yes ⊠ No □				
Depth to free-standing water in pit/soil probe hole: 5 inches				
List of other field evidence of surface inundation or soil saturation: Thin muck surface, drainage patterns, dry-season water table, geomorphic position				
Is the wetland hydrology criterion met? Yes $\ oximes$	No □			
Rationale: Four primary and three secondary indicators of hyd	rology 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: Monmouth County				
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 commun	nity?				
Yes ⊠ No □ (If no, explain)					
Has the vegetation, soils, and/or hydrology been significantly	disturbed?				
Yes□ No⊠ (If yes, explain)					
VEGETAT	TON				
Dominant Plant Species	Percent Cover Indicator Status Stratum				
1. White Clover (Trifolium repens)	30% FACU Herbaceous				
 Kentucky Blue Grass (Poa pratensis) Buttercup (Ranunculus repens) 	50% FACU Herbaceous 20% FAC Herbaceous				
5. <u>Dattercup (Nanunculus repens)</u>	20% TAC Helbaceous				
Percent of Dominant Species that are OBL, FACW, and/or FA	.C: 33.3%				
Is the hydrophytic vegetation criterion met? Yes □	No ⊠				
Rationale:					
i fationale.					
SOILS					
Series/Phase: Spodosols Subgroup: Aquods					
Is the soil on the hydric soils list? Yes 🗵 No 🗆 Undetermined 🗆					
Is the soil a Histosol? Yes □ No ☒ Histic epipedon present? Yes □ No ☒					
Is the soil: Mottled? Yes \square No \boxtimes Gleyed? Yes \square No \boxtimes					
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:					
	1	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: N/A					
List of other field evidence of surface inundation or soil saturation: N/A					
Is the wetland hydrology criterion r	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: <u>WL7 – 1W</u>					
Note: if a more detailed site description is necessary, pond. Tadpoles and frogs observed at time of investigations and the state of th		nd fringe around a	small spring fed		
Previous: Wetland 19 – 1W (Wetland Point)	1.0				
Do normal environmental conditions exist at the plant of	community?				
Yes \square No \boxtimes (If no, explain) $\underline{\sf ma}$	intained horse/cow pastur	e, grasses have be	<u>en mowed</u>		
Has the vegetation, soils, and/or hydrology been signif	icantly disturbed?				
Yes⊠ No□ (If yes, explain) <u>m</u>	aintained horse/cow pastu	ıre, grasses have b	oeen mowed		
VE	GETATION				
Dominant Plant Species	Percent Cover	Indicator Status	Stratum		
Duckweed (Lemna minor)	95%	OBL	Herbaceous		
2. Water Chestnut (Trapa natans)	<u>10%</u>	OBL	Herbaceous		
3. Mowed Juncus (Juncus sp.)	90%	<u>NA</u>	<u>Herbaceous</u>		
Percent of Dominant Species that are OBL, FACW, an	d/or FAC: <u>66.6%</u>				
Is the hydrophytic vegetation criterion met? Yes 🗵	No □				
Rationale:					
SOILS					
Series/Phase: Atsion sand/Spodosols Subgroup: Aquods					
Is the soil on the hydric soils list? Yes ⊠ No □ Undetermined □					
Is the soil a Histosol? Yes □ No ⊠ Histic epipedon present? Yes ⊠ No □					
Is the soil: Mottled? Yes □ No ⊠ Gleyed? Yes □ No ⊠					
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 $oxtimes$ No $oxtimes$							
Rationale:							
HYDROLOGY							
Is the ground surface inundated? Yes ⊠ No □ Surface water depth: 1-6"+							
Is the soil saturated? Yes ⊠ No □							
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 $oximes$ 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>						
Applicar	nt/Owner: <u>Atlantic S</u>	Shores Offshore V	<u>/ind</u>			
Plant Co	ommunity#/Name: \	NL7 -2U				
new gro	a more detailed site wth was impacted s: Wetland 19 – 2U		cessary, provide	detail here: <u>Upland</u>	d area, sprayed thi	s year. Most of the
Do norn	nal environmental c	onditions exist at	the plant commu	inity?		
Yes □	No ⊠	(If no, ex	plain) <u>Herbicide</u>	was recently used		
Has the	vegetation, soils, a	nd/or hydrology b	een significantly	disturbed?		
Yes⊠	No□	(If yes, e	xplain) <u>Herbicide</u>	e was recently used	1	
			VEGETA ⁻	TION		
	Dominant Plant Sp	pecies		Percent Cover	Indicator Status	Stratum
1.	Pitch Pine (Pinus	rigida)		5%	FACU	Sapling/Shrub
2.	Lowbush Blueberr	y (Vaccinium ang	ustifolium)	80%	FACU	Sapling/Shrub
3.	Grass sp.			90%	NA	Herbaceous
4.	Soft Rush (Juncus	s effuses)		1%	OBL	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	S		
Series/F	Phase: <u>Spodosols</u>	Subgrou	p: <u>Aquods</u>			
Is the so	oil on the hydric soil	ls list? Yes ⊠	No □	Undeter	mined \square	
Is the soil a Histosol? Yes □ No ☒ Histic epipedon present? Yes □ No ☒						
ls the so	oil: Mottled?	Yes □	No ⊠	Gleyed? Yes	□ No ⊠	
Matrix C	Color: 0-4" 10vr 3/2	4-12" 5vr 4/6 loar	nv sand			

Mottle Colors: N/A	
Other hydric soil indicators: <u>N/A</u>	
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 □ 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 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>							
Applicar	nt/Owner: <u>Atlantic Shores (</u>	Offshore Wind					
Plant Co	ommunity#/Name: <u>WL7 – 2</u>	<u>W</u>					
	a more detailed site descrips: Wetland 19 – 2W (Wetla	-70 1-	detail here: <u>Wetlan</u>	d along stream an	d in low lying area		
Do norm	nal environmental condition	s exist at the plant commu	nity?				
Yes ⊠	No 🗆	(If no, explain)					
Has the	vegetation, soils, and/or hy	drology been significantly	disturbed?				
Yes□	No⊠	(If yes, explain)					
		VEGETAT	ION				
	Dominant Plant Species		Percent Cover	Indicator Status	Stratum		
1. 2.	Highbush Blueberry (Vacc Soft Rush (Juncus effuses		<u>5%</u> 40%	FACW OBL	Sapling/Shrub Herbaceous		
3.	Tearthumb (Polygonum sa	ACCURATE THE TAXABLE PROPERTY.	5%	OBL	Herbaceous		
4.	Japanese Stiltgrass (Micro		10%	FAC	Herbaceous		
5.	Blunt Spikerush (Eleochar	an (6°24) an	90%	OBL	Herbaceous		
6.	White Meadowsweet (Spir	rea alba)	10%	FACW	Herbaceous		
7.	Broom Sedge (Carex scor	oaria)	20%	FACW	Herbaceous		
8.	Swamp Loostrife (Decodo	n verticillatus)	30%	OBL	<u>Herbaceous</u>		
9.	Rice Cutgrass (Leersia or	yzoides)	<u>70%</u>	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/F	Phase: <u>Atsion sand/Spodos</u>	ols Subgroup: Aquo	<u>ds</u>				
Is the soil on the hydric soils list? Yes $oxtimes$ No $oxtimes$ Undetermined $oxtimes$							

Is the soil a Histosol? Yes ⊠ N	lo 🗆	Histic epipe	edon present?	Yes 🗌	No ⊠		
Is the soil: Mottled? Yes ⊠ N	lo 🗆	Gleyed?	Yes □	No ⊠			
Matrix Color: <u>0-6" 10yr 3/1; 6-18" 10yr 2/1 (959</u>	%) organic loam						
Mottle Colors: 6-18" 10yr5/8 (5%) redox feature	es, pore linings p	<u>oresent</u>					
Other hydric soil indicators: Low chroma matrix	x, hydrogen sulfic	<u>de smell</u>					
Is the hydric soil criterion met? Yes $\ oxtimes$	No □						
Rationale:							
HYDROLOGY							
Is the ground surface inundated? Yes $\ \square$	No ⊠	Sı	urface water de	pth: <u>N/A</u>			
Is the soil saturated? Yes ⊠ N	lo 🗆						
Depth to free-standing water in pit/soil probe h	ole: <u>N/A</u>						
List of other field evidence of surface inundation or soil saturation: <u>hydrogen sulfide smell</u>							
Is the wetland hydrology criterion met?	′es ⊠	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 Wind							
Plant Community#/Name: <u>WL8 – 1U</u>							
Note: if a more detailed site description is necessary, provide	detail here: Previou	ıs: Wetland 20 – ′	<u>1U</u>				
Do normal 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)							
VEGETAI	TON						
Dominant Plant Species	Percent Cover I	Indicator Status	Stratum				
1. Pitch Pine (Pinus rigida)		FACU_	Sapling/Shrub				
 Greenbriar (Smilax rotundifolia) Upland Grass species 	Harris and the second s	F <u>AC</u> NA	Woody Vine Herbaceous				
Percent of Dominant Species that are OBL, FACW, and/or FA	31						
Is the hydrophytic vegetation criterion met? Yes	No ⊠						
Rationale:							
SOILS							
Series/Phase: Spodosols Subgroup: Aquods							
Is the soil on the hydric soils list? Yes $\ oxin{tabular}{l} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	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 pro	esent? Yes	No ⊠				
Is the soil: Mottled? Yes $oximes$ No $oximes$	Gleyed? Yes □	No ⊠					
Matrix Color: 0-6" 10yr 2/1, 6-14" 10yr 4/4 (60%)							
Mottle Colors: 6-14" 10yr 5/3 (40%)	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 s	soil saturation: <u>N/A</u>	:					
Is the wetland hydrology criterion r	met? Yes	☐ No ⊠						
Rationale:								

Routine Onsite Determination Form

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 – 1W</u>							
Note: if a more detailed site description is necessary, provide detail here: Spot between two wetland communities that appear to be connected Previous: Wetland 20 – 1W (Wetland Point)							
Do normal environmental conditions exist at the plant commu	nity?						
Yes ☐ No ☒ (If no, explain) Dead vegether than the vegetation, soils, and/or hydrology been significantly		om Herbicide)					
Yes⊠ No□ (If yes, explain) <u>Dead vec</u>	jetation (possibly fr	om Herbicide)					
VEGETAI	TION						
Dominant Plant Species Percent Cover Indicator Status Stratum							
Dead Red Maples (Acer rubrum) Dead Red Maples (Acer rubrum)	10% 5%	FAC	Tree Sapling/Shrub				
 Deertongue (Dichanthelium clandestinum) Fox Sedge (Carex vulpinoidea) 	<u>5%</u> 10%	FACW FACW	Herbaceous Herbaceous				
5. Grass sp.	50%	NA	Herbaceous				
6. Rice Cutgrass (Leersia oryzoides)	<u>70%</u>	<u>OBL</u>	<u>Herbaceous</u>				
7. Bottlebrush Sedge (Carex hystericina)	<u>5%</u>	<u>OBL</u>	<u>Herbaceous</u>				
Common Reed (Phragmites australis)	80%	FACW	Herbaceous				
9. <u>Japanese Knotweed (Polygonum cuspidatum)</u>	<u>50%</u>	UPL	<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: Atsion sand/Spodosols Subgroup: Aquods

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

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: WL8 – 2W							
Note: if a more detailed site description is necessar <u>Previous: Wetland 20 – 2W</u>	y, provide detail h	nere: <u>PSS</u>					
Do normal environmental conditions exist at the pla	nt community?						
Yes \boxtimes No \square (If no, explain)							
Has the vegetation, soils, and/or hydrology been sig	nificantly disturb	ed?					
Yes□ No⊠ (If yes, explain)	Ž						
	VEGETATION						
Dominant Plant Species	Perc	ent Cover	Indicator Status	Stratum			
1.Pepperbush (Clethra alnifolia)45%FACWSapling/Shrub2.Pitch Pine (Pinus rigida)10%FACUSapling/Shrub3.Sphagnum moss (Sphagnum sp.)90%NAHerbaceous4.Skunk Cabbage (Symplocarpus foetidus)15%OBLHerbaceous5.Common Reed (Phragmites australis)20%FACWHerbaceous							
Percent of Dominant Species that are OBL, FACW,	and/or FAC: <u>50%</u>	<u>6</u>					
Is the hydrophytic vegetation criterion met? Yes $ igtriangle $	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 ⊠	No □	Undeter	mined \square				
Is the soil a Histosol? Yes ☐ No ⊠] Histic	epipedon p	resent? Yes 🗵	No 🗆			
s the soil: Mottled? Yes □ No ⊠ Gleyed? Yes □ No ⊠							

Matrix Color: <u>0-12 10yr 2/2</u>								
Mottle Colors: N/A								
Other hydric soil indicators: <u>hydrogen sulfide</u>								
Is the hydric soil criterion met? Yes $oximes$ No $oximes$								
Rationale:								
HYDROLOGY								
Is the ground surface inundated? Yes \square No \boxtimes Surface water depth: $\underline{\text{N/A}}$								
Is the soil saturated? Yes $oxtimes$ No $oxtimes$								
Depth to free-standing water in pit/soil probe hole: >12"								
List of other field evidence of surface inundation or soil saturation: <u>Hydrogen sulfide odor</u>								
Is the wetland hydrology criterion met? Yes $oxtimes$ No $oxtimes$								
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 V	<u>Vind</u>				
Plant Co	ommunity#/Name: <u>\</u>	<u>WL9 – 1U</u>					
along w	a more detailed site etland boundary s: Wetland 21 - Upl		ecessary, provic	de detail here: <u>area r</u>	next to maintained	grass roadway	
Do norn	nal environmental c	conditions exist at	the plant comm	nunity?			
Yes ⊠	No 🗆	(If no, e	xplain)				
Has the	vegetation, soils, a	and/or hydrology b	oeen significant	ly disturbed?			
Yes⊠	No□	(If yes, e	explain) <u>mowed</u>	grass roadway			
			VEGETA	ATION			
	Dominant Plant S	pecies		Percent Cover	Indicator Status	Stratum	
1.	Dead Cedar (Juni	perus sp.)		5%	NA	Sapling/Shrub	
2.	Grass sp.			100%	NA	Herbaceous	
3.	Deptford Pink (Dia	anthus armoria)		1%	UPL	Herbaceous	
4.	Deer Tongue (Dic	50 1000 WI WI WI	ootinum\	5%	FACW	Herbaceous	
Percent	of Dominant Speci			<u></u> ΕΔ <i>Ο</i> : 0%			
	3. W 200-						
is the n	ydrophytic vegetation	on chierion met?	res 🗆	No ⊠			
Rationa	le:						
			SOI	LS			
Series/F	Phase: <u>Spodosols</u>	Subgrou	ıp: <u>Aquods</u>				
ls the so	oil on the hydric soi	ls list? Yes ⊠	No [□ Undete	rmined \square		
Is the so	oil a Histosol?	Yes □	No ⊠	Histic epipedon	present? Yes □	No ⊠	
ls 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: <u>N/A</u>	
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 □ 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 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/C	Owner: <u>Atlantic SI</u>	nores Offshore V	<u>Vind</u>				
Plant Comr	munity#/Name: <u>V</u>	<u>/L9 – 1W</u>					
Note: if a m	ore detailed site	description is ne	ecessary, provide o	letail here: <u>Low lyi</u>	ng area		
Previous: V	Vetland 21 – 1W	(Wetland Point)					
	vs		the plant commun	itv?			
Yes ⊠	No □	(If no, e	**	·· <i>y</i> ·			
		Ra	peen significantly d	icturbod?			
The same of the sa				isturbed?			
Yes□	No⊠	(If yes, e	expiain)				
			VEGETATI	ON			
Do	ominant Plant Sp	ecies		Percent Cover	Indicator Status	Stratum	
	epperbush (Cleth			<u>5%</u>	FACW	Sapling/Shrub	
	<u>tch Pine (Pinus ri</u>			<u>5%</u>	<u>FACU</u>	Sapling/Shrub	
	rey Birch (Betula	71 50 04 00		1%	FAC	Sapling/Shrub	
V-1	ırid Sedge (Care)			50%	OBL	Herbaceous	
Control of the contro	ommon Reed (Ph			40%	FACW	Herbaceous	
6. <u>Ci</u>	nnamon Fern (O	smunda cinnam	omea)	<u>5%</u>	FACW	Herbaceous	
Percent of	Dominant Specie	s that are OBL,	FACW, and/or FAC	D: <u>75%</u>			
Is the hydro	ophytic vegetation	n criterion met?	Yes ⊠	No □			
Rationale:							
2							
	SOILS						
Series/Pha	se: <u>Atsion sand/</u> S	Spodosols	Subgroup: Aquoc	<u>s</u>			
Is the soil o	on the hydric soils	s list? Yes ⊠	No □	Undeter	mined \square		
Is the soil a	ı Histosol? Y	′es ⊠	No □	Histic epipedon p	resent? Yes	No ⊠	
Is the soil:	Mottled?	Yes □	No ⊠	Gleyed? Yes [□ No ⊠		

Matrix Color: <u>0-18" 10yr 2/2 muck</u>
Mottle Colors: N/A
Other hydric soil indicators: <u>Hydrogen sulfide odor</u>
Is the hydric soil criterion met? Yes ⊠ No □
Rationale:
HYDROLOGY
Is the ground surface inundated? Yes □ No ⊠ Surface water depth: No ⊠
Is the soil saturated? Yes ⊠ No □
Depth to free-standing water in pit/soil probe hole: 4"
List of other field evidence of surface inundation or soil saturation: <u>hydrogen sulfide odor</u>
Is the wetland hydrology criterion met? Yes $oxtimes$ No $oxtimes$
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: W10 -1W						
Note: if a more detailed site description is necessa Point)	ry, provide d	etail here: Previo	us: Wetland 22 – 1	W (Wetland		
Do normal environmental conditions exist at the pla	ant communi	ty?				
Yes ⊠ No □ (If no, explain)						
Has the vegetation, soils, and/or hydrology been si	gnificantly di	sturbed?				
Yes□ No⊠ (If yes, explain)					
	VEGETATIO	ON				
Dominant Plant Species		Percent Cover	Indicator Status	Stratum		
Pepperbush (Clethra alnifolia)		20%	FACW	Sapling/Shrub		
Grey Birch (Betula populifolia)		1%	FAC	Sapling/Shrub		
Raspberry (Rubus occidentalis)		5%	NA	Sapling/Shrub		
Cinnamon fern (Osmunda cinnamomea)		10%	FACW	Herbaceous		
5. Bottle Brush Sedge (Carex hystericina)		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> Subg	roup: <u>Psamn</u>	<u>nents</u>				
Is the soil on the hydric soils list? Yes $oxtimes$ No $oxtimes$ Undetermined $oxtimes$						
Is the soil a Histosol? Yes ☐ No ②		Histic epipedon p	resent? Yes 🗆	No ⊠		
s the soil: Mottled? Yes ⊠ No □ Gleyed? Yes □ No ⊠						

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 $oxtimes$ No $oxtimes$							
Rationale:							
HYDROLOGY							
Is the ground surface inundated? Yes \square No \boxtimes Surface water depth: $\underline{\text{N/A}}$							
Is the soil saturated? Yes ⊠ No □							
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 o	detail here: Previou	us: Wetlands 22 8	<u> 23 – 1U</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 o	disturbed?							
Yes□ No⊠ (If yes, explain)								
VEGETAT	ION							
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	C: N/A							
ls the hydrophytic vegetation criterion met? Yes □	— No ⊠							
Rationale:								
SOILS								
Series/Phase: Entisols Subgroup: Psamments								
Is the soil on the hydric soils list? Yes ⊠ No □ Undetermined □								
Is the soil a Histosol? Yes □ No ⊠	s the soil a Histosol? Yes □ No ⊠ Histic epipedon present? Yes □ No ⊠							
s the soil: Mottled? Yes □ No ⊠ Gleyed? Yes □ No ⊠								
Matrix Color: <u>0-12" 10yr 4/4 sandy loam</u>								
Mottle Colors: <u>N/A</u>								
Other hydric soil indicators: N/A								

Is the hydric soil criterion met?	Yes □	No ⊠		
Rationale:				
	1	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 s	soil saturation: <u>N/A</u>	:	
Is the wetland hydrology criterion r	met? Yes	☐ No ⊠		
Rationale:				

rield 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 Wind								
Plant Community#/Name: WL11 – 1W								
Note: if a more detailed site description is necessary, provide o	detail here: <u>Previo</u>	us: Wetland 23 –	<u>1W</u>					
Do normal environmental conditions exist at the plant commun	nity?							
Yes ⊠ No □ (If no, explain)								
Has the vegetation, soils, and/or hydrology been significantly o	disturbed?							
Yes□ No⊠ (If yes, explain)								
VEGETAT	ION							
Dominant Plant Species	Percent Cover	Indicator Status	Stratum					
Narrowleaf Cattail (Typha angustifolia)	85%	OBL	Herbaceous					
2. Sensitive Fern (Onoclea sensibilis)	10%	FACW	<u>Herbaceous</u>					
Joe Pye Weed (Eutrochium maculatum)	10%	FACW	<u>Herbaceous</u>					
Percent of Dominant Species that are OBL, FACW, and/or FA0 Is the hydrophytic vegetation criterion met? Yes ⊠ Rationale:	C: <u>100%</u> No □							
SOILS								
Series/Phase: Lakehurst sand/Entisols Subgroup: Psami	<u>ments</u>							
Is the soil on the hydric soils list? Yes ⊠ No □ Undetermined □								
s 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 2/2</u>								
Mottle Colors: N/A								
Other hydric soil indicators:								

Is the hydric soil criterion met?	Yes ⊠	No 🗆							
Rationale: Matched with hydric vegetation and hydrology it indicates that the borderline soil should be considered hydric.									
	HYDROLOGY								
Is the ground surface inundated?	Yes ⊠	No 🗆	Surface water depth: 1"						
Is the soil saturated? Yes ⊠	No □								
Depth to free-standing water in pit/s	soil probe hole: <u>0"</u>								
List of other field evidence of surface	ce inundation or so	oil saturation: <u>N/A</u>							
Is the wetland hydrology criterion m	net? Yes ⊠	No □							
Rationale:									

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020							
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u>	County: Monmou	uth County					
Applicant/Owner: Atlantic Shores Offshore Wind							
Plant Community#/Name: WL12 - 1U							
Note: if a more detailed site description is necessary, prov	ide detail here: <u>Previ</u>	ous: Wetland 24 –	1U (upland point)				
Do normal environmental conditions exist at the plant com	munity?						
Yes ⊠ No □ (If no, explain)							
Has the vegetation, soils, and/or hydrology been significar	ntly disturbed?						
Yes□ No⊠ (If yes, explain)							
VEGE	TATION						
Dominant Plant Species	Percent Cover	Indicator Status	Stratum				
Spicebush (Lindera benzoin)	<u>15%</u>	FACW	Sapling/Shrub				
 Lowbush Blueberry (Vaccinium angustifolium) Grass sp. 	<u>25%</u>	FACU	Sapling/Shrub				
Grass sp. Common cinquefoil (Potentilla simplex)	<u>85%</u> 15%	NA FACU	Herbaceous Herbaceous				
4. Goldenrod (Solidago rugosa)	10%	FAC	Herbaceous				
Percent of Dominant Species that are OBL, FACW, and/or	FAC: <u>33.3</u>						
Is the hydrophytic vegetation criterion met? Yes $\ \square$	No ⊠						
Rationale:							
SC	DILS						
Series/Phase: Entisols Subgroup: Psamments							
Is the soil on the hydric soils list? Yes $oximes$ No $oximes$ Undetermined $oximes$							
Is the soil a Histosol? Yes □ No ⊠	Histic epipedon p	oresent? Yes 🗆	No ⊠				
Is the soil: Mottled? Yes □ No ⊠	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 □	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/A</u>	
List of other field evidence of surfa	ice inundation or	soil saturation: N/A	1
Is the wetland hydrology criterion r	met? Yes	□ No ⊠	I
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 V	<u>Vind</u>						
Plant Community#/Name: WL12 – 1W							
Note: if a more detailed site description is ne	cessary, provide c	letail here: <u>Previou</u>	s: Wetland 24 – 1	W (Wetland Point)			
Do normal environmental conditions exist at	the plant commun	ity?					
Yes \boxtimes No \square (If no, ex	rplain)						
Has the vegetation, soils, and/or hydrology b	een significantly d	listurbed?					
Yes□ No⊠ (If yes, e	explain)						
	VEGETATI	ON					
Dominant Plant Species		Percent Cover	Indicator Status	Stratum			
1. Highbush blueberry (Vaccinium cor	ymbosum)	10%	<u>FACW</u>	Sapling/Shrub			
2. Pepper Bush (Clethera alnifolia)	iol	25%	FACW	Sapling/Shrub			
 Common Reed (Phragmites austral Common Rush (Juncus effuses) 	18)	<u>50%</u> 50%	FACW OBL	Herbaceous Herbaceous			
Percent of Dominant Species that are OBL, FACW, and/or FAC: $\underline{100\%}$ Is the hydrophytic vegetation criterion met? Yes \square No \square							
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 p	resent? Yes 🗵	No □			
Is the soil: Mottled? Yes □	No ⊠	Gleyed? Yes [□ No ⊠				
Matrix Color: 0-10 10yr 2/1 mucky							
Mottle Colors:							

Is the hydric soil criterion met?	Yes ⊠	No □	
Rationale:	100 🔼		
Tationalo.		HYDROLOGY	
Is the ground surface inundated?	Voc. 🛛	No □	Surface water depth: N/a
is the ground surface mundated?	162 🖂	110 🗀	Surface water depth. Iwa
Is the soil saturated? Yes ∑	☑ No □		
Depth to free-standing water in pit	:/soil probe hole: (<u>0"</u>	
List of other field evidence of surfa	ace inundation or	soil saturation: <u>hyd</u>	drogen sulfide odor, landscape position
Is the wetland hydrology criterion	met? Yes [⊠ 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>							
Applica	nt/Owner: <u>Atlantic</u>	Shores Offshore	<u>Wind</u>				
Plant C	ommunity#/Name:	WL13 – 1U					
	a more detailed sit s: Wetland 25 – 10		ecessary, provid	e detail here: <u>Hil</u>	Islope next to wetland	<u>boundary</u>	
Do norn	nal environmental	conditions exist a	t the plant comm	unity?			
Yes ⊠	No □	(If no, e	explain)				
Has the	vegetation, soils,	and/or hydrology	been significantly	y disturbed?			
Yes□	No⊠	(If yes,	explain)				
			VEGETA	ATION			
	Dominant Plant S	Species		Percent Cove	er Indicator Status	Stratum	
1. 2.	Red Pine (Pinus Spicebush (Linde	era benzoin)	(15 ti)	1% 20%	FACU FACW	Sapling/Shrub Sapling/Shrub	
3.		rry (Vaccinium an	gustifolium)	<u>15%</u>	FACU	Sapling/Shrub	
 Raspberry (Rubus occidentalis) Grass sp. 				<u>20%</u> 95%	NA NA	Sapling/Shrub Herbaceous	
6.	Grass sp. Common cinquef	oil (Potentilla sim	nlex)	20%	FACU	Herbaceous	
7.	Bracken Fern (Pt			5%	NA NA	Herbaceous	
8.	Goldenrod (Solid		<u>''</u>	15%	FAC	Herbaceous	
Percent of Dominant Species that are OBL, FACW, and/or FAC: <u>25%</u> Is the hydrophytic vegetation criterion met? Yes □ No ⊠ Rationale:							
SOILS							
Series/F	Phase: Entisols	Subgroup: Psam	<u>nments</u>				
Is the s	oil on the hydric so	ils list? Yes ⊠] No □	Und	letermined		
Is the s	s the soil a Histosol? Yes □ No ⊠ Histic epipedon present? Yes □ No ⊠						

Is the soil:	Mottled?	Yes □	No ⊠	Gleyed?	P Yes □	No ⊠
Matrix Color: 0-7	" 10yr 2/1 or	rganic sand; 7-1	18" 2.5γ 5/3 sand			
Mottle Colors: N/	<u>A</u>					
Other hydric soil	indicators: <u>l</u>	<u> </u>				
Is the hydric soil	criterion me	t? Yes □	No ⊠			
Rationale:						
			HYDROL	.OGY		
Is the ground sur	face inunda	ited? Yes □	No ⊠		Surface water d	epth: <u>N/A</u>
Is the soil saturat	ed? Y	es 🗆	No ⊠			
Depth to free-sta	nding water	in pit/soil probe	e hole: <u>N/A</u>			
List of other field	evidence of	f surface inunda	ation or soil satura	ation: <u>N/A</u>		
Is the wetland hy	drology crite	erion met?	Yes □	No ⊠		
Rationale:						

Field In	vestigators: <u>Matt Spadoni, Jacqueline McMillen</u>	Date: <u>6</u>	<u>/24/2020</u>	
Project/	Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u>	County: Monmo	uth County	
Applica	nt/Owner: Atlantic Shores Offshore Wind			
Plant C	ommunity#/Name: WL13 -1W			
	2	a datail bara: Largo	watland congrate	d by gross ready sy
	a more detailed site description is necessary, providerline access	e detail nere. <u>Large</u>	welland separated	a by grass roadway
	s: Wetland 25 - 1W (Wetland Point)			
Do norr	nal environmental conditions exist at the plant comm	unity?		
Yes ⊠	No ☐ (If no, explain)			
Has the	vegetation, soils, and/or hydrology been significantly	/ disturbed?		
Yes⊠	No⊡ (If yes, explain) <u>grass ro</u>	adway for powerlin	e access	
£:	VEGETA	TION		
	Dominant Plant Species	Percent Cover	Indicator Status	Stratum
1.	Red Maple (Acer rubrum)	<u>5%</u>	FAC	Tree
2.	Pepperbush (Clethera alnifolia)	<u>20%</u>	<u>FACW</u>	Sapling/Shrub
3.	Arrow arum (Peltandra virginica)	<u>35%</u>	<u>OBL</u>	<u>Herbaceous</u>
4.	Narrowleaf Cattail (Typha angustifolia)	<u>85%</u>	OBL	<u>Herbaceous</u>
5.	Skunk Cabbage (Symplocarpus foetidus)	<u>5%</u>	OBL	Herbaceous
6.	Sedge sp.	<u>40%</u>	NA	<u>Herbaceous</u>
7.	Sensitive Fern (Onoclea sensibilis)	<u>5%</u>	FACW	<u>Herbaceous</u>
8.	Intermediate Fern (Dryopteris intermedia)	20%	<u>FACU</u>	<u>Herbaceous</u>
9.	Virginia Creeper (Parthenocissus quinquefolia)	<u>5%</u>	<u>FACU</u>	Woody Vine
	t of Dominant Species that are OBL, FACW, and/or Fydrophytic vegetation criterion met? Yes ⊠ale:	AC: <u>75%</u> No □		
	SOIL	.s		
Series/l	Phase: <u>Lakehurst sand & Udorthents/Entisols</u> Subgr	oup: <u>Psamments &</u>	<u>Orthents</u>	
ls the s	oil on the hydric soils list? Yes ⊠ No □]	rmined \square	

Is the soil a Histosol? Yes ⊠	No 🗆	Histic epipedon present?	Yes □ 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: <u>Hydric sulfide odor</u>						
Is the hydric soil criterion met? Yes ⊠ No □						
Rationale:						
	HYDROLO	OGY				
Is the ground surface inundated? Yes $\ oximes$	No □	Surface water de	epth: <u>2"</u>			
Is the soil saturated? Yes ⊠	No □					
Depth to free-standing water in pit/soil probe hole: 0"						
List of other field evidence of surface inundation or soil saturation: <u>hydrogen sulfide odor</u>						
Is the wetland hydrology criterion met?	Yes ⊠	No □				
Rationale:						

Field Investigators: Matt Spadoni, Jacqueline McMillen Date: 6/24/2020						
Project/Site: <u>Larabee Wetland Delineation</u> State: <u>NJ</u>	County: Monmou	th County				
Applicant/Owner: Atlantic Shores Offshore Wind						
Plant Community#/Name: WL13 – 2W						
Note: if a more detailed site description is necessary, provide detail here: <u>Low lying area</u> <u>Previous: Wetland 25 – 2W (Wetland)</u>						
Do normal environmental conditions exist at the plant commun	nity?					
Yes ⊠ No □ (If no, explain)						
Has the vegetation, soils, and/or hydrology been significantly disturbed?						
Yes□ No⊠ (If yes, explain)						
VEGETAT	ION					
Dominant Plant Species	Percent Cover	Indicator Status	Stratum			
Pepperbush (Clethra alnifolia)	<u>45%</u>	FACW	Sapling/Shrub			
2. Black Willow (Salix nigra)	5%	OBL	Sapling/Shrub			
 Common Reed (Phragmites australis) Skunk Cabbage (Symplocarpus foetidus) 	<u>98%</u> 5%	FACW OBL	Herbaceous Herbaceous			
Okumi Odbbage (Oympiosarpus loctidus)	<u> </u>	OBL	<u> </u>			
Percent of Dominant Species that are OBL, FACW, and/or FA	C: <u>100%</u>					
Is the hydrophytic vegetation criterion met? Yes $\ oxtimes$	No 🗆					
Rationale:						
SOILS						
Series/Phase: <u>Lakehurst sand & Udorthents/Entisols</u> Subgroup	up: <u>Psamments & (</u>	Orthents				
Is the soil on the hydric soils list? Yes $\ oxin{tabular}{l} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Undeter	mined \square				
Is the soil a Histosol? Yes ⊠ No □	Histic epipedon p	resent? Yes 🗆	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:				
		HYDROLOGY		
Is the ground surface inundated?	Yes ⊠	No 🗆	Surface water depth: 0.5"	
Is the soil saturated? Yes		No 🗆		
Depth to free-standing water in pit.	/soil probe	e hole: <u>0"</u>		
List of other field evidence of surfa	ice inunda	ation or soil saturation: <u>N</u>	<u>I/A</u>	
Is the wetland hydrology criterion r	met?	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) FACU 90 Herb White Clover (Trifolium repens) 15 **FACU** Herb 3. Species Name_ % Cover **STATUS** Stratum % Cover_ 4. Species Name_ STATUS Stratum Species Name % Cover STATUS Stratum 6. Species Name__ % Cover STATUS Stratum 7. Species Name % Cover Stratum STATUS 8. Species Name % Cover STATUS Stratum 9. Species Name % Cover **STATUS** Stratum % Cover 10. Species Name **STATUS** Stratum 11. Species Name % Cover Stratum **STATUS** 12. Species Name % Cover **STATUS** Stratum 13. Species Name % Cover Stratum **STATUS** 14. Species Name % Cover Stratum **STATUS** % Cover 15. Species Name **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.	Subgrou	up: 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 ☐ No ☒		Histic epidedon present? Yes ☐ No ☒
Is the soil: Mottled? Yes \square No \boxtimes		Gleyed? Yes □ No ⊠
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 $\ \square$	No ⊠	
Rationale: This is a characteristic upland soil inches.	without an	ny colors or hydric indicators. Refusal at 4-
	HYDROLO	OGY
Is the ground surface inundated? Yes □	HYDROLO No ⊠	DGY Surface water depth <u>: None</u>
	No ⊠	
Is the ground surface inundated? Yes \square	No ⊠	
Is the ground surface inundated? Yes □ Is the soil saturated? Yes □ No ☑	No ⊠ ☑ None	Surface water depth <u>: None</u>
Is the ground surface inundated? Yes Is the soil saturated? Yes No Depth to free-standing water in pit/soil probe hole: 1	No ⊠ ☑ None soil saturatio	Surface water depth <u>: None</u>

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 \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 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 5. Species Name Stratum **STATUS** 6. Species Name_ % Cover STATUS Stratum % Cover 7. Species Name **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 Stratum **STATUS** 14. Species Name % Cover **STATUS** Stratum % Cover Stratum 15. Species Name **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 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 ⊠ No □	Histic epidedon present? Yes ☐ No ⊠					
Is the soil: Mottled? Yes \square No \boxtimes	Gleyed? Yes □ No ⊠					
Matrix Color: 0-18" 10YR 2/1 100%; 18-20" 10YR 5/3	3 100% Mottle Colors: Click or tap here to enter text.					
Other hydric soil indicators: Click or tap here to en	nter text.					
Is the hydric soil criterion met? Yes ⊠ No □						
Rationale: Histosol criterion met.						
F	HYDROLOGY					
Is the ground surface inundated? Yes □	No ⊠ 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: No.						
Is the soil saturated? Yes □ No ☒ Depth to free-standing water in pit/soil probe hole: No.	I/A soil saturation: Geomorphic position and drainage patterns.					
Is the soil saturated? Yes \(\subseteq \text{No } \text{\subseteq} \) Depth to free-standing water in pit/soil probe hole: No List of other field evidence of surface inundation or so	I/A soil saturation: Geomorphic position and drainage patterns.					

Field Inv	estigators: HB, AL	Date: 06/23/2022	2				
Project/	Site: Atlantic Shores	State: NJ	County: Atlantic				
Applicar	nt/Owner: Atlantic Shores, I	LC					
Plant Co	ommunity#/Name: 37-W018	3-1U					
	a more detailed site descrip ned side of a roadway.	otion is necessary,	provide detail her	re: Area consists of mowed	grasses and is a		
Do norm	nal environmental condition	s exist at the plan	t community?				
Yes ⊠ No □		(If no, explain) Click or tap here to enter text.					
Has the	Has the vegetation, soils, and/or hydrology been significantly disturbed?						
Yes⊠ berm	No□	(If yes, explain) S	Soils were previou	sly excavated and piled to c	reate this upland		
		V	EGETATION				
	Dominant Plant Species	Percent	Cover	Indicator Status	Stratum		
1.	Red fescue (Festuca rubra	a)	90	FACU	Herb		
2.	White Clover (Trifolium rep	oens)	15	FACU	Herb		
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 a	are OBL, FACW, a	and/or FAC: 0%				
Is the hy	drophytic vegetation criteri	on met? Yes □	No ⊠				
Rationa	le: All species present are F	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 □ Undetermined □
Is the soil a Histosol? Yes \square No \boxtimes	Histic epidedon present? Yes □ No □
Is the soil: Mottled? Yes \square No \boxtimes	Gleyed? Yes □ No ⊠
Matrix Color: 0-6" 10YR 4/4 (100%) Mottle Colors: N/A	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 ground surface inundated? Yes \square Is the soil saturated? Yes \square No \boxtimes	No ⊠ Surface water depth: None
-	<i></i>
Is the soil saturated? Yes \square No \boxtimes	ne
Is the soil saturated? Yes ☐ No ☒ Depth to free-standing water in pit/soil probe hole: No	ne

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 \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 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 5. Species Name Stratum **STATUS** 6. Species Name_ % Cover STATUS Stratum % Cover 7. Species Name **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 Stratum **STATUS** 14. Species Name % Cover **STATUS** Stratum % Cover Stratum 15. Species Name **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 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	lo Undetermined
Is the soil a Histosol? Yes ☐ No ☒	Histic epidedon 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 3/4 100% Mottle Colors: 7.5YR 4/6 2%
Other hydric soil indicators: Redox Dark Surface	
Is the hydric soil criterion met? Yes ⊠	lo 🗆
Rationale: Redox dark surface criterion met.	
НҮІ	DROLOGY
	DROLOGY lo ⊠ Surface water depth <u>: N/A</u>
Is the ground surface inundated? Yes	
Is the ground surface inundated? Yes \(\sigma\) No \(\sigma\) Is the soil saturated? Yes \(\sigma\) No \(\sigma\) Depth to free-standing water in pit/soil probe hole: N/A	
Is the ground surface inundated? Yes \(\sigma\) No \(\sigma\) Is the soil saturated? Yes \(\sigma\) No \(\sigma\) Depth to free-standing water in pit/soil probe hole: N/A	lo ⊠ Surface water depth <u>: N/A</u>
Is the ground surface inundated? Yes \(\sigma\) No \(\sigma\) Is the soil saturated? Yes \(\sigma\) No \(\sigma\) Depth to free-standing water in pit/soil probe hole: N/A List of other field evidence of surface inundation or soil	lo ⊠ Surface water depth <u>: N/A</u> saturation: Geomorphic position and drainage patterns.

Data Form

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 X 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 1. Green Ash (Fraxinus pennsylvanica) 10 **FACW** Tree 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 Northern Spicebush (Lindera benzoin) FACW 5. 5 Sapling/Shrub Skunk Cabbage (Symplocarpus foetidus) 80 OBL 6. Herb 7. Soft Rush (Juncus effucus) 30 OBL Herb 8. Ostrich Fern (Matteuccia struthiopteris) 20 FACW Herb Sensitive Fern (Onoclea sensibilis) 9. 10 FACW Herb 10. Species Name % Cover **STATUS** Stratum % Cover Stratum 11. Species Name **STATUS** 12. Species Name % Cover **STATUS** Stratum % Cover Stratum 13. Species Name **STATUS** 14. Species Name % Cover **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: Majority of species present are FAC, FACW, or OBL.

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 ☐ No ☒	Histic epidedon present? Yes ☐ No ☒								
Is the soil: Mottled? Yes $oximes$ No $oximes$	Gleyed? Yes □ No ⊠								
Matrix Color: 0-6" 10YR 3/2 100%; 6-12" 10YR 4/2 9	5% Mottle Colors: 10YR 5/6 5%								
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 $\ oximes$	No ☐ Surface water depth: 6 inches								
Is the soil saturated? Yes $oximes$ No $oximes$									
Depth to free-standing water in pit/soil probe hole: 0 inches									
- a- a									
	oil saturation: Water-stained leaves, geomorphic position and								
List of other field evidence of surface inundation or s									
List of other field evidence of surface inundation or s drainage patterns.	No □								

Data Form

Routine Onsite Determination Form

Field Inv	Field Investigators: HB, MD Date: 07/11/2022							
Project/Site: Atlantic Shores State: NJ County: Monmouth								
Applicar	nt/Owner: Atlantic Shores, I	LC						
Plant Co	ommunity#/Name: 37-W019	9-1U						
	a more detailed site descrip side of a roadway.	otion is necessary	provide detail her	e: Area consists of herbace	ous vegetation			
Do norm	nal environmental condition	s exist at the plan	t community?					
Yes ⊠	No 🗆	(If no, explain) C	lick or tap here t	o enter text.				
Has the	vegetation, soils, and/or hy	drology been sigr	nificantly disturbed	?				
Yes⊠ berm	No□	(If yes, explain) S	Soils were previou	sly excavated and piled to c	reate this upland			
		ν	EGETATION					
	Dominant Plant Species	Percen	: Cover	Indicator Status	Stratum			
1.	Canada Goldenrod (Solida	ago canidensis)	40	FACU	Herb			
2.	Devil's Beggartick (Bidens		30	FACW	Herb			
3.	Poison Ivy (Toxicodendroi	n radicans)	40	FAC	Herb			
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 a	are OBL, FACW, a	and/or FAC: 50%					
Is the hy	drophytic vegetation criteri	on met? Yes □	No ⊠					
Rational	le: Fails the dominance test	t.						

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 □ No ⊠							
Matrix Color: 0-12" 5Y 2.5/1 (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 wi	ithout any colors or hydric indicators.							
н	YDROLOGY							
Is the ground surface inundated? Yes $\ \square$	No ⊠ Surface water depth: None							
Is the soil saturated? Yes \square No \boxtimes								
Depth to free-standing water in pit/soil probe hole: No	one							
List of other field evidence of surface inundation or so	oil saturation: None							
Is the wetland hydrology criterion met? Yes $\ \square$	No ⊠							
Rationale: No primary or secondary wetland hydrolog	y indicators exist.							

Data Form

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-W019-1W 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 \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 1. Sweet Gum (Liquidambar styraciflua) 10 FAC Tree Gray Dogwood (Liquidambar styraciflua) 10 FAC Tree 3. Soft Rush (Juncus effusus) 50 OBL Herb 4. Flat-top Goldentop (Euthamia graminifolia) 30 FAC Herb Mile-a-Minute (Persicaria perfoliate) 20 5. FAC Herb Common Reed (Phragmites australis) 20 6. **FACW** Herb Wrinkle-Leaf Goldenrod (Solidago rugosa) 30 FAC Herb 8. Species Name % Cover **STATUS** Stratum Species Name % Cover **STATUS** Stratum 10. Species Name % Cover **STATUS** Stratum 11. Species Name % Cover Stratum **STATUS** 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: 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 ent	er text.
Is the soil on the hydric soils list? Yes $\ \square$	No 🗆	Undetermined	
Is the soil a Histosol? Yes \square No \boxtimes	Histic (pidedon present? Y	es □ No ⊠
Is the soil: Mottled? Yes $oximes$ No $oximes$	Gleyed	? Yes □ I	No 🗵
Matrix Color: 0-12" 10YR 2/1 100%; 12-18" 10YR 4/2	95% Mottle	Colors: 7.5YR 4/6 5%	6
Other hydric soil indicators: Depleted Matrix			
Is the hydric soil criterion met? Yes ⊠	No □		
Rationale: Depleted Matrix criterion met.			
н	IYDROLOGY		
Is the ground surface inundated? Yes $\ \square$	No ⊠	Surface water dep	th <u>: N/A</u>
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 se	oil saturation: Ge	morphic position and	d drainage patterns.
Is the wetland hydrology criterion met? Yes ⊠	l No □		
Rationale: Two secondary indicators present.			

Project/Site:	COP South Larrabee	City/County: M	onmouth County	, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW	70	Sta	ate: New Jersey	Sampling Point:	26-W008-1U
Investigator(s):	ALTC	Section, Township, Ra	inge:	Monmouth	n County, NJ	
Landform (hillslope, terrace, etc):	Hillslope Local	relief (concave, convex, i	none):	convex	Slope	∍ (%): 0-3
Subregion (LRR or MLRA):	LRR S Lat:	40.1208965	Long:	-74.196008	33 Datui	m: WGS 1984
Soil Map Unit Name:	Atsion sand, 0 to 2 percent slopes,	Northern Tidewater Area	la	NWI classification	on:	
Are climatic / hydrologic conditions or	the site typical for this time of year?	Yes X No	(lf no,	explain in Remark	(s.)	
Are Vegetation, Soil			Are "Normal Circ	cumstances" prese	ent? Yes	X No
the state of the s	, or Hydrologynaturally p		A	in any answers in		
SUMMARY OF FINDINGS - A	Attach site map showing sar	npling point locati	ons, transec	ts, important	features, etc.	
Hydrophytic Vegetation Present?	Yes No X	Is the Sam	pled Area			
Hydric Soil Present?	Yes X No	— within a W	etland?	Yes	No	
Wetland Hydrology Present?	Yes NoX	If yes, option	onal Wetland Site			
Remarks: (Explain alternative proc	edures here or in a separate report.)	'				
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)		ed Leaves (B9)	-	Surface Soi	l Cracks (B6)	· · · · · · · · · · · · · · · · · · ·
High Water Table (A2)	Aquatic Fau	na (B13)		Drainage Pa	atterns (B10)	
Saturation (A3)	Marl Deposit	ts (B15)		Moss Trim L	₋ines (B16)	
Water Marks (B1)	Hydrogen Si	ulfide Odor (C1)		Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	N 	izospheres on Living Ro	ots (C3)	Crayfish Bu	the second Mr. 1999 on the second	
Drift Deposits (B3)	N 	Reduced Iron (C4)			/isible on Aerial Im	
Algal Mat or Crust (B4)	10	Reduction in Tilled Soils	(C6)	 :	Stressed Plants (D	1)
Iron Deposits (B5)	Thin Muck S				Position (D2)	
Inundation Visible on Aerial In	A TOTAL CONTRACTOR OF THE PARTY	ain in Remarks)		— Shallow Aqu		
Sparsely Vegetated Concave	Surface (B8)				raphic Relief (D4)	
				FAC-Neutra	ii Tesi (D5)	
Field Observations:		,				
Surface Water Present?	Yes NoX Depth (inch	nes):				
Water Table Present?	Yes NoX Depth (inch	nes):				
Saturation Present?	Yes NoX Depth (inch	nes):	Wetland Hyd	rology Present?	Yes	No X
(includes capillary fringe)						
Describe Besended Date (etnomes						
Describe Recorded Data (stream g	auge, monitoring well, aerial photos,	previous inspections), if	avaliable:			
Remarks:						
May a transition of the Control of t						

Sampling Point: **VEGETATION - Use scientific names of plants.** 26-W008-1U Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A) Absolute Dominant Indicator % Cover_ 30 Feet Tree Stratum (Plot size: Species? Status Total Number of Dominant FAC 1. Acer rubrum / Red maple Yes _ (B) Species Across All Strata: 2. Juniperus virginiana / Eastern red-cedar 30 Yes Smilax rotu 3. Liquidambar styraciflua / Sweetgum 10 No FAC Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: 70 = Total Cover OBL species 0 x 1 = ___ Sapling/Shrub Stratum (Plot size: ____15 Feet 0 x 2 = FACW species x 3 = 45 135 FAC species 35 x 4 = FACU species 0 0 UPL species x 5 = Column Totals: (A) Prevalence Index = B/A = 3.44 0 = Total Cover Hydrophytic Vegetation Indicators: Herb Stratum (Plot size: 5 Feet) 1 - Rapid Test for Hydrophytic Vegetation 1. Smilax rotundifolia / Horsebrier FAC Yes 2 - Dominance Test is >50% **FACU** 2. Ilex opaca / American holly 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. 7. 8. **Definitions of Vegetation Strata** 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 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: <u>26-W008-1U</u>

Profile Descri	iption: (Describe to th Matrix	ne depth need		ne indicator	or confirm	the abse	nce of indicators	s.)		
(inches)	Color (moist)	 _	Color (moist)	%	Type ¹	Loc²	Texture		Remarks	
0-18	10YR 2/2	100	(Fine Sndy Lm			
				- <u> </u>				3		
		io.					:			
	centration, D=Depletion	n, RM=Reduce	d Matrix, MS=Mask	ked Sand Gra	ains.		²Locat	tion: PL=Pore	Lining, M=Mat	ix.
Black His Hydroger Stratified Depleted X Thick Dar Sandy Mo Sandy Gl Sandy Re Stripped Dark Surf	A1) pedon (A2) tic (A3) n Sulfide (A4) Layers (A5) Below Dark Surface (At) k Surface (A12) ucky Mineral (S1) eyed Matrix (S4)	.RA 149B)	Polyvalue Below Thin Dark Surfa Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	ce (S9) (LR fineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7) ons (F8)	R R, MLRA (LRR K, L)	4 149B)	9B) 2 cm I Coast 5 cm I Dark \$ Polyva Thin I Iron-N Piedm Mesic Red F Very \$ Other	Muck (A10) (I Prairie Redox Mucky Peat or Surface (S7) alue Below Su Dark Surface (Manganese Ma nont Floodplair Spodic (TA6) Parent Materia	urface (S8) (LR S9) (LRR K, L asses (F12) (L n Soils (F19) (N (MLRA 144A Il (F21) Surface (TF12)	A 149B) K, L, R) R K, L, R) R K, L) L) LR K, L, R) JLRA 149B) , 145, 149B)
Туре:	ayer (if observed):		_					- 10	V V	
Depth (income Remarks:	nes):						Hydric Soil Pr	resent?	Yes X	No

Project/Site:	COP South Larrabee	_ City/County:M	Ionmouth County,	NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW		Stat	te: New Jersey	Sampling Point:	26-W008-1W
Investigator(s):	ALTC	Section, Township, Ra	-		n County, NJ	
Landform (hillslope, terrace, etc):		relief (concave, convex,	none):	concave		
Subregion (LRR or MLRA):			Long:	-74.196000	5 Datur	n: WGS 1984
Soil Map Unit Name:				NWI classification	77	
	on the site typical for this time of year?	and the second s		explain in Remark		
Are Vegetation, Soil			Are "Normal Circu		Annual Control of the	X No
CONTRACTOR OF THE CONTRACTOR O	, or Hydrologynaturally		(If needed, explai	s com 🌃 sac source		
SUMMARY OF FINDINGS -	Attach site map showing sai	mpling point locati	ons, transect	s, important	features, etc.	
Hydrophytic Vegetation Present?	YesX No	Is the Sam	npled Area			
Hydric Soil Present?	Yes X No	within a W	letland?	Yes	No	_
Wetland Hydrology Present?	Yes X No	If yes, optic	onal Wetland Site			
Remarks: (Explain alternative prod	cedures here or in a separate report.)	1				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	ne required: check all that apply)			Secondary Indica	ators (minimum of t	two required)
Surface Water (A1)	X Water-Stain	ed Leaves (B9)			l Cracks (B6)	
High Water Table (A2)	Aquatic Fau	ına (B13)		Drainage Pa	atterns (B10)	
Saturation (A3)	Marl Deposi	ts (B15)		Moss Trim L	ines (B16)	
Water Marks (B1)		ulfide Odor (C1)			Water Table (C2)	
Sediment Deposits (B2)	33 	nizospheres on Living Ro	ots (C3)	— Crayfish Bu	No. of the last of	90 <u>000</u> 0
Drift Deposits (B3)		Reduced Iron (C4)	(20)	The second control of	isible on Aerial Im	
Algal Mat or Crust (B4) Iron Deposits (B5)	10	Reduction in Tilled Soils Surface (C7)	(C6)		Stressed Plants (D Position (D2)	1)
Inundation Visible on Aerial In	N 	ain in Remarks)		— Shallow Aqu		
X Sparsely Vegetated Concave	A STATE OF THE PARTY OF THE PAR	an in Remarkey			aphic Relief (D4)	
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			FAC-Neutra		
		7	Tr.	PROPERTY TO A PROPERTY OF THE		
Field Observations:	No. V. Double/in-					
Surface Water Present?	Yes NoX Depth (incl	, § 1 1				
Water Table Present? Saturation Present?	Yes No X Depth (incl	, j 1 1	Motland Hude	-l-av Bracant?	Voc. V	No
(includes capillary fringe)	Yes NoX Depth (incl	nes):	Wetiand nyun	ology Present?	Yes X	No
(morates capitally minge)						
Describe Recorded Data (stream	gauge, monitoring well, aerial photos,	previous inspections), if	available:			
Print auton						
Remarks:						
1						
1						
1						
1						
1						
1						
1						

				Dominance Test worksheet:
				Number of Dominant Species
				That Are OBL, FACW, or FAC: 3 (A)
	Absolute	Dominant	Indicator	
ee Stratum (Plot size: 30 Feet)	% Cover	Species?	Status	Total Number of Dominant
Acer rubrum / Red maple	80	Yes	FAC	Southwest stay of succession of the Decoder of the Control of the
	1920	50-G 50-G	\$000 \$000	Species Across All Strata: 3 (B)
2	180	2/4	28	
				Percent of Dominant Species
		27	210	That Are OBL, FACW, or FAC: 100.0 (A/B)
				Scholer dags decorated AM System Print System Syste
				Prevalence Index worksheet:
	_			Total % Cover of: Multiply by:
	80	= Total Cov	er	OBL species 0 x 1 = 0
pling/Shrub Stratum (Plot size: 15 Feet)	-			FACW species 0 x 2 = 0
Acer rubrum / Red maple	80	Yes	FAC	200 A 100 A
		0.7	0.000	
	_		-	FACU species 0 x 4 = 0
-				UPL species0 x 5 =0
		100	100	Column Totals: <u>165</u> (A) <u>495</u> (B)
	_	- 1	<u> </u>	
		240	7-10	Prevalence Index = B/A = 3.0
				Trovalorito irraox
	80	= Total Cov	er	Hydrophytic Vegetation Indicators:
rb Stratum (Plot size: 5 Feet)				1 - Rapid Test for Hydrophytic Vegetation
The state of the s	-	V	E4.0	
Smilax rotundifolia / Horsebrier	5	Yes	FAC	X 2 - Dominance Test is >50%
				X 3 - Prevalence Index ≤3.0¹
				4 - Morphological Adaptations¹ (Provide supporting
				Problematic Hydrophytic Vegetation¹ (Explain)
			100	
			N/O	¹Indicators of hydric soil and wetland hydrology must
		-07	<u> </u>	and control of the state of the
		272	212	be present, unless disturbed or problematic.
		-8 ¥		Definitions of Venezation Courts
		-		Definitions of Vegetation Strata
		- 1.03		Tree - Woody plants 3 in. (7.6 cm) or more in diameter at
		-0.0		breast height (DBH), regardless of height.
		= Total Cov		Sapling/shrub - Woody plants less than 3 in. DBH and
LAC OF CONTRACTOR		- 10tal C0V	CI	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
		- 2	-	size, and woody plants less than 3.28 ft tall.
	4670	194	5/60 5/60	Transported Commonwealth Control (Control Control Cont
			3/8	Woody vines - All woody vines greater than 3.28 ft in
		1.0		height.
		= Total Cov	er	
		- 10181000	OI.	Hydrophytic
				Vegetation
				Present? Yes X No

SOIL Sampling Point: 26-W008-1W

	iption: (Describe to th	ne depth need			or confirm	the abse	nce of indicators.)	
Depth	Matrix		Jule 20 De la UNIO	(Features	- 1		-	5
_(inches)	Color (moist)	<u></u>	Color (moist)		Type ¹	Loc ²	Texture	Remarks
<u> </u>	10YR 2/1	100		- 0			Fine Sndy Lm	
	45			·			2	
		» 		· :		-	2	
-	2			- (
= = = = = = = = = = = = = = = = = = = =				- 1				
· · · · · · · · · ·	7	745 <u></u> 7		-			·—— ·—	
-		7 1		- 12			S	
				- 15			· · · · · ·	
-		ko 		- 3			·	
	*			- E			3	
*	·	(e) 		= 81				
¹Type: C=Con	centration, D=Depletio	n, RM=Reduce	ed Matrix, MS=Mask	ked Sand Gr	ains.		²Location	n: PL=Pore Lining, M=Matrix.
Hydric Soil Ir	ndicators:						Indicators fo	r Problematic Hydric Soils³:
Histosol			Polyvalue Belov	v Surface (Sa	8) (LRR R .	MLRA 149		ick (A10) (LRR K, L, MLRA 149B)
BERTONION	ipedon (A2)	·	Thin Dark Surfa	ST STORY DESCRIPTION AND IN			manage	rairie Redox (A16) (LRR K, L, R)
Black His	10 (8 %)		Loamy Mucky M					icky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	_	Loamy Gleyed N		,,_,			rface (S7) (LRR K, L)
The same of the sa	Layers (A5)	-	Depleted Matrix				2 CONT. 150 SA	e Below Surface (S8) (LRR K, L)
	Below Dark Surface (/	A11) –	Redox Dark Sur					k Surface (S9) (LRR K, L)
	rk Surface (A12)		— Depleted Dark S	8 8				nganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)	_	 Redox Depressi 				1-3	nt Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)	-						podic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							ent Material (F21)
	Matrix (S6)						C source contract	allow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, ML	.RA 149B)						xplain in Remarks)
							7 355454 (March 1967)	
³ Indicators of	hydrophytic ∨egetation	and wetland h	ydrology must be p	resent, unles	s disturbed	or probler	matic.	
Restrictive L	ayer (if observed):							
Туре:	· ·							
Depth (ind	ches):						Hydric Soil Pres	sent? Yes X No
Remarks:								

Project/Site:	COP South Larrabee	City/County: Me	lonmouth County	, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW	-	Sta	ate: New Jersey	Sampling Point:	26-W009-1U
Investigator(s):	ALTC	Section, Township, Ra			County, NJ	
Landform (hillslope, terrace, etc):	Berm Local	relief (concave, convex, r	none):	convex		e (%): 0-10
Subregion (LRR or MLRA):	_	40.11846917	Long:	-74.1956928	33 Datu	m: WGS 1984
Soil Map Unit Name:				NWI classification	on:	
	on the site typical for this time of year?	and the second s		explain in Remark	and the second	
	: :: :			cumstances" prese	Annual Control of the	X No
CONTRACTOR OF THE CONTRACTOR O	, or Hydrologynaturally			in any answers in		
SUMMARY OF FINDINGS -	Attach site map showing sa	mpling point location	ons, transec	ts, important	features, etc.	3
Hydrophytic Vegetation Present?	Yes NoX	Is the Sam	pled Area			
Hydric Soil Present?	Yes No X	within a We	etland?	Yes	NoX	_
Wetland Hydrology Present?	Yes NoX	If yes, optic	onal Wetland Site	؛ ID:		3
, ,	cedures here or in a separate report.)	•				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	ne required; check all that apply)			Secondary Indica	ators (minimum of	two required)
Surface Water (A1)		ed Leaves (B9)	-		Cracks (B6)	
High Water Table (A2)	Aquatic Fau	ına (B13)		Drainage Pa	atterns (B10)	
Saturation (A3)	Marl Deposi	its (B15)		Moss Trim L	ines (B16)	
Water Marks (B1)		Sulfide Odor (C1)	10 000000000		Water Table (C2)	
— Sediment Deposits (B2)	×	nizospheres on Living Roo	ots (C3)	— Crayfish Bui	na managa Mari Mari an an an	0220
Drift Deposits (B3)	N	f Reduced Iron (C4)	(50)	The second control of	isible on Aerial Im	
Algal Mat or Crust (B4) Iron Deposits (B5)	500 NASSIGN 170 NA 170 NA	Reduction in Tilled Soils Surface (C7)	(C6)		Stressed Plants (D : Position (D2)	1)
Inundation Visible on Aerial In	1	ain in Remarks)		— Geomorphic Shallow Aqu	AND THE RESERVE OF THE PARTY OF	
Sparsely Vegetated Concave	A STATE OF THE PARTY OF THE PAR	and the recination			aphic Relief (D4)	
	Julius (22)			FAC-Neutra		
			B	THE FORM THE DESIGNATION OF SEC.	To the state of th	
Field Observations:			i			
Surface Water Present?	Yes No _X Depth (inc	. :	i			
Water Table Present?	Yes NoX Depth (inc	_	Medand Hydi	! Brocont?	Vaa	N. V
Saturation Present? (includes capillary fringe)	Yes NoX Depth (inc	nes):	vvetiana nyar	rology Present?	Yes	No <u>X</u>
(Includes capillary Image)						
Describe Recorded Data (stream	gauge, monitoring well, aerial photos,	previous inspections), if	available:			
- Problem into						
Remarks:						
1						
1						
1						
1						

Sampling Point: **VEGETATION - Use scientific names of plants.** 26-W009-1U Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A) Absolute Dominant Indicator Tree Stratum (Plot size: 30 Feet) % Cover Species? Status Total Number of Dominant _ (B) Species Across All Strata: Percent of Dominant Species (A/B) That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: 0 = Total Cover OBL species 0 x 1 = ____ Sapling/Shrub Stratum (Plot size: 15 Feet FACW species 0 x 2 = _ x3= 0 FAC species 20 FACU species x 4 = 0 UPL species x 5 = 0 (A) _ Column Totals: Prevalence Index = B/A = ____ 4.0 0 = Total Cover 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) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 8. **Definitions of Vegetation Strata** 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 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 Yes _____ No __X Present? Remarks: (Explain alternative procedures here or in a separate report.)

SOIL Sampling Point: <u>26-W009-1U</u>

Profile Desc Depth	ription: (Describe to th Matrix	ne depth nee		ne indicator x Features	or confirm	the absen	ce of indicators.)		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks	E .
0-6	10YR 3/2	100	Color (moloc)		1900		Fine Sand	romana	
6-18	10YR 5/8	100	,	- 3	· · · · · · · · ·		Fine Sand		
	1011(3/6		;	- 0 					
	. <u>5</u> v	, .		- H					
-	-			- 9	-				
-	-			- 1					
<u>-</u>	Ÿ								*
<u>-</u>	¥	w		- ×					
-	·								
-		:::		- a					e
*	-		2	- &			:		
-	Y	::	2	- :					
5				-	 .				
¹Type: C=Cor	ncentration, D=Depletio	n, RM=Reduc	ced Matrix, MS=Mas	ked Sand Gr	ains.		²Location:	PL=Pore Lining, M=	·Matrix.
Hydric Soil I	ndicators:						Indicators for	Problematic Hydric	: Soils³:
Histosol	(A1)		Polyvalue Belov	w Surface (Sa	8) (LRR R ,I	MLRA 149	B) 2 cm Muc	k (A10) (LRR K, L, I	VILRA 149B)
— Histic Er	ipedon (A2)	5	Thin Dark Surfa				propose a propos	irie Redox (A16) (L	RR K, L, R)
Black Hi		•	— Loamy Mucky N			.5		ky Peat or Peat (S3)	
	n Sulfide (A4)	•	Loamy Gleyed I					ace (S7) (LRRK, L	
	Layers (A5)	•	Depleted Matrix				707 D	Below Surface (S8)	
	l Below Dark Surface (/	A11) .	Redox Dark Su				A CONTRACTOR OF THE PARTY OF TH	Surface (S9) (LRR	
	rk Surface (A12)		Depleted Dark	Surface (F7)				anese Masses (F12	
Sandy N	lucky Mineral (S1)	•	Redox Depress	ions (F8)			— Piedmont	Floodplain Soils (F1	9) (MLRA 149B)
	leyed Matrix (S4)							odic (TA6) (MLRA 1	
	edox (S5)							nt Material (F21)	CONTRACTOR SALES
	Matrix (S6)						S and the second	ow Dark Surface (Th	F12)
State and the state of the stat	face (S7) (LRR R, ML	.RA 149B)						olain in Remarks)	:::: :
								.	
³ Indicators of	hydrophytic ∨egetation	and wetland	hydrology must be p	resent, unles	s disturbed	or problem	ratic.		
Restrictive L	ayer (if observed):								
Туре:	90 55 Vinds								
Depth (in	ches):		<u> </u>				Hydric Soil Prese	nt? Yes	NoX
Remarks:									

Project/Site:	COP South Larrabee	City/County: N	Ionmouth County	, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW		Sta	ate: New Jersey	Sampling Point:	26-W009-1W
Investigator(s):	ALTC	Section, Township, R	ange:	Monmouth	n County, NJ	
Landform (hillslope, terrace, etc):	Depressional area Loca	 I relief (concave, convex,	none):	concave	Slope	e (%): 0-3
Subregion (LRR or MLRA):	LRR S Lat:	40.11845617	Long:	-74.1958350	33 Datu	m: WGS 1984
Soil Map Unit Name:				_ NWI classification	on:	
Are climatic / hydrologic conditions or			(lf no,	explain in Remark	s.)	
Are Vegetation, Soil			Are "Normal Circ	cumstances" prese	ent? Yes	X No
the control of the co	, or Hydrologynaturally			ain any answers in		
SUMMARY OF FINDINGS - A	Attach site map showing sa	mpling point locat	ions, transec	ts, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X No	Is the San	npled Area			
Hydric Soil Present?	Yes X No	within a V	Vetland?	Yes X	No	_
Wetland Hydrology Present?	Yes <u>X</u> No	lf yes, opti	onal Wetland Site	∍ ID:	26-W009-1W	
Remarks: (Explain alternati∨e proce	edures here or in a separate report.	•				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of one	e required; check all that apply)			Secondary Indica	ators (minimum of	two required)
Surface Water (A1)	X Water-Stail	ned Leaves (B9)	- Cal	Surface Soil	Cracks (B6)	
X High Water Table (A2)	Aquatic Fa	una (B13)		Drainage Pa	atterns (B10)	
X Saturation (A3)	Marl Depos	sits (B15)		Moss Trim L	ines (B16)	
Water Marks (B1)	T	Sulfide Odor (C1)			Water Table (C2)	
Sediment Deposits (B2)	17	hizospheres on Living Ro	oots (C3)	— Crayfish Bui		50000
Drift Deposits (B3)	No.	of Reduced Iron (C4)	\$10000	The second of the second	isible on Aerial Im	
Algal Mat or Crust (B4)		Reduction in Tilled Soils	s (C6)		Stressed Plants (D	1)
Iron Deposits (B5)	N ame and the same and the same	Surface (C7)			Position (D2)	
Inundation Visible on Aerial Im	The state of the s	lain in Remarks)		Shallow Aqu		
Sparsely Vegetated Concave	Surface (B8)				aphic Relief (D4)	
				X FAC-Neutra	r rest (D3)	
Field Observations:						
Surface Water Present?	Yes NoX Depth (in	ches):				
Water Table Present?	Yes X No Depth (in	ches):12	4872020 26			
200 A	Yes X No Depth (in	ches):0	Wetland Hyd	rology Present?	Yes X	No
(includes capillary fringe)						
Describe Recorded Data (stream of	auge, monitoring well, aerial photos	nrevious inspections) if	available:			
Describe Neserded Bata (stream g	adge, morntorning went, derial priotos	, previous inspections, ii	avanabic.			
Remarks:						

				Sampling Point: 26-W009-1W
				Dominance Test worksheet:
				Number of Dominant Species
				property of the property interpretation of the contraction of the cont
	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
2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5			Species Across All Strata: 3 (B)
Acer rubrum / Red maple	5	Yes	<u>FAC</u>	
		-		Percent of Dominant Species
2	600	200	200	Mary Adversary London, Delays Control And Antiques (Antiques Antiques Antiq
				That Are OBL, FACW, or FAC: 100.0 (A/B)
	100	0.0	7.7	
				Prevalence Index worksheet:
			_	Total % Cover of: Multiply by:
	25	= Total Cov	⁄er	OBL species 0 x 1 = 0
apling/Shrub Stratum (Plot size: 15 Feet)	-			FACW species 20 x 2 = 40
Clethra alnifolia / Coastal sweet-pepperbush	75	Yes	FAC	
e <u>- 1700, 1</u>		100	5.0	FAC species <u>85</u> x 3 = <u>255</u>
Acer rubrum / Red maple	5	No	<u>FAC</u>	FACU species 0 x 4 = 0
		265	300	UPL species 0 x 5 = 0
			5/10	
-			10	Column Totals: (A) (B)
57 5		232		
	(10)	-71	-116	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
				I — 1 1 1 1 1
<u> </u>		- n	-:	X 2 - Dominance Test is >50%
				X 3 - Prevalence Index ≤3.0¹
				4 - Morphological Adaptations¹ (Provide supporting
				Problematic Hydrophytic Vegetation¹ (Explain)
	Ages	5/2-23 14	59.0	
			1/40 1/40	Indicators of hydric soil and wetland hydrology must
		-0,		be present, unless disturbed or problematic.
		232	-71	be present, unless distarbed of problematic.
		-674		Definitions of Monatotical Courts
	77.75			Definitions of Vegetation Strata
)		-32.4		
)	(X)	-0-		Tree - Woody plants 3 in. (7.6 cm) or more in diameter at
		-04		breast height (DBH), regardless of height.
2	7/2	1.0.		
	0	= Total Cov	⁄er	Sapling/shrub - Woody plants less than 3 in. DBH and
oody Vine Stratum (Plot size: 30 Feet)		-8		greater than or equal to 3.28 ft (1 m) tall.
				Herb - All herbaceous (non-woody) plants, regardless of
<u> </u>				size, and woody plants less than 3.28 ft tall.
		20-23 		Management (Suppose to the Control of Suppose to the Control of Suppo
		200	255	Woody vines - All woody vines greater than 3.28 ft in
				height.
```		- T-4-LO-	-7%	
	0	= Total Cov	er .	Hydrophytic
				Vegetation
				***************************************
				Present? Yes X No

SOIL Sampling Point: 26-W009-1W

	iption: (Describe to th	e depth neede			or confirm	the absen	ce of indicators.)	
Depth	Matrix		30at 20 0a ol 04-0	Features		1 2	7 <del>-</del> 0 3	B
(inches)	Color (moist)	N	Color (moist)	<u> </u>	Type¹	Loc²	Texture	Remarks
0-24	10YR 2/1	100		-			Muck	
	Jr						<del></del>	
	J <del>.</del>			· 10				
-								
-	<u> </u>	3 <del></del>		-			<del></del>	<del></del>
	*	·		. ——				
	*			. ::			· · · · · · · · · ·	
	Y			· 19				
-	( <del>-</del>	:: <del></del>		· 5 <u></u>		s		
-							·	
-	·			• 6———				s
¹Type: C=Con	centration, D=Depletion	n, RM=Reduced	Matrix, MS=Mask	ed Sand Gra	ains.		²Locatio	on: PL=Pore Lining, M=Matrix.
Hydric Soil Ir	ndicators:						Indicators fo	or Problematic Hydric Soils³:
X Histosol			Polyvalue Below	Surface (S8	3) (LRR R.I	MLRA 149		uck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)	<del></del>	Thin Dark Surface	STOREST STORES			HANN THE PROPERTY OF THE PROPE	Prairie Redox (A16) (LRR K, L, R)
Black His	50 (8 5)	· ·	Loamy Mucky M			(1430)	_	ucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	-	Loamy Gleyed N					urface (S7) (LRR K, L)
The same of the sa	Layers (A5)	-	Depleted Matrix				3 70 W 10 Ex	ue Below Surface (S8) (LRR K, L)
The same of the sa	Below Dark Surface (A	<u> </u>	Redox Dark Sur					ark Surface (S9) (LRR K, L)
	rk Surface (A12)		Depleted Dark S	2 5				inganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)	<del></del>	Redox Depressi				( <del></del>	nt Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)	<del></del>		()				Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							rent Material (F21)
	Matrix (S6)						A second the second	nallow Dark Surface (TF12)
- Contractive Cont	face (S7) (LRR R, ML	RA 149B)					The second second second	Explain in Remarks)
3Indicators of	hydrophytic vegetation	and wetland hyd	drology must be pr	esent, unles	s disturbed	or problem	atic.	
Restrictive La	ayer (if observed):							
Type:	and Addition		_					
Depth (inc	ches):		_				Hydric Soil Pres	sent? Yes <u>X</u> No
Remarks:						· <u>\$</u> 2.		

Project/Site:	COP South Larrabee	City/County: Me	onmouth County	ı, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW	A CONTRACT OF STREET OF ST	Sta	ate: New Jersey	Sampling Point:	26-W010-1U
Investigator(s):	ALTC	Section, Township, Ra	inge:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Hillslope Local r	relief (concave, convex, r	none):	con∨ex	Slope	(%): 0-5
Subregion (LRR or MLRA):	LRR S Lat:	40.1154725	Long:	-74.1760663	33 Datun	n: WGS 1984
Soil Map Unit Name:	Berryland sand, 0 to 2 percent slop	pes, frequently flooded		NWI classification	n:	
Are climatic / hydrologic conditions o	n the site typical for this time of year?	Yes X No	(lf no,	explain in Remarks	s.)	
Are Vegetation, Soil	, or Hydrologysignificantl	ly disturbed?	Are "Normal Circ	cumstances" prese	nt? Yes	K No
Are Vegetation, Soil	, or Hydrologynaturally p	roblematic?	(If needed, expla	ain any answers in	Remarks.)	
SUMMARY OF FINDINGS - A	Attach site map showing san	npling point location	ons, transec	ts, important f	features, etc.	
Hydrophytic Vegetation Present?	Yes X No	Is the Sam	pled Area			
Hydric Soil Present?	Yes No X	— within a We	etland?	Yes	No	
Wetland Hydrology Present?	Yes No X	If yes, optio	nal Wetland Site			-
300				5.		
Remarks: (Explain alternative prod	edures here or in a separate report.)					
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	o required; shock all that apply)			Socondary Indias	tors (minimum of t	wo required)
Surface Water (A1)		ed Leaves (B9)			Cracks (B6)	wo required)
High Water Table (A2)	— Aquatic Faun	tion supervision and experience		St. parameters some men en en en	itterns (B10)	
Saturation (A3)	Marl Deposits			Moss Trim L	Medicines 2 serve	
Water Marks (B1)		ulfide Odor (C1)			Water Table (C2)	
Sediment Deposits (B2)	The state of the s	zospheres on Living Roc	ots (C3)	Crayfish Bur	emmanus AG AR	
Drift Deposits (B3)	N <del></del>	Reduced Iron (C4)	210 (00)		isible on Aerial Im:	agery (C9)
Algal Mat or Crust (B4)	The state of the s	Reduction in Tilled Soils	(C6)	The second second second	tressed Plants (D1	J70 5 18 6
Iron Deposits (B5)	Thin Muck Su		(00)		Position (D2)	,
Inundation Visible on Aerial Ir	N=	in in Remarks)		— Shallow Aqu		
Sparsely Vegetated Concave	AND THE RESERVE THE PARTY OF TH				aphic Relief (D4)	
	,			FAC-Neutral	· · · · · · · · · · · · · · · · · · ·	
		-	i i		•	
Field Observations:						
Surface Water Present?	Yes NoX Depth (inch	ş 1 <del></del> 1				
Water Table Present?	Yes NoX Depth (inch	§ S <del>I − − −</del> − − − − − − − − 13	1000000 00 00000 000			
Saturation Present?	Yes NoX Depth (inch	es):	Wetland Hydr	rology Present?	Yes	No X
(includes capillary fringe)						
Describe Recorded Data (stream of	gauge, monitoring well, aerial photos, p	nrevious inspections) if	available:			
Describe Necorded Data (stream (	jauge, monitoring well, aerial photos, p	revious irispections), ir	avallable.			
Remarks:						
this selection of the description						
į .						

GETATION - Use scientific names of plants.				
				Dominance Test worksheet:
				Number of Dominant Species
				STORM SE TO PROSTORING INTERCEDING FORE THE SECURITIES STORE ADDRESS ADDRESS.
	Absolute	Dominant	Indicator	That Are OBL, FACW, or FAC:3 (A)
ree Stratum (Plot size: 30 Feet )	% Cover	Species?	Status	
. Pinus rigida / Pitch pine	20	Yes	FACU	Total Number of Dominant
		-0-		Species Across All Strata: 4 (B)
Acer rubrum / Red maple	15	Yes	FAC	
				Percent of Dominant Species
**	600	266	0.00	Mary Automatic Control of Gallery And Delegate Administration and Administration (Control of Control of Contro
2		- 11	101	That Are OBL, FACW, or FAC: 75.0 (A/B)
-		0.00	10	
<u> </u>		-0-	-0	Prevalence Index worksheet:
·			11	Total % Cover of: Multiply by:
	35	= Total Cov	er	OBL species 0 x 1 = 0
apling/Shrub Stratum (Plot size: 15 Feet )	-			FACW species 0 x 2 = 0
. Betula alleghaniensis / Yellow birch	30	Yes	FAC	
	0.000	0.0	170	FAC species 55 x 3 = 165
7				FACU species 20 x 4 = 80
				UPL species 0 x 5 = 0
				South the south
	0	-00i		Column Totals:
-	_	73	296	
·				Prevalence Index = B/A =3.27
·,				·
	30	= Total Cov	er	Hydrophytic Vegetation Indicators:
erb Stratum (Plot size: 5 Feet )				1 - Rapid Test for Hydrophytic Vegetation
				■ <del></del> N
Smilax rotundifolia / Horsebrier	10	Yes	FAC	X 2 - Dominance Test is >50%
				3 - Prevalence Index ≤3.0¹
	, M, E			4 - Morphological Adaptations¹ (Provide supporting
				Problematic Hydrophytic Vegetation¹ (Explain )
				1 Toblematic Trydrophytic Vegetation (Explain)
1				
	400	202	1/42	¹Indicators of hydric soil and wetland hydrology must
·	185			be present, unless disturbed or problematic.
			2.85	
				Definitions of Vegetation Strata
·		-0		Demilitions of Vegetation Strata
D				
1		-0.0		Tree - Woody plants 3 in. (7.6 cm) or more in diameter at
		-0.00		breast height (DBH), regardless of height.
2. <u> </u>	To Be to the second	2. P. Since Ph. 20 Suite	0.07	Sapling/shrub - Woody plants less than 3 in. DBH and
	10	_ = Total Cov	er	greater than or equal to 3.28 ft (1 m) tall.
oody Vine Stratum (Plot size: 30 Feet )				greater than or equal to 3.20 it (1 iii) tall.
				Herb - All herbaceous (non-woody) plants, regardless of
· ·			-	size, and woody plants less than 3.28 ft tall.
	_	-0		Woody vines - All woody vines greater than 3.28 ft in
		-		height.
**************************************				neight.
		= Total Cov	er	499 XXX 19 E
		-		Hydrophytic
				Vegetation
				Present? Yes X No

**SOIL** Sampling Point: <u>26-W010-1U</u>

Profile Descr Depth	iption: (Describe to th Matrix	ne depth nee		ne indicator K Features	or confirm	the abse	nce of indicators	.)		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture		Remarks	
0-6	10YR 3/1	100	outer (motor)				Very Fine Sand		riomanio	is
6-18	10YR 4/2	100	<i>y</i>				Very Fine Sand			
others trappage	Patrici Delettini — neuriteise	-	·							-
7.	w :	W		- 15		0	- S			- 20
		(0) <del></del>	3	- 0	. <del></del> .	61	3	5		
	10			3			-	3		
	au a	200								
		10.0								
			7							
				- 0.						
			A	- 0.						
¹Type: C=Cor	centration, D=Depletio	n, RM=Reduc	ced Matrix, MS=Masl	ked Sand Gra	ains.		²Locat	ion: PL=Pore	Lining, M=M	atrix.
Hydric Soil Ir	ndicators:						Indicators	for Problem	atic Hydric S	oils³:
Histosol			Polyvalue Belov	v Surface (S8	B) (LRR R,	MLRA 14			LRR K, L, ML	
— Histic Ep	ipedon (A2)		Thin Dark Surfa				- Internation		x (A16) (LR	
Black His			Loamy Mucky N				_			LRR K, L, R)
— Hydroge	n Sulfide (A4)	•	Loamy Gleyed I					Surface (S7)		
Stratified	Layers (A5)		X Depleted Matrix	(F3)			Polyva	lue Below Su	urface (S8) (I	LRR K, L)
Depleted	Below Dark Surface (A	A11)	Redox Dark Sur	face (F6)			Thin D	ark Surface (	(S9) (LRR K	, L)
Thick Da	rk Surface (A12)	20	Depleted Dark \$	Surface (F7)			Iron-M	anganese Ma	asses (F12)	(LRR K, L, R)
Sandy M	ucky Mineral (S1)		Redox Depress	ions (F8)			Piedm	ont Floodplai	n Soils (F19)	(MLRA 149B)
Sandy G	leyed Matrix (S4)						Mesic	Spodic (TA6)	(MLRA 144	IA, 145, 149B)
Sandy R	edox (S5)						Red P	arent Materia	al (F21)	
Stripped	Matrix (S6)						Very S	hallow Dark	Surface (TF1:	2)
Dark Sur	face (S7) (LRR R, ML	.RA 149B)					Other	(Explain in R	emarks)	
³ Indicators of	hydrophytic vegetation	and wetland	hydrology must be p	resent, unles	s disturbed	or proble	matic.			
CONTROL OFF SHEET CONTROL	ayer (if observed):			*						
Type:	ayer (II observed).									
Depth (in	ches).						Hydric Soil Pr	esent?	Yes	No X
Doput (iii)							Try and Gon Tr	030/10.		<u> </u>
Remarks:										

Project/Site:	COP South Larrabee	City/County: M	onmouth County	, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW	-	Sta	ate: New Jersey	Sampling Point:	26-W010-1W
Investigator(s):	ALTC	Section, Township, Ra	inge:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Depressional area Local r	relief (concave, convex,	none):	concave	Slope	e (%): 0-2
Subregion (LRR or MLRA):	LRR S Lat:	40.11543983	Long:	-74.1761023	33 Datum	n: WGS 1984
Soil Map Unit Name:				NWI classification	n:	
	n the site typical for this time of year?	., ., ., ., ., ., ., ., ., ., ., ., ., .	<del> </del>	explain in Remark	Aller on the con-	
AT 1200 12 AND 1		3		cumstances" prese	Annual Control of the	X No
Are Vegetation, Soil	, or Hydrologynaturally p		A	in any answers in	8	
SUMMARY OF FINDINGS - A	Attach site map showing sar	npling point locati	ons, transec	ts, important i	features, etc.	
Hydrophytic Vegetation Present?	YesX No	Is the Sam	pled Area			
Hydric Soil Present?	Yes X No	within a W	etland?	Yes X	No	_
Wetland Hydrology Present?	Yes <u>X</u> No	If yes, option	nal Wetland Site	e ID:		
Remarks: (Evolain alternative proc	edures here or in a separate report.)					
Nomano. (Explain alternative proc	educes here or in a separate report.)					
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on					ators (minimum of t	:wo required)
Surface Water (A1)	X Water-Staine	man perconant man especialis		The programme and the second	Cracks (B6)	
X High Water Table (A2)	Aquatic Faur	COLUMN CARLO CARLO			atterns (B10)	
X Saturation (A3)	Marl Deposit	54 583		Moss Trim L	N 6	
— Water Marks (B1)		ulfide Odor (C1)			Water Table (C2)	
Sediment Deposits (B2)	N <del></del>	izospheres on Living Ro	ots (C3)	— Crayfish Bur		(20)
Drift Deposits (B3)	N <del></del>	Reduced Iron (C4)	(00)	The state of the state of	isible on Aerial Ima	
Algal Mat or Crust (B4)	1)	Reduction in Tilled Soils	(C6)		Stressed Plants (D1	1)
Iron Deposits (B5) Inundation Visible on Aerial In	Thin Muck S	in in Remarks)		X Geomorphic		
Sparsely Vegetated Concave		uii iii Reiliaiks)		Shallow Aqu	aphic Relief (D4)	
Sparsely vegetated Concave	Surface (Bo)			X FAC-Neutral		
			-	X TAO-Neutral	Test (D5)	
Field Observations:						
Surface Water Present?	Yes NoX Depth (inch	nes):				
Water Table Present?	Yes X No Depth (inch	nes):12				
Saturation Present?	Yes X No Depth (inch	nes): 0	Wetland Hyd	rology Present?	Yes X	No
(includes capillary fringe)						
Describe Recorded Data (stream of	gauge, monitoring well, aerial photos,	nrevious inspections) if	available:			
Describe Recorded Data (stream g	jauge, monitoring well, aerial photos, j	previous inspections), ir	avaliable.			
Remarks:						
1						

Absolute   Dominant   Indicator   That Are OBL, FACW, or FAC:   2   (A)	Absolute   Dominant   Indicator   Tree Stratum   (Plot size:30 Feet )   96 Cover   Species / Status   Total Number of Dominant Species   That Are OBL, FACW, or FAC;2 (B)	/EGETATION - Use scientific names of plants.				Sampling Point: 26-W010-1W
Absolute   Opinion   Indicator   Species   Species   Status   Total Number of Dominant   Species Across All Strata:   2	Absolute   Dominant   Indicator   Species   Status   That Are OBL, FACW, or FAC;   2					Dominance Test worksheet:
Absolute   Opinion   Indicator   Species   Species   Status   Total Number of Dominant   Species Across All Strata:   2	Absolute   Dominant   Indicator   Species   Status   That Are OBL, FACW, or FAC;   2					Number of Dominant Species
Definition   Continuent   Con	Total Number of Dominant   Species   Status   Status   Species   Status   Species   Species   Species   Status   Species   S					The transfer of the second transfer of the se
Columber of Dominant Species Across All Strats:   2   (B)			Absolute	Dominant	Indicator	THAT ARE OBE, TACVV, OF TAC.
Columber of Dominant Species Across All Strats:   2   (B)		Tree Stratum (Plot size: 30 Feet )	% Cover	Species?	Status	serge de producció en accountes do an
Species Across All Strata:   2 (B)	Species Across All Strata:					Total Number of Dominant
Percent of Dominant Species   That Are OBL, FACW, or FAC:   100.0 (A/B)	Percent of Dominant Species   That Are OBL, FACW, or FAC:   100.0 (A/B)					Species Across All Strata: 2 (B)
## That Are OBL, FACW, or FAC: 100.0 (A/B)  ## That Are OBL, FACW, or FAC: 100.0 (A/B)  ## Prevalence Index worksheet:  Total % Cover of: Multiply by:  Total	## That Are OBL, FACW, or FAC: 10.0 (A/B)  ## That Are OBL, FACW, or FAC: 10.0 (A/B)  ## Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 5 x 1 = 5  ## FAC species 5 x 1 = 5  ## FAC species 5 x 1 = 5  ## FAC species 10 x 3 = 30  ## FAC species 0 x 4 = 0  ## UPL species 0 x 5 = 0  ## Column Totals: 15 (A) 35 (B)  ## Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 5 x 1 = 5  ## FAC species 5 x 1 = 5  ## FAC species 5 x 1 = 5  ## FAC species 10 x 3 = 30  ## FAC species 0 x 5 = 0  ## Column Totals: 15 (A) 35 (B)  ## Prevalence Index = B/A = 2.33  ## Herb Stratum (Plot size: 5 Feet )  ## Juncus effusus / Common bog rush, Soft or lamp rush 5 Yes OBL  ## Stratum (Plot size: 5 Feet )  ## Juncus effusus / Common bog rush, Soft or lamp rush 5 Yes OBL  ## Hydrophytic Vegetation Indicators:  ## 1 - Rapid Test for Hydrophytic Vegetation  ## 2 - Dominance Test is >50%  ## 3 - Prevalence Index = B/A = 2.33  ## Hydrophytic Vegetation (Explain)  ## Hydrophytic Vegetation (Explain)  ## Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  ## Definitions of Vegetation Strata  ## Tree - Woody plants 3 in, (7.8 cm) or more in diameter at breash shight (DBH), regardless of height.  ## Tree - Woody plants 3 in, (7.8 cm) or more in diameter at breash shight (DBH) regardless of height.  ## Prevalence Index = B/A = 0 x 2 = 0  ## FAC species 5 x 1 = 5  ## FAC species 0 x 2 = 0  ## FAC species 0 x 2 = 0  ## FAC species 0 x 5 = 0  ## Column Totals:  ## Hydrophytic Vegetation Index = B/A = 0 x 3 = 0  ## Hydrophytic Vegetation or more in diameter at breash shight (DBH) regardless of height.  ## Tree - Woody plants shis shan 3.28 ft in height.  ## Hydrophytic Vegetation  ## Prevalence Index = B/A = 0 x 3 = 0  ## Hydrophytic Vegetation or more in diameter at breash shight (DBH) regardless of height.  ## Hydrophytic Vegetation or regardless of height.  ## Hydrophytic Vegetation or regardless of height.  ## Hydrophytic Vegetation or regardless of height.  #			7///	7.77	· · · · · · · · · · · · · · · · · · ·
## That Are OBL, FACW, or FAC: 100.0 (A/B)  ## That Are OBL, FACW, or FAC: 100.0 (A/B)  ## Prevalence Index worksheet:  Total % Cover of: Multiply by:  Total	## That Are OBL, FACW, or FAC: 10.0 (A/B)  ## That Are OBL, FACW, or FAC: 10.0 (A/B)  ## Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 5 x 1 = 5  ## FAC species 5 x 1 = 5  ## FAC species 5 x 1 = 5  ## FAC species 10 x 3 = 30  ## FAC species 0 x 4 = 0  ## UPL species 0 x 5 = 0  ## Column Totals: 15 (A) 35 (B)  ## Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 5 x 1 = 5  ## FAC species 5 x 1 = 5  ## FAC species 5 x 1 = 5  ## FAC species 10 x 3 = 30  ## FAC species 0 x 5 = 0  ## Column Totals: 15 (A) 35 (B)  ## Prevalence Index = B/A = 2.33  ## Herb Stratum (Plot size: 5 Feet )  ## Juncus effusus / Common bog rush, Soft or lamp rush 5 Yes OBL  ## Stratum (Plot size: 5 Feet )  ## Juncus effusus / Common bog rush, Soft or lamp rush 5 Yes OBL  ## Hydrophytic Vegetation Indicators:  ## 1 - Rapid Test for Hydrophytic Vegetation  ## 2 - Dominance Test is >50%  ## 3 - Prevalence Index = B/A = 2.33  ## Hydrophytic Vegetation (Explain)  ## Hydrophytic Vegetation (Explain)  ## Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  ## Definitions of Vegetation Strata  ## Tree - Woody plants 3 in, (7.8 cm) or more in diameter at breash shight (DBH), regardless of height.  ## Tree - Woody plants 3 in, (7.8 cm) or more in diameter at breash shight (DBH) regardless of height.  ## Prevalence Index = B/A = 0 x 2 = 0  ## FAC species 5 x 1 = 5  ## FAC species 0 x 2 = 0  ## FAC species 0 x 2 = 0  ## FAC species 0 x 5 = 0  ## Column Totals:  ## Hydrophytic Vegetation Index = B/A = 0 x 3 = 0  ## Hydrophytic Vegetation or more in diameter at breash shight (DBH) regardless of height.  ## Tree - Woody plants shis shan 3.28 ft in height.  ## Hydrophytic Vegetation  ## Prevalence Index = B/A = 0 x 3 = 0  ## Hydrophytic Vegetation or more in diameter at breash shight (DBH) regardless of height.  ## Hydrophytic Vegetation or regardless of height.  ## Hydrophytic Vegetation or regardless of height.  ## Hydrophytic Vegetation or regardless of height.  #	3.				Percent of Dominant Species
Prevalence Index worksheet	Prevalence Index worksheet:   Total % Cover of:   Multiply by:	4		-		Mary Advantage County Control And Control And Control And Control Cont
Prevalence Index worksheet:   Sapling/Shrub Stratum (Plot size: 15 Feet )	Prevalence Index worksheet:   Total Cover   Total Cover   Total Species   Size   Siz	5.				THAT ARE OBL, FACVV, OF FAC. (A/B)
Total & Cover of:	Total % Cover of:	6.	12.1			Businelanes Indeximalishesi
Saping/Shrub Stratum	Sapiling/Shrub Stratum			-0-	-0	
Sapling/Shrub Stratum   (Plot size: 16 Feet   10   Yes   FAC   F	Sapling/Shrub Stratum (Plot size: 15 Feet   10   Yes   FAC			T.1.10		
1. Ciethra alnifolia / Coastal sweet-pepperbush 10 Yes FAC 2. 2. 3.	Ciethra alnifolia / Coastal sweet-pepperbush   10   Yes   FAC   FAC   FAC   Species   10   x 3 =   30			_ = lotal Cov	er	OBL species 5 x 1 = 5
2	2					FACW species 0 x 2 = 0
2.	2.	Clethra alnifolia / Coastal sweet-pepperbush	10	Yes	FAC	FAC species 10 x 3 = 30
UPL species   O   x 5 =   O	UPL species	2.				
4	Column Totals:   15   (A)   35   (B)	3		0.8	3.0	
Prevalence Index = B/A =   2.33	Definitions of Vegetation Stratum   Plot size:					
Prevalence Index = B/A =   2.33	Definitions of Vegetation Stratum   Plot size:	Te	-	<u> </u>	15	Column Totals:15 (A)35 (B)
Prevalence Index = B/A = 2.33	Prevalence Index = B/A =   2.33	5			7.5	
Herb Stratum (Plot size: 5 Feet )   10	Total Cover   Hydrophytic Vegetation Indicators:   1 - Rapid Test for Hydrophytic Vegetation   X 2 - Dominance Test is >50%   X 3 - Prevalence Index \$3.0°   4 - Morphological Adaptations* (Provide supporting Problematic Hydrophytic Vegetation* (Explain )   Problematic Hydrophytic Vegetation* (Explain )   Problematic Hydrophytic Vegetation* (Explain )   Morphological Adaptations* (Provide supporting Problematic Hydrophytic Vegetation* (Explain )   Problematic Hydrophytic Vegetation* (Provide supporting Problematic Hydrophytic Vegetation* (Explain )   Problematic Hydrophytic Vegetation* (Provide supporting Problematic Hydrophytic Vegetation* (Explain )   Problematic Hydrophytic Vegetation* (Explain )   Problematic Hydrophytic Vegetation*   Problematic Hydrophytic Vegetation*   Provide Supporting Hydrophytic Vegetation*   Problematic Hydrophytic Vegetation*   P	6				Prevalence Index = B/A = 2.33
Herb Stratum (Plot size: 5 Feet ) 1. Juncus effusus / Common bog rush, Soft or lamp rush 2. Salurus effusus / Common bog rush, Soft or lamp rush 3. Salurus effusus / Common bog rush, Soft or lamp rush 5. Yes OBL 2. Salurus effusus / Common bog rush, Soft or lamp rush 5. Salurus effusus / Common bog rush, Soft or lamp rush 5. Salurus effusus / Common bog rush, Soft or lamp rush 5. Salurus effusus / Common bog rush, Soft or lamp rush 6. Salurus effusus / Common bog rush, Soft or lamp rush 7. Salurus effusus / Common bog rush, Soft or lamp rush 8. Salurus effusus / Common bog rush, Soft or lamp rush 9. Salurus effusus / Common bog rush, Soft or lamp rush 10. Salurus effusus / Common bog rush, Soft or lamp rush 10. Salurus effusus / Common bog rush, Soft or lamp rush 10. Salurus effusus / Common bog rush, Soft or lamp rush 10. Salurus effusus / Common bog rush, Soft or lamp rush 10. Salurus effusus / Common bog rush salurus effusus	Herb Stratum (Plot size:5 Feet) 1. Juncus effusus / Common bog rush, Soft or lamp rush 2					, ,
Herb Stratum (Plot size: 5 Feet )  1. Juncus effusus / Common bog rush, Soft or lamp rush 5 Yes OBL 2. 3. Prevalence Index \$\( \frac{1}{2} \) - Dominance Test is >50%  2. 3. Prevalence Index \$\( \frac{1}{2} \) - Morphological Adaptations¹ (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain )  5	Herb Stratum (Plot size: 5 Feet )   1. Juncus effusus / Common bog rush, Soft or lamp rush   5   Yes   OBL     2.   2.   3.   4.   4.   Morphological Adaptations' (Provide supporting Problematic Hydrophytic Vegetation' (Explain )   4.   Morphological Adaptations' (Provide supporting Problematic Hydrophytic Vegetation' (Explain )   4.   Morphological Adaptations' (Provide supporting Problematic Hydrophytic Vegetation' (Explain )   1.   Morphological Adaptations' (Provide supporting Problematic Hydrophytic Vegetation' (Explain )   Morphological Adaptations' (Provide supporting Problematic Hydrophytic Vegetation' (Explain )   Morphological Adaptations' (Provide supporting Problematic Hydrophytic Vegetation' (Explain )   Morphological Adaptations' (Provide supporting Problematic Hydrophytic Vegetation' (Explain )   Morphological Adaptations' (Provide supporting Problematic Hydrophytic Vegetation' (Explain )   Morphological Adaptations' (Provide supporting Problematic Hydrophytic Vegetation' (Explain )   Morphological Adaptations' (Provide supporting Problematic Hydrophytic Vegetation   Morphological Adaptat			= Total Cov	er	Hydrophytic Vegetation Indicators:
1. Juncus effusus / Common bog rush, Soft or lamp rush 2. 3 - Prevalence Index ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 5 - Problematic Hydrophytic Vegetation¹ (Explain ) 6 -	1. Juncus effusus / Common bog rush, Soft or lamp rush 2. 3. Prevalence Index ≤3.0" 4. Morphological Adaptations¹ (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 5.	Herh Stratum (Plot size: 5 Feet )		-	24 march (17)	
2.       X 3 - Prevalence Index ≤3.0¹         4. Morphological Adaptations¹ (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain )         5.       ¹Indicators of hydric soil and wetland hydrology must 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 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.         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.         Woody vines - All woody vines greater than 3.28 ft in height.	2.	· · · · · · · · · · · · · · · · · · ·	-	V	ODI	
3.	3.					
4 - Morphological Adaptations¹ (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain )  5.	4. Morphological Adaptations¹ (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain )  1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata  Definitions of Vegetation Strata  Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 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.  Herb - All herbaceous (non-woody) plants, regardless of size, and woody vines greater than 3.28 ft in height.  Woody vines - All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes X No	2		-0.0		X 3 - Prevalence Index ≤3.0¹
4. Problematic Hydrophytic Vegetation¹ (Explain )  5.	Problematic Hydrophytic Vegetation (Explain )	3.				4 - Morphological Adaptations¹ (Provide supporting
5.	5.	4.	10.50	3.0	7.5	Problematic Hydrophytic Vegetation¹ (Explain )
6.	6.					- And the state of
5 = Total Cover  Woody Vine Stratum (Plot size: 30 Feet )  1.	be present, unless disturbed or problematic.  Definitions of Vegetation Strata  Definitions of Vegetation Strata  Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 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.  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.  D = Total Cover  Hydrophytic Vegetation Present? Yes X No	4000				
8. 9. Definitions of Vegetation Strata  10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  12. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  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.  10. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  11. Herb - All woody vines greater than 3.28 ft in height.	8.	6	-00	00	10	EXECUTION CONTROL OF THE PROPERTY OF THE PROPE
8. 9. Definitions of Vegetation Strata  10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  12. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  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.  10. Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 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.  Herb - All herbaceous (non-woody) plants, regardless of size, and woody vines greater than 3.28 ft in height.  Woody vines - All woody vines greater than 3.28 ft in height.	8. 9. 10. 11. 12.  Sapling/shrub - Woody plants 3 in. (7.6 cm) or more in diameter at 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.  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.    O   = Total Cover   Hydrophytic Vegetation	7. ₁		73	735	be present, unless disturbed or problematic.
10.	Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 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.  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.  O = Total Cover  Hydrophytic Vegetation Present? Yes X No	0		_		102 800 D10 80000 8 S
10. 11. 12.  Woody Vine Stratum (Plot size: 30 Feet )  1. 2. 3. 4.  0 = Total Cover  Tree - Woody plants 3 in. (7.6 cm) or more in diameter at 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.  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.  Hydrophytic Vegetation	10. 11. 12.  Sapling/shrub - Woody plants 3 in. (7.6 cm) or more in diameter at 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.  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.  Hydrophytic Vegetation Present? Yes X No	9.				Definitions of Vegetation Strata
11	11				],(	
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.  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.  O = Total Cover  Hydrophytic Vegetation	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.  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.  O = Total Cover  Hydrophytic Vegetation Present? Yes X No	11			- (c	Tree - Woody plants 3 in. (7.6 cm) or more in diameter at
Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  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 Cover  Hydrophytic Vegetation	Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.   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.   O = Total Cover   Hydrophytic Vegetation   Present?   Yes X No		(0.00			
Woody Vine Stratum (Plot size: 30 Feet )  1.	Woody Vine Stratum (Plot size: 30 Feet )  1.	12		-		- 0 00 T
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.  O = Total Cover Hydrophytic Vegetation	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.    O   = Total Cover   Hydrophytic Vegetation   Present?   Yes   X   No     No		5	= Total Cov	er	
size, and woody plants less than 3.28 ft tall.  Woody vines - All woody vines greater than 3.28 ft in height.  O = Total Cover Hydrophytic Vegetation	size, and woody plants less than 3.28 ft tall.  Woody vines - All woody vines greater than 3.28 ft in height.  O = Total Cover  Hydrophytic Vegetation Present? Yes X No	Woody Vine Stratum (Plot size: 30 Feet )				greater than or equal to 3.28 it (1 m) tall.
2. size, and woody plants less than 3.28 ft tall.  Woody vines - All woody vines greater than 3.28 ft in height.  O = Total Cover Hydrophytic Vegetation	2. size, and woody plants less than 3.28 ft tall.  Woody vines - All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes X No	1.				
3. 4. Woody vines - All woody vines greater than 3.28 ft in height.  O = Total Cover Hydrophytic Vegetation	3	2009			-	size, and woody plants less than 3.28 ft tall.
4. O = Total Cover Hydrophytic Vegetation	4		0.7	0.2	10	Woody vines - All woody vines greater than 3.28 ft in
4		3.			·	
	Vegetation Present? Yes X No	4		-		11119111
Vegetation	Vegetation           Present?         Yes X No		0	= Total Cov	er	0. T. J. A.
	Present?         YesX No					
<b>Present?</b>						TOS 2007 SECTION SECTI
	Remarks: (Explain alternative procedures here or in a separate report.)					Present? Yes X No
		Remarks: (Explain alternative procedures here or in a separa	ate report.)			
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Remarks: (Explain alternative procedures here or in a separate report.)						

SOIL Sampling Point: 26-W010-1W

Depth	nption: (Describe to ti Matrix	ne depth ne		he indicator x Features	or confirm	the abser	nce of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-6	10YR 2/1	100	Color (moist)		<u> 1990</u> .	200	Loam	remarks
6-12	10YR 4/1	100		_ ,	-		Sandy Loam	
12-18	10YR 4/1	100	5	- 8			Sandy Loam	
12-10	1011(4/1	STO <del></del> S		= 10	-		Salidy Loalii	
	Y		Š.	- (			<del></del>	
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-	: 1 <u>V</u>		-	- 19			· · · · · · · · · · · · · · · · · · ·	
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-	*	···	<u> </u>	- :				
	14-		Œ				a——— a—	
								B. B. C. W. W. C.
¹Type: C=Cor	ncentration, D=Depletio	n, RM=Redu	iced Matrix, MS=Mas	ked Sand Gr	aıns.		*Location	n: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils³:
Histosol	(A1)		Polyvalue Belov	w Surface (S	B) (LRR R,	MLRA 149	<b>B)</b> _ 2 cm Mu	uck (A10) (LRR K, L, MLRA 149B)
Histic Ep	pipedon (A2)		Thin Dark Surfa				de dos	rairie Redox (A16) (LRR K, L, R)
Black Hi			Loamy Mucky N					ucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Gleyed I					rface (S7) (LRR K, L)
The same of the sa	l Layers (A5)		X Depleted Matrix				— Poly∨alu	ue Below Surface (S8) (LRR K, L)
— Depleted	d Below Dark Surface (	<b>411</b> )	Redox Dark Su	rface (F6)			— Thin Dai	rk Surface (S9) (LRR K, L)
— Thick Da	ark Surface (A12)		Depleted Dark	Surface (F7)			Iron-Mar	nganese Masses (F12) (LRR K, L, R)
— Sandy M	lucky Mineral (S1)		Redox Depress	ions (F8)			— Piedmor	nt Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)							podic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							ent Material (F21)
	Matrix (S6)						— Very Sha	allow Dark Surface (TF12)
The state of the s	rface (S7) (LRR R, ML	RA 149B)					A CONTRACTOR OF THE PARTY	Explain in Remarks)
	, , , , , , , , , , , , , , , , , , ,							· · · · · · · · · · · · · · · · · · ·
³ Indicators of	hydrophytic ∨egetation	and wetland	l hydrology must be p	resent, unles	s disturbed	or problen	natic.	
Restrictive L	ayer (if observed):							
	ayer (if observed):							
Restrictive L Type: Depth (in			_				Hydric Soil Pres	sent? Yes X No
Type: Depth (in							Hydric Soil Pres	sent? Yes X No
Туре:			<u> </u>				Hydric Soil Pres	sent? Yes X No
Type: Depth (in							Hydric Soil Pres	sent? Yes <u>X</u> No
Type: Depth (in						,	Hydric Soil Pres	sent? Yes <u>X</u> No
Type: Depth (in							Hydric Soil Pres	sent? Yes <u>X</u> No
Type: Depth (in							Hydric Soil Pres	sent? Yes <u>X</u> No
Type: Depth (in							Hydric Soil Pres	sent? Yes <u>X</u> No
Type: Depth (in							Hydric Soil Pres	sent? Yes <u>X</u> No
Type: Depth (in							Hydric Soil Pres	sent? Yes <u>X</u> No
Type: Depth (in							Hydric Soil Pres	sent? Yes <u>X</u> No
Type: Depth (in							Hydric Soil Pres	sent? Yes X No
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Type: Depth (in							Hydric Soil Pres	sent? Yes X No
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Type: Depth (in							Hydric Soil Pres	sent? Yes X No
Type: Depth (in							Hydric Soil Pres	sent? Yes X No
Type: Depth (in							Hydric Soil Pres	sent? Yes X No

Project/Site:	COP South Larrabee	City/County: N	Ionmouth County,	NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW		State	e: New Jersey	Sampling Point:	26-W011-1U
Investigator(s):	TCAL	Section, Township, Ra			County, NJ	
Landform (hillslope, terrace, etc):	Hillslope Local	relief (concave, convex,		concave		(%): 5-10
Subregion (LRR or MLRA):			Long:	-74.1751886	Datun	n: WGS 1984
Soil Map Unit Name:				NWI classification	on:	
	n the site typical for this time of year?	and the second s	1 <del> </del>	xplain in Remark	- Allen	
Are Vegetation, Soil			Are "Normal Circu	87	Annual Control of the	( No
transport of the control of the cont	, or Hydrologynaturally		(If needed, explain	100 TO 10		
SUMMARY OF FINDINGS -	Attach site map showing sa	mpling point locat	ions, transects	s, important	features, etc.	
Hydrophytic Vegetation Present?	Yes No	Is the San	npled Area			
Hydric Soil Present?	Yes No	within a W	letland?	Yes	No	_
Wetland Hydrology Present?	Yes No X	If yes, opti	onal Wetland Site I			
Remarks: (Explain alternative prod	cedures here or in a separate report.)	,				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	ne required; check all that apply)			Secondary Indica	ators (minimum of t	wo required)
Surface Water (A1)		ed Leaves (B9)			Cracks (B6)	3
High Water Table (A2)	Aquatic Fau	STATE SECONDARY THE STREET, AND			atterns (B10)	
Saturation (A3)	Marl Deposi	ts (B15)	i	Moss Trim L	ines (B16)	
Water Marks (B1)		ulfide Odor (C1)	en announes		Water Table (C2)	
Sediment Deposits (B2)		nizospheres on Living Ro	ots (C3)	— Crayfish Bu	N 1991 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	012020
Drift Deposits (B3)	Name of the second seco	f Reduced Iron (C4)		The second will be a	isible on Aerial Im	JT 5 18 6
Algal Mat or Crust (B4)     Iron Deposits (B5)	90-00000 10000 10 mm	Reduction in Tilled Soils Surface (C7)	· (C6)		Stressed Plants (D1 Position (D2)	)
Inundation Visible on Aerial Ir	N <del></del>	ain in Remarks)	•	— Geomorphic Shallow Aqu	and the second s	
Sparsely Vegetated Concave	A STATE OF THE STA	an in remarks)			aphic Relief (D4)	
	Carrage (Bo)		ĝ.	FAC-Neutra		
Field Observations:						
Surface Water Present?	Yes No _X _ Depth (inc	, § 1 <del></del> 1				
Water Table Present?	Yes No _X Depth (inc	, į i <del> –                                   </del>		22	¥2	
Saturation Present?	Yes NoX Depth (inc	nes):	Wetland Hydro	logy Present?	Yes	No <u>X</u>
(includes capillary fringe)						
Describe Recorded Data (stream	gauge, monitoring well, aerial photos,	previous inspections), if	available:			
Remarks:						
1						
1						
1						
1						
1						
1						
1						
1						

Sampling Point: **VEGETATION - Use scientific names of plants.** 26-W011-1U Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A) Absolute Dominant Indicator Tree Stratum (Plot size: 30 Feet % Cover Species? Status Total Number of Dominant 1. Quercus velutina / Black oak (B) Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: 50 = Total Cover OBL species 0 x 1 = ____ Sapling/Shrub Stratum (Plot size: 15 Feet FACW species 0 x 2 = 1. Berberis thunbergii / Japanese barberry x 3 = 0 0 FAC species 35 FACU species x 4 = 3. _ 55 275 UPL species x 5 = 90 Column Totals: (A) Prevalence Index = B/A = 4.61 15 = Total Cover Hydrophytic Vegetation Indicators: Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation 1. Allium I Onion 2 - Dominance Test is >50% 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. 7. 8. **Definitions of Vegetation Strata** 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. Celastrus orbiculatus / Asian bittersweet FACU size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in 20 = Total Cover Hydrophytic Vegetation Present? Remarks: (Explain alternative procedures here or in a separate report.)

**SOIL** Sampling Point: <u>26-W011-1U</u>

Depth	Matrix		Redo	x Features			ce of indicators			
(inches)	Color (moist)	%	Color (moist)	%	Type¹	Loc ²	Texture	a	Remark	rs
0-3	10YR 2/1	100			· ·		Sandy Loam	_		
3-10	10YR 3/1	100			A 15		Sandy Loam			
	,y-		50-	- ×			<u>,                                      </u>	3 <del>,</del>		
	70 S	** <del>*******</del> *		- 18 - 80				: <del>:</del>		
	e e		10 10				e e	20		
	10									
	-									
				- *						
	Y		4-	- 0	S					
	<u> </u>	oi <del></del>	E.	- %	· · · · · · · · · · · · · · · · · · ·		<u>.                                      </u>	91		
				- 0				Q <del></del>		
			<del></del>	- 8				ā		
ype: C=Con	 centration, D=Depletion	n, RM=Redu	uced Matrix, MS=Mas	ked Sand Gr	ains.		²Loca	tion: PL=P	ore Lining, M	l=Matrix.
					protect C seaso					
ydric Soil In									ematic Hydr	
Histosol (	50000000		Polyvalue Belov				Market State of the State of th		ne produces included compare contract	, MLRA 149B)
_ Histic Epi	pedon (A2)		Thin Dark Surfa	ice (S9) (LR	R R, MLRA	149B)	Coast	Prairie Re	dox (A16) (	LRR K, L, R)
Black His	287 - 185		Loamy Mucky N		(LRR K, L)					3) (LRR K, L, R)
_ Hydroger	Sulfide (A4)		Loamy Gleyed I	Matrix (F2)			Dark	Surface (S	7) (LRR K,	L)
_ Stratified	Layers (A5)		Depleted Matrix	(F3)			Polyv	alue Below	Surface (S8	B) (LRR K, L)
_ Depleted	Below Dark Surface (A	<b>\11</b> )	Redox Dark Sui	rface (F6)			Thin I	Dark Surfac	ce (S9) (LR	R K, L)
Thick Dar	k Surface (A12)		Depleted Dark \$	Surface (F7)			Iron-N	/langanese	Masses (F1	2) (LRR K, L, R)
Sandy Mu	ucky Mineral (S1)		Redox Depress	ions (F8)			Piedm	ont Flood	olain Soils (F	19) <b>(MLRA 149B)</b>
_ Sandy GI	eyed Matrix (S4)						Mesic	Spodic (Ta	46) <b>(MLRA</b>	144A, 145, 149B)
– Sandy Re	edox (S5)						Red F	arent Mate	erial (F21)	
	Matrix (S6)						— Very	Shallow Da	rk Surface (	ΓF12)
Dark Surf	ace (S7) (LRR R, ML	RA 149B)							Remarks)	
	V 2/ V									
ndicators of h	nvdrophytic vegetation	and wetland	d hydrology must be p	resent, unles	s disturbed	or problem	ratic.			
				432						
s ver an veran ta										
lestrictive La	yer (if observed):									
estrictive La	yer (if observed):							1975	800	99
estrictive La	yer (if observed):		_				Hydric Soil P	esent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):		_				Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No
estrictive La Type: Depth (inc	yer (if observed):						Hydric Soil P	resent?	Yes	No

Project/Site:	COP South Larrabee	City/County: Me	onmouth County	ı, NJ	Sampling Date:	02/21/2023
Applicant/Owner:	ASOW		Sta	ate: New Jersey	Sampling Point:	26-W011-1W
Investigator(s):	TCAL	Section, Township, Ra	nge:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Depressional area Local r	- relief (conca∨e, con∨ex, ı	none):	concave	Slope	(%): 3-5
Subregion (LRR or MLRA):	LRR S Lat:		Long:		Datum	n: WGS 1984
Soil Map Unit Name:	Berryland sand, 0 to 2 percent slo	pes, frequently flooded		NWI classification	n:	
Are climatic / hydrologic conditions or	n the site typical for this time of year?	Yes X No	(lf no,	explain in Remarks	s.)	
Are Vegetation, Soil	, or Hydrologysignificant	ly disturbed?	Are "Normal Circ	cumstances" prese	nt? Yes <u>)</u>	( No
Are Vegetation, Soil	, or Hydrologynaturally p	problematic?	(If needed, expla	ain any answers in	Remarks.)	
<b>SUMMARY OF FINDINGS - A</b>	Attach site map showing sar	npling point locati	ons, transec	ts, important f	features, etc.	
Hydrophytic Vegetation Present?	Yes X No	Is the Sam	pled Area			
Hydric Soil Present?	Yes X No	— within a W	ēt.	Yes	No	
Wetland Hydrology Present?	Yes X No	If yes, option	nal Wetland Site			-
				<u>.</u>		
Remarks: (Explain alternative proc	edures here or in a separate report.)					
HYDROLOGY						
Wetland Hydrology Indicators:	a manufacility of a size of the formation			Casas dami lu diaa		
Primary Indicators (minimum of on Surface Water (A1)		ed Leaves (B9)	3		tors (minimum of to Cracks (B6)	No required)
High Water Table (A2)	— VValer-Stame Aquatic Faur	and alternative and distriction		St. parameters some men en en en	itterns (B10)	
Saturation (A3)	Marl Deposit	CHCCC 5903-003-1-004-0-07		Drainage Fa	MACHINESON WE DELIVE	
Water Marks (B1)		ulfide Odor (C1)			Water Table (C2)	
Sediment Deposits (B2)		izospheres on Living Ro	nts (C3)	Crayfish Bur	emonates 86 Mil	
Drift Deposits (B3)	N <del></del>	Reduced Iron (C4)	313 (03)		isible on Aerial Ima	ageny (C9)
Algal Mat or Crust (B4)	N <del></del>	Reduction in Tilled Soils	(C6)	The second second second	tressed Plants (D1	
Iron Deposits (B5)	Thin Muck S		(66)	<del></del> :	Position (D2)	,
Inundation Visible on Aerial In	N <del></del>	in in Remarks)		Shallow Aqu		
Sparsely Vegetated Concave				5	aphic Relief (D4)	
				X FAC-Neutral	v	
		v			,	
Field Observations:						
Surface Water Present?	Yes NoX Depth (inch	nes):				
Water Table Present?	Yes NoX Depth (inch	§ 3 <del></del>	1000000 de - 20000 1000			
1990 1. 20 19975 1990 20	Yes NoX Depth (inch	nes):	Wetland Hyd	rology Present?	Yes X	No
(includes capillary fringe)						
Describe Reported Data (stream of	gauge, monitoring well, aerial photos,	provious inspections) if:	a vailable:			
Describe Recorded Data (stream g	jauge, monitoring well, aerial priotos, j	previous inspections), ii i	avaliable.			
Remarks:						
98.5 0.0.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.000 12.0.0						
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1						

Sampling Point: **VEGETATION - Use scientific names of plants.** 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 FAC 20 Yes 7____(B) Species Across All Strata: 2. Quercus bicolor / Swamp white oak 10 Yes **FACW** Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: 30 = Total Cover x 1 = OBL species Sapling/Shrub Stratum (Plot size: 15 Feet 25 x 2 = FACW species 1. Clethra alnifolia / Coastal sweet-pepperbush Yes FAC x 3 = 40 120 FAC species Yes FAC 2. Acer rubrum / Red maple 0 0 FACU species x 4 = 3. _ 0 UPL species x 5 = Column Totals: 70 (A) Prevalence Index = B/A = 15 = Total Cover Hydrophytic Vegetation Indicators: 5 Feet Herb Stratum (Plot size: 1 - Rapid Test for Hydrophytic Vegetation 1. Osmunda cinnamomea / Cinnamon fern 15 FACW X 2 - Dominance Test is >50% Yes 5 Yes FAC 2. Microstegium vimineum / Japanese stilt grass X 3 - Prevalence Index ≤3.01 3. Carex stricta / Uptight sedge OBL 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 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 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	ription: (Describe to t Matrix			x Features			ice oi maicatoi			
(inches)	Color (moist)	%	Color (moist)	%	Type¹	Loc²	Texture		Remarks	
0-2	10YR 2/1	100		- :			Sandy Loam	£!		
2-6	10YR 4/1				i i		Sandy Loam			•
6-12	10YR 3/1	100					Sandy Loam	3-		
12-18	10YR 6/3	75	7.5YR 5/8	25	* <u>*                                    </u>		Sandy Loam			
	0 W	(d)	10 10	- 8				-		
	6 10:		*	- 8	· · · · · · · · · · · · · · · · · · ·		27 27	3		
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-	-			= 0=====			£ <del></del>	£ <del>-</del>		
		•		- 0			á.			
<del></del>			117.71 170.11							
'Type: C=Cor	ncentration, D=Depletio	on, RIVI=Redu	ced Matrix, MS=Mas	ked Sand Gr	rains.		⁴ Loca	ition: PL=F	ore Lining, M=I	vlatrix.
Hydric Soil I	ndicators:						Indicators	for Probl	ematic Hydric	Soils³:
Histosol	(A1)		Polyvalue Belov	v Surface (S	8) (LRR R,	MLRA 149	<b>IB)</b> 2 cm	Muck (A10	) (LRR K, L, N	ILRA 149B)
— Histic Ep	pipedon (A2)		Thin Dark Surfa				Ministration and the Management of the Managemen	t Prairie Re	edox (A16) (LF	RR K, L, R)
Black Hi	stic (A3)		Loamy Mucky N				5 cm	Mucky Pea	at or Peat (S3)	(LRR K, L, R)
Hydroge	n Sulfide (A4)		Loamy Gleyed						7) (LRR K, L)	
Stratified	d Layers (A5)		X Depleted Matrix	(F3)			Polyv	alue Belov	/ Surface (S8)	(LRR K, L)
Depleted	d Below Dark Surface (	A11)	Redox Dark Su	rface (F6)			Thin	Dark Surfa	ce (S9) (LRR	K, L)
Thick Da	ark Surface (A12)		Depleted Dark	Surface (F7)				_		(LRR K, L, R)
Sandy M	lucky Mineral (S1)		Redox Depress	ions (F8)			Piedr	nont Flood	plain Soils (F19	) (MLRA 149B)
	Bleyed Matrix (S4)						E			14A, 145, 149B)
27 Service Service 2 1400	Redox (S5)							Parent Mat	25 C	
The second second	Matrix (S6)						and the second		ark Surface (TF	12)
Dark Su	rface (S7) (LRR R, M	LRA 149B)					Othe	r (Explain i	n Remarks)	
Single of the of	·	o and the all and	handral and an area of header	and the second of the second of the second		na arawa la Fasa				
-inulcators or	hydrophytic vegetation	i anu wellani	Trydrology must be p	resem, ume	ss disturbed	or problem	Tallo.			
Restrictive L	.ayer (if observed):									
Туре:	G 98						1000. 1400-lya 2015 (1000-local)	70 19865	0250 E080	
Depth (in	ches):						Hydric Soil P	resent?	Yes X	_ No
Remarks:						*				

Project/Site:	COP South Larrabee	City/County: M	Ionmouth County	, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW		Sta	ate: New Jersey	Sampling Point:	26-W012-1U
Investigator(s):	ALTC	Section, Township, Ra	ange:	Monmouth	n County, NJ	
Landform (hillslope, terrace, etc):	Hillslope Local	relief (concave, convex,	none):		Slope	∋ (%): 0-5
Subregion (LRR or MLRA):	LRR S Lat:	40.1180645	Long:	-74.168320	05 Datui	m: WGS 1984
Soil Map Unit Name:	Atsion sand, 0 to 2 percent slopes,	Northern Tidewater Area	a	NWI classification	on:	·
Are climatic / hydrologic conditions or	the site typical for this time of year?	Yes X No	(lf no,	explain in Remark	(s.)	
Are Vegetation, Soil			Are "Normal Circ	cumstances" prese	ent? Yes	X No
	, or Hydrologynaturally		100	ain any answers in		
<b>SUMMARY OF FINDINGS - A</b>	Attach site map showing sa	mpling point locati	ions, transec	ts, important	features, etc.	
Hydrophytic Vegetation Present?	Yes No	Is the Sam	pled Area			
Hydric Soil Present?	Yes No X	within a W	/etland?	Yes	No	
Wetland Hydrology Present?	Yes No X	If yes, option	onal Wetland Site			
Remarks: (Explain alternative proc	edures here or in a separate report.)	•				
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)	Water-Stain	ed Leaves (B9)	-	Surface Soi	l Cracks (B6)	
High Water Table (A2)	Aquatic Fau	ına (B13)		Drainage Pa	atterns (B10)	
Saturation (A3)	Marl Depos	its (B15)		Moss Trim I	₋ines (B16)	
Water Marks (B1)	Hydrogen S	Sulfide Odor (C1)		Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	13	nizospheres on Living Ro	ots (C3)	Crayfish Bu		
Drift Deposits (B3)		f Reduced Iron (C4)		The second control of	/isible on Aerial Im	
Algal Mat or Crust (B4)	19 <del></del>	Reduction in Tilled Soils	(C6)		Stressed Plants (D	1)
Iron Deposits (B5)		Surface (C7)			Position (D2)	
Inundation Visible on Aerial In	A TOTAL CONTRACTOR OF THE PARTY	ain in Remarks)		— Shallow Aq		
Sparsely Vegetated Concave	Surface (B8)				raphic Relief (D4)	
				FAC-Neutra	ii Tesi (D5)	
Field Observations:						
Surface Water Present?	Yes No X Depth (inc	ches):				
Water Table Present?	Yes NoX Depth (inc	ches):				
Saturation Present?	Yes No X Depth (inc	ches):	Wetland Hyd	rology Present?	Yes	No X
(includes capillary fringe)						
B						
Describe Recorded Data (stream g	auge, monitoring well, aerial photos,	, previous inspections), if	available:			
Remarks:						
Miss and Control And Android Control C						

Sampling Point: **VEGETATION - Use scientific names of plants.** 26-W012-1U Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A) Absolute Dominant Indicator 30 Feet Tree Stratum (Plot size: % Cover Species? Status Total Number of Dominant 1. Pinus rigida / Pitch pine FACU 40 Yes (B) Species Across All Strata: 2. Quercus velutina / Black oak 10 Yes NI Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: 50 = Total Cover OBL species x 1 = Sapling/Shrub Stratum (Plot size: 0 x 2 = FACW species 1. Acer rubrum / Red maple FAC x 3 = 25 FAC species 2. Clethra alnifolia / Coastal sweet-pepperbush Yes FAC 40 160 FACU species x 4 = 15 75 UPL species x 5 = Column Totals: (A) Prevalence Index = B/A = 3.88 = Total Cover Hydrophytic Vegetation Indicators: 5 Feet ) Herb Stratum (Plot size: 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. ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 7. 8. **Definitions of Vegetation Strata** 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 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.)

SOIL Sampling Point: 26-W012-1U

Profile Descripe	ription: (Describe to th Matrix	he depth ne		eindicator Features	or confirm	the absen	ce of indicators.)			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Rema	arks	
0-16	10YR 2/1	50	10YR 2/2	50	<u> </u>	M	Loam	T Come	arico	
16-18	10YR 3/4	100	1011122		7 <del>- 1</del> 8		Sandy Loam			
10-10	1011(3/4	100	<del></del>	· 10			Sandy Loani			
-		STO	9	10-						
<del></del>	-		<del>}</del>	-			<del></del>			
-	( <del>)</del>		-	-			·			
*	12		<del>ù</del>							
-	14	245	~	8	: <u></u>					
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	1.0		-	- :	· — ·		a a_			
-	-			· ======						
		193	*		s <del></del> -					
	W		a search of the Magnetonia search as		, <del>, , , , , , , , , , , , , , , , , , </del>			Workers Nov. Nov. 2000.00	Contract Sciences More	
¹Type: C=Cor	ncentration, D=Depletio	n, RM=Redu	ıced Matrix, MS=Masł	red Sand Gr	ains.		² Locatio	n: PL=Pore Lining,	M=Matrix.	
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hy	dric Soils³:	
Histosol	(A1)		Polyvalue Belov	/ Surface (S	8) <b>(LRR R</b> ,I	MLRA 149	B) 2 cm Mu	uck (A10) (LRR K,	L, MLRA 149B)	
— Histic Ep	pipedon (A2)		Thin Dark Surfa	ce (S9) (LR	R R, MLRA	149B)	Coast P	rairie Redox (A16)	(LRR K, L, R)	
Black Hi			Loamy Mucky M				_	ucky Peat or Peat (		R)
	n Sulfide (A4)		Loamy Gleyed N		a 4 6			rface (S7) (LRR I		9
The same of the sa	Layers (A5)		Depleted Matrix				S year to the	ue Below Surface (	affice Park — com area areas	
William Committee on the Committee of th	d Below Dark Surface (/	A11)	Redox Dark Sur				the second second second	rk Surface (S9) <b>(L</b>		
	ark Surface (A12)	,	— Depleted Dark S	2 5				nganese Masses (		. R)
	lucky Mineral (S1)		Redox Depressi				( <del></del> 3)	nt Floodplain Soils		
	leyed Matrix (S4)		— Redox Depressi	0113 (1 0)				podic (TA6) (MLR		
5	edox (S5)							ent Material (F21)	A 144A, 140, 14	, JD,
	Matrix (S6)						S. Academic Commission	allow Dark Surface	(TE12)	
The state of the s	rface (S7) <b>(LRR R, ML</b>	DA 440D)					2	Explain in Remarks		
Daik Sui	lace (S/) (LKK K, INL	-NA 1490)					Other (E	zpialii ili Keiliaiks	,	
3Indicators of	hydrophytic vegetation	and wetland	l hydrology must be pi	esent, unles	ss disturbed	or problem	ratic.			
Restrictive I	ayer (if observed):		30 00000 20	***						
Type:	ayor (ii obsorrou).									
Depth (in	chec):						Hydric Soil Pres	sent? Yes	No 2	v
Deptit (iii	urica).		-			,	Trydric Con Tre			
Remarks:										

Project/Site:	COP South Larrabee	City/County: M	onmouth County	, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW		Sta	ate: New Jersey	Sampling Point:	26-W012-1W
Investigator(s):	ALTC	Section, Township, Ra	inge:	Monmouth	n County, NJ	
Landform (hillslope, terrace, etc):	Swale Local	relief (concave, convex,	none):	concave	Slope	∋ (%): 0-2
Subregion (LRR or MLRA):	LRR S Lat:	40.1180355	Long:	-74.168294	33 Datui	m: WGS 1984
Soil Map Unit Name:	Atsion sand, 0 to 2 percent slopes	, Northern Tidewater Area	i _a	NWI classification	on:	
Are climatic / hydrologic conditions or	n the site typical for this time of year	? Yes <u>X</u> No	(lf no,	explain in Remark	(s.)	
Are Vegetation, Soil			Are "Normal Circ	cumstances" prese	ent? Yes	X No
	, or Hydrologynaturally		. A	in any answers in		
<b>SUMMARY OF FINDINGS - A</b>	Attach site map showing sa	mpling point locati	ons, transec	ts, important	features, etc.	
Hydrophytic Vegetation Present?	YesX No	Is the Sam	pled Area			
Hydric Soil Present?	Yes X No	within a W	etland?	Yes	No	
Wetland Hydrology Present?	Yes No	If yes, option	onal Wetland Site			
Remarks: (Explain alternative proc	edures here or in a separate report.)	•				
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)	X Water-Stair	ned Leaves (B9)		Surface Soi	l Cracks (B6)	
X High Water Table (A2)	Aquatic Fat	ına (B13)		Drainage Pa	atterns (B10)	
X Saturation (A3)	Marl Depos	its (B15)		Moss Trim I	∟ines (B16)	
— Water Marks (B1)	10 <del></del>	Sulfide Odor (C1)			Water Table (C2)	
Sediment Deposits (B2)	N <del></del>	hizospheres on Living Ro	ots (C3)	— Crayfish Bu		(00)
Drift Deposits (B3) Algal Mat or Crust (B4)	N <del></del>	f Reduced Iron (C4) Reduction in Tilled Soils	(06)		/isible on Aerial Im Stressed Plants (D	
Iron Deposits (B5)	10 <del></del>	Surface (C7)	(00)	<del></del> :	c Position (D2)	1)
Inundation Visible on Aerial In	14 <del></del>	ain in Remarks)		— Shallow Aqu		
Sparsely Vegetated Concave	NAME OF THE PARTY	ant in resinancy		5	raphic Relief (D4)	
				X FAC-Neutra		
			Ř		,	
Field Observations:						
\$24.51 to 1000501 M2 2000 7000	Yes NoX Depth (inc	§ / <del></del> / I				
77 Ch 2800 650 1050	Yes X No Depth (inc		115.1		No.	59
1980 to 20 1997/2 1997 M	Yes X No Depth (inc	ches): 0	Wetland Hydi	rology Present?	Yes	No
(includes capillary fringe)						
Describe Recorded Data (stream g	auge, monitoring well, aerial photos	, previous inspections), if	available:			
Remarks:						

				Dominance Test worksheet:
				Number of Dominant Species
	Absolute	Dominant	Indicator	That Are OBL, FACW, or FAC:4 (A)
Ctration (Distains) 20 Fast				
ee Stratum (Plot size: 30 Feet )	% Cover	Species?	Status	Total Number of Dominant
Acer rubrum / Red maple	15	Yes	FAC_	Species Across All Strata: 4 (B)
	- 0			
				Percent of Dominant Species
		22	210	That Are OBL, FACW, or FAC: 100.0 (A/B)
	-0-	-819k-		That / 16 0 BE, 1 / 10 0 0 0 1 / 10 0 0 0 0 0 0 0 0 0 0
				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
	15	= Total Cov	er	OBL species 10 x 1 = 10
pling/Shrub Stratum (Plot size: 15 Feet )	4-			FACW species 0 x 2 = 0
Clethra alnifolia / Coastal sweet-pepperbush	20	Yes	FAC	FAC species 35 x 3 = 105
		0.0		
			-	AND THE PROPERTY OF THE PROPER
				UPL species 0 x 5 = 0
· -	-			Column Totals:45 (A)115 (B
			202	
			r-w	Prevalence Index = B/A = 2.56
	A. 08000			N.S. 1. A. S R. 1. W
N 126 13 N 24 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20	= Total Cov	er	Hydrophytic Vegetation Indicators:
rb Stratum (Plot size: 5 Feet )				1 - Rapid Test for Hydrophytic Vegetation
Juncus effusus / Common bog rush, Soft or lamp rush	5	Yes	OBL	X 2 - Dominance Test is >50%
Symplocarpus foetidus / Skunk-cabbage	5	Yes	OBL	X 3 - Prevalence Index ≤3.0¹
		2004		4 - Morphological Adaptations¹ (Provide supporting
				Problematic Hydrophytic Vegetation¹ (Explain )
			500	
	100	1000	2000	¹Indicators of hydric soil and wetland hydrology must
		100	100 200	be present, unless disturbed or problematic.
		***		be present, unless distarsed of presidingle.
		- ·	-	Definitions of Vegetation Strata
				3
	-0-	-0.0		Tree - Woody plants 3 in. (7.6 cm) or more in diameter at
		- 0		breast height (DBH), regardless of height.
	10	= 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)				
		- 7.2		Herb - All herbaceous (non-woody) plants, regardless of
	V20 000	506 308	16/6 16/8	size, and woody plants less than 3.28 ft tall.
				Woody vines - All woody vines greater than 3.28 ft in
	- 0			height.
		= Total Cov	er	eve ods ve e
			<b>.</b>	Hydrophytic
				Vegetation
				Present? Yes X No

SOIL Sampling Point: 26-W012-1W

Profile Desci Depth	ription: (Describe to t Matrix	he depth need		ne indicator « Features	or confirm	the absen	ce of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-1	10YR 2/1	100	Color (moist)		<u> 1990</u> .		Loam	Nemano
1-10	10YR 5/1	100			) <del> </del>		Loam	_
10-18	10YR 2/1	100		- % <del></del>			Loam	_
		S18		- %				_
<del>-</del>		· ·		- (			· ·	
				•				le C
				- 2				-
				- 0	· · · · · · · · · · · · · · · · · · ·			
				- 8	S ************************************			
-				- 8	S <del></del>			
¹Type: C=Cor	ncentration, D=Depletic	n, RM=Reduc	ed Matrix, MS=Masl	ked Sand Gra	ains.		²Locatio	n: PL=Pore Lining, M=Matrix.
Hydric Soil II	ndicators:						Indicators fo	or Problematic Hydric Soils³:
Histosol	(A1)	<u> 12</u>	Polyvalue Belov	v Surface (S	8) <b>(LRR R</b> ,	MLRA 149	B) 2 cm Mu	uck (A10) (LRR K, L, MLRA 149B)
Histic Ep	pipedon (A2)		Thin Dark Surfa	ce (S9) (LR	R R, MLRA	(149B)	Coast P	rairie Redox (A16) (LRR K, L, R)
Black Hi	stic (A3)	_	Loamy Mucky N	lineral (F1) (	(LRR K, L)		5 cm Mu	ucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	n Sulfide (A4)	-	Loamy Gleyed N	Matrix (F2)			Dark Su	ırface (S7) (LRR K, L)
Stratified	d Layers (A5)		X Depleted Matrix	(F3)			Polyvalu	ue Below Surface (S8) (LRR K, L)
Depleted	d Below Dark Surface (	A11) _	Redox Dark Sur				— Thin Da	rk Surface (S9) (LRR K, L)
	ark Surface (A12)		Depleted Dark S				( <del></del> )	nganese Masses (F12) (LRR K, L, R)
5 51	ľucky Mineral (S1)	<u></u>	Redox Depressi	ons (F8)				nt Floodplain Soils (F19) <b>(MLRA 149B)</b>
	Gleyed Matrix (S4)							podic (TA6) (MLRA 144A, 145, 149B)
	ledox (S5)						y second	rent Material (F21)
The state of the s	Matrix (S6)							allow Dark Surface (TF12)
Dark Sur	rface (S7) (LRR R, MI	_RA 149B)					Other (E	Explain in Remarks)
³Indicators of	hydrophytic vegetation	and wetland h	nydrology must be p	resent, unles	s disturbed	or problem	ratic.	
Restrictive L	.ayer (if observed):					I		
Туре:								
Depth (in	ches):		_				Hydric Soil Pres	sent? Yes X No
Remarks:						Į.		

Project/Site:	COP South Larrabee	City/County: M	onmouth County	r, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW		Sta	ate: New Jersey	Sampling Point:	26-W014-1U
Investigator(s):	ALTC	Section, Township, Ra	inge:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Hillslope Local r	elief (concave, convex, i	none):	con∨ex	Slope	(%): 0-5
Subregion (LRR or MLRA):	LRR S Lat:	40.11895733	Long:	-74.1659731	I7 Datun	n: WGS 1984
Soil Map Unit Name:	Atsion sand, 0 to 2 percent slopes, N	Northern Tidewater Area	te	NWI classification	on:	
Are climatic / hydrologic conditions o	n the site typical for this time of year?	Yes X No	(lf no,	explain in Remarks	s.)	
Are Vegetation, Soil	, or Hydrologysignificant	ly disturbed?	Are "Normal Circ	cumstances" prese	nt? Yes <u>)</u>	K No
Are Vegetation, Soil	, or Hydrologynaturally p	roblematic?	(If needed, expla	in any answers in	Remarks.)	
SUMMARY OF FINDINGS - A	Attach site map showing san	npling point locati	ons, transec	ts, important f	features, etc.	
Hydrophytic Vegetation Present?	Yes No X	Is the Sam	pled Area			
Hydric Soil Present?	Yes No X	— within a W	Br.	Yes	No	
Wetland Hydrology Present?	Yes No X	If yes, option	onal Wetland Site		· · · · ·	-
				S-		
Remarks: (Explain alternative prod	edures here or in a separate report.)					
HYDROLOGY						
SACTOR CONTRACTOR CONT						
Wetland Hydrology Indicators:				C		
Primary Indicators (minimum of on Surface Water (A1)		ed Leaves (B9)			tors (minimum of t Cracks (B6)	wo required)
High Water Table (A2)	— VVater-Staine Aguatic Faun	nes accounts and expension			itterns (B10)	
Saturation (A3)	Marl Deposit	2012-00-12-12-00-00-00		Drainage Fa	MACHINESTA WE DATE:	
Water Marks (B1)	\$ <b></b>	ulfide Odor (C1)			Water Table (C2)	
Sediment Deposits (B2)	The state of the s	zospheres on Living Ro	ots (C3)	Crayfish Bur	emmanus AG AM	
Drift Deposits (B3)	N	Reduced Iron (C4)	313 (03)		isible on Aerial Im:	agery (C9)
Algal Mat or Crust (B4)		Reduction in Tilled Soils	(C6)		Stressed Plants (D1	
Iron Deposits (B5)	Thin Muck Si		(00)		Position (D2)	,
Inundation Visible on Aerial Ir	N <del></del>	in in Remarks)		— Shallow Aqu		
Sparsely Vegetated Concave				5	aphic Relief (D4)	
	,			FAC-Neutral	· · · · · · · · · · · · · · · · · · ·	
		7	ř.	The second second second	**************************************	
Field Observations:						
Surface Water Present?	Yes NoX Depth (inch	§ 1				
Water Table Present?	Yes NoX Depth (inch	ý s <del></del> s				
Saturation Present?	Yes NoX Depth (inch	ies):	Wetland Hydi	rology Present?	Yes	No X
(includes capillary fringe)						
Describe Recorded Data (stream of	gauge, monitoring well, aerial photos, p	arevious inspections) if	available:			
Describe Necorded Data (stream (	jauge, monitoring well, aerial photos, p	orevious irispections), ir	available.			
Remarks:						
1						
1						
1						

Sampling Point: **VEGETATION - Use scientific names of plants.** 26-W014-1U Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A) Absolute Dominant Indicator % Cover 30 Feet Tree Stratum (Plot size: Species? Status Total Number of Dominant 20 1. Quercus velutina / Black oak Yes NI _ (B) Species Across All Strata: 2. Acer rubrum / Red maple 10 Yes FAC Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) 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 = x 3 = 15 FAC species 0 0 FACU species x 4 = 25 UPL species x 5 = 40 170 Column Totals: (A) Prevalence Index = B/A = 4.25 0 = Total Cover Hydrophytic Vegetation Indicators: Herb Stratum (Plot size: 5 Feet ) 1 - Rapid Test for Hydrophytic Vegetation 1. Aster / Aster NI 2 - Dominance Test is >50% FAC 2. Smilax rotundifolia / Horsebrier 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. 7. 8. **Definitions of Vegetation Strata** 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 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-W014-1U

Profile Descr Depth	ription: (Describe to th Matrix	ne depth nee		ne indicator x Features	or confirm	the absen	ice of indicators.	)			
(inches)	Color (moist)	<del>%</del>	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks		
0-6	10YR 2/1	100	Color (moist)		<u> 1990</u> .		Sandy Loam		Nomania		
6-18	10YR 3/1	100		- 3	·		Sand				
	1011(3/1			- 0 <del></del>							
	. <u>5</u> v	91 <del> </del>		- ;							
<del>)</del>	<i>E</i>			- (							
-	£						·				
-	Ÿ										
-	¥	·			<del></del> :						
	·			- :	:						e
		:::		- 3							
-	-				. —						s
-	Y			- :	. —— .						s
		-	1. 242 13 14 NAMED 199 15					Years next	10000000 (4502-142)	VC 90%	
¹Type: C=Cor	ncentration, D=Depletio	n, RM=Reduc	ed Matrix, MS=Mas	ked Sand Gr	ains.		² Locatio	on: PL=Pore	Lining, M=N	latrix.	
Hydric Soil I	ndicators:						Indicators f	or Problem	atic Hydric	Soils³:	
Histosol	(A1)		Polyvalue Belov	w Surface (S	8) (LRR R,	MLRA 149	B) 2 cm M	luck (A10) (I	LRR K, L, M	LRA 149B)	
Histic Ep	ipedon (A2)		Thin Dark Surfa		Wigner Against Committee Production		manus and a second seco	DESCRIPTION OF STREET STREET, NAME OF STREET	x (A16) (LR		
Black Hi		-	— Loamy Mucky N			.5	_		r Peat (S3)		₹)
Hydroge	n Sulfide (A4)	-	Loamy Gleyed I		. 27 5				(LRR K, L)	as as	e.
Stratified	Layers (A5)	=	Depleted Matrix				— Polyval	ue Below Su	urface (S8)	LRR K, L)	
	l Below Dark Surface (/	A11)	Redox Dark Sui				A CONTRACTOR OF THE PARTY OF TH		(S9) (LRR H		
Thick Da	rk Surface (A12)		Depleted Dark						asses (F12)		R)
— Sandy M	lucky Mineral (S1)		Redox Depress	ions (F8)			— Piedmo	nt Floodplai	n Soils (F19	(MLRA 149	9B)
	leyed Matrix (S4)			**************************************					(MLRA 14		
	edox (S5)							rent Materia			
	Matrix (S6)						S. Academic Contract		Surface (TF	12)	
The state of the s	face (S7) (LRR R, ML	.RA 149B)					2	Explain in R			
3Indicators of	hydrophytic ∨egetation	and wetland I	nydrology must be p	resent, unles	s disturbed	or problem	ratic.				
Restrictive L	ayer (if observed):										
Туре:	V6 25 V550										
Depth (in	ches):		_				Hydric Soil Pre	sent?	Yes	No X	<u>( </u>
Remarks:											Ì

Project/Site:	COP South Larrabee	City/County: M	onmouth County	, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW		Sta	ate: New Jersey	Sampling Point:	26-W014-1W
Investigator(s):	ALTC	Section, Township, Ra	inge:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Depressional area Local I	relief (concave, convex, i	none):	concave	Slope	e (%): 0-5
Subregion (LRR or MLRA):	LRR S Lat:	40.11892867	Long:	-74.16590:	2 Datu	m: WGS 1984
Soil Map Unit Name:	Atsion sand, 0 to 2 percent slopes,	Northern Tidewater Area	lg	NWI classification	on:	
Are climatic / hydrologic conditions or	the site typical for this time of year?	Yes X No	(lf no,	explain in Remark	s.)	
Are Vegetation, Soil			Are "Normal Circ	cumstances" prese	ent? Yes	X No
the state of the s	, or Hydrologynaturally p		A	in any answers in		
<b>SUMMARY OF FINDINGS - A</b>	Attach site map showing sar	npling point locati	ons, transec	ts, important	features, etc.	
Hydrophytic Vegetation Present?	Yes X No	Is the Sam	pled Area			
Hydric Soil Present?	Yes X No	within a W	etland?	Yes	No	
Wetland Hydrology Present?	Yes X No	If yes, option	onal Wetland Site	ID:	- A1 U	
Remarks: (Explain alternative proc	edures here or in a separate report.)	1				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of one	e required; check all that apply)			Secondary Indica	ators (minimum of	two required)
X Surface Water (A1)	X Water-Staine	ed Leaves (B9)	3	Surface Soi	Cracks (B6)	
X High Water Table (A2)	Aquatic Faur	na (B13)		Drainage Pa	atterns (B10)	
X Saturation (A3)	Marl Deposit	s (B15)		Moss Trim L	ines (B16)	
Water Marks (B1)	X Hydrogen Su	ulfide Odor (C1)		Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	Oxidized Rh	izospheres on Living Ro	ots (C3)	Crayfish Bu	rrows (C8)	
Drift Deposits (B3)	The state of the s	Reduced Iron (C4)			isible on Aerial Im	
Algal Mat or Crust (B4)	19 <del></del>	Reduction in Tilled Soils	(C6)		Stressed Plants (D	1)
X Iron Deposits (B5)	Thin Muck S				Position (D2)	
Inundation Visible on Aerial In	The second secon	in in Remarks)		— Shallow Aqu		
Sparsely Vegetated Concave	Surface (B8)				aphic Relief (D4)	
				X FAC-Neutra	i lest (D5)	
Field Observations:						
Surface Water Present?	Yes X No Depth (inch	nes): 6				
Water Table Present?	Yes X No Depth (inch	nes):3				
Saturation Present?	Yes X No Depth (inch	nes): 0	Wetland Hyd	rology Present?	Yes X	No
(includes capillary fringe)		···	*			-
B			201			
Describe Recorded Data (stream g	auge, monitoring well, aerial photos,	previous inspections), if	available:			
Remarks:						
May a distributed and a state of the state o						

/EGETATION - 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	
Tree Stratum (Plot size: 30 Feet )	% Cover	Species?	Status	Total Number of Dominant
1. Acer rubrum / Red maple	10	Yes	FAC	Species Across All Strata: 5 (B)
Quercus bicolor / Swamp white oak	10	Yes	FACW	Species Across Air Strata.
3		- 200	2/6	Description of Description
4.			200	Percent of Dominant Species
5.			300	That Are OBL, FACW, or FAC: 100.0 (A/B)
6.		101		Prevalence Index worksheet:
7.	100	-()-(i)-		20-25 N 584 465 N 59
	20	= Total Cov	er	
Sapling/Shrub Stratum (Plot size: 15 Feet )				The state of the s
Clethra alnifolia / Coastal sweet-pepperbush	40	Yes	FAC	FACW species 10 x 2 = 20
500 July 200				FAC species 55 x 3 = 165
2		- )-	-	FACU species 0 x 4 = 0
3.				UPL species0 x 5 =0
4		- 100 m	10	Column Totals: (A) (B)
5				
6		116	7-97	Prevalence Index = B/A = 2.71
7	100.00			W. W. L. & W
	40	_ = Total Cov	er	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: 5 Feet )				1 - Rapid Test for Hydrophytic Vegetation
Symplocarpus foetidus / Skunk-cabbage	5	Yes	OBL	X 2 - Dominance Test is >50%
2. Smilax rotundifolia / Horsebrier	5	Yes	FAC	X 3 - Prevalence Index ≤3.0¹
3.		_		4 - Morphological Adaptations¹ (Provide supporting
4		- 6		Problematic Hydrophytic Vegetation¹ (Explain )
5	400	500	1/2	·
6.			100	¹ Indicators of hydric soil and wetland hydrology must
7.				be present, unless disturbed or problematic.
8.			777	Te se
9.		-071 ^{(k}	- 012	Definitions of Vegetation Strata
10.		-0.0	10	
11.				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at
12.	102	-04	-00	breast height (DBH), regardless of height.
	10	= Total Cov		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size: 30 Feet )		- 10.000.	<u>~.</u>	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.	1.0	- ( )-	16	height.
4.		- T-4-1 O	-7/2	
	0	_ = Total Cov	er	Hydrophytic
				Vegetation
				Present? Yes X No
				to resident destroy on the second sec
Remarks: (Explain alternative procedures here or in a separa	ate report.)			

SOIL Sampling Point: 26-W014-1W

	ription: (Describe to th	ne depth nee			or confirm	the absen	ce of indicators.)	
Depth	Matrix		9 35 at 29 5a 55 5a-5	( Features	- 2 2	1 2	7-70 0	<b>5</b>
_(inches)	Color (moist)		Color (moist)		Type ¹	Loc²	Texture	Remarks
0-12	10YR 2/1	100	,	- s <del></del>			Muck	
-	- J ₁ Y:	yro <del></del>	×	· 2				-8
	. <u>.</u>	ov. <del></del>	<u>,                                      </u>	- 2				
1	¥		9	- (			<del></del>	
3			3	- 3	<del></del>			_
·	*			-			*	
	-	MS						-
	-			- 15				
-			2	- 3				
*	T		·	- 0	:	s	· · · · · · · · · · · · · · · · · · ·	-5
	Y-	· · · · · · · · · · · · · · · · · · ·	<u> </u>	- 8				
¹Type: C=Cor	ncentration, D=Depletio	n, RM=Redu	ced Matrix, MS=Masl	ked Sand Gr	ains.		²Location:	PL=Pore Lining, M=Matrix.
Hydric Soil II	ndicators:						Indicators for	Problematic Hydric Soils³:
X Histosol			Polyvalue Belov	v Surface (S	8) (LRR R	MI RA 1491		(A10) (LRR K, L, MLRA 149B)
	ipedon (A2)		Thin Dark Surfa		Wagner Age After Committee of the Committee of		care, frames, account account of the	rie Redox (A16) (LRR K, L, R)
Black His			Loamy Mucky M			( 1496)	_	ky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Gleyed N		(LKK K, L)			
The second second the	ener			AND THE RESERVE AND THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TO THE PERS			200 EV EV	ace (S7) (LRR K, L)
W magnetic control of	l Layers (A5)	A 44)	Depleted Matrix					Below Surface (S8) (LRR K, L)
	I Below Dark Surface (/	111)	Redox Dark Sur					Surface (S9) (LRR K, L)
	rk Surface (A12)		Depleted Dark S				i <del></del> -	anese Masses (F12) (LRR K, L, R)
S S	lucky Mineral (S1)		Redox Depressi	ons (F8)				Floodplain Soils (F19) (MLRA 149B)
51	ileyed Matrix (S4)							dic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)						A STATE OF THE PARTY OF THE PAR	nt Material (F21)
The state of the s	Matrix (S6)	B.E. 4 (OB)						ow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, ML	.RA 149B)					— Other (Exp	olain in Remarks)
³Indicators of	hydrophytic ∨egetation	and wetland	hydrology must be p	resent, unles	s disturbed	or problem	atic.	
Restrictive L	ayer (if observed):							
Type:	ay or (ii obool rou).							
Depth (in	ches):						Hydric Soil Prese	nt? Yes X No
			_				,	
Remarks:	Water prevents soil fron	n being collec	eted past 12 inches					
	vator provonto con nor	in boiling boilion	7.54 past 12 monos					

Project/Site:	COP South Larrabee	City/County: Me	onmouth County	, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW	A CONTRACT OF STREET OF ST	Sta	ate: New Jersey	Sampling Point:	26-W015-1U
Investigator(s):	TCAL	Section, Township, Ra	inge:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Hillslope Local r	relief (concave, convex, r	none):	con∨ex	Slope	(%): 5-10
Subregion (LRR or MLRA):	LRR S Lat:	40.12807383	Long:	-74.1354556	7 Datun	n: WGS 1984
Soil Map Unit Name:	Humaquepts, 0 to 3 percent slope	es, frequently flooded		NWI classification	on:	
Are climatic / hydrologic conditions o	n the site typical for this time of year?	Yes X No	(lf no,	explain in Remarks	s.)	
Are Vegetation, Soil	, or Hydrologysignificantl	ly disturbed?	Are "Normal Circ	cumstances" prese	nt? Yes <u>)</u>	K No
Are Vegetation, Soil	, or Hydrologynaturally p	roblematic?	(If needed, expla	in any answers in	Remarks.)	
SUMMARY OF FINDINGS - A	Attach site map showing san	npling point location	ons, transec	ts, important f	features, etc.	
Hydrophytic Vegetation Present?	Yes X No	Is the Sam	pled Area			
Hydric Soil Present?	Yes No X	— within a We	etland?	Yes	No	
Wetland Hydrology Present?	Yes No X	If yes, optio	nal Wetland Site			_
1000 300 300 300 300 300 300 300 300 300	90 Matrix Nation (4) 43 and (4)					
Remarks: (Explain alternative prod	cedures here or in a separate report.)					
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	se required; check all that apply)			Secondary Indica	tors (minimum of t	wo required)
Surface Water (A1)		ed Leaves (B9)			Cracks (B6)	wo required)
High Water Table (A2)	Aquatic Faun	real accountage of the contract			itterns (B10)	
Saturation (A3)	Marl Deposits	20222992223, 5236, 3457		Moss Trim L	MACHINESTA WE DATE:	
Water Marks (B1)		ulfide Odor (C1)			Water Table (C2)	
Sediment Deposits (B2)	The state of the s	zospheres on Living Roc	ots (C3)	Crayfish Bur	emmanus AG AM	
Drift Deposits (B3)	N <del></del>	Reduced Iron (C4)	0.0 (00)		isible on Aerial Im:	agery (C9)
Algal Mat or Crust (B4)	The state of the s	Reduction in Tilled Soils	(C6)		Stressed Plants (D1	
Iron Deposits (B5)	Thin Muck Su		(00)		Position (D2)	,
Inundation Visible on Aerial Ir	N=	in in Remarks)		— Shallow Aqu		
Sparsely Vegetated Concave	AND THE RESERVE THE PARTY OF TH			5	aphic Relief (D4)	
	,			FAC-Neutral	· · · · · · · · · · · · · · · · · · ·	
		-	8	The second second second	**************************************	
Field Observations:						
Surface Water Present?	Yes NoX Depth (inch	ş 1 <del></del> 1				
Water Table Present?	Yes NoX Depth (inch	§ S <del>I − − −</del> − − − − − − − − 13	STATE OF STA			
Saturation Present?	Yes NoX Depth (inch	es):	Wetland Hydi	rology Present?	Yes	No X
(includes capillary fringe)						
Describe Recorded Data (stream of	gauge, monitoring well, aerial photos, p	nrevious inspections) if	available:			
Describe Necorded Data (stream (	jauge, monitoring well, aerial photos, p	revious irispections), ir	avallable.			
Remarks:						
this selection of the description						
1						

Sampling Point: **VEGETATION - Use scientific names of plants.** 26-W015-1U Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A) Absolute Dominant Indicator Tree Stratum (Plot size: 30 Feet % Cover_ Species? Status Total Number of Dominant 1. Quercus velutina / Black oak _ (B) Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: 20 = Total Cover OBL species 0 x 1 = ___ Sapling/Shrub Stratum (Plot size: 15 Feet FACW species 0 x 2 = 1. Clethra alnifolia / Coastal sweet-pepperbush x 3 = 30 FAC species 0 0 FACU species x 4 = 20 UPL species x 5 = 100 190 Column Totals: (A) Prevalence Index = B/A = 25 = Total Cover 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 ) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 8. **Definitions of Vegetation Strata** 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 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

Profile Desc Depth	ription: (Describe to tl Matrix	he depth nee		ne indicator Features	or confirm	the absen	ce of indicators.)		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks	
0-3	10YR 3/2	100	Color (moist)				Sand	Kemarks	
3-10	10YR 6/8	50	10YR 3/2	50			Sand		
10-18	10YR 6/8	100	1011(3/2				Sand		
10-18	1011076			1 10			Sanu		
2			S.	- (	. —				
<del></del>		<del></del>		• 1	. —		<del></del>		
-		2119		. 10					
-		Title III		- 21					
-		100-	Ü.	- 6					
-		100.	<u> </u>	• 81					
	-	<del></del>	<u> </u>	- 0					
1Tuno: C=Co.		DM-Dadu	and Matrix MC=Mad	rad Cand Ca			21 postion:	DI - Dava Lining M-Metrix	
Type: C=Cor	ncentration, D=Depletio	n, Rivi=Redu	ced Matrix, MS=Masi	ked Sand Gr	rains.		*Location:	PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indicators for I	Problematic Hydric Soils³:	
Histosol	(A1)		Polyvalue Belov	v Surface (S	8) (LRR R,	MLRA 149	B) 2 cm Muck	(A10) (LRR K, L, MLRA 149B)	
Histic Ep	pipedon (A2)		Thin Dark Surfa	ce (S9) <b>(LF</b>	RR R, MLRA	(149B)	— Coast Prai	rie Redox (A16) (LRR K, L, R)	
	stic (A3)		Loamy Mucky N			<i>M2</i>		y Peat or Peat (S3) (LRR K, L, R	₹)
Hydroge	n Sulfide (A4)		Loamy Gleyed N				Dark Surfa	ce (S7) (LRR K, L)	
Stratified	d Layers (A5)		Depleted Matrix				Polyvalue	Below Surface (S8) (LRR K, L)	
Depleted	d Below Dark Surface (	A11)	Redox Dark Sur	face (F6)			Thin Dark	Surface (S9) (LRR K, L)	
Thick Da	ark Surface (A12)		Depleted Dark S	Surface (F7)			Iron-Manga	anese Masses (F12) (LRR K, L,	R)
Sandy N	lucky Mineral (S1)		Redox Depressi	ons (F8)			Piedmont f	Floodplain Soils (F19) <b>(MLRA 14</b> 9	9B)
Sandy G	Bleyed Matrix (S4)						Mesic Spo	dic (TA6) (MLRA 144A, 145, 145	9B)
Sandy R	redox (S5)						Red Paren	t Material (F21)	
Stripped	Matrix (S6)						Very Shallo	ow Dark Surface (TF12)	
Dark Su	rface (S7) (LRR R, ML	-RA 149B)					Other (Exp	lain in Remarks)	
31	·		Establish of a large way of the above						
5.0000 ver 251 ver251 1.00	hydrophytic vegetation	and wetland	nyarology must be pi	resent, unie	ss disturbed	or problem	iatic.		,
	.ayer (if observed):								
Type:								194 44 44 14	
Depth (in	ches):						Hydric Soil Preser	nt? Yes NoX	<u> </u>
Remarks:									

Project/Site:	COP South Larrabee	City/County: Mo	onmouth County	, NJ	Sampling Date:	02/16/2023
Applicant/Owner:	ASOW	-	Sta	ite: New Jersey	Sampling Point:	26-W015-1W
Investigator(s):	TCAL	Section, Township, Rai	nge:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Swale Local r	elief (concave, convex, r	none):	concave	Slope	e (%): 0-3
Subregion (LRR or MLRA):	LRR S Lat:	40.12801933	Long:	-74.1353621	I7 Datur	n: WGS 1984
Soil Map Unit Name:				NWI classification	on:	
	n the site typical for this time of year?	<del> </del>		explain in Remark	Allen on an	
ATT 12000 10 ACTO 10 A		3		cumstances" prese	and the same of th	X No
Are Vegetation, Soil	, or Hydrologynaturally p		A 1994	in any answers in		
SUMMARY OF FINDINGS - A	Attach site map showing san	npling point location	ons, transec	ts, important i	features, etc.	
Hydrophytic Vegetation Present?	YesX No	Is the Sam	pled Area			
Hydric Soil Present?	Yes X No	within a We	etland?	Yes	No	_
Wetland Hydrology Present?	Yes <u>X</u> No	If yes, optio	nal Wetland Site	ID:		
Remarks: (Explain alternative proc	edures here or in a separate report.)	•				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on					tors (minimum of	:wo required)
Surface Water (A1)	A CONTRACTOR OF THE ACCUSAGE O	ed Leaves (B9)		Contraction of the	Cracks (B6)	
High Water Table (A2)	Aquatic Faun	200000000000000000000000000000000000000			itterns (B10)	
Saturation (A3)	Marl Deposits	54 563		Moss Trim L	8 8	
Water Marks (B1) Sediment Deposits (B2)	The second secon	ılfide Odor (C1) zospheres on Living Roc	nte (C3)	Crayfish Bur	Water Table (C2)	
Drift Deposits (B3)	10 mm - 12 mm	Reduced Iron (C4)	0.3 (00)		isible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)	The state of the s	Reduction in Tilled Soils	(C6)		Stressed Plants (D	
Iron Deposits (B5)	Thin Muck Su		()	**************************************	Position (D2)	3
Inundation Visible on Aerial In	nagery (B7) Other (Explai	in in Remarks)		Shallow Aqu		
Sparsely Vegetated Concave	Surface (B8)			Microtopogra	aphic Relief (D4)	
				X FAC-Neutral	Test (D5)	
Field Observations:				20 49		
	Yes No X Depth (inch	iec).				
Water Table Present?	Yes No X Depth (inch	§ 1				
- 17 St - 240 - 360 - 366	Yes No X Depth (inch	§ 3 <del></del>	Wetland Hydr	ology Present?	Yes X	No
(includes capillary fringe)	Too Too Bopan (inch		riodana ny di	ology i rosola.		
Commence of the second						
Describe Recorded Data (stream g	gauge, monitoring well, aerial photos, p	previous inspections), if a	available:			
Remarks:						
Nomano.						
1						
1						

Acer rubrum / Red maple  apling/Shrub Stratum (Plot size: 15 Feet )  Clethra alnifolia / Coastal sweet-pepperbush	35 45	= Total Cove	er	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)  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: Total % Cover of: Multiply by: OBL species 15 x 1 = 15
Acer rubrum / Red maple  apling/Shrub Stratum (Plot size: 15 Feet )  Clethra alnifolia / Coastal sweet-pepperbush	35 35 45	Species? Yes  Total Cove	Status FAC	That Are OBL, FACW, or FAC:         3         (A)           Total Number of Dominant         3         (B)           Percent of Dominant Species         3         (B)           Percent of Dominant Species         100.0         (A/B)           Prevalence Index worksheet:         100.0         (A/B)           OBL species         15         x 1 = 15
Acer rubrum / Red maple  apling/Shrub Stratum (Plot size: 15 Feet )  Clethra alnifolia / Coastal sweet-pepperbush	35 35 45	Species? Yes  Total Cove	Status FAC	That Are OBL, FACW, or FAC:         3         (A)           Total Number of Dominant         3         (B)           Percent of Dominant Species         3         (B)           Percent of Dominant Species         100.0         (A/B)           Prevalence Index worksheet:         100.0         (A/B)           OBL species         15         x 1 = 15
Acer rubrum / Red maple  apling/Shrub Stratum (Plot size: 15 Feet )  Clethra alnifolia / Coastal sweet-pepperbush	35 35 45	Species? Yes  Total Cove	Status 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:  Total % Cover of: Multiply by:  OBL species 15 x 1 = 15
Acer rubrum / Red maple  apling/Shrub Stratum (Plot size: 15 Feet )  Clethra alnifolia / Coastal sweet-pepperbush	35 35 45	Yes  = Total Cove	FAC	Species Across All Strata:         3         (B)           Percent of Dominant Species         100.0         (A/B)           That Are OBL, FACW, or FAC:         100.0         (A/B)           Prevalence Index worksheet:         Multiply by:         0BL species         15         x 1 = 15
apling/Shrub Stratum (Plot size:15 Feet)  Clethra alnifolia / Coastal sweet-pepperbush	35 45	= Total Cove	er	Species Across All Strata:         3         (B)           Percent of Dominant Species         100.0         (A/B)           That Are OBL, FACW, or FAC:         100.0         (A/B)           Prevalence Index worksheet:         Multiply by:         0BL species         15         x 1 = 15
apling/Shrub Stratum (Plot size:15 Feet)  Clethra alnifolia / Coastal sweet-pepperbush	35 45	= Total Cove	er	Percent of Dominant Species         100.0         (A/B)           That Are OBL, FACW, or FAC:         100.0         (A/B)           Prevalence Index worksheet:         Multiply by:         Multiply by:           OBL species         15         x 1 = 15
apling/Shrub Stratum (Plot size:15 Feet)  Clethra alnifolia / Coastal sweet-pepperbush	35 45	= Total Cove	er	Prevalence Index worksheet:
apling/Shrub Stratum (Plot size:15 Feet)  Clethra alnifolia / Coastal sweet-pepperbush	35 45	= Total Cove		Prevalence Index worksheet:
apling/Shrub Stratum (Plot size:15 Feet)  Clethra alnifolia / Coastal sweet-pepperbush	35 45	= Total Cove		Prevalence Index worksheet:
apling/Shrub Stratum (Plot size:15 Feet)  Clethra alnifolia / Coastal sweet-pepperbush	35 45	= Total Cove	er	Total % Cover of:         Multiply by:           OBL species         15         x 1 = 15
apling/Shrub Stratum (Plot size:15 Feet)  Clethra alnifolia / Coastal sweet-pepperbush	35 45	= Total Cove	er	Total % Cover of:         Multiply by:           OBL species         15         x 1 = 15
apling/Shrub Stratum (Plot size: 15 Feet )  Clethra alnifolia / Coastal sweet-pepperbush	35 45	Yes		OBL species 15 x 1 = 15
apling/Shrub Stratum (Plot size: 15 Feet )  Clethra alnifolia / Coastal sweet-pepperbush	35 45	Yes		OBL species 15 x 1 = 15
Clethra alnifolia / Coastal sweet-pepperbush			E4.0	
Clethra alnifolia / Coastal sweet-pepperbush			E4.0	
			FAC	FACW species 0 x 2 = 0
				FAC species 80 x 3 = 240
		. —		FACU species0 x 4 =0
				UPL species 0 x 5 = 0
		0	( <del></del>	Column Totals: 95 (A) 255 (B
\ <u></u>		22	892	Vol.
		The state of the s	2000	Prevalence Index = B/A = 2.68
		TT .		Trevalence index = D/A = 2.00
·	45	= Total Cove		Hydrophytic Vegetation Indicators:
orb Stratum / Distract 5 5 t		IOIAI CUV	-1	
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
			A-1-9-	4 - Morphological Adaptations¹ (Provide supporting
				Problematic Hydrophytic Vegetation¹ (Explain )
( <del></del>				— Troblematic Frydrophrytic regulation (Explain)
TI		() <del>-</del>		
		0.0	tr <u>a</u>	¹Indicators of hydric soil and wetland hydrology must
		200	7.95	be present, unless disturbed or problematic.
			DI #6	Definitions of Vegetation Strata
			0.0	***
		-	· 6	Tree - Woody plants 3 in. (7.6 cm) or more in diameter at
			0.04	breast height (DBH), regardless of height.
2			0.0	A 10 100 A0
	15	= Total Cove	er	Sapling/shrub - Woody plants less than 3 in. DBH and
oody Vine Stratum (Plot size: 30 Feet )				greater than or equal to 3.28 ft (1 m) tall.
				Herb - All herbaceous (non-woody) plants, regardless of
·		•		size, and woody plants less than 3.28 ft tall.
		• -	0.5	Woody vines - All woody vines greater than 3.28 ft in
			· ———	height.
		25	282	110191111
	0	= Total Cove	∍r	71. 7. 1. 2.
		•		Hydrophytic
				Vegetation
				Present? Yes X No

SOIL Sampling Point: 26-W015-1W

Profile Desci Depth	iption: (Describe to th Matrix	ne depth need		ne indicator Features	or confirm	the absen	ce of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc²	Texture	Remarks
0-3	10YR 2/1	100	o o i o i (i i o i o i )	· ———	<u>.,,,,,                                </u>		Loam	Homano
3-20	10YR 4/2	100		• :			Fine Sand	
	1011(4/2			·				
<del> </del>		n <del></del>						
-				- (			<u> </u>	
-	80 10			- 1				
-	· <u>v</u>			. :				
	· <u>· · · · · · · · · · · · · · · · · · </u>	<u> </u>						
								-19
		·		. :				
							51	
				- ((				-
¹Type: C=Cor	centration, D=Depletion	n, RM=Reduce	ed Matrix, MS=Mask	red Sand Gr	ains.		²Location	: PL=Pore Lining, M=Matrix.
Hydric Soil II	ndicators:						Indicators for	Problematic Hydric Soils³:
Histosol			Polyvalue Below	V Surface (St	B) (LRR R.I	MLRA 149		ck (A10) (LRR K, L, MLRA 149B)
Expression and the	ipedon (A2)	-	Thin Dark Surfa		CORPORATION CONTRACTOR AND CONTRACTO		erance for the second s	airie Redox (A16) (LRR K, L, R)
Black Hi		<u></u>	Loamy Mucky M			1.700/		cky Peat or Peat (S3) (LRR K, L, R)
	28 88	<u></u>	Loamy Gleyed N		(EIXIX IX, E)			
The same of the sa	n Sulfide (A4) Layers (A5)	_		Annual Printer Add			10 CON 10 SI	face (S7) (LRR K, L)
			Depleted Matrix				the second secon	Below Surface (S8) (LRR K, L)
	Below Dark Surface (A		_ Redox Dark Sur	8 8				Surface (S9) (LRR K, L)
	rk Surface (A12)		_ Depleted Dark S				( <del></del>	ganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)		_ Redox Depressi	ons (F8)				t Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)							odic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)						S. Academic Committee Committee	ent Material (F21)
Stripped	Matrix (S6)						Very Sha	llow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, ML	.RA 149B)					Other (Ex	(plain in Remarks)
³ Indicators of	hydrophytic ∨egetation	and wetland h	vdrology must be pr	resent unles	s disturbed	or problem	natic	
nanga yan yan yangar sa	153 15 153 501		, p.					
	ayer (if observed):							
Туре:								Nev 55 65 55
Depth (in	ches):		_				Hydric Soil Prese	ent? Yes <u>X</u> No
Remarks:								

Project/Site:	COP South Larrabee	City/County: Mor	nmouth County, NJ	Sampling Date: 02/21/2023
Applicant/Owner:	ASOW	orgi	State: New Jersey	Sampling Point: 26-W016-1U
Investigator(s):	TCAL	Section, Township, Ran		h County, NJ
Landform (hillslope, terrace, etc):	Flat Local	relief (concave, convex, no	one): convex	Slope (%): 0-3
Subregion (LRR or MLRA):			Long:74.051971	33 Datum: WGS 1984
Soil Map Unit Name:			NWI classification	7
	on the site typical for this time of year?	and the second s		reflex on ex-
	: :: :		re "Normal Circumstances" prese	And the second s
transport of the control of the cont	, or Hydrologynaturally		f needed, explain any answers in	and the second s
SUMMARY OF FINDINGS -	Attach site map showing sa	mpling point locatio	ns, transects, important	features, etc.
Hydrophytic Vegetation Present?	Yes NoX	Is the Samp	led Area	
Hydric Soil Present?	Yes No X	within a Wet	t <b>land?</b> Yes	NoX
Wetland Hydrology Present?	Yes No X	If yes, option	al Wetland Site ID:	
, ,	cedures here or in a separate report.)	,		
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	ne required; check all that apply)		Secondary Indic	ators (minimum of two required)
Surface Water (A1)		ed Leaves (B9)	Surface Soi	il Cracks (B6)
High Water Table (A2)	Aquatic Fau	ına (B13)	Drainage P	atterns (B10)
Saturation (A3)	Marl Deposi	13 1957	Moss Trim I	2 2
Water Marks (B1)		ulfide Odor (C1)	n page of the first of the firs	Water Table (C2)
Sediment Deposits (B2)	×	nizospheres on Living Root	20 Mi	na senara M. Mill. na na sa sa sa sa sanarana
Drift Deposits (B3)	N	f Reduced Iron (C4)	Sacrate Triban Village S	Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	500 NASSIGN 170 NA 170 NA	Reduction in Tilled Soils (0 Surface (C7)	— ·	Stressed Plants (D1) c Position (D2)
Inundation Visible on Aerial In	1	ain in Remarks)	— Geomorphic Shallow Aq	Address of the second of the s
Sparsely Vegetated Concave	A STATE OF THE PARTY OF THE PAR	an in Remarks,		raphic Relief (D4)
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		FAC-Neutra	
		1	2 CONTROL THE DESIGNATION OF S	Michael Control Control Control €0
Field Observations:				
Surface Water Present?	Yes NoX Depth (inc	, i '		
Water Table Present?	Yes NoX Depth (inc	, į i <del> – – i</del> į	186-4land Undralagy Propert?	Van No V
Saturation Present?	Yes NoX Depth (inc	hes):	Wetland Hydrology Present?	Yes No <u>X</u>
(includes capillary fringe)				
Describe Recorded Data (stream	gauge, monitoring well, aerial photos,	previous inspections), if a	vailable:	
Remarks:				
1				
1				
1				

Sampling Point: **VEGETATION - Use scientific names of plants.** 26-W016-1U Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A) Absolute Dominant Indicator % Cover Tree Stratum (Plot size: 30 Feet Species? Status Total Number of Dominant 1. Picea abies / Norway spruce 20 Yes NI (B) Species Across All Strata: 2. Robinia pseudoacacia / Black locust 10 Yes **FACU** Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: 30 = Total Cover OBL species x 1 = Sapling/Shrub Stratum (Plot size: 15 Feet 0 x 2 = FACW species 1. Taxus / Yew x 3 = 0 0 FAC species 110 FACU species x 4 = 3. 25 125 UPL species x 5 = 135 565 Column Totals: (A) Prevalence Index = B/A = 4.19 5 = Total Cover Hydrophytic Vegetation Indicators: Herb Stratum (Plot size: 5 Feet 1 - Rapid Test for Hydrophytic Vegetation 1. Poa pratensis / Kentucky blue grass 100 **FACU** 2 - Dominance Test is >50% 3 - Prevalence Index ≤3.01 4 - Morphological Adaptations1 (Provide supporting Problematic Hydrophytic Vegetation¹ (Explain ) 4. ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 8. **Definitions of Vegetation Strata** 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 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

	ription: (Describe to th	ne depth need			or confirm	the absen	ce of indicators.)	)
Depth (inches)	Matrix Color (moist)	<del></del>	Color (moist)	Features %	Type ¹	Loc ²	Texture	Remarks
			3					
	-			- 25				
<del>,</del>	- M-			· **				
9	<del> </del>				:			
2	·			. 3				
2	***************************************	M <u> </u>		. %			· »_	
				8				
				- 61				
				· 0	o <del></del> o		:	
¹Type: C=Cor	ncentration, D=Depletio	n, RM=Reduce	ed Matrix, MS=Mask	ed Sand Gr	ains.		²Locatio	on: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indicators fo	or Problematic Hydric Soils³:
— Histosol	15. CO. CO. CO. CO. CO. CO. CO. CO. CO. CO	<u> </u>	Polyvalue Below				tration g trations extra rest.	uck (A10) (LRR K, L, MLRA 149B)
Histic Ep Black Hi	oipedon (A2)	5 <u>-1</u>	Thin Dark Surfa			(149B)		Prairie Redox (A16) (LRR K, L, R) lucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	-	Loamy Mucky M Loamy Gleyed N		(LKK K, L)			urface (S7) (LRR K, L)
The same of the sa	Layers (A5)	_	Depleted Matrix					ue Below Surface (S8) (LRR K, L)
	l Below Dark Surface (A	A11)	Redox Dark Sur					ark Surface (S9) (LRR K, L)
	rk Surface (A12)	<del></del>	Depleted Dark S				( <del></del>	anganese Masses (F12) (LRR K, L, R)
Si	lucky Mineral (S1) ileyed Matrix (S4)	-	Redox Depressi	ons (F8)				ont Floodplain Soils (F19) <b>(MLRA 149B)</b> Spodic (TA6) <b>(MLRA 144A, 145, 149B)</b>
	edox (S5)							rent Material (F21)
	Matrix (S6)							nallow Dark Surface (TF12)
Dark Sui	face (S7) (LRR R, ML	.RA 149B)					Other (I	Explain in Remarks)
³ Indicators of	hydrophytic vegetation	and wetland h	ydrology must be pr	esent, unles	ss disturbed	or problem	natic.	
Restrictive L	ayer (if observed):							
Type:	ah aa\:						Uvdria Cail Bra	cont2 Yes No V
Depth (in	unes).		_				Hydric Soil Pre	esent? Yes No _X
Remarks:	Manicured Park land wi	th undergroun	d utilities present. m	anmade we	tland, adiac	ent area no	on hydric.	
		3	,				•	

Project/Site:	COP South Larrabee	City/County: N	/lonmouth County	. NJ	Sampling Date:	02/21/2023
Applicant/Owner:	ASOW	1000 CO		ate: New Jersey		26-W016-1W
Investigator(s):	TCAL	Section, Township, R	1,000,000	7 15 15 15 15 15 15 15 15 15 15 15 15 15	County, NJ	
Landform (hillslope, terrace, etc):	Bowl shaped depression Local re	elief (concave, convex,		concave	Slope	(%): 0-5
Subregion (LRR or MLRA):	LRR S Lat:	40.129932	Long:	-74.051940	B Datur	n: WGS 1984
Soil Map Unit Name:				NWI classification	on:	
Are climatic / hydrologic conditions or	n the site typical for this time of year?	Yes X No	(lf no,	- explain in Remark	s.)	
Are Vegetation , Soil	, or Hydrology significantl	y disturbed?	The same of the sa	cumstances" prese		X No
	, or Hydrology naturally p	roblematic?	(If needed, expla	in any answers in	Remarks.)	
SUMMARY OF FINDINGS - A	Attach site map showing sam	pling point locat	ions, transec	ts, important	features, etc.	
Hydrophytic Vegetation Present?	Yes No X	I	npled Area			
Hydric Soil Present?	Yes X No	within a V	en en	Yes X	No	
Wetland Hydrology Present?	Yes X No	<del></del> )*	onal Wetland Site	-	26-W016-1W	_
vocalia i i yarenegy i resent.			ond votiding one		20 00010 100	
Remarks: (Explain alternative proc Manmade pond.	edures here or in a separate report.)					
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	e required: check all that apply)			Secondary Indica	ators (minimum of t	wo required)
X Surface Water (A1)		d Leaves (B9)			Cracks (B6)	
High Water Table (A2)	—— Aquatic Faun	SE SESSIVITES THE SERVICE		A restriction of the	atterns (B10)	
Saturation (A3)	Marl Deposits	SEC. 25/20 C. 24 SEC. 24/34 V		Moss Trim L	ONE-CENTRALISM SEE ENTRY	
Water Marks (B1)	Hydrogen Su	Ifide Odor (C1)		Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	Oxidized Rhiz	zospheres on Living Ro	oots (C3)	Crayfish Bu	rows (C8)	
Drift Deposits (B3)	Presence of I	Reduced Iron (C4)		Saturation V	isible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)	Recent Iron F	Reduction in Tilled Soils	s (C6)	Stunted or S	Stressed Plants (D	1)
Iron Deposits (B5)	Thin Muck Su	urface (C7)		Geomorphic	: Position (D2)	
Inundation Visible on Aerial In	nagery (B7) Other (Explai	n in Remarks)		Shallow Aqu	ıitard (D3)	
Sparsely Vegetated Concave	Surface (B8)			Microtopogr	aphic Relief (D4)	
50 - 40				FAC-Neutra	l Test (D5)	
Field Observations:						
	Yes X No Depth (inch	es): 12+				
\$2453 TO \$20053 NO AND \$250	Yes No X Depth (inch	· · · · · · · · · · · · · · · · · · ·				
V 0 V0 86 V6	Yes No X Depth (inch	§ 0 <del></del> 0	Wetland Hyde	rology Present?	Yes X	No
(includes capillary fringe)	res NoX Bepar (more		, rictiana riya	ology i reseric.	163 <u>X</u>	
(morados sapinary minge)						
Describe Recorded Data (stream g	gauge, monitoring well, aerial photos, p	previous inspections), it	i a∨ailable:			
Remarks:						
l						

Sampling Point: **VEGETATION - Use scientific names of plants.** 26-W016-1W Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A) Absolute Dominant Indicator Tree Stratum (Plot size: ____30 Feet ___) % Cover Species? Status Total Number of Dominant _ (B) Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: 0 = Total Cover OBL species 0 x 1 = ____ Sapling/Shrub Stratum (Plot size: 15 Feet FACW species 0 x 2 = _ x 3 = 0 FAC species 0 FACU species x 4 = 0 UPL species x 5 = (A) _ Column Totals: 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 ) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 8. **Definitions of Vegetation Strata** 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 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 Yes _____ No __X Present? 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

	iption: (Describe to th	ne depth neede			or confirm	the absen	ce of indicators.)	<u>-</u>
Depth (inches)	Matrix Color (moist)	<del></del> _	Redox Color (moist)	Features %	Type ¹	Loc²	Texture	Remarks
(ilidies)	Color (moist)		Color (Illoist)	70		LUC	Texture	Remarks
·				1	· ·	-		-
-	<i>**</i>	78		10				
	<u> </u>							-
				. —				
-	2			. ::		s	· · · · · · · · · · · · · · · · · · ·	
-	2			. :				-
	-	·						
	-			· 5 <u></u>				-
-						s	- E	
				- a				
¹Type: C=Cor	centration, D=Depletion	n, RM=Reduce	d Matrix, MS=Mask	ed Sand Gr	ains.		² Location	n: PL=Pore Lining, M=Matrix.
Hydric Soil Ir	ndicators:						Indicators fo	or Problematic Hydric Soils ³ :
Histosol	(A1)	V-1	Polyvalue Below				3) 2 cm Mu	ick (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)		Thin Dark Surface			149B)		rairie Redox (A16) (LRR K, L, R)
Black His	27 (2)	·	_ Loamy Mucky M		(LRR K, L)			icky Peat or Peat (S3) (LRR K, L, R)
The same of the sa	n Sulfide (A4)	·	_ Loamy Gleyed N				A COURT DO NOT	rface (S7) (LRR K, L)
The same of the sa	Layers (A5) Below Dark Surface ( <i>A</i>		<ul> <li>Depleted Matrix</li> <li>Redox Dark Sur</li> </ul>				the state of the s	le Below Surface (S8) (LRR K, L)
	rk Surface (A12)		Depleted Dark Sur	8 8				rk Surface (S9) (LRR K, L) nganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)		Redox Depressi				<del></del>	nt Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		_ Trough Bobileson	o.i.o (i o)				podic (TA6) (MLRA 144A, 145, 149B)
51	edox (S5)							ent Material (F21)
	Matrix (S6)						Very Sha	allow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, ML	.RA 149B)					Other (E	xplain in Remarks)
³Indicators of	hydrophytic vegetation	and wetland hy	drology must be pr	esent, unles	s disturbed	or problem	atic.	
100000 ver der verder 100	ayer (if observed):							
Type:	ayer (II observed).							
Depth (in	ches):						Hydric Soil Pres	sent? Yes X No
			_					
Remarks:	Soil unable to be collect	ted due to wate	r levels.					

Project/Site:	COP South Larrabee	City/County: M	onmouth County	, NJ	Sampling Date:	02/15/2023
Applicant/Owner:	ASOW	70	Sta	ate: New Jersey	Sampling Point:	26-W019-1U
Investigator(s):	TCAL	Section, Township, Ra	inge:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Flat Local	relief (concave, convex,	none):	con∨ex	Slope	(%): 0-5
Subregion (LRR or MLRA):	LRR S Lat:	40.13705267	Long:	-74.1094893	33 Datum	n: WGS 1984
Soil Map Unit Name:				NWI classification	on:	
Are climatic / hydrologic conditions o	on the site typical for this time of year?	Yes X No	(lf no,	explain in Remark	s.)	
			Are "Normal Circ	cumstances" prese	nt? Yes <u>)</u>	< No
Are Vegetation, Soil	, or Hydrologynaturally	problematic?	(If needed, expla	in any answers in	Remarks.)	
SUMMARY OF FINDINGS - A	Attach site map showing sar	npling point locati	ons, transec	ts, important i	features, etc.	
Hydrophytic Vegetation Present?	Yes X No	Is the Sam	pled Area			
Hydric Soil Present?	Yes No X	— within a W	· /etland?	Yes	No	
Wetland Hydrology Present?	Yes X No	If yes, option	nal Wetland Site			_
300		E & c				- 5
Remarks: (Explain alternative proc	cedures here or in a separate report.)					
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	oo required; abook all that apply)			Secondary Indias	tors (minimum of t	wo required)
Surface Water (A1)		ed Leaves (B9)			Cracks (B6)	wo required)
High Water Table (A2)	— Aquatic Fau	more accounts one of seconds		The property of the state of th	itterns (B10)	
Saturation (A3)	Marl Deposit	20000090000000000000000000000000000000		Moss Trim L	Mediterran	
Water Marks (B1)		ulfide Odor (C1)			Water Table (C2)	
Sediment Deposits (B2)		izospheres on Living Ro	ots (C3)	Crayfish Bur	400 AN AN AN	
Drift Deposits (B3)	17 <del></del>	Reduced Iron (C4)	010 (00)		isible on Aerial Ima	agery (C9)
Algal Mat or Crust (B4)		Reduction in Tilled Soils	(C6)	The state of the state of	Stressed Plants (D1	JT 5 18 6
Iron Deposits (B5)	Thin Muck S		(00)	<del></del> :	Position (D2)	,
Inundation Visible on Aerial Ir	(a <del></del>	ain in Remarks)		— Shallow Aqu		
Sparsely Vegetated Concave					aphic Relief (D4)	
				FAC-Neutral	· · · · · · · · · · · · · · · · · · ·	
			8	E STATE STATES		
Field Observations:						
Surface Water Present?	Yes NoX _ Depth (inch	, § 1 <del></del> 1				
Water Table Present?	Yes NoX _ Depth (incl	, gi s <del>i</del>	1000000 at 0.0000 AND			
Saturation Present?	Yes NoX Depth (incl	nes):	Wetland Hydi	rology Present?	Yes X	No
(includes capillary fringe)						
Describe Recorded Data (stream (	gauge, monitoring well, aerial photos,	nrevious inspections) if	available:			
Describe Necorded Data (stream (	jauge, morntoning well, aeriai priotos,	previous irispections), ir	available.			
Remarks:						
1						
1						

VEGETATION - Use scientific names of plants.				Sampling Point: 26-W019-1U
-				Dominance Test worksheet:
				Number of Dominant Species
				That Are OBL, FACW, or FAC: 0 (A)
	Absolute	Dominant	Indicator	That Are OBE, I ACW, OF IAC.
Tree Stratum (Plot size: 30 Feet )	% Cover	Species?	Status	
1. Betula lenta / Sweet birch	40	Yes	FACU	Total Number of Dominant
2.	(A)			Species Across All Strata:3(B)
3				
3		0		Percent of Dominant Species
4		215	<u> </u>	That Are OBL, FACW, or FAC: 0.0 (A/B)
5	-0	- 14	112 <del>4</del>	
6	10			Prevalence Index worksheet:
7	-			Total % Cover of: Multiply by:
ANTE No LONGO CO PRINSO SO CARRADO PO MANO ANTI-CONTRA DE MANO CONTRA DE MANO.	40	= Total Cov	er	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15 Feet )				FACW species 0 x 2 = 0
1				FAC species 0 x 3 = 0
2				FACU species 45 x 4 = 180
3	- CON-		70.5	UPL species 5 x 5 = 25
4.	7/4/D	2140	200	Column Totals: 50 (A) 205 (B)
5.				Coldimir rotals. — CO (A) — 200 (B)
				Description of the Division Di
6	- 12	P-G	-	Prevalence Index = B/A = 4.1
<i>I</i>		= Total Cov		Hydrophytic Vegetation Indicators:
Date Otation (Bl.)		- Total Cov	er	
Herb Stratum (Plot size: 5 Feet )	(2)	210	97931	1 - Rapid Test for Hydrophytic Vegetation
1. Allium I Onion	5	Yes	NI	2 - Dominance Test is >50%
Lonicera japonica / Japanese honeysuckle	5	Yes	FACU	3 - Prevalence Index ≤3.0¹
3		- 0		4 - Morphological Adaptations¹ (Provide supporting
4				Problematic Hydrophytic Vegetation¹ (Explain )
5				\$
6.	(40)	0.00	0.00	¹Indicators of hydric soil and wetland hydrology must
7.				be present, unless disturbed or problematic.
				1 2
			* *************************************	Definitions of Vegetation Strata
Pg				5000
		- ( (	20	Tree - Woody plants 3 in. (7.6 cm) or more in diameter at
11.	-1 -11	-00	0 -	breast height (DBH), regardless of height.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
MANUAL NE WARNES CHARLE HAVE MANUAL HOLD IN THE MANUAL PROPERTY OF THE MANUAL PROPERTY.	10	= Total Cov	er	greater than or equal to 3.28 ft (1 m) tall.
Woody Vine Stratum (Plot size: 30 Feet )				
1				<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2	60			
3.	100	-20	200	Woody vines - All woody vines greater than 3.28 ft in
4.	188	3.4%	200	height.
	0	= Total Cov	er	
	_	<b>-</b> 03		Hydrophytic
				Vegetation
				Present? Yes X No
Remarks: (Explain alternative procedures here or in a separate	e report.)			

SOIL Sampling Point: 26-W019-1U

	ription: (Describe to th	ne depth need			or confirm	the absen	ce of indicators.)	
Depth	Matrix		July 20 Da los Used	( Features			7 <u>1</u> 10 03	
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-3	10YR 3/1			- 0,			Sand	
3-12	10YR 4/4	100		· ₂			Sand	
12-18	10YR 6/8	100		· .			Sand	
2	- B			- (	-		<u> </u>	
				- 1				
	4							
	-	MA						
	-			- 17				
	V			- :				
	Ti-			- 0				
	V.							
¹Type: C=Cor	centration, D=Depletio	n, RM=Reduc	ed Matrix, MS=Masl	ked Sand Gra	ains.		²Location: P	L=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indicators for Pr	oblematic Hydric Soils³:
Histosol			Polyvalue Belov	v Surface (S8	3) (LRR R.	MLRA 1491		A10) (LRR K, L, MLRA 149B)
	pipedon (A2)	<u> </u>	Thin Dark Surfa	ST ASSESSMENT STREET, AND THE			THE STREET STREET, SANS AND ADDRESS OF THE PARTY OF THE P	e Redox (A16) (LRR K, L, R)
Black Hi	1 10 10 10	-	Loamy Mucky N					Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	_	Loamy Gleyed N		,, <b>-</b> /			e (S7) (LRR K, L)
	Layers (A5)	-	Depleted Matrix				7 CW 10 51 7000	elow Surface (S8) (LRR K, L)
- XX	l Below Dark Surface (/	A11) -	Redox Dark Sur					urface (S9) (LRR K, L)
	rk Surface (A12)		Depleted Dark S					nese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)	_	Redox Depressi				( )	oodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)	- <del></del>	_ redox Depressi	0113 (1 0)				c (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							Material (F21)
	Matrix (S6)							v Dark Surface (TF12)
The state of the s	face (S7) (LRR R, ML	PA 1/0P)					The second second	ain in Remarks)
Dank Odi	lace (or) (Errit it, ini	1400)					Office (Explic	an in Komano)
³Indicators of	hydrophytic vegetation	and wetland h	ydrology must be p	resent, unles	s disturbed	or problem	atic.	
Restrictive L	ayer (if observed):							
Restrictive L	ayer (if observed):							
N933			_				Hydric Soil Present	? Yes NoX
Туре:			_				Hydric Soil Present	? Yes NoX
Type: Depth (in							Hydric Soil Present	? Yes NoX
Type: Depth (in			_				Hydric Soil Present	? Yes No _X
Type: Depth (in			_				Hydric Soil Present	? Yes No _X
Type: Depth (in							Hydric Soil Present	? Yes No _X
Type: Depth (in							Hydric Soil Present	? Yes No _X
Type: Depth (in							Hydric Soil Present	? Yes No _X
Type: Depth (in							Hydric Soil Present	? Yes <u>No X</u>
Type: Depth (in							Hydric Soil Present	? Yes No _X
Type: Depth (in							Hydric Soil Present	? Yes No _X
Type: Depth (in							Hydric Soil Present	? Yes No _X
Type: Depth (in							Hydric Soil Present	? Yes No _X
Type: Depth (in							Hydric Soil Present	? Yes No _X
Type: Depth (in							Hydric Soil Present	? Yes No _X
Type: Depth (in							Hydric Soil Present	? Yes No _X
Type: Depth (in							Hydric Soil Present	? Yes No X
Type: Depth (in							Hydric Soil Present	? Yes No X
Type: Depth (in							Hydric Soil Present	? Yes No X
Type: Depth (in							Hydric Soil Present	? Yes No X
Type: Depth (in							Hydric Soil Present	? Yes No X
Type: Depth (in							Hydric Soil Present	? Yes No X
Type: Depth (in							Hydric Soil Present	? Yes No X
Type: Depth (in							Hydric Soil Present	? Yes No _X
Type: Depth (in							Hydric Soil Present	? Yes No _X

Project/Site:	COP South Larrabee	City/County: N	Ionmouth County	ı, NJ	Sampling Date:	02/15/2023
Applicant/Owner:	ASOW		Sta	ate: New Jersey	Sampling Point:	26-W019-1W
Investigator(s):	TCAL	Section, Township, R	ange:	Monmouth	County, NJ	
Landform (hillslope, terrace, etc):	Depressional area Loca	 I relief (conca∨e, con∨ex,	none):	concave	Slope	(%): 0-5
Subregion (LRR or MLRA):	LRR S Lat:	40.13704317	Long:	-74.1094888	33 Datum	n: WGS 1984
Soil Map Unit Name:				NWI classification	on:	
Are climatic / hydrologic conditions o	n the site typical for this time of year	? Yes <u>X</u> No	(lf no,	explain in Remark	s.)	
Are Vegetation, Soil	, or Hydrologysignifica	ntly disturbed?	Are "Normal Circ	cumstances" prese	nt? Yes <u>)</u>	( No
Are Vegetation, Soil	, or Hydrologynaturally	problematic?	(If needed, expla	ain any answers in	Remarks.)	
SUMMARY OF FINDINGS - A	Attach site map showing sa	mpling point locat	ions, transec	ts, important t	features, etc.	
Hydrophytic Vegetation Present?	Yes X No	Is the San	pled Area			
Hydric Soil Present?	Yes X No	within a V	/etland?	Yes	No	
Wetland Hydrology Present?	Yes X No	If yes, opti	onal Wetland Site			
1001 100 000 000 000 000 000 000 000 00	55					- # ·
Remarks: (Explain alternative prod	cedures here or in a separate report.	) S				
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of on	o required: abook all that apply)			Secondary Indias	tors (minimum of t	wo roquirod)
X Surface Water (A1)		ned Leaves (B9)			Cracks (B6)	wo required)
X High Water Table (A2)	— Vater-Stan	SEASON MINISTERNAL TAIL AND MINISTER			itterns (B10)	
X Saturation (A3)	Marl Depos			Moss Trim L	Mediterran	
Water Marks (B1)		Sulfide Odor (C1)			Water Table (C2)	
Sediment Deposits (B2)	Ti	hizospheres on Living Ro	ints (C3)	Crayfish Bur	400 AN AN AN	
Drift Deposits (B3)	N	of Reduced Iron (C4)	(00)		isible on Aerial Ima	ageny (C9)
Algal Mat or Crust (B4)	1) <del></del>	Reduction in Tilled Soils	(C6)	The second second second	Stressed Plants (D1	
Iron Deposits (B5)	10 <del></del>	Surface (C7)	, (00)		Position (D2)	,
Inundation Visible on Aerial Ir	Name of the second seco	lain in Remarks)		— Shallow Aqu		
Sparsely Vegetated Concave		,			aphic Relief (D4)	
				X FAC-Neutral	· · · · · · · · · · · · · · · · · · ·	
			T:		,	
Field Observations:						
Surface Water Present?	Yes X No Depth (in	ches):12+				
Water Table Present?	Yes X No Depth (inc	ches):6	4472027 Air - 45464 1000			
Saturation Present?	Yes X No Depth (inc	ches): 0	Wetland Hyd	rology Present?	Yes X	No
(includes capillary fringe)						
Describe Becauded Data (atmosphere						2.
Describe Recorded Data (stream (	gauge, monitoring well, aerial photos	, previous inspections), ii	avaliable.			
Remarks:						
1,1						
1						
1						

SOIL Sampling Point: 26-W019-1W

	iption: (Describe to th	e depth need			or confirm	the absen	ce of indicator	rs.)
Depth (inches)	Matrix Color (moiet)		Jule 20 De g. Ueld	Features	T 1	1 0 02	Touture	Damanika
(inches)	Color (moist)		Color (moist)		Type ¹	Loc ²	Texture	Remarks
<u>0-18</u>	10YR 2/1			• ()			Muck	
<del> </del>								
	2			. 3				9
2								
	- A2							3
								. <u> </u>
					1 4 10			
	-							
	50			. 3.		- 51		
	94			- %				
				- (		- 0		- ot
¹Type: C=Cor	centration, D=Depletion	, RM=Reduce	ed Matrix, MS=Mask	ked Sand Gr	ains.		²Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soil Ir	ndicators:						Indicators	s for Problematic Hydric Soils³:
X Histosol	(A1)	yo	Polyvalue Belov	v Surface (S	B) (LRR R,I	VILRA 149E	3) 2 cm	Muck (A10) (LRR K, L, MLRA 149B)
Histic Ep	ipedon (A2)		Thin Dark Surfa				ation ( ) the state of the stat	st Prairie Redox (A16) (LRR K, L, R)
Black His		,	 Loamy Mucky M			۵	_	Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Gleyed N					Surface (S7) (LRR K, L)
	Layers (A5)		<ul> <li>Depleted Matrix</li> </ul>				3 70 W 150	value Below Surface (S8) (LRR K, L)
the same of the sa	l Below Dark Surface (A	.11)	<ul> <li>Redox Dark Sur</li> </ul>				1	Dark Surface (S9) (LRR K, L)
<del></del> -	rk Surface (A12)	_	Depleted Dark S	, ,				Manganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)	<del></del>	Redox Depressi				1 <del></del>	mont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)	<del></del>	_	10110 (1 0)				c Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							Parent Material (F21)
	Matrix (S6)							Shallow Dark Surface (TF12)
	face (S7) (LRR R, ML	PA 140P)						r (Explain in Remarks)
Daik Sui	lace (57) (ERR R, INIE	KA 1496)					011161	(Explain in Remarks)
³ Indicators of	hydrophytic ∨egetation a	and wetland h	ydrology must be p	resent, unles	s disturbed	or problem	atic.	
Restrictive L	ayer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil P	Present? Yes X No
								reaction of the contraction of t
Remarks:								

## EDR Stream Determination Data Form

Project Name: La	Project Name: <u>Larabee Wetland Delineation</u> Project Number: <u>20043</u>								
Survey Date: 6/2	Survey Date: <u>6/25-6/26/2020</u>								
Evaluators: Matt	Spadoni,	Jacqueline McMill	<u>len</u>						
Stream ID: <u>Water</u>	course 2	Data Point ID: W	C1	(Pre	V: ylauoiv	<u>/C2)</u>			
Town: Click or ta	ap here t	o enter text.	County: ]	<u>Monmou</u>	th_	State: <u>N</u>	lew Jersey	L	
_atitude: 40.1463361041 Longitude: -74.1075399039									
Stream ID: Click	or tap her	e to enter text.							
Previous Weather: Snow ☐ H			Heavy R	ain 🗆	Rain □		None ⊠	Unknown □	
Adjacent Landco	ver: <u>fores</u>	ted, pedestrian bil	ke path, st	eep slop	e from bil	ke path t	<u>o stream</u>		
Ecological Comm	nunities: <u>C</u>	Click or tap here to	enter tex	<u>t.</u>					
			Hydrolog	ic Char	acteristics	S			
Perceptible Flow	?	Yes ⊠	No □						
Flow Regime: R1-Tidal  R3-Upper Perennia R5-Unknown Pere									
Flow Direction: ne	orth to so	<u>uth</u>							
Surface Water Pr	esent:	Yes ⊠	No □						
Surface Water De	epth at Th	nalweg: 6"							
Wetted (Stream)	Width: <u>3'</u>								
		Ge	omorpho	logic Ch	aracteris	stics			
Gradient:	Gentle (	0-5 %) ⊠		Moderat	e (6-11 %	o) 🗆	Steep (>	12 %) 🗆	
Substrate:	Silt/Clay	(<0.062 mm) ⊠		Sand (0.	062–2 mr	n) 🗵		Gravel (2-64 mm) □	
	Cobble (	(64-256 mm) 🗆		Boulder	(256-4096	6 mm) [		Bedrock (>4096 mm) □	
Bankful Width:	<u>4'</u>								
Bank Height:	<u>2'</u>								

Stream Conditions

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	hannelization ⊠ 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								

<u>path</u>.

# EDR Stream Determination Data Form

Project Name: La	Project Name: <u>Larabee Wetland Delineation</u> Project Number: <u>20043</u>								
Survey Date: <u>6/2</u>	<u>5-6/26/20</u>	20							
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	to enter text.	County: N	<u>/lonmou</u>	<u>th</u> 5	State: <u>N</u>	ew Jersey	<u></u>	
Latitude: 40.1463361041 Longitude: -74.1075399039									
Stream ID: Click	or tap her	re to enter text.							
Previous Weather: Snow ☐ He		Heavy Ra	ain 🗆	Rain □		None ⊠	Unknown □		
Adjacent Landco	ver: <u>fores</u>	ted, pedestrian bil	ke path, st	eep slop	e from bike	e path t	<u>o stream</u>		
Ecological Comm	nunities: 🤇	Click or tap here to	enter text						
			Hydrolog	ic Chara	acteristics				
Perceptible Flow	?	Yes ⊠	No □						
Flow Regime:		R1-Tidal □ R3-Upper Pereni R5-Unknown Per							
Flow Direction: n	<u>orth to so</u>	<u>uth</u>							
Surface Water Pr	resent:	Yes ⊠	No □						
Surface Water D	epth at Th	nalweg: 6"							
Wetted (Stream)	Width: <u>3'</u>								
		Ge	eomorpho	logic Ch	naracterist	tics			
Gradient:	Gentle (	0-5 %) 🗵		Moderat	e (6-11 %)		Steep (>	12 %) 🗆	
Substrate:	Silt/Clay	(<0.062 mm) ⊠	}	Sand (0.	062–2 mm	n) 🗵		Gravel (2-64 mm) □	
	Cobble (	(64-256 mm) 🗆		Boulder	(256-4096	mm) 🗆	1	Bedrock (>4096 mm) □	
Bankful Width:	<u>4'</u>								
Bank Height:	<u>2'</u>								

Stream Conditions

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

# EDR Stream Determination Data Form

Project Name: Larabee Wetland Delineation Project Number: 20043									
Survey Date: <u>6/25-6/26/2020</u>									
Evaluators: Matt	Spadoni,	Jacqueline McMil	<u>len</u>						
Stream ID: Water	course 3	Data Point ID: W	<u>C3</u>						
Town: Click or tap here to enter text. County: Monmouth State: New Jersey									
Latitude: 40.151	5109229	Longitude: -74.1	158297112						
Stream ID: Click	Stream ID: Click or tap here to enter text.								
Previous Weathe	r.	Snow □	Heavy Ra	ain 🗆	Rain □		None ⊠		Unknown □
Adjacent Landco	ver: <u>mow</u> e	ed lawn, common	reed stand	d, bike p	ath, mead	<u>low</u>			
Ecological Comm	nunities: 🤇	Click or tap here to	enter text						
Hydrologic Characteristics									
Perceptible Flow	?	Yes ⊠	No □						
R3-Uppe		18510	Fidal □ Jpper Perennial □ Jnknown Perennial □		R2-Lower Perennial □ R4-Intermittent ⊠ R6-Ephemeral □				
Flow Direction: ne	orth to so	<u>uth</u>							
Surface Water Pr	esent:	Yes ⊠	No □						
Surface Water De	epth at Th	nalweg: 4"							
Wetted (Stream)	Width: <u>3'</u>								
		Ge	eomorphol	ogic Ch	aracteris	stics			
Gradient:	Gentle (0-5 %) ⊠ Moderate (6-11					) 🗆	Steep (>	12 %) 🗆	
Substrate:	Silt/Clay (<0.062 mm) ⊠			Sand (0.062–2 mm) □			Gravel (2	2-64 mm) ⊠	
	Cobble (	(64-256 mm) 🗵	1	Boulder	(256-4096	6 mm) [		Bedrock	(>4096 mm) 🗆
Bankful Width:	<u>8'</u>								
Bank Height:	<u>1'</u>								

Stream Conditions

			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.

## EDR Stream Determination Data Form

Project Name: Larabee Wetland Delineation Project Number: 20043									
Survey Date: <u>6/2</u>	Survey Date: <u>6/25-6/26/2020</u>								
Evaluators: Matt	Evaluators: Matt Spadoni, Jacqueline McMillen								
Stream ID: Wate	rcourse 1	<u>4</u> Data Po	oint ID: <u>WC4</u>	( Pr	eviously: WC	14)			
Town: Click or to	Town: Click or tap here to enter text. County: Monmouth State: New Jersey								
Latitude: 40.1323690109 Longitude: -74.1657166857									
Stream ID: Click	or tap he	re to enter text.							
Previous Weathe	er:	Snow □	Heavy Rain	eavy Rain □ Rain □ None ⊠			Unknown □		
Adjacent Landco	ver: <u>sand</u>	l, sparsely vegetat	ed areas, san	d access roa	<u>ad</u>				
Ecological Comm	nunities: <u>(</u>	Click or tap here to	enter text.						
			Hydrologic (	Characterist	ics				
Perceptible Flow	?	Yes ⊠	No □						
R3		R1-Tidal □ R3-Upper Perennial □ R5-Unknown Perennial □		R4-Inte	R2-Lower Perennial □ R4-Intermittent ⊠ R6-Ephemeral □				
Flow Direction: n	orth to so	<u>outh</u>							
Surface Water Pr	resent:	Yes ⊠	No □						
Surface Water D	epth at Th	halweg: 3"							
Wetted (Stream)	Width: <u>1'</u>	P!							
		Ge	eomorpholog	ic Characte	ristics				
Gradient:	Gentle (	0-5 %) 🗵	Mod	derate (6-11	%) □ St	eep (>12	%) □		
Substrate:	Silt/Clay	/ (<0.062 mm) ⊠	Sar	nd (0.062–2 i	).062–2 mm) ⊠		avel (2-64 mm) 🗆		
	Cobble	(64-256 mm) 🗆	Воц	ulder (256-40	)96 mm) 🗆	Вє	edrock (>4096 mm) 🗆		
Bankful Width:	<u>3'</u>								
Bank Height:	<u>&lt;0.5'</u>								

Stream Conditions

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					

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

## EDR Stream Determination Data Form

Project Name: <u>Lar</u>	abee We	etland Delineation	Project N	Number:	20043				
Survey Date: <u>6/25</u>	5-6/26/20 <u>:</u>	<u>20</u>							
Evaluators: <u>Matt S</u>	Spadoni,	Jacqueline McMill	<u>len</u>						
Stream ID: Watercourse 10 Data Point ID: WC5 (Previously: WC10)									
Town: Click or tap here to enter text. County: Monmouth State: New Jersey									
Latitude: 40.1629444857 Longitude: -74.1479998296									
Stream ID: <u>UNT to Mingamahone Brook</u>									
Previous Weather		Snow □	Heavy Ra	Heavy Rain ☐ Rain ☐ None ⊠ Unkn					
Adjacent Landcov	er: <u>uplan</u>	d, flows into wetla	and						
Ecological Commu	unities: <u>C</u>	Click or tap here to	enter text	<u>.</u>					
			Hydrolog	ic Chara	acteristics				
Perceptible Flow?		Yes ⊠ No □							
F		R1-Tidal □ R3-Upper Perennial □ R5-Unknown Perennial □			R2-Lower Perennial □ R4-Intermittent □ R6-Ephemeral ⊠				
Flow Direction: <u>we</u>	est to eas	<u>et</u>							
Surface Water Pre	esent:	Yes ⊠	No □						
Surface Water De	pth at Th	alweg: 1"							
Wetted (Stream) V	Vidth: <u>1'</u>								
		Ge	omorpho	logic Ch	aracteristics	i S			
Gradient:	Gentle (0	)-5 %) ⊠		Moderat	Moderate (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 mr	m) 🗆	Bedrock (>4096 mm) □		
Bankful Width:	<u>1'</u>								
Bank Height:	<u>0.25'</u>								

Stream Conditions

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					

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

## EDR Stream Determination Data Form

Project Name: <u>Larabee Wetland Delineation</u> Project Number: <u>20043</u>									
Survey Date: <u>6/25-6/26/2020</u>									
Evaluators: <u>Matt :</u>	Spadoni,	Jacqueline McMil	<u>len</u>						
Stream ID: Watercourse 16 Data Point ID: WC6 (Previously: WC16)									
Town: Click or tap here to enter text. County: Monmouth State: New Jersey									
Latitude: 40.1186308557 Longitude: -74.1905728632									
Stream ID: <u>Dicks</u>	<u>Brook</u>								
Previous Weathe	r:	Snow □	Heavy R	ain 🗆	Rain □	None ⊠	☐ Unknown ☐		
Adjacent Landco	ver: <u>wetla</u>	and transmiss	ion line Ro	<u>WC</u>					
Ecological Comm	nunities: 🤇	Click or tap here to	enter tex	<u>t.</u>					
Hydrologic Characteristics									
Perceptible Flow	?	Yes ⊠	No □						
Flow Regime:		R1-Tidal □ R3-Upper Pereni R5-Unknown Pel		R2-Lower Perennial □ R4-Intermittent □ R6-Ephemeral □					
Flow Direction: <u>w</u>	est to eas	<u>st</u>							
Surface Water Pr	esent:	Yes ⊠	No □						
Surface Water De	epth at Th	nalweg: 4"							
Wetted (Stream)	Width: <u>6'</u>								
		Ge	eomorpho	ologic Ch	naracteristics				
Gradient:	Gentle (	0-5 %) ⊠		Moderat	rate (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 mn	n) 🗆	Bedrock (>4096 mm) □		
Bankful Width:	<u>8'</u>								
Bank Height:	<u>2.5'</u>								

Stream Conditions

			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.	

Click or tap here to enter text.

20 <b>04</b> 3 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
	L 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	Absent (0)
	X Weak (1)
	Moderate (2)
	Strong (3)
Particle Size of Stream Substrate	
	Absent (0)
	Weak (1) X Moderate (2)
	Strong (3)
Active/Relic Flood plain	Absent (0)
	Weak (1)
	X Moderate (2)
	Strong (3)
Depositional Bars or Benches	Absent (0)
	X Weak (1)
	Moderate (2)
December 11 had all December	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)
	H	
	H	Weak (0.5)
	H	Moderate (1)
Natural Valley		Strong (1.5)
TVacui ai Valley	X	Absent (0)
	H	Weak (0.5)
	H	Moderate (1)
	Ш	Strong (1.5)
Second or Greater Order Channel	X	No (0)
		Yes (3)
Hydrology		
Presence of Baseflow		Absent (0)
	Х	Weak (1)
		Moderate (2)
		Strong (3)
Iron Oxidizing Bacteria	Х	Absent (0)
	H	Weak (1)
	Ħ	Moderate (2)
	Ħ	
Leaf Litter		Strong (3)
	X	Absent (1.5)
	H	Weak (1)
	H	Moderate (0.5)
	<u>_</u>	Strong (0)
Sediment on Plants or Debris	Ш	Absent (0)
		Weak (0.5)
	Х	Moderate (1)
		Strong (1.5)
Organic Debris Lines or Piles		Absent (0)
		Weak (0.5)
	X	Moderate (1)
		Strong (1.5)
	- Table	TO THE MANY

Soil-based evidence of high water table	No (0) X Yes (3)
Biol <b>og</b> y	
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 Macroinverte brates	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)  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.

20 <b>04</b> 3 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	WC8 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, but connects to mapped stream
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)
		Weak (1)
		Moderate (2)
	X	Strong (3)
Sinuosity of channel along thalweg		Absent (0)
	Ħ	Weak (1)
	X	Moderate (2)
	H	Strong (3)
In Channel Structures	H	
	님	Absent (0)
	X	Weak (1)
	H	Moderate (2)
	ᆜ	Strong (3)
Particle Size of Stream Substrate	Ц	Absent (0)
	X	Weak (1)
	님	Moderate (2)
	Ш	Strong (3)
Active/Relic Floodplain		Absent (0)
		Weak (1)
		Moderate (2)
	X	Strong (3)
Depositional Bars or Benches		Absent (0)
	Х	Weak (1)
		Moderate (2)
		Strong (3)
Recent Alluvial Deposits	П	Absent (0)
	X	Weak (1)
	H	Moderate (2)
	Ī	Strong (3)
		24 0118 (2)

Are Headcuts present	X	Absent (0)
		Weak (1)
		Moderate (2)
	Ħ	
	_	Strong (3)
Grade Control	Х	Absent (0)
		Weak (0.5)
		Moderate (1)
		Strong (1.5)
Natural Valley	П	Absent (0)
	X	Weak (0.5)
	H	
	H	Moderate (1)
Management of the anti-terminal contract of the contract of th		Strong (1.5)
Second or Greater Order Channel	X	No (0)
		Yes (3)
Hydrology		
Presence of Baseflow		Absent (0)
	х	Weak (1)
	H	
	H	Moderate (2)
	ш	Strong (3)
Iron Oxidizing Bacteria	Х	Absent (0)
		Weak (1)
		Moderate (2)
		Strong (3)
Leaf Litter	$\overline{\Box}$	
	H	Absent (1.5)
	님	Weak (1)
	X	Moderate (0.5)
	Ш	Strong (0)
Sediment on Plants or Debris		Absent (0)
	X	Weak (0.5)
	Ħ	Moderate (1)
	Ħ	
Organic Dobris Lines or Biles	H	Strong (1.5)
Organic Debris Lines or Piles	Щ	Absent (0)
	Х	Weak (0.5)
		Moderate (1)
		Strong (1.5)

Soil-based evidence of high water table	No (0) X Yes (3)
Biol <b>og</b> y	
Fibrous Roots in Streambed	Absent (3) Weak (2) X Moderate (1) Strong (0)
Rooted Upland Plants in Streambed	Absent (3)  Weak (2)  Moderate (1)  X Strong (0)
Aquatic Macroinverte brates	X Absent (0) Weak (1) Moderate (2) Strong (3)
Aquatic Mollusks	X Absent (0) Weak (1) Moderate (2) Strong (3)
Fish	X Absent (0) Weak (0.5) Moderate (1) Strong (1.5)
Crayfish	X Absent (0)  Weak (0.5)  Moderate (1)  Strong (1.5)
Amphibians	X Absent (0) Weak (0.5) Moderate (1) Strong (1.5)
Algae	X Absent (0) Weak (0.5) Moderate (1) Strong (1.5)

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)  Perennial (≥30)

Photo up and downstream



Notes

20 <b>04</b> 3 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)

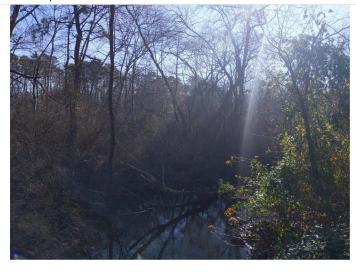
	X Sand (Gritty feel)
	X Gravel
	Cobble
	Boulder
	☐ Bedrock
Range of Bankfull width for stream reach	40
Geo <b>m</b> orp <b>ho</b> logy	
Continuity of channel bed and bank	Absent (0)
	Weak (1)
	Moderate (2)
	X Strong (3)
Sinuosity of channel along thalweg	
	Absent (0)
	Weak (1)
	Moderate (2)
	X Strong (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)
	i i i i i i i i i i i i i i i i i i i
for the the desired	Strong (3)
Active/Relic Floodplain	Absent (0)
	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)
	Strong (3)
	2018(2)

Are Headcuts present	Х	Absent (0)
		Weak (1)
		Moderate (2)
		Strong (3)
Grade Control	П	Absent (0)
	X	Weak (0.5)
	H	
	H	Moderate (1)
Natural Valley	Н	Strong (1.5)
TVacci ai Valley	님	Absent (0)
	X	Weak (0.5)
	H	Moderate (1)
		Strong (1.5)
Second or Greater Order Channel		No (0)
	X	Yes (3)
Hydrology		
Presence of Baseflow		Absent (0)
	Ħ	Weak (1)
	Ħ	
	X	Moderate (2) Strong (3)
Iron Oxidizing Bacteria		
non oxidizing bacteria		Absent (0)
	X	Weak (1)
	닏	Moderate (2)
	Ц	Strong (3)
Leaf Litter		Absent (1.5)
	X	Weak (1)
		Moderate (0.5)
		Strong (0)
Sediment on Plants or Debris	Х	Absent (0)
		Weak (0.5)
	$\Box$	Moderate (1)
	Ħ	
Organic Debris Lines or Piles	H	Strong (1.5)
8	님	Absent (0)
	님	Weak (0.5)
	Ц	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) Weak (2) X Moderate (1) Strong (0)
Rooted Upland Plants in Streambed	X Absent (3) Weak (2) Moderate (1) Strong (0)
Aquatic Macroinverte brates	Absent (0)  Weak (1)  X Moderate (2)  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	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)  Moderate (1)  X 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 Perennial (>30)

#### Photo up and downstream



Notes

20 <b>04</b> 3 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)

	X Sand (Gritty feel)
	X Gravel
	Cobble
	Boulder
	Bedrock
Range of Bankfull width for stream reach	10
Geo <b>m</b> orp <b>ho</b> logy	
Continuity of channel bed and bank	Absent (0)
	Weak (1)
	Moderate (2)
	X Strong (3)
Sinuarity of channel along thalway	
Sinuosity of channel along thalweg	Absent (0)
	Weak (1)
	Moderate (2)
	X Strong (3)
n Channel Structures	Absent (0)
	Weak (1)
	X Moderate (2)
	Strong (3)
Particle Size of Stream Substrate	
and determined the second seco	Absent (0)
	₩eak (1)
	X Moderate (2)
	Strong (3)
Active/Relic Floodplain	Absent (0)
	Weak (1)
	X Moderate (2)
	Strong (3)
Depositional Bars or Benches	Absent (0)
	and the second s
	Weak (1)
	X Moderate (2)
	Strong(3)
Recent Alluvial Deposits	Absent (0)
	₩eak (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)
		Moderate (1)
	Ħ	Strong (1.5)
Natural Valley		
		Absent (0)
	X	Weak (0.5)
	H	Moderate (1)
		Strong (1.5)
Second or Greater Order Channel		No (0)
	X	Yes (3)
Hydrology		
Presence of Baseflow		Absent (0)
	H	Weak (1)
	H	
	분	Moderate (2)
Inche Outdistan Bermania	X	Strong (3)
Iron Oxidizing Bacteria	$\square$	Absent (0)
	Ш	Weak (1)
	Х	Moderate (2)
		Strong (3)
Leaf Litter		Absent (1.5)
	$\Box$	Weak (1)
	X	Moderate (0.5)
	H	
Sediment on Plants or Debris	H	Strong (0)
Sediment of Plants of Debits	H	Absent (0)
	Щ	Weak (0.5)
	X	Moderate (1)
	Ш	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)
Biol <b>og</b> y	
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



Notes

COP South Stream Scor	ing Form 1
Project	20043 Atlantic Shores COP South Larrabee
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	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)	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
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	30.5
Stream Determination	Perennial (≥30)
Notes	
Notes	

COP South Stream Scoring Form 1	
Project	20043 Atlantic Shores COP South Larrabee
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	Monmouth County, NJ
General Characteristics 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
Stream Type Determination	
Total Score	30.5
Stream Determination	Perennial (≥30)
Notes	
Notes	

COP South Stream Scori	ing Form 1
Project	20043 Atlantic Shores COP South Larrabee
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	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)	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

Benches	
Recent Alluvial Deposits	0-Absent
Are Headcuts present	0-Absent
Grade Control	0-Absent
Natural Valley 0	0.5-Weak
Second or Greater Order Channel	0-No
Subtotal = 1	12.5
Hydrology	
. 20-	3-Strong
Iron Oxidizing Bacteria 3	3-Strong
Leaf Litter 1	1-Weak
Sediment on Plants or O	0-Absent
Organic Debris Lines or Piles C	0-Absent
Soil-based evidence of high water table	3-Yes
Subtotal = 1	10
Biology	
Fibrous Roots in Streambed 3	3-Absent
Rooted Upland Plants in Streambed	3-Absent
Aquatic Macroinvertebrates 1	1-Weak
Aquatic Mollusks 0	0-Absent
Fish	0-Absent
Crayfish	0-Absent
Amphibians 0	0-Absent
Algae 1	1-Moderate
Wetland Plants in Streambed	0-Other
Subtotal = 8	8
Stream Type Determination	
Total Score	30.5
Stream Determination F	Perennial (≥30)
Notes	
Notes	

COP South Stream Scoring Form 1	
Project	20043 Atlantic Shores COP South Larrabee
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	Monmouth 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
Biology	
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
Stream Type Determination	
Total Score	6.5
Stream Determination	Ephemeral (<19)
Notes	
Notes	

Project	20043 Atlantic Shores COP South Larrabee
ID	317262
Survey Date	02/16/2023
User	Andrew Leonardi
Stream ID:	26-ST008
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	Monmouth 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

Stream Type Determination	
Total Score	19
Stream Determination	Intermittent (≥19)
Notes	
Notes	

COP South Stream Scor	ing Form 1
Project	20043 Atlantic Shores COP South Larrabee
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	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)	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
Hydrology	
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
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	0.75-FACW
Subtotal =	7.75
Stream Type Determination	
Total Score	30.25
Stream Determination	Perennial (≥30)
Notes	
Notes	

COP South Stream Scoring Form 1		
Project	20043 Atlantic Shores COP South Larrabee	
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	Monmouth 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
Stream Type Determination	
Total Score	4.5
Stream Determination	Ephemeral (<19)
Notes	
Notes	

Project	20043 Atlantic Shores COP South Larrabee
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	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	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	3-Absent
Streambed	
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	
Notes	

## **APPENDIX C**

Photo Documentation



#### Photo 1

Larrabee Landfall and Wetland 1 (WL1) in far background on Army National Guard Facility

**Coordinates:** 40.118978°N, -74.032386°W



# Photo 2 Facing East at Wetland 2 (WL2)

**Coordinates:** 40.146181°N, -74.107161°W

## **Atlantic Shores Offshore Wind – Larrabee Onshore Study Area**

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

Wetland and Stream Delineation Report





Photo 3
Facing West at Wetland 3 (WL3)

**Coordinates:** 40.146111°N, -74.107606°W



## Photo 4

Facing Northwest at Wetland 4 (WL4)

**Coordinates:** 40.143784°N, -74.116799°W

## **Atlantic Shores Offshore Wind – Larrabee Onshore Study Area**

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





Facing South at Wetland 5 (WL5) north of County Route 524

**Coordinates:** 40.137003°N, -74.137936°W



## Photo 6

Facing North at Wetland 6 (WL6) north of County Route 524

**Coordinates:** 40.137795°N, -74.143728°W

## **Atlantic Shores Offshore Wind – Larrabee Onshore Study Area**

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





Photo 7
Facing East at Wetland 7 (WL7)

Coordinates:
40.146233°N, -74.168458°W



Photo 8
Facing Southeast at Wetland 8 (WL8)

Coordinates:

40.143908°N, -74.170189°W

## **Atlantic Shores Offshore Wind – Larrabee Onshore Study Area**

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





Facing Southwest at Wetland 9 (WL9) and Watercourse 5 (WC5)

**Coordinates:** 40.138383°N, -74.175217°W



### Photo 10

Facing Northeast at Wetland 10 (WL10) west of County Route 547

**Coordinates:** 40.135086°N, -74.178353°W

## **Atlantic Shores Offshore Wind – Larrabee Onshore Study Area**

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





Photo 11
Facing West at Wetland 11 (WL11)

**Coordinates:** 40.128703°N, -74.184172°W



## Photo 12

Facing North at Wetland 12 (WL12)

**Coordinates:** 40.124181°N, -74.187875°W

## **Atlantic Shores Offshore Wind – Larrabee Onshore Study Area**

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





Photo 13
Facing East at Wetland 13 (WL13)

**Coordinates:** 40.118617°N, -74.192956°W



Photo 14

Facing Northwest at Watercourse 1 (WC1)

**Coordinates:** 40.146494°N, -74.107772°W

## **Atlantic Shores Offshore Wind – Larrabee Onshore Study Area**

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





Facing Southeast at Watercourse 2 (WC2)

**Coordinates:** 40.143641°N, -74.116545°W



## Photo 16

Facing South at Watercourse 3 (WC3)

**Coordinates:** 40.144312°N, -74.163582°W

## **Atlantic Shores Offshore Wind – Larrabee Onshore Study Area**

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





Facing East at Watercourse 4 (WC4)

**Coordinates:** 40.146717°N, -74.167686°W



### Photo 18

Facing East at Watercourse 5 (WC5)

**Coordinates:** 40.162983°N, -74.148597°W

## **Atlantic Shores Offshore Wind – Larrabee Onshore Study Area**

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





Facing East at Watercourse 6 (WC6)

**Coordinates:** 40.135078°N, -74.178161°W



### Photo 20

Facing Southeast at Watercourse 7 (WC7)

**Coordinates:** 40.128342°N, -74.184242°W

## **Atlantic Shores Offshore Wind – Larrabee Onshore Study Area**

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





Facing Southeast at Watercourse 9 (WC9)

**Coordinates:** 40.123961°N, -74.188178°W



### Photo 22

Facing Northwest at Watercourse 10 (WC10)

**Coordinates:** 40.118728°N, -74.193061°W

## **Atlantic Shores Offshore Wind – Larrabee Onshore Study Area**

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





Representative view of forested uplands

**Coordinates:** 40.141006°N, -74.172858°W



### Photo 24

Representative view of roadside and open field uplands

**Coordinates:** 40.155067°N, -74.114861°W

## **Atlantic Shores Offshore Wind – Larrabee Onshore Study Area**

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



## APPENDIX D

Field Delineated Wetlands and Streams Plans



Field Wetland Delineation and Stream Plan Sheet 2 of 58



## **Atlantic Shores South** Offshore Wind -**Larrabee Onshore Project Design**

Wall, and Township of Howell Monmouth County, New Jersey

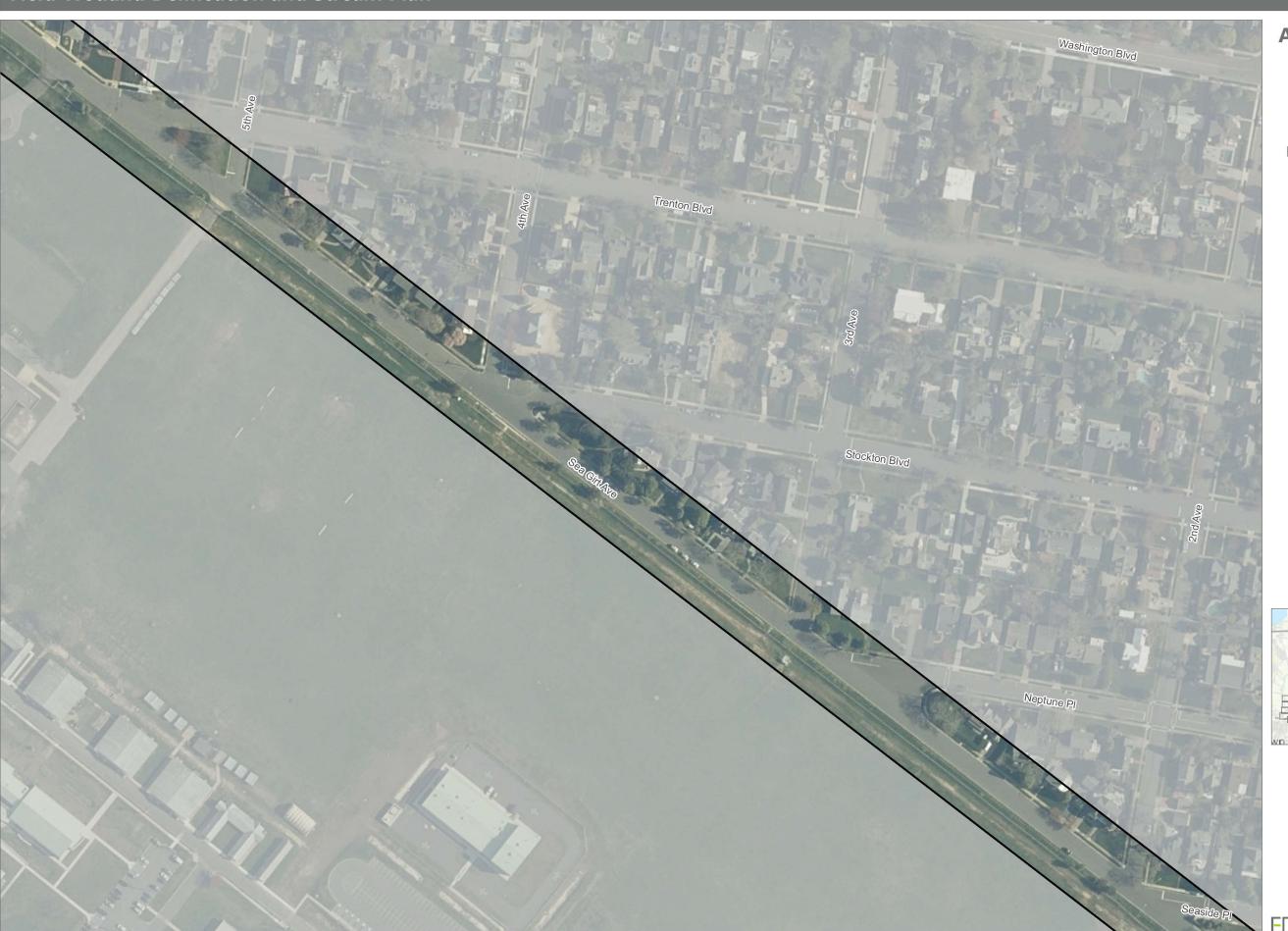
**Wetland Delineation Report** 











Sheet 3 of 58

Wall, and Township of Howell Monmouth County, New Jersey

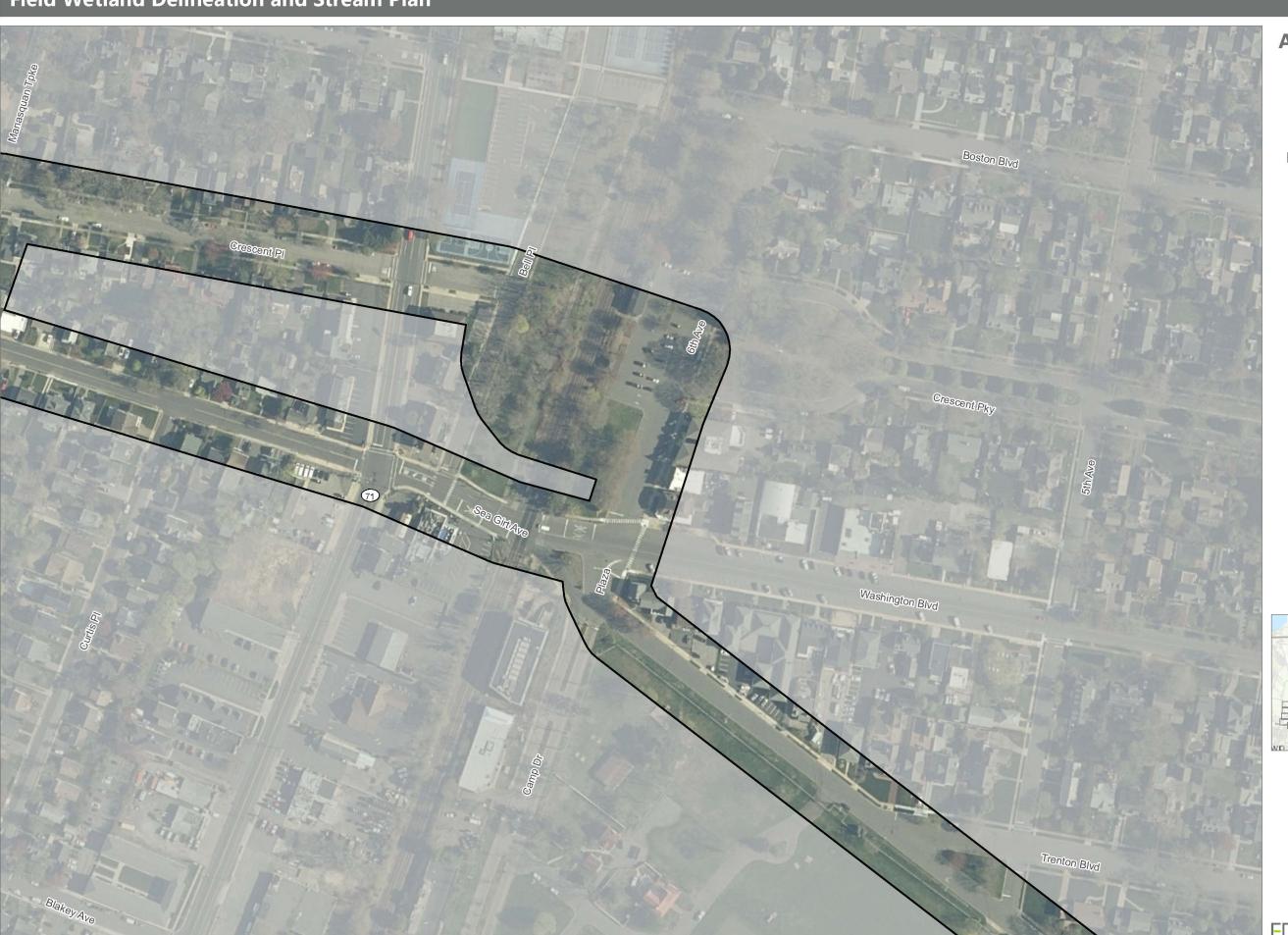
**Wetland Delineation Report** 

Study Area









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

**Wetland Delineation Report** 

Study Area





Prepared February 27, 2023 Basemap: NJ Office of GIS 2015 Natural Color Imagery

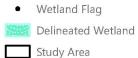


EDR.



Wall, and Township of Howell Monmouth County, New Jersey

**Wetland Delineation Report** 











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

**Wetland Delineation Report** 

Study Area





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DR_



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

**Wetland Delineation Report** 

Study Area





Prepared February 27, 2023 Basemap: NJ Office of GIS 2015 Natural Color Imagery





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

**Wetland Delineation Report** 

Study Area

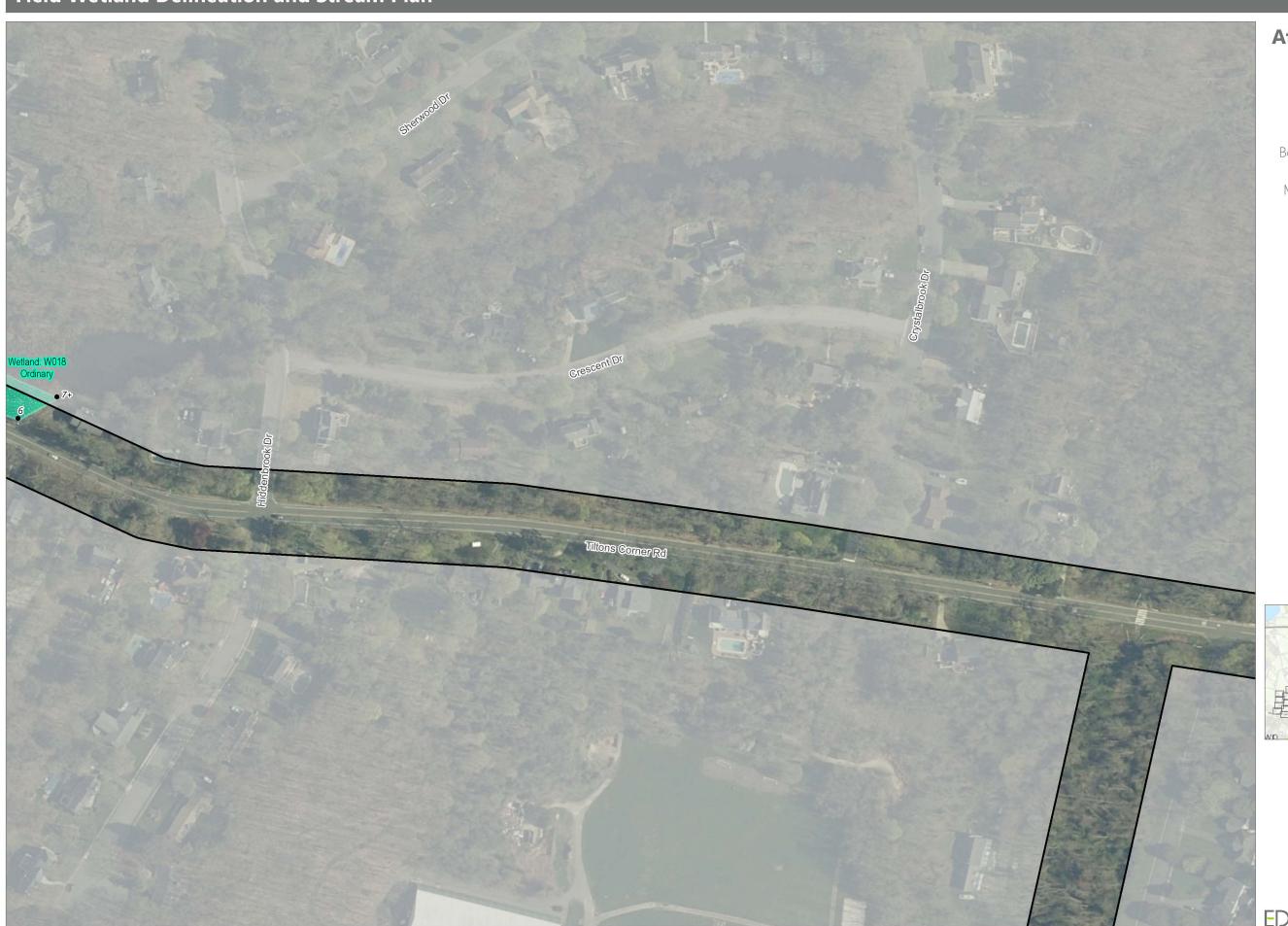




Prepared February 27, 2023 Basemap: NJ Office of GIS 2015 Natural Color Imagery



EDR.



Wall, and Township of Howell

Monmouth County, New Jersey

**Wetland Delineation Report** 





Study Area









Wall, and Township of Howell Monmouth County, New Jersey

**Wetland Delineation Report** 















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

**Wetland Delineation Report** 

Study Area





Prepared February 27, 2023 Basemap: NJ Office of GIS 2015 Natural Color Imagery







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

**Wetland Delineation Report** 

Study Area





Prepared February 27, 2023 Basemap: NJ Office of GIS 2015 Natural Color Imagery







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

**Wetland Delineation Report** 

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area





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EDR_



Sheet 16 of 58

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

**Wetland Delineation Report** 

Study Area





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EDR_



Sheet 17 of 58

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

**Wetland Delineation Report** 

Study Area





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

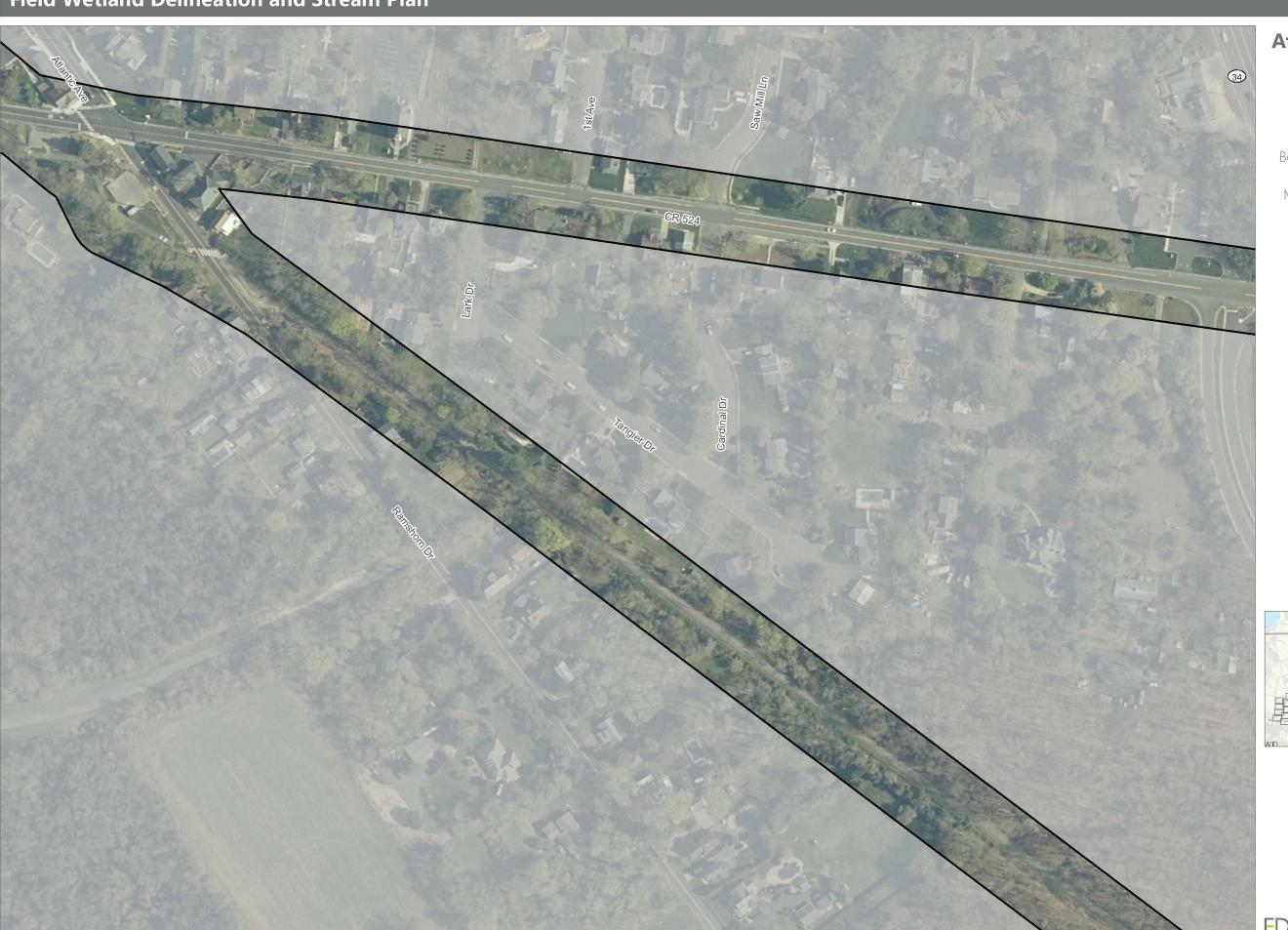
**Wetland Delineation Report** 

Study Area









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

**Wetland Delineation Report** 

Study Area





Prepared February 27, 2023 Basemap: NJ Office of GIS 2015 Natural Color Imagery





Wall, and Township of Howell

Monmouth County, New Jersey

**Wetland Delineation Report** 

Study Area





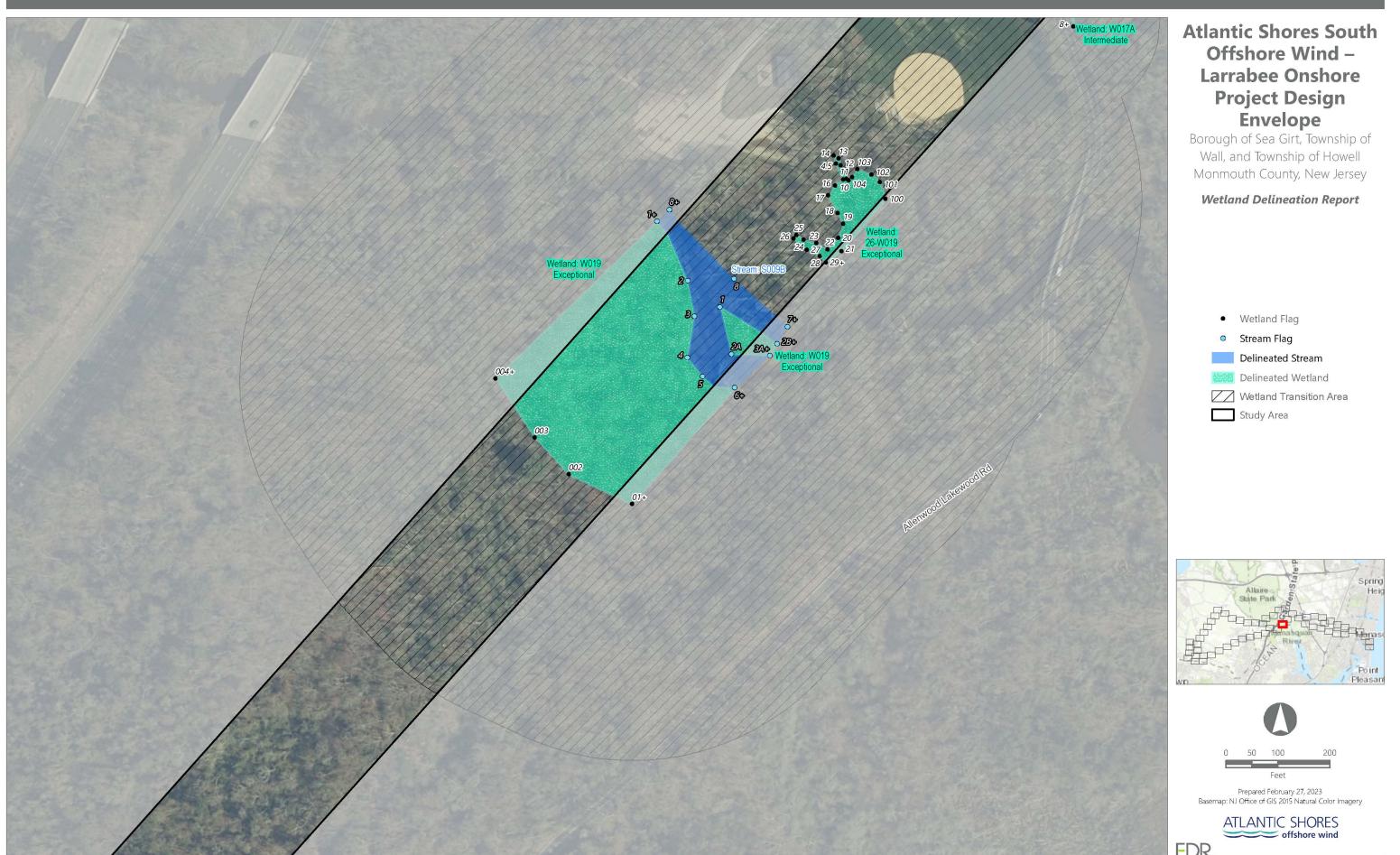
Prepared February 27, 2023 Basemap: NJ Office of GIS 2015 Natural Color Imagery





Field Wetland Delineation and Stream Plan

Sheet 22 of 58





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

**Wetland Delineation Report** 











Wall, and Township of Howell

Monmouth County, New Jersey

**Wetland Delineation Report** 

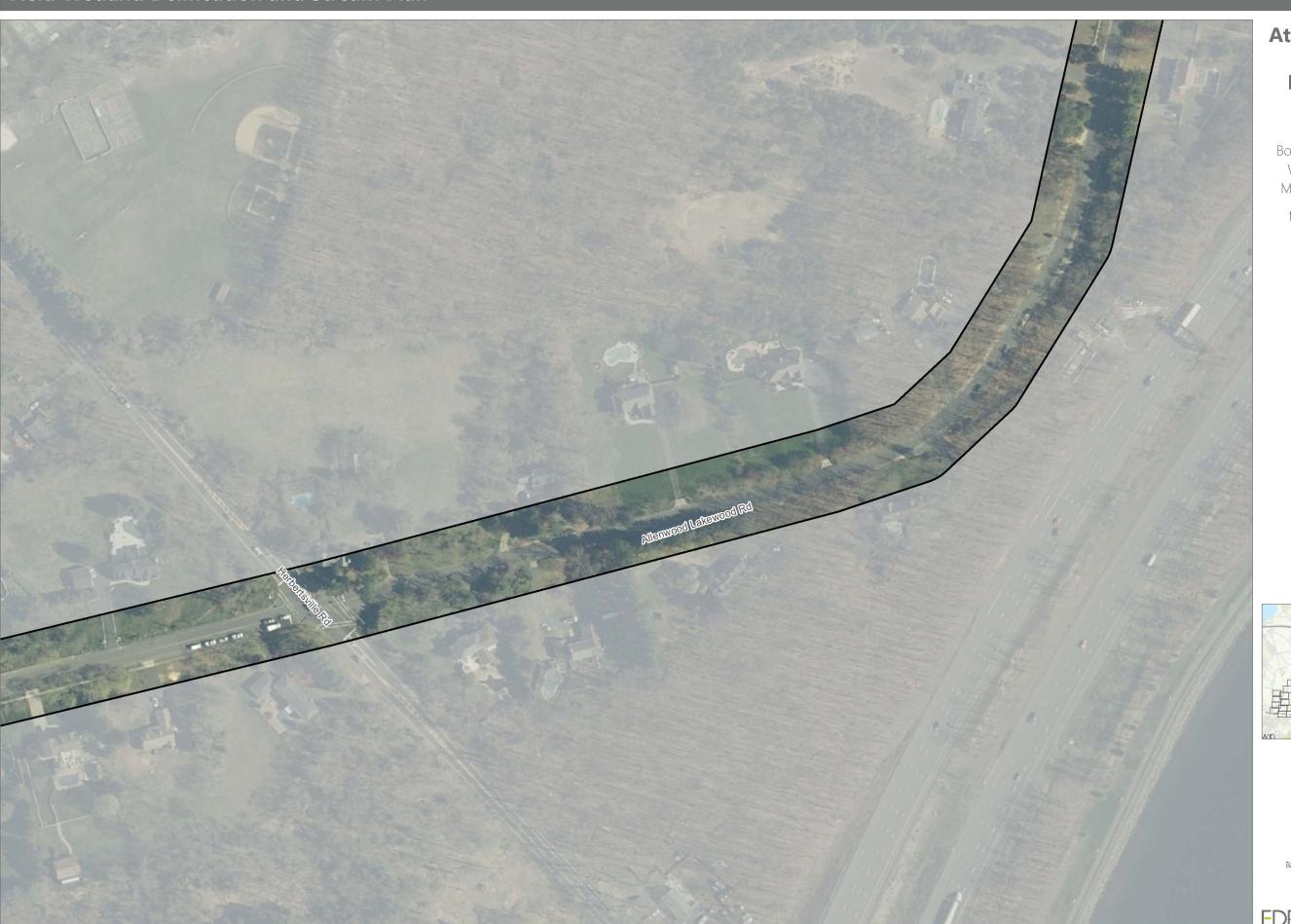
Study Area





Prepared February 27, 2023 Basemap: NJ Office of GIS 2015 Natural Color Imagery





Wall, and Township of Howell Monmouth County, New Jersey

**Wetland Delineation Report** 

Study Area







**Field Wetland Delineation and Stream Plan** Sheet 26 of 58



#### Offshore Wind -**Larrabee Onshore Project Design**

Wall, and Township of Howell Monmouth County, New Jersey

**Wetland Delineation Report** 

Delineated Wetland





Field Wetland Delineation and Stream Plan

Sheet 27 of 58



# Atlantic Shores South Offshore Wind – Larrabee Onshore Project Design Envelope Borough of Sea Girt, Township of

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

**Wetland Delineation Report** 

Study Area











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

**Wetland Delineation Report** 

Study Area





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EDR.



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

**Wetland Delineation Report** 

Study Area







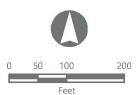


Wall, and Township of Howell Monmouth County, New Jersey

**Wetland Delineation Report** 

Wetland Transition Area Study Area







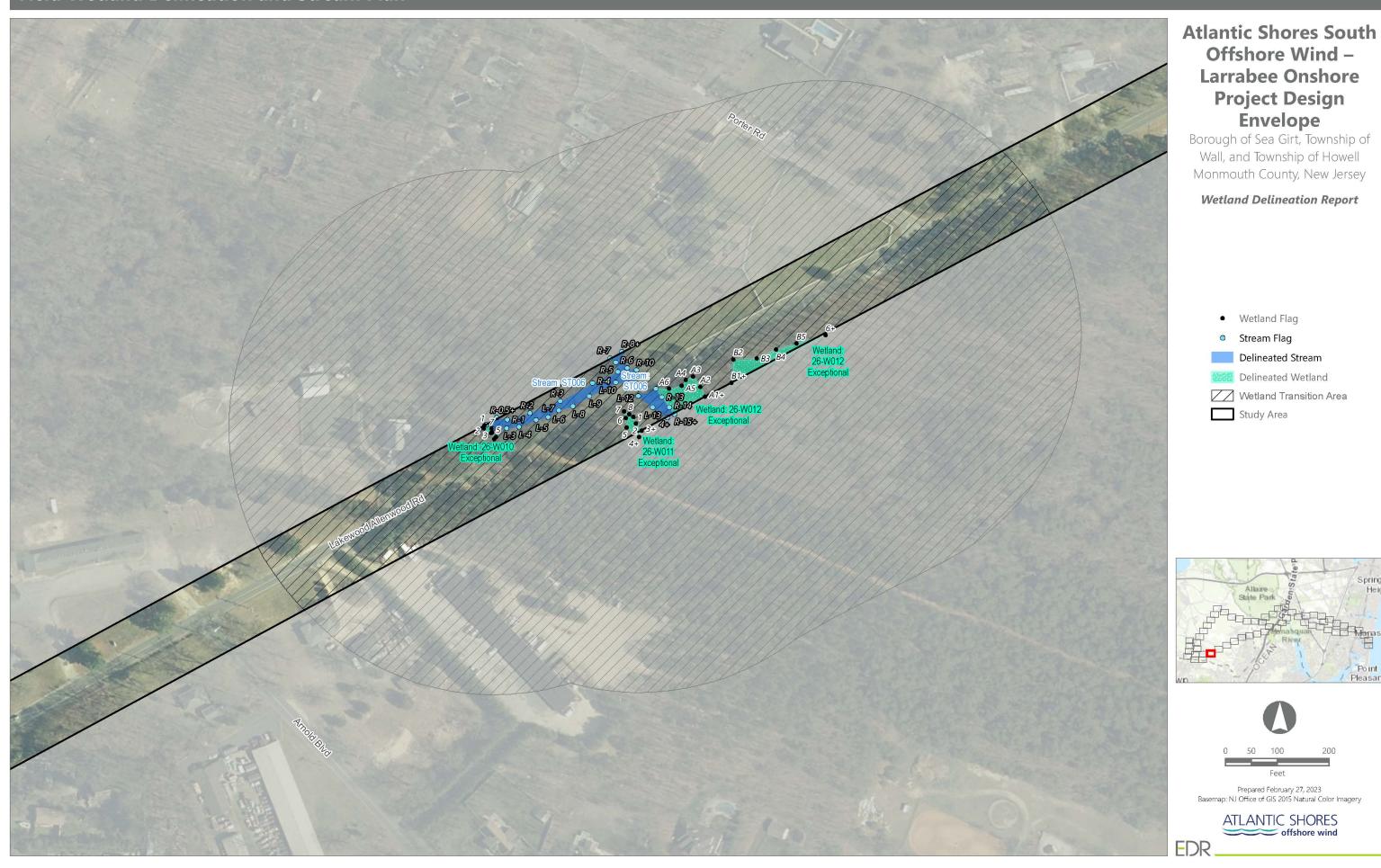
Field Wetland Delineation and Stream Plan

Sheet 31 of 58



Field Wetland Delineation and Stream Plan

Sheet 32 of 58

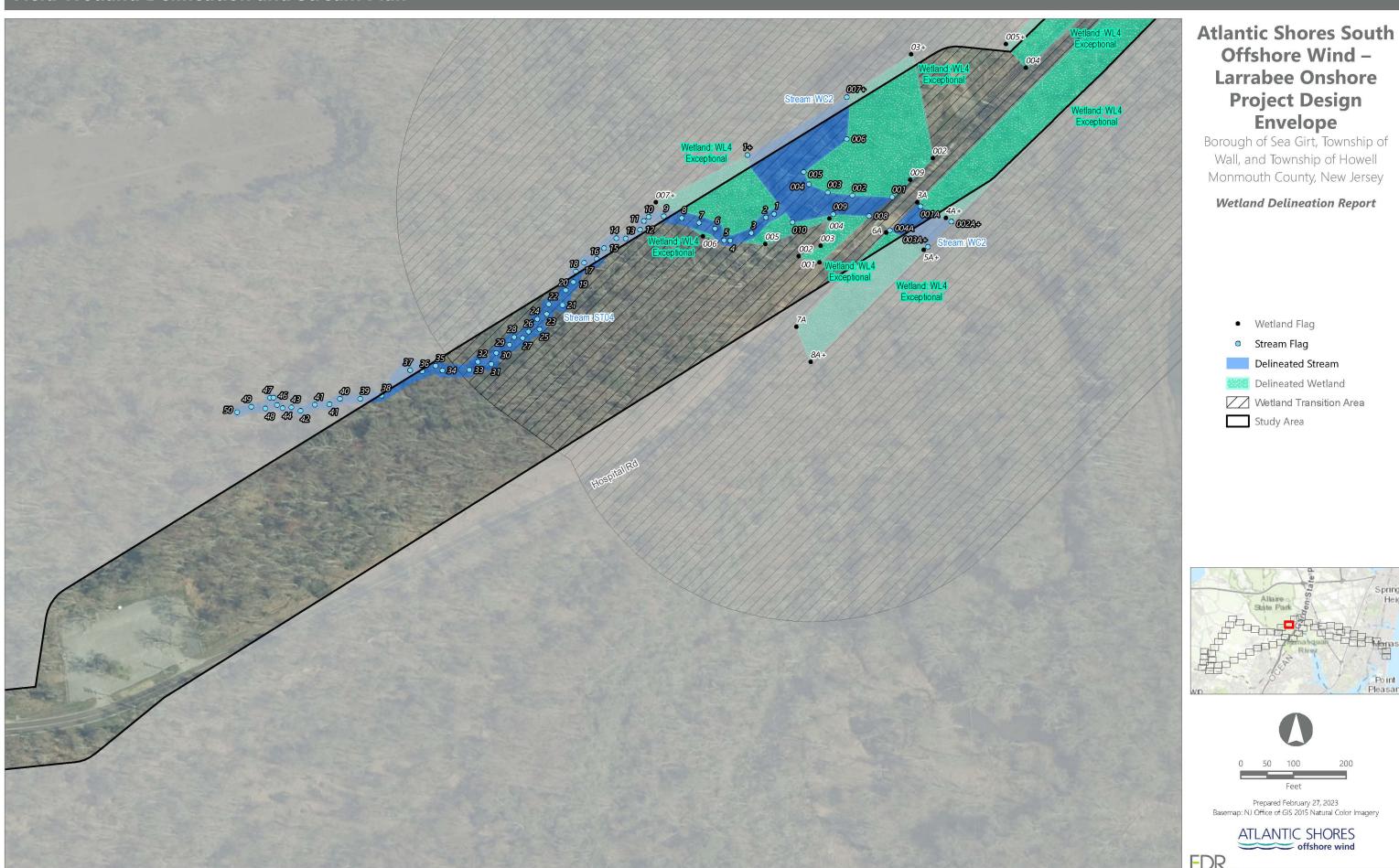






Field Wetland Delineation and Stream Plan

Sheet 35 of 58





Wall, and Township of Howell Monmouth County, New Jersey

**Wetland Delineation Report** 

Study Area







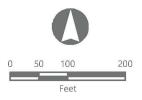


Borough of Sea Girt, Iownship of Wall, and Township of Howell Monmouth County, New Jersey

**Wetland Delineation Report** 

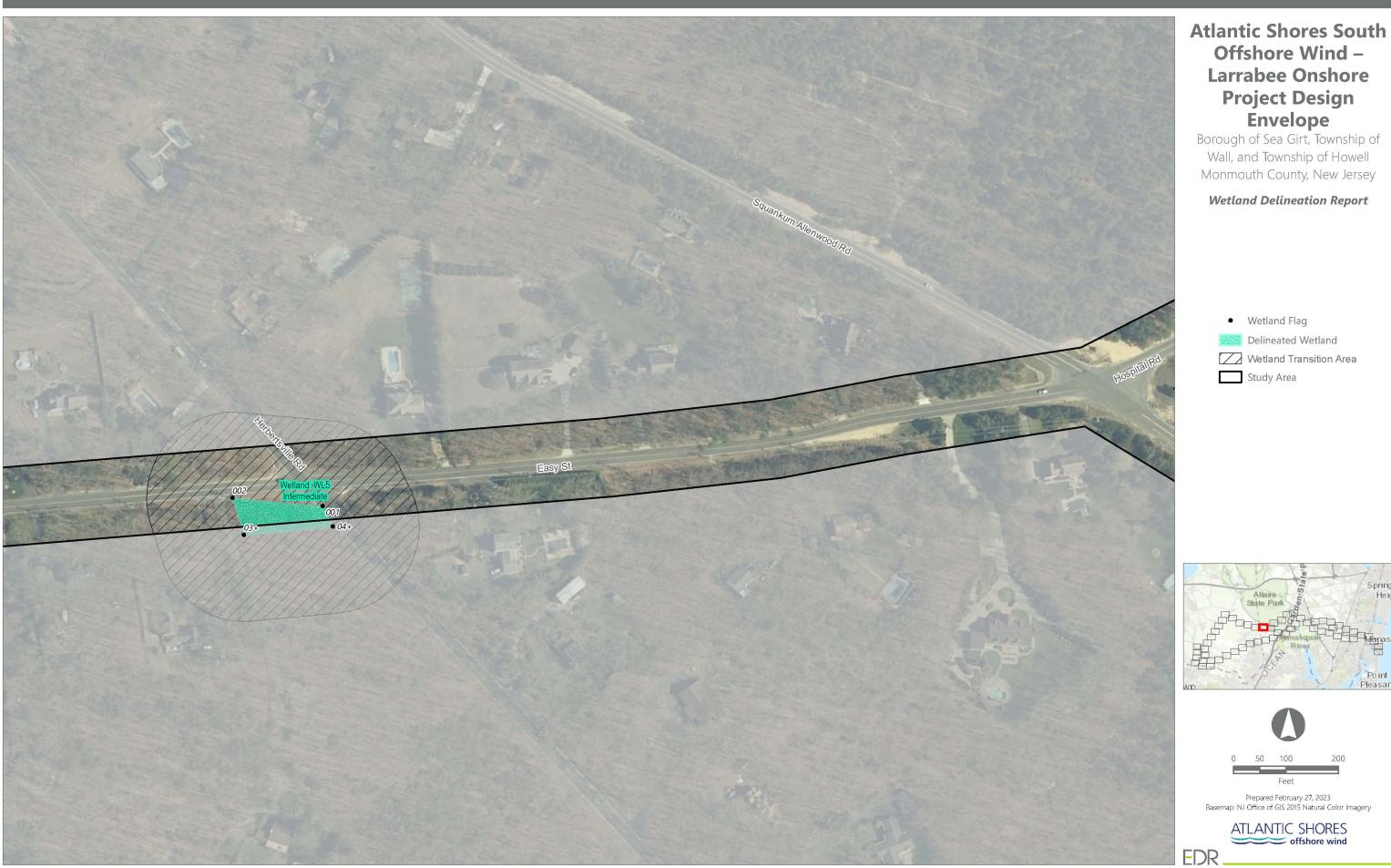
Study Area







Field Wetland Delineation and Stream Plan Sheet 38 of 58



#### Offshore Wind -**Larrabee Onshore Project Design**

Wall, and Township of Howell Monmouth County, New Jersey

Delineated Wetland









Wall, and Township of Howell

Monmouth County, New Jersey

**Wetland Delineation Report** 















Wall, and Township of Howell

Monmouth County, New Jersey

**Wetland Delineation Report** 

Study Area





Prepared February 27, 2023
Basemap: NJ Office of GIS 2015 Natural Color Imagery



EDR_



Wall, and Township of Howell

Monmouth County, New Jersey

**Wetland Delineation Report** 

Wetland Transition Area
Study Area

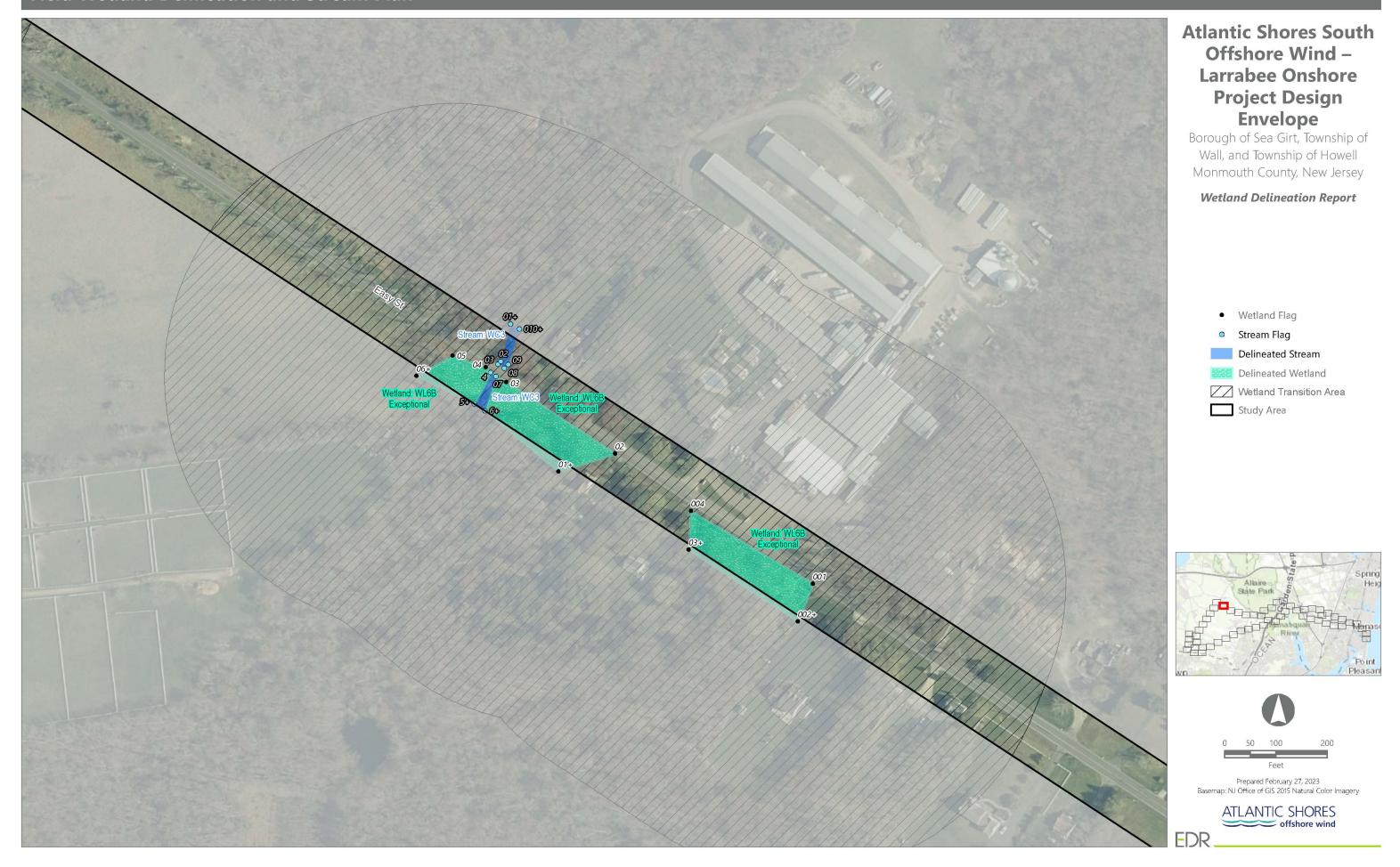




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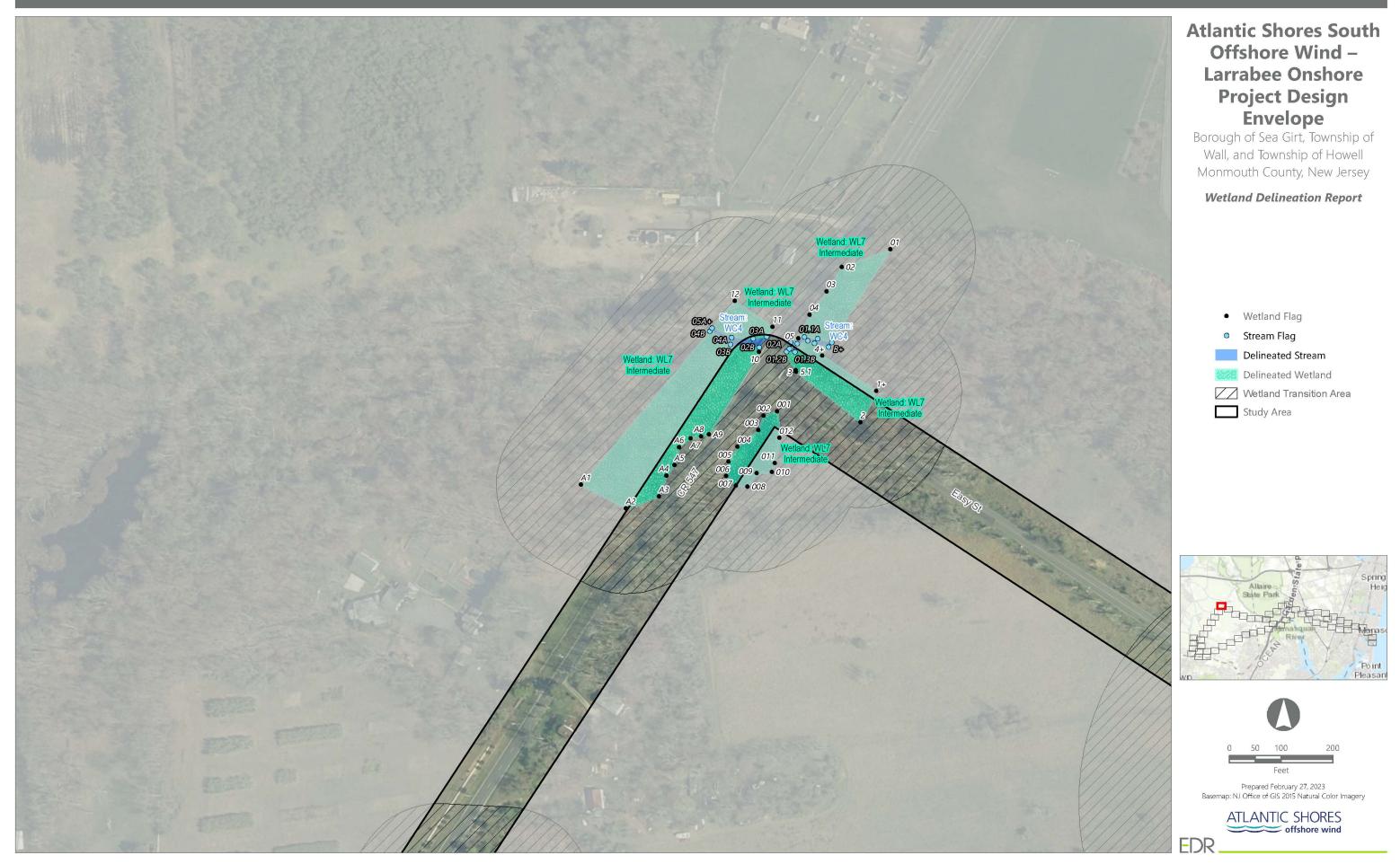


**EDR** 



Field Wetland Delineation and Stream Plan

Sheet 43 of 58





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

**Wetland Delineation Report** 

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area







Field Wetland Delineation and Stream Plan

Sheet 45 of 58







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

**Wetland Delineation Report** 

Wetland Flag

Delineated Wetland

Wetland Transition Area

Study Area









Wall, and Township of Howell Monmouth County, New Jersey

**Wetland Delineation Report** 

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









**Field Wetland Delineation and Stream Plan** Sheet 49 of 58

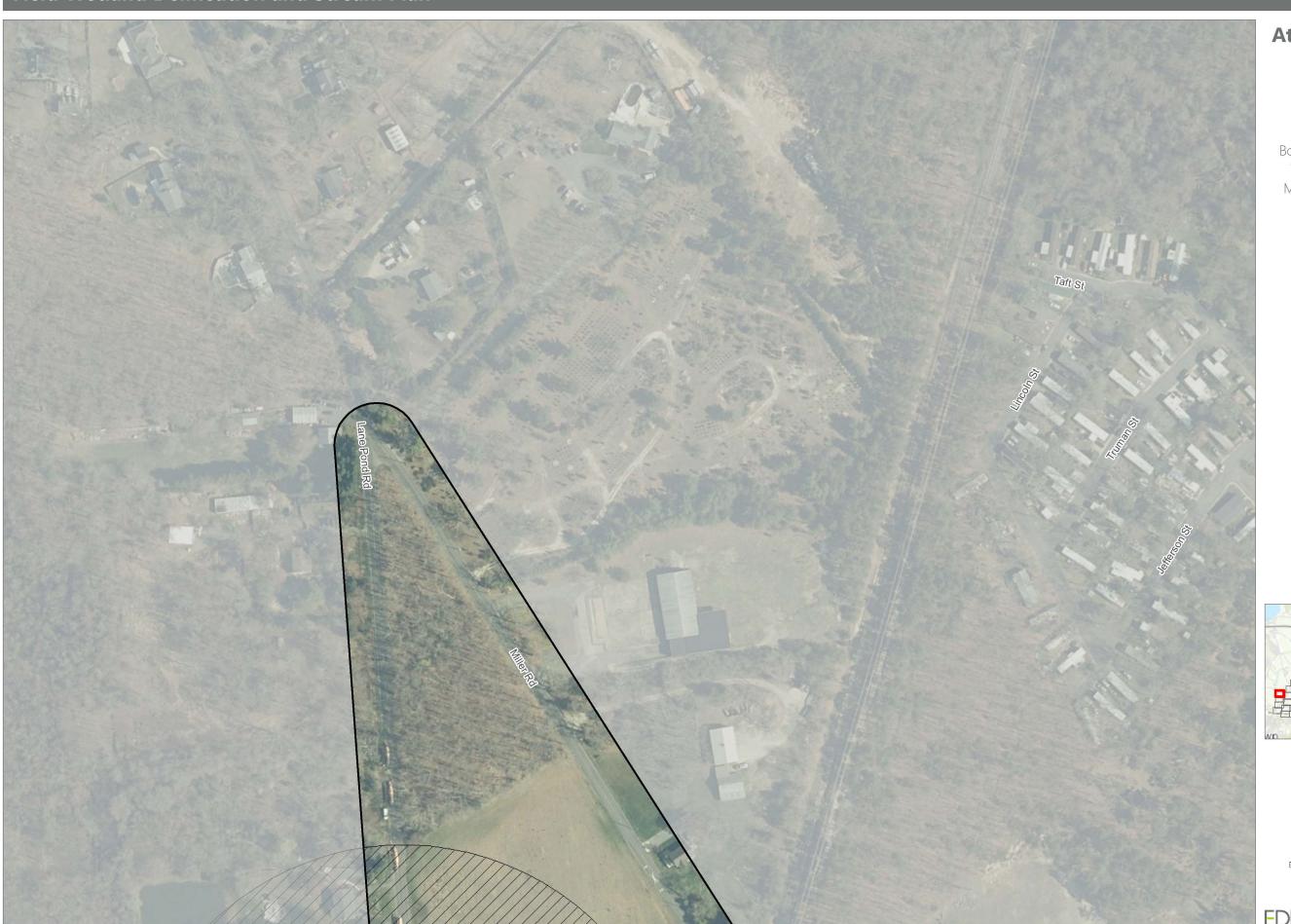


#### Offshore Wind -**Larrabee Onshore Project Design**

Wall, and Township of Howell







Wall, and Township of Howell

Monmouth County, New Jersey

**Wetland Delineation Report** 

Wetland Transition Area
Study Area











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

**Wetland Delineation Report** 

- Wetland Flag
- Stream Flag
- Delineated Stream

  Delineated Wetland
- Wetland Transition Area
- Study Area





0 50 100 200 Feet







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

**Wetland Delineation Report** 

Study Area









Wall, and Township of Howell Monmouth County, New Jersey

**Wetland Delineation Report** 

Study Area

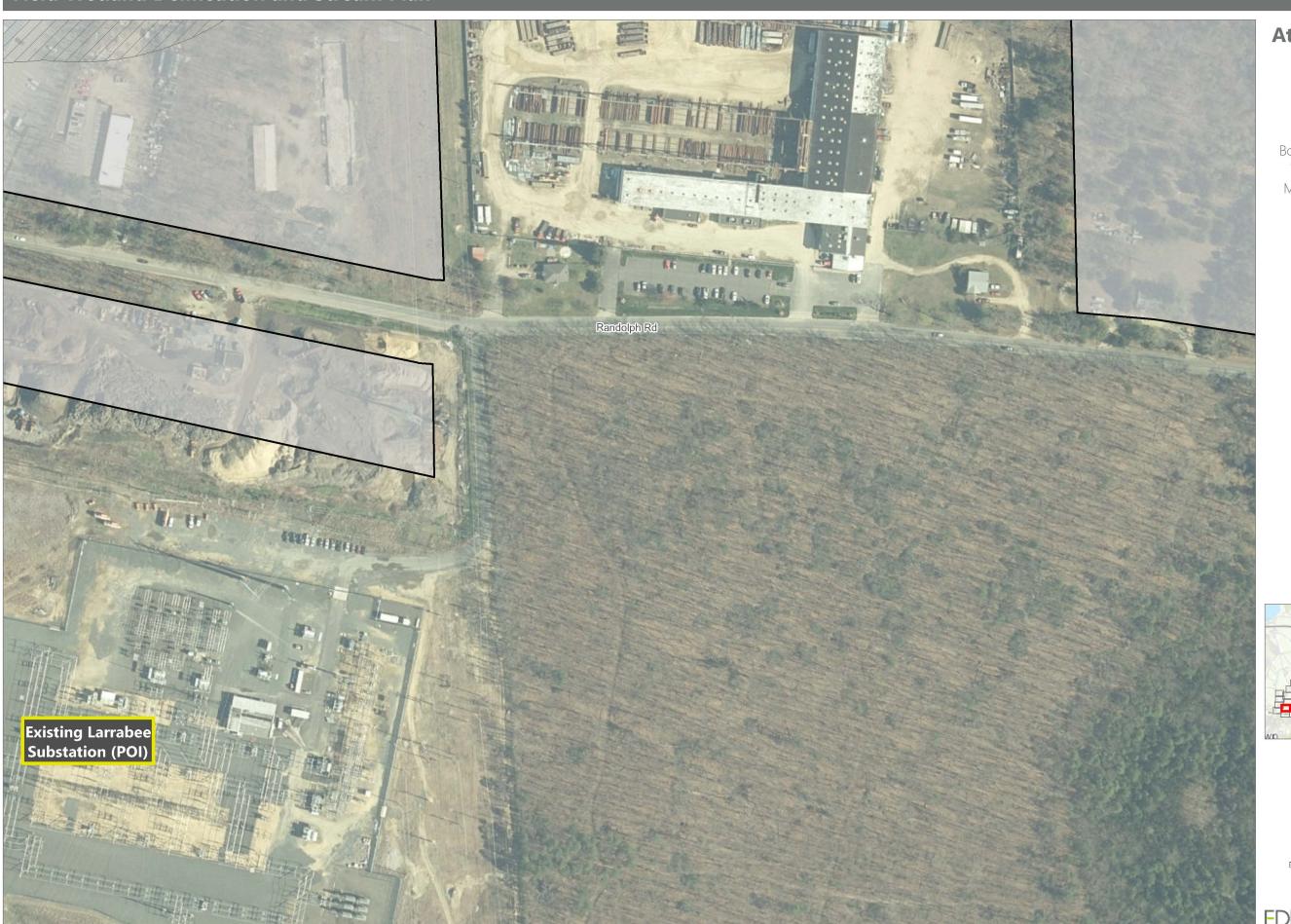






Field Wetland Delineation and Stream Plan

Sheet 55 of 58



# Atlantic Shores South Offshore Wind – Larrabee Onshore Project Design Envelope Borough of Sea Girt, Township of

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

**Wetland Delineation Report** 

Wetland Transition Area
Study Area









Wall, and Township of Howell Monmouth County, New Jersey

**Wetland Delineation Report** 

Wetland Transition Area Study Area









Wall, and Township of Howell

Monmouth County, New Jersey

**Wetland Delineation Report** 

Study Area











Wall, and Township of Howell Monmouth County, New Jersey

**Wetland Delineation Report** 

Study Area





