New Jersey Department of Environmental Protection ("Department")
Division of Land Resource Protection

CAFRA, WATERFRONT DEVELOPMENT, COASTAL WETLANDS, FRESHWATER WETLANDS & FLOOD HAZARD AREA ENVIRONMENTAL REPORT
N.J.S.A. 13:19-1 et seq., N.J.S.A. 12:5-3 et seq., N.J.S.A. 13:9A-1 et seq., N.J.S.A. 13:9B-1 et seq. & N.J.S.A. 58:16A-50 et seq.

File No. 0000-21-0008.2 LUP220001 CAFRA IP
0000-21-0008.2 LUP220003 WATERFRONT DEVELOPMENT INDIVIDUAL IN-WATER PERMIT (Withdrawn)
0000-21-0008.2 LUP220003 COASTAL WETLANDS PERMIT (Withdrawn)
0000-21-0008.2 LUP220001 FRESHWATER WETLANDS INDIVIDUAL PERMIT
0000-21-0008.2 LUP220002 FLOOD HAZARD AREA INDIVIDUAL PERMIT (Withdrawn)
0000-21-0008.2 LUP220004 FLOOD HAZARD AREA VERIFICATION (Reissuance)
0000-21-0008.2 LUP230001 COASTAL WETLANDS PERMIT & WATERFRONT DEVELOPMENT INDIVIDUAL IN-WATER PERMIT

Applicant: Ocean Wind LLC c/o Katharine Perry ("Applicant")
Project: Ocean Wind 1 Offshore Wind Farm
Project Location: State Waters & Onshore
Block: 100 Lots: 1.05, 1.06, 1.07
Block: 1000 Lot: 1
Block: 1001 Lots: 4.02 & 4.05
Block: 101 Lot: 1.02
Lacey Township, Ocean County
Block: 1750 Lot: 1
Berkeley Township, Ocean County
Block: 41 Lot: 43
Ocean Township, Ocean County
Block: 479 Lot: 76
N/A, N/A – Rights of Way (ROWs)
Upper Township, Cape May County
Block: 3500 Lot: 1
Block: 611.11 Lot: 137
N/A, N/A – Rights of Way (ROWs)
Ocean City, Cape May County
Project Engineer: Andre Thompson
Project Manager: Lindsey J. Davis

APPLICATION REVIEW TIMELINE
Application Received: August 3, 2022
Administrative Deficiency Issued: August 24, 2022
Response Submitted to Administrative Deficiency: September 7 & 8, 2022
Newspaper Notice Publications:
- Press of Atlantic City on September 6, 2022
- Asbury Park Press on September 8, 2022
- Cape May County Herald on September 14, 2022

2nd Administrative Deficiency Issued: September 19, 2022
Response Submitted to 2nd Administrative Deficiency: September 19, 2022 & September 21, 2022
Application Administratively Complete: September 21, 2022
Technical Review 20th Working Day: October 19, 2022

Technical Deficiency Issued for FHA Verification and Waterfront Development: October 19, 2022

CAFRA Complete for Public Hearing: October 19, 2022
Coastal Wetlands Complete for Final Review: September 21, 2022
90th Day Decision Deadline for Coastal Wetlands Permit Application: December 19, 2022
30 Day Extension Request to Deadline for Coastal Wetlands Permit Application: December 14, 2022
120th Day Decision Deadline for Coastal Wetlands Permit Application: January 18, 2023

Complete for CAFRA Public Hearing Letter Sent: November 4, 2022
Public Hearing Notice Documentation Submitted: November 21, 2022 & November 22, 2022
CAFRA Public Hearings Held:

- December 7, 2022 Virtual Hearing from 9 am to 12 noon
- December 12, 2022 Virtual Hearing from 5 pm to 8 pm
- December 15, 2022 In-Person Hearing from 6 pm to 9 pm at Hammonton High School, Hammonton, NJ

CAFRA Individual Permit Application After Public Hearing Deficiency Issued: December 28, 2022
First Response to CAFRA Individual Permit Application After Public Hearing Deficiency Submitted: January 18, 2023 (This only included a response to the Stormwater Management deficiency item)
Second Response to CAFRA Individual Permit Application After Public Hearing Deficiency Submitted: March 1, 2023 (This is a response to the public access deficiency)
15th Day on Review of Submitted CAFRA Deficiency Information: March 15, 2023
CAFRA Individual Permit Application Declared Complete for Final Review: March 9, 2023
CAFRA Individual Permit Application 90th Day Decision Deadline: May 29, 2023

Response Submittal addressing October 19, 2022 FHA Verification & Waterfront Development Technical Deficiency: November 21, 2022 & November 23, 2022
Waterfront Development & FHA Verification Complete for Review: Effective November 21, 2022
Waterfront Development & FHA Verification 90th Day Deadline: February 18, 2023
Request for a 30-Day Extension to the FHA Verification Decision Deadline: February 2, 2023
FHA Verification Issued: March 22, 2023

Request submitted for Withdrawal of the Coastal Wetlands and Waterfront Development Permit Applications: January 4, 2023
Coastal Wetlands and Waterfront Development Permit Applications Withdrawn: January 5, 2023

Coastal Wetlands and Waterfront Development Permit Applications Resubmitted: January 13, 2023
Resubmitted Coastal Wetlands and Waterfront Development Permit Resubmitted Applications Administratively Deficient: January 24, 2023
Response Submittal addressing Administrative Deficiency for Coastal Wetlands and Waterfront Development Permit Resubmitted Applications: February 1, 2023
Coastal Wetlands and Waterfront Development Permit Resubmitted Applications Administratively Complete: February 1, 2023
20th Working Day for the Resubmitted Coastal Wetlands and Waterfront Development Permit Resubmitted Applications: March 1, 2023
Coastal Wetlands and Waterfront Development Permit Applications Technically Complete: Declared March 1, 2023
90 Day Deadline for Coastal Wetlands and Waterfront Development Permit Applications: May 1, 2023

PROJECT DESCRIPTION & HISTORY – The project is the construction of the Ocean Wind 1 offshore wind farm (herein referred to as "the overall project") within Ocean Wind LLC's Bureau of Ocean Energy Management ("BOEM") Lease Area OCS-A 0498 off the coast of New Jersey. The project was selected from among several bidders and approved by New Jersey's Board of Public Utilities (BPU) on June 21, 2019 (BPU Docket No. QO18121289).

It is well-settled in the scientific community that climate change is primarily driven by increased atmospheric levels of greenhouse gas concentrations. According to the 2020 New Jersey Scientific Report on Climate Change, human activities are now the primary cause of climate change, particularly greenhouse gas emissions from the burning of fossil fuels which, combined with land use changes like deforestation, have increased atmospheric carbon dioxide concentrations by more than one third over the past century. As discussed in the Department's NJ Climate Science Report, sea level rise is occurring throughout the world, and is an indicator of Earth's increasing temperature (NJDEP, 2020).

New Jersey has already been disproportionally affected by climate change, sea level rise in particular, at a rate that is more than two times the global average (Kopp et al. 2019). According to a 2019 report of the New Jersey Climate Change Alliance Science and Technical Advisory Panel (STAP), by 2050, there is a 50 percent chance that sea-level rise will meet or exceed 1.4 feet and a 17 percent chance it will exceed 2.1 feet (Kopp et al. 2019). Under a moderate emission scenario, those levels increase to 3.3 and 5.1 feet by the end of the century (Kopp et al. 2019). These impacts pose a threat to New Jersey's natural resources, communities, infrastructure, and economy.

Offshore wind energy production as an alternative to the burning of fossil fuels furthers the State's policy to reduce greenhouse gas emissions, advance renewable energy, improve energy efficiency, prepare the state for the impacts of climate change, and help New Jersey achieve its greenhouse gas emissions targets while improving resiliency for all communities throughout the State.

The Ocean Wind 1 project will contribute to New Jersey's clean energy goals of 50 percent renewable energy by 2030 and 100 percent clean energy by 2050.

The work proposed under this State permit application within State waters and onshore includes the following activities (herein referred to as "the State project"). See Figures 1 & 2 below for a visual depiction of the State project.

Atlantic Ocean (within state waters)

- Utilizing jetting cable installation methods, the installation of 275 kV electric transmission cables (one 6 mile cable along the BL England route and two (2) - 4 mile long cables along the Oyster Creek route) in the Atlantic Ocean extending east to the 3 nautical mile ("nm") state water jurisdictional limit. These cables are intended to be buried to a target depth of 4 feet or 1.2 meters below the seabed. The cables along the Oyster Creek route will be spaced 300 feet apart until narrowing to approximately 200 feet apart prior to the start of the HDD for the Island Beach State Park ("IBSP") cable landfall.

B.L.England Cable Route

This route contains a single electric transmission cable that begins at the State's 3nm jurisdictional boundary limit in the Atlantic Ocean, as described above, and extends onshore at 35th Street in Ocean City, Cape May County. The cable continues on land to the proposed substation at the B.L. England Generating Station property in Upper Township Cape May County. This route proposes the following:

- The Horizontal Directional Drill ("HDD") of the electric transmission cable beneath the beach and dunes at a depth of 38 feet below the peak of the dunes to the transition joint bay ("TBJ") within 35th Street in Ocean City, Cape May County. This HDD installation will extend 2,500 feet from the HDD entry pit in the Atlantic Ocean to the HDD exit pit within 35th Street.
- The open cutting/trenching of the electric transmission cable traveling northwest within the paved areas of 35th Street before turning to the northeast for a distance of approximately 330 feet, at which point the cable turns back to the northwest and onto Roosevelt Boulevard. The cable continues along Roosevelt Boulevard then onto Waterview Boulevard and then continues along Nautilus Drive to a parking area at the end of Nautilus Drive. The on-shore cables will be buried to a target depth of 4 feet or 1.2 meters.

- The electric transmission cable will continue via HDD method of installation beneath Crook Horn Creek. The cable at this location will be installed at a depth of approximately 27 feet below the streambed. The cable will exit the HDD installation within a previously disturbed area on the opposite side of Crook Horn Creek.
- The electric transmission cable, being installed via open-cut/trenching, will then continue to the north side of Roosevelt Boulevard and follow the paved roadway for approximately 1.1 miles before turning northeast onto State Route 9 (North Shore Road) for 1.8 miles. The cable will then turn northwest onto Clay Avenue, turn west across the former golf course and terminate at the location of the proposed onshore substation within the former coal pile area at the decommissioned B.L. England Generating Station property.

Oyster Creek Cable Route

This route contains two (2) cables that begin at the State's 3 nm jurisdictional boundary limit in the Atlantic Ocean, as described above, extends onshore at IBSP in Berkeley Township, Ocean County, crosses Barnegat Bay, and continues on land to the proposed substation at the Oyster Creek property in Lacey Township, Ocean County. Once coming onshore in IBSP, this route proposes the following:

- The HDD of the two (2) electric transmission cables beneath the beach and dunes at a depth between 43 feet and 48 feet below the peak of the dunes in IBSP to the TBJ within the parking area of Swimming Area #2 of IBSP. This HDD installation will extend 1,475 feet from the HDD entry pit in the Atlantic Ocean to the HDD exit pit within the parking area of Swimming Area #2 in IBSP.
- The open-cutting/trenching of the electric transmission cables approximately 1,100 feet through the western side of the parking lot then west approximately 120 feet to Shore Road. The cables will continue north approximately 300 feet along Shore Road to the maintenance area workspace along the western shoreline of IBSP. The on-shore cables will be buried to a target burial depth of 4 feet or 1.2 meters.
- From the western shoreline, the cables will extend into Barnegat Bay and be installed via open-cut/trenching technology within a prior disturbed channel. The prior disturbed channel will be open-cut/trenched to between -6.5' and -11.5' MLLW for the installation of the cables in this location. There is a potential option for utilizing jetting installation in the prior channel with the use of shallow water jetting equipment. However, the Applicant is still evaluating the possibly of utilizing jetting installation methodologies within the prior disturbed channel. The Applicant has confirmed that jetting, if determined feasible, would be utilized to minimize impacts. However, the permit will authorize both installation methods, but will assess impacts based on the worst case scenario of open-cut/trenching installation.
- Utilizing jetting installation methods, the electric transmission cables will continue across Barnegat Bay and turn southwest for approximately 3.5 miles. The cables turn west and continue to the location outshore of Block 100, Lot 1.06 in Lacey Township, Ocean County (herein referred to as the "Holtec Landfall"). The installation of the cables at their transition from Barnegat Bay to the Holtec Landfall property will be accomplished by one of the two installation methodologies described below:
    - The primary installation of the cables at the Holtec Landfall would be via jetting installation methods using appropriate shallow water jetting equipment to the target depth of 4 feet (1.2 meters). The jetting installation method would provide the least amount of impacts to environmental resources.
    - The secondary landfall installation method would utilize open-cut/trenching if jetting is determined to be infeasible. A trench will be excavated starting approximately 50 feet into Barnegat Bay and continuing through the shoreline to the onshore TJB location. The cables will be floated into the excavated trench to the target burial depth of 4 feet (1.2 meters).

- Once coming onshore, the electric transmission cables will continue west via open-cut/trenching installation methods across the Holtec Landfall property, then turning south, then west towards NJ Route 9.
- At the Route 9 and Oyster Creek crossing, the cables will be installed via HDD for a distance of approximately 1,700 feet ranging in depths below the ground surface and streambed between 19 feet and 25 feet.
- Upon exiting the HDD pit located in an existing private, paved access road south of Oyster Creek on Block 41, Lot 43 in Ocean Township, Ocean County, the cables continue via open-cut/trenching along the paved access road for approximately 3,000 feet until reaching the proposed substation location on a portion of the decommissioned Oyster Creek Nuclear Generating Station property, Block 1001, Lot 4.06 in Lacey Township, Ocean County.

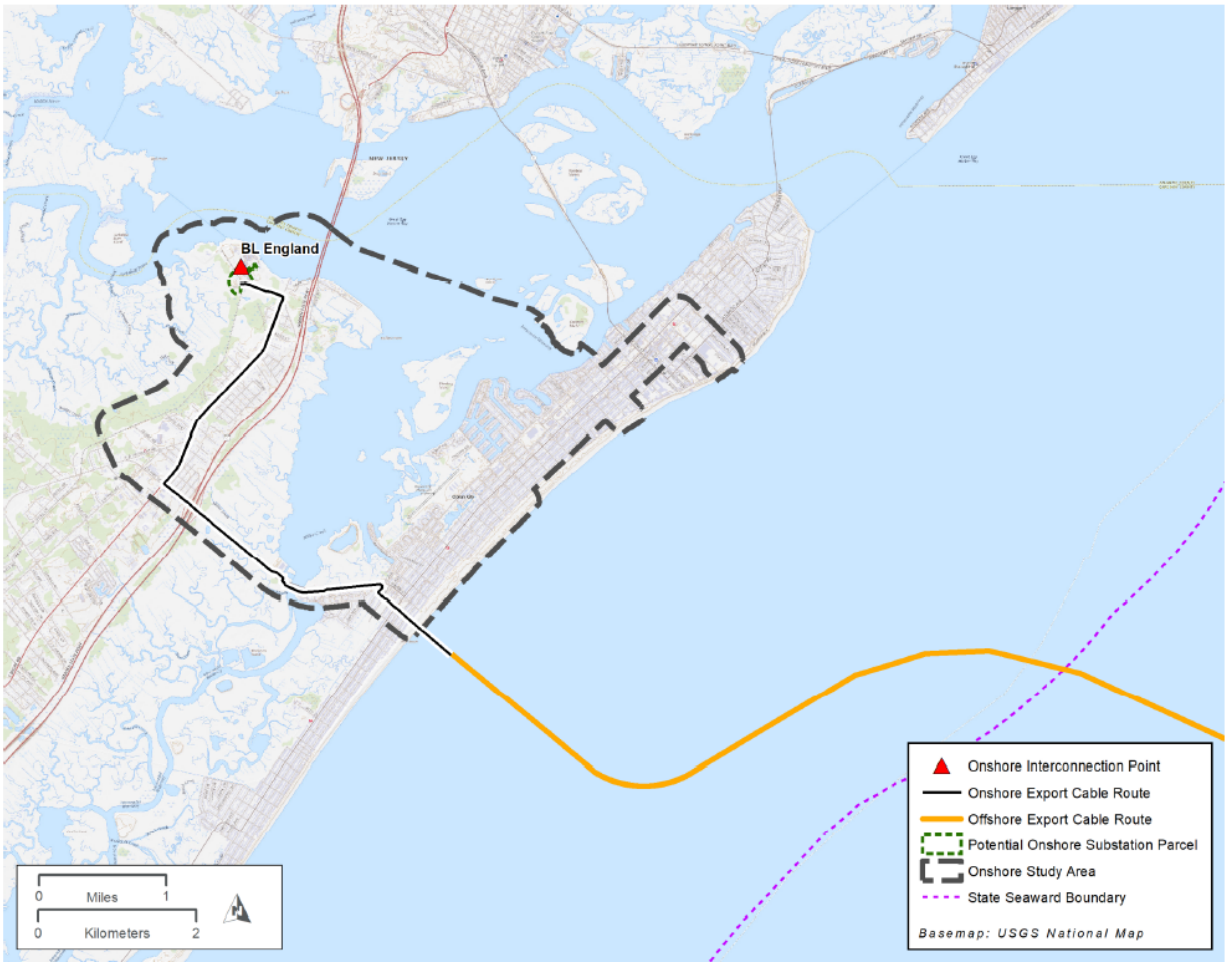
Onshore Substations

The construction of two (2) onshore unmanned substations are proposed on an approximately 15 acre portion of B.L. England Generating Station property at Block 479, Lot 76 in Upper Township, Cape May County and an approximately 15 acre portion of the Oyster Creek Nuclear Generating Station property at Block 1001, Lot 4.06 in Lacey Township, Ocean County. The substation construction includes the construction of stormwater management measures, access roads, and landscaping.

Additional Activities

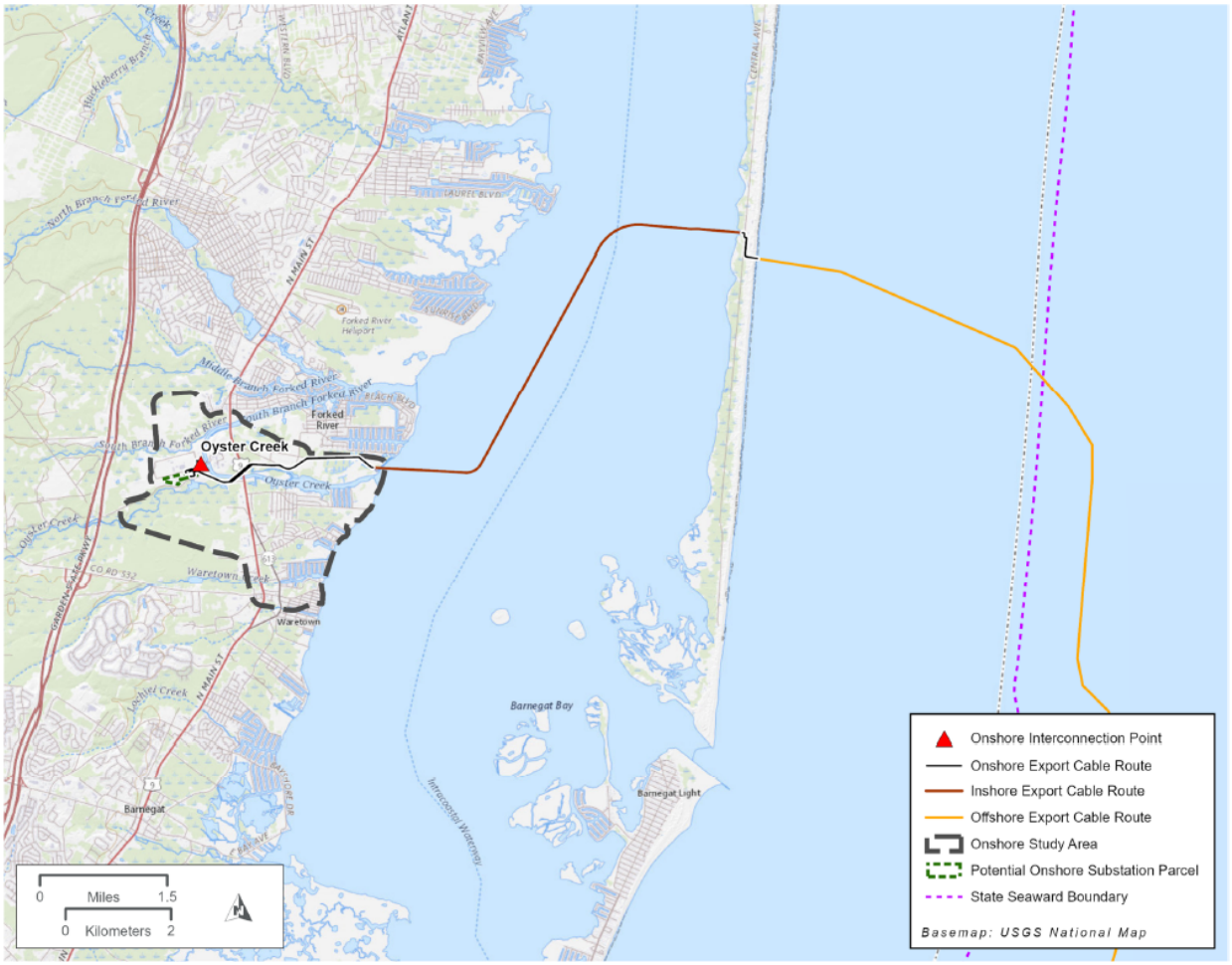
- Associated infrastructure along the cable routes including manholes, duct banks, and TBJs.
- Maintenance dredging of Oyster Creek Federal Channel to a depth of -10' MLLW for safe passage of construction vessels in Barnegat Bay. The Applicant is proposing to potentially conduct this maintenance dredging on behalf of the Army Corps of Engineers ("ACOE") as the ACOE may not do this work in the timeframe needed for the Applicant to utilize the channel for safe passage of their construction vessels.

Figure 1



Depiction of B.L. England cable route to proposed onshore substation on Block 479, Lot 76 in Upper Township, Cape May County

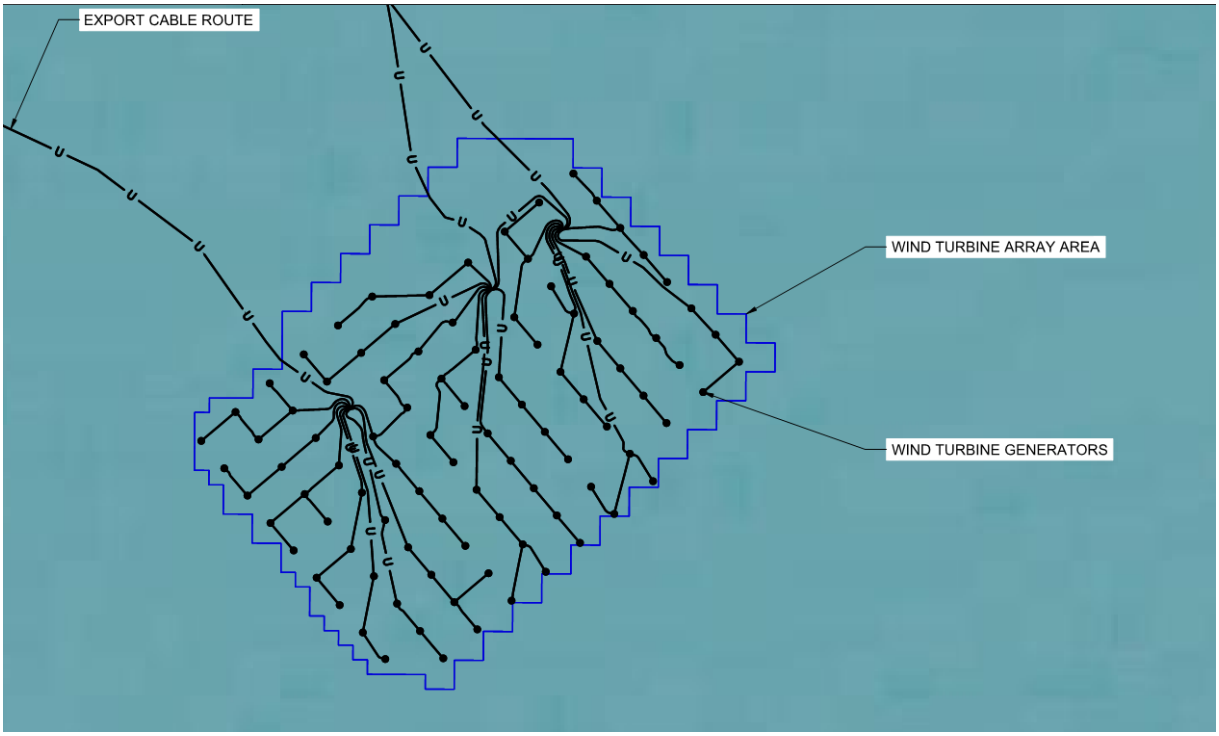
Figure 2



Depiction of Oyster Creek cable route to proposed onshore substation on Block 1001, Lot 4.06 in Lacey Township, Ocean County

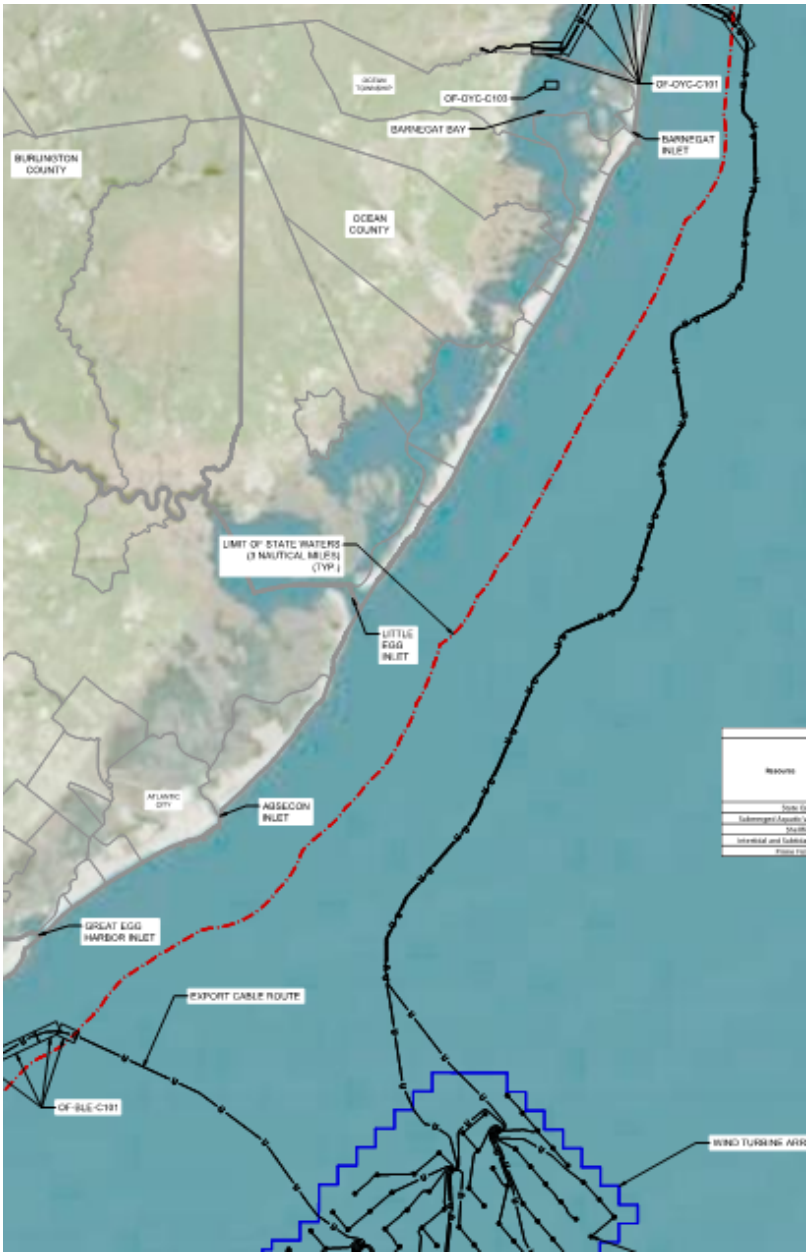
A separate application for a Federal Consistency Certification (DLRP File# 0000-21-0008.1 CDT210001) is pending for the portion of the project in federal waters (herein referred to as "the Federal project"). The Federal Consistency Certification application includes offshore export cable installations, the construction of up to 98 wind turbine generators (WTGs) within the Applicant's Ocean Wind 1 lease area, up to three (3) offshore alternating current substations, array cable installations linking the individual turbines to the offshore substations, and substation interconnector cables linking two of the three substations to each other. See Figures 3 & 4 below for a visual depiction of the work proposed under the Federal Consistency Certification application.

Figure 3



Depiction of wind turbine area and turbine locations, inter-array cables, and three (3) offshore substations.

Figure 4



Depiction of electric transmission cable route east of 3 nm state jurisdictional limit represented by the red dotted line.

This report addresses compliance with all applicable Coastal Zone Management Rules at N.J.A.C. 7:7-1.1 et seq., Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-1.1 et seq. and Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-1.1 et seq., for the State project only. A separate report will address Coastal Zone Management Consistency for the Federal project.

Based on information provided by the Applicant, surveys and investigations are ongoing within State waters, specifically within Barnegat Bay, to determine the appropriate installation methodologies for cable installation. The selected installation methodologies of cable installation will be determined based upon water depths, sediment types, and any engineering analysis regarding feasibility of installation methods. The potential methods for cable installation in Barnegat Bay include jetting and open cut/trenching. Any impacts to in-water resources for cable installation methodologies referenced in this report are based on worst case scenario impacts. It is important to note that the use of HDD at the 35th

Street Ocean City cable landfall and beneath Crook Horn Creek along the B.L. England cable route and the IBSP cable landfall and beneath Route 9 and Oyster Creek along the Oyster Creek cable route will not change. The outcome of the surveys and investigations will determine which cable installation methodology, jetting or open cutting/trenching, will be utilized at the Holtec Landfall and prior channel location off the western shoreline of IBSP. Through the ongoing engineering and design analysis, the Applicant has identified a potential high risk of drilling fluid losses (i.e., inadvertent return) during HDD cable installation at the Holtec Landfall. While the use of HDD installation methods at this location was the initial primary installation method, this method of cable installation at the Holtec Landfall has been abandoned due to environmental risks associated with an inadvertent return described above. Backfill of any created trenches for cable installation will be done with clean sand.

The initial State permit application submitted by the Applicant included a request for a Flood Hazard Area Individual Permit for the project. However, the entirety of the State project is located in the CAFRA area and requires a coastal permit. Therefore, compliance with the applicable requirements of the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13 is being reviewed under the Coastal permit application and a separate Flood Hazard Area Individual Permit is not required. A request to withdraw this permit application was made on October 26, 2022. The Flood Hazard Area Individual Permit was formally withdrawn on October 26, 2022 under the LUP220002 activity.

As indicated above, a decision on the Flood Hazard Area Verification portion of the application was initially due by February 18, 2023. A request to the the Applicant from the Division of Land Resource Protection ("Division") was made on February 2, 2023 for changes to the jurisdictional limits depicted on the FHA Verification plans. In order to allow time to make the appropriate plan revisions, on February 2, 2023, the Applicant requested that the decision deadline on this application be extended by 30 days. The request was granted and the extended decision deadline for the FHA Verification was March 20, 2023. As the Flood Hazard Area Verification does not authorize the construction of any structures and will only verify the limits of the flood hazard area and riparian zone on the proposed substation properties, the Flood Hazard Area Verification was issued separately on March 22, 2023. In accordance with the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-5.4, the Flood Hazard Area Verification will be reissued with the CAFRA, Waterfront Development, Coastal Wetlands, and Freshwater Wetlands Permits discussed in this report.

Other local, State and Federal approvals are required for the project. In accordance with N.J.A.C. 7:7-27.2(c)3, the permittee must obtain all Federal, State, and local approvals prior to commencement of regulated activities authorized under a coastal permit. This will be a condition of the issued permit.

A condition will be included in the State permit indicating that the permittee is responsible for compliance with N.J.A.C. 7:7-27.2 Conditions that apply to all coastal permits for the work regulated under CAFRA, the Waterfront Development Law, and the Wetlands Act of 1970.

Under Section 401 of the Clean Water Act, a federal agency may not issue a permit or license to conduct any activity that may result in any discharge into waters of the United States. As the work under the State permit application involves a discharge in wetlands and navigable waters, a Water Quality Certificate is being issued concurrent with the State permit.

The installation of the electric transmission cables within State waters requires Tidelands licenses, including both a utility license and dredging license. The applications for the appropriate Tidelands license are pending under file# 0000-21-0008.2 TDI220001, TDI220002, TDI220003, and TDI220004. A condition will be added to the permit requiring the Applicant to obtain the required Tidelands license prior to construction activities in State waters.

JURISDICTION

The overall project is an industrial development per N.J.A.C. 7:7-1.5, which defines industrial development as a development that involves a manufacturing or industrial process, and includes, among other things, electric power production. The State project proposes the construction of two (2) substations as well as the installation of electric transmission cables upland of the mean high water line ("MHWL") in the CAFRA area, so it requires a CAFRA permit in accordance with N.J.A.C. 7:7-2.2(a)1, 2 and/or 5iii. The Applicant has applied for a CAFRA Individual Permit for the proposed activities.

The State project also proposes work below the MHWL of several tidal waterways. Therefore, in accordance with N.J.A.C. 7:7-2.4(a)3i, a Waterfront Development permit is required for the State project. The Applicant has applied for a Waterfront Development Individual In-Water Permit for the proposed activities.

The State project also proposes work within areas of mapped coastal wetlands. Therefore, in accordance with N.J.A.C. 7:7-2.3(a), a Coastal Wetlands permit is required for the State project. The Applicant has applied for a Coastal Wetlands Permit for the proposed activities.

The State project also proposes work within freshwater wetlands, unmapped coastal wetlands, and transition areas. Therefore, in accordance with N.J.A.C. 7:7A-2.2 & 2.3, a Freshwater Wetlands permit is required for the State project. The Applicant has applied for a Freshwater Wetlands Individual Permit for the proposed activities.

PROJECT PLANS

The project is shown on four (4) sets of plans and two (2) individual plan sheets. The first set of plans contains thirteen (13) sheets and is entitled "Ocean Wind 1 Offshore Wind Project Offshore Cable Routes", all sheets dated 4/14/2023, unrevised, signed on 04/19/2023, prepared by Joseph P. Dennis, P.E. from HDR Engineering, Inc., and further identified as:

Sheet 1, Drawing G001 – "Key Map"
Sheet 2, Drawing G002 – "General Notes and Legend"
Sheet 3, Drawing OF-OYC-C001 – "Oyster Creek Enlarged Plan (1 of 3)"
Sheet 4, Drawing OF-OYC-C002 – "Oyster Creek Enlarged Plan (2 of 3)"
Sheet 5, Drawing OF-OYC-C003 – "Oyster Creek Enlarged Plan (3 of 3)"
Sheet 6, Drawing OF-OYC-C101 – "Oyster Creek Plan and Profile (1 of 2)"
Sheet 7, Drawing OF-OYC-C102 – "Oyster Creek Plan and Profile (2 of 2)"
Sheet 8, Drawing OF-OYC-C103 – "Oyster Creek Federal Channel (1 of 1)"
Sheet 9, Drawing OF-BLE-C001 – "BL England Enlarged Plan (1 of 2)"
Sheet 10, Drawing OF-BLE-C002 – "BL England Enlarged Plan (2 of 2)"
Sheet 11, Drawing OF-BLE-C101 – "BL England Plan and Profile (1 of 1)"
Sheet 12, Drawing C501 – "Site Details (1 of 2)"
Sheet 13, Drawing C501 – "Site Details (2 of 2)"

The second set of plan contains six (6) sheets, all sheets dated 01/10/2023 with the exception of Sheet 5 dated 01/04/2023, all sheets last revised 01/10/2023, all sheets signed on 04/14/2023, prepared by Reilly J. School, P.E. from HDR Engineering, Inc., and further identified as:

Sheet 1, Drawing HDD-OF-BLE-01T-5-001 – "32" OC3_A Crossing, BL England / 35th Street Crossing, Horizontal Directional Drill, Plan and Profile, Cape May County, New Jersey"
Sheet 2, Drawing HDD-OF-BLE-01T-4-002 – "32" OC3_A Crossing, BL England / 35th Street Crossing, Offshore Workspace, Plan and Profile, Cape May County, New Jersey"
Sheet 3, Drawing HDD-OF-OYC-04T-5-001 – "32" OC1_C Shore Approach, IBSP East Crossing (North), Horizontal Directional Drill, Plan and Profile, Ocean County, New Jersey"
Sheet 4, Drawing HDD-OF-OYC-04T-5-002 - "32" OC1_C Shore Approach, IBSP East

Crossing (North), Offshore Workspace, Plan and Profile, Ocean County, New Jersey"
Sheet 5, Drawing HDD-OF-OYC-05T-5-001 – "32" OC2_C Shore Approach, IBSP East Crossing (South), Horizontal Directional Drill, Plan and Profile, Ocean County, New Jersey"
Sheet 6, Drawing HDD-OF-OYC-05T-4-001 – "32" OC2_C Shore Approach, IBSP East Crossing (South), Offshore Workspace, Plan and Profile, Ocean County, New Jersey"

The third set of plans contains twenty-four (24) sheets, all sheets dated 07/20/2022, last revised 04/11/2023, signed on 04/12/2023, prepared by Katherine L. Hering, P.E. from E2 Project Management, LLC, and further identified as:

Sheet 1, Drawing OL-BLE001 - "Key Map, Ocean Wind Offshore Wind Project, Ocean City/Upper Township, Cape May County, New Jersey"
Sheet 2, Drawing OL-BLE002 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Ocean City, Cape May County, New Jersey"
Sheet 3, Drawing OL-BLE003 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Ocean City, Cape May County, New Jersey"
Sheet 4, Drawing OL-BLE004 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Ocean City, Cape May County, New Jersey"
Sheet 5, Drawing OL-BLE005 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Ocean City, Cape May County, New Jersey"
Sheet 6, Drawing OL-BLE006 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township / Ocean City, Cape May County, New Jersey"
Sheet 7, Drawing OL-BLE007 - "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 8, Drawing OL-BLE008 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 9, Drawing OL-BLE009 – ""NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 10, Drawing OL-BLE010 – ""NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 11, Drawing OL-BLE011 – ""NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 12, Drawing OL-BLE012 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 13, Drawing OL-BLE013 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 14, Drawing OL-BLE014 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 15, Drawing OL-BLE015 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 16, Drawing OL-BLE016 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 17, Drawing OL-BLE017 - "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 18, Drawing OL-BLE018 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 19, Drawing OL-BLE019 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 20, Drawing OL-BLE020 - "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township, Cape May County, New Jersey"
Sheet 21, Drawing OL-BLE021 – "NJDEP Individual Permit Plan, Ocean Wind Offshore Wind Project, Upper Township / Ocean City, Cape May County, New Jersey"
Sheet 22, Drawing BLE022 - "Soil Erosion and Sediment Control Notes and Details, Ocean Wind Offshore Wind Project, Upper Township & Ocean City, Cape May County, New Jersey"

Sheet 23, Drawing BLE023 - "Detail Sheet, Ocean Wind Offshore Wind Project, Upper Township and Ocean City, Cape May County, New Jersey"
Sheet 24, Drawing BLE024 – "References, Ocean Wind Offshore Wind Project, Upper Township and Ocean City, Cape May County, New Jersey"

The fourth set of plans contains twenty-two (22) sheets dated 07/20/2022, last revised 04/11/2023, signed on 04/12/2023, prepared by Katherine L. Hering, P.E. from E2 Project Management LLC, and further identified as:

Sheet 1, Drawing OL-OC001 – "Key Map, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 2, Drawing OL-OC002 – "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 3, Drawing OL-OC003 – "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 4, Drawing OL-OC004 – "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 5, Drawing OL-OC005 - "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 6, Drawing OL-OC006 - "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 7, Drawing OL-OC007 – "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 8, Drawing OL-OC008 – "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 9, Drawing OL-OC009 – "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 10, Drawing OL-OC010 - "Site Constraints Map, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 11, Drawing OL-OC011 - "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 12, Drawing OL-OC012 - "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 13, Drawing OL-OC013 - "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 14, Drawing OL-OC014 - "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 15, Drawing OL-OC015 - "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 16, Drawing OL-OC016 - "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 17, Drawing OL-OC017 - "NJDEP Individual Permit Plans, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 18, Drawing OC018 - "Soil Erosion and Sediment Control Notes, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 19, Drawing OL-OC019 - "Soil Erosion and Sediment Control Notes and Details, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 20, Drawing OL-OC020 - "Details Sheet 1 Typical Details, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 21, Drawing OL-OC021 - "Details Sheet 2 HDD Hardstand Area & Scour Protection, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"
Sheet 22, Drawing OL-OC022 - "References, Ocean Wind Offshore Wind Project, Oyster Creek Location, Lacey Twp, NJ 0875"

The first individual plan sheet is entitled "OCW01 Offshore Wind Farm – Peck Bay, Grading & Drainage Plan SH 1, Permitting", dated 10/13/2022, last revised on 04/19/2023, signed on 04/21/2023, and prepared by Kevin Warrender, P.E. from Burns McDonnell.

The second individual plan sheet is entitled "OCW01 Offshore Wind Farm – BL England, Post Development Stormwater Management Plan, Civil", dated 12/02/2022, last revised on 12/02/2022, signed on 04/21/2023, and prepared by Kevin Warrender, P.E. from Burns McDonnell.

COASTAL ZONE MANAGEMENT RULES (7:7), FRESHWATER WETLANDS PROTECTION ACT RULES (7:7A) & FLOOD HAZARD AREA RULES (7:13)

Below is an analysis of the State project's compliance with the applicable regulations based upon all information available to the Division during the review of the application. The Division retains the right to consider additional information should it be presented to the Department.

Shellfish Habitat 7:7-9.2

Shellfish habitat is defined at N.J.A.C. 7:7-9.2(a) as "estuarine bay or river bottom which currently supports or has a history of production for hard clams (Mercenaria mercenaria), soft clams (Mya arenaria), eastern oysters (Crassostrea virginica), bay scallops (Argopecten irradians), or blue mussels (Mytilus edulis)". A review of the applicable shellfish habitat mapping referenced at N.J.A.C. 7:7-9.2(a)2 indicates that the following State project work locations are mapped for shellfish habitat:

- The portion of the electric transmission cables traversing Barnegat Bay along the Oyster Creek cable route will impact mapped areas within waters that are classified as approved and conditionally approved for the harvesting of shellfish. Specifically, the work areas are mapped for soft clam production areas, hard clam moderate value commercial, hard clam recreational value, and possibly oyster seed production areas on the U.S. Department of Interior's 1963 "Distribution of Shellfish Resources in Relation to the New Jersey Intracoastal Waterway" map, for moderate and occurrence of hard clams on the Division of Fish, Game and Wildlife, Bureau of Shellfisheries 1986 "Inventory of New Jersey's Estuarine Shellfish Resources" map, and for low and moderate hard clams on the Department's 2012 "Hard Clam Distribution for Central Barnegat Bay" map.
- The portion of the electric transmission cable traversing Crook Horn Creek along the BL England cable route will cross below mapped areas within waters that are classified as conditionally approved for the harvesting of shellfish. Specifically, the work area is mapped for hard clam – moderate commercial value on the U.S. Department of Interior's 1963 "Distribution of Shellfish Resources in Relation to the New Jersey Intracoastal Waterway" map.

As the State project impacts areas of regulatorily defined shellfish habitat per N.J.A.C. 7:7-9.2(a) in the locations referenced above, compliance with the requirements of this rule applies to the portions of the State project within Barnegat Bay and Crook Horn Creek.

The current rule does not provide standards related to offshore wind development and associated electric transmission cable installations. However, per N.J.A.C. 7:7-9.2(c), development which would result in the destruction, condemnation, or contamination of shellfish habitat is prohibited. Upon completion of the installation of the electric transmission cables, the impacted areas are anticipated to revert back to conditions suitable for recolonization of shellfish. While temporary shellfish harvesting restrictions are likely during construction activities, the cable installations will not result in any condemnation of shellfish habitat. Additionally, measures are required per the conditions of the State permit to reduce turbidity and sedimentation to prevent contamination of mapped areas adjacent to the work locations. Therefore, the permanent destruction, condemnation, or contamination of shellfish habitat will not occur from the installation of the electric transmission cables in Barnegat Bay.

Information provided in the State project permit application indicates that the selected electric transmission cable route and installation methodologies within Barnegat Bay have been designed to avoid and minimize impacts to areas mapped as shellfish habitat to the maximum extent practicable while maintaining the ability to successfully install the cables. Additionally, the electrical transmission cable route will avoid impacting aquaculture lease areas. The installation of the electric transmission cables will be accomplished mainly through the use of a tracked self-propelled or towed jetting tool (jet sled or jet plow) with the exception of the potential for open-cut/trenching off of IBSP and the Holtec Landfall. The jetting tool will fluidize sediment along the intended cable route and allow the cable to sink into the fluidized trench under its own weight. Trenchless cable installation methods (HDD), which typically provide less disturbances and impacts to environmentally sensitive resources, were evaluated to cross Barnegat Bay. Ultimately, as discussed in detail in the provided January 2023 Alternatives Analysis in Appendix A of the submitted application, the use of HDD to install the cables across Barnegat Bay would result in greater impacts to environmentally sensitive aquatic resources due to necessary staging to accommodate numerous HDD installations as the length limit is too great for one HDD installation.

The jetting method of installation will temporarily disturb the sediment, but will not result in any permanent sediment removal from the created cable trench. Once the temporary disturbance of sediment is completed, per the Applicant, the area is anticipated to recolonize and to provide suitable habitat for shellfish in the future. However, mitigation is being required due to the impacts to mapped shellfish habitat from the installation of the electric transmission cables.

In order to mitigate for the impacts to shellfish habitat from the installation of the electric transmission cables within Barnegat Bay, the Applicant will be required to make a monetary contribution to the Department's dedicated account for shellfish habitat mitigation. The contributory amount is based upon the area of shellfish habitat impacted, the documented shellfish density, and the commercial value of the shellfish resource. Information provided by the Applicant indicates that the installation of the electric transmission cables will impact a maximum of 29.077 acres (1,266,594.12 square feet) of shellfish habitat. Utilizing this square footage and a shellfish density of 0.75, the monetary contribution is calculated utilizing the formula below:

C = Area * Density * AV * PVF
Where: C = Contribution
Area = Area, in square feet, of shellfish habitat impacted
Density = Applicable density of shellfish, in animals/square foot
AV = Annual value of the shellfish resource, which is set at $0.25 per animal
PVF = Present Value Factor, which is set at 31.6

	High	Moderate
Hard Clam Density =	.75	.35
Soft Clam Density =	.75 (all cases)	

The highest density of 0.75 was utilized in the below calculation since the project will impact areas mapped for high value hard clam and soft clam habitat. Based on this formula, the required monetary contribution is: 1,266,594.12 square feet x 0.75 x 0.25 x 31.6 = $7,504,570.16. This contribution is based upon the impact acreage provided by the Applicant utilizing worst case scenario impacts. The Division reserves the right to modify the contribution amount based on information provided by the Applicant demonstrating an actual reduction of the specified 29.077 acres of impact to shellfish habitat and the Division concurs the impacts have been reduced.

This monetary contribution will need to be made to the Department's account for Shellfish Habitat Mitigation prior to any construction of the work within Barnegat Bay. This will be made a condition of the permit.

Comments on the proposal impacting mapped shellfish habitat were requested from the Department's Marine Resource Administration ("MRA"). Initial comments, via memo dated September 9, 2022, from the MRA were received by the Division via email on September 21, 2022. A request was made to the Applicant via email from the Division on February 7, 2023 to address the initial comments received from the MRA. The Applicant provided a response to the initial MRA comments via email to the Division on March 3, 2023. Regarding shellfish habitat, the provided responses from the Applicant confirm that impacts were quantified based upon worst case scenario disturbances. Additionally, the provided responses indicate that the impacted areas are intended to provide suitable shellfish habitat upon construction completion. These responses were provided to the MRA for consideration in their final review comments which are discussed below.

Per the recommendation of the MRA as outlined in their final review comments, dated April 4, 2023 and provided to the Division via email on April 6, 2023, conditions will be added to the permit in order to minimize impacts to shellfish habitat. These conditions include the use of best management practices (BMPs), recommended placement of excavation, and methods to minimize scour. The MRA's final review comments also recommend returning impacted shellfish habitat areas to pre-construction condition, presumably to allow recolonization of these areas.

At the recommendation of the MRA, comments on the project were requested from the Department's Bureau of Marine Water Monitoring ("BMWM") due to the proposed installation of cables within water areas that are approved for shellfish harvesting. Comments received from the BMWM via email on September 6, 2022 indicates that the project will only have a minimal impact on shellfish waters. However, to err on the side of public health, the BMWM will likely impose a temporary closure in effect for the duration of the work in Barnegat Bay and Peck Bay/Crook Horn Creek. Per BMWM's request, the permit will include a condition requiring notification to their office 30 days in advance of the start of work.

Regarding the installation of the electric transmission cable beneath Crook Horn Creek, this cable will be installed utilizing HDD ranging from 5 feet to 25 feet beneath the stream bed to prevent any surficial construction activities in the waterway. The trenchless technology being utilized at this location for the installation of the electric transmission cable beneath the stream bed will prevent any impacts or destruction of existing shellfish habitat. Therefore, no mitigation is required for this crossing.

With implementation of the appropriate permit conditions to provide monetary compensation for the impacts to mapped shellfish habitat during installation of the electric transmission cables as well as the use of BMPs to minimize impacts to shellfish habitat, the State project meets the requirements of this rule.

Surf Clam Areas 7:7-9.3

As per N.J.A.C. 7:7-9.3(a), surf clam areas are coastal waters which can be demonstrated to support significantly commercially harvestable quantities of surf clams (Spisula solidissima), or areas important for recruitment of surf clam stocks.

As confirmed by the Department's MRA in their final review comments, dated April 4, 2023 and provided to the Division via email on April 6, 2023, the portion of the project within State waters in the Atlantic Ocean does not currently support significantly harvestable quantities of surf clams. Results of the most recent *Inventory of New Jersey's Surf Clam (Spisula solidissima) Resource, 2015 -2021*, confirm the continued rapid downward trend of the estimated standing stocks of surf clams in NJ territorial waters. The stock has continued to shift to deeper, cooler waters outside of the State's 3 nm jurisdictional limit because of the effect of rising water temperatures on surf clam populations. Based on this information, the Division concludes that the proposed work within State waters in the Atlantic Ocean will not result in the destruction, condemnation, or contamination of any surf clam areas as defined in this rule.

Based on the above, the State project meets the requirements of this rule.

Prime Fishing Areas 7:7-9.4

As per N.J.A.C. 7:7-9.4(a), prime fishing areas include tidal water areas and water's edge areas which have a demonstrable history of supporting a significant local intensity of recreational or commercial fishing activity. These can include, but is not limited to, coastal jetties, groins, public fishing piers, artificial reefs, rock outcroppings, and sand ridges or lumps. Prime fishing areas are also identified on New Jersey's applicable mapping as defined in this section.

A review of applicable GIS mapping indicates that a portion of the electric transmission cable within the Atlantic Ocean outshore of IBSP in State waters runs through the Cedar Creek prime fishing area. This was confirmed in the initial comments received via email from the MRA on September 9, 2022 and in their final comments, dated April 4, 2023 and provided to the Division via email on April 6, 2023. As the project proposes work within a prime fishing area, the requirements of this rule apply to the project.

The work proposed in the Cedar Creek prime fishing area, which is limited to the installation of an electric transmission cable, is not a prohibited activity per the rule at N.J.A.C. 7:7-9.4(b)2. The installation of the export cable will not permanently impact any of the permissible uses of prime fishing areas which include recreational and commercial finfishing and shellfishing, scuba diving, and other water related activities per N.J.A.C. 7:7-9.4(b)1. Additionally, as detailed in the submitted application, the use of jetting installation methodologies in this area will allow the area to infill and not result in any long-term impacts to existing bathymetry. Public outreach and notices to mariners will also occur prior to marine construction.

Based on the information presented in the application and the comments received on the project from the MRA, it can be concluded that the activities are not anticipated to significantly alter bathymetry during construction of the State project and will provide public notice prior to marine construction will result in no adverse impacts to the Cedar Creek prime fishing area.

Therefore, the State project meets the requirements of this rule.

Finfish Migratory Pathways 7:7-9.5

Finfish migratory pathways are defined at N.J.A.C. 7:7-9.5(a) as waterways (rivers, streams, creeks, bays and inlets) which can be determined to serve as passageways for diadromous fish to or from seasonal spawning areas, including juvenile anadromous fish.

Final comments, dated April 4, 2023 and received by the Division via email on April 6, 2023, from the Department's MRA indicated that the proposed electric transmission cable installations within New Jersey state waters will impact waterways which serve as passageways for diadromous fish to or from seasonal spawning areas. Migration by Atlantic sturgeon is prevalent in the Atlantic Ocean and river herring in Barnegat Bay also migrate along or near the Oyster Creek cable route. Further, Atlantic sturgeon in the Atlantic Ocean also migrate along the BL England cable route. Therefore, this rule applies to the project.

According to N.J.A.C. 7:7-9.5(b), development which creates a physical barrier to the movement of fish along finfish migratory pathways is prohibited. The construction of the State project will not result in any permanent development or structures which would create a physical barrier to the movement of the aforementioned finfish in or through their migratory pathways.

According to N.J.A.C. 7:7-9.5(c), development which lowers water quality to such an extent as to interfere with the movement of fish along finfish migratory pathways or to violate State and Delaware River Basin Commission water quality standards is prohibited. Furthermore, according to 9.5(c)1, mitigation measures are required for any development which would result in: lowering dissolved oxygen levels, releasing toxic chemicals, raising ambient water temperature, impinging or suffocating fish, entrainment of fish eggs, larvae or juveniles, causing siltation, or raising turbidity levels during migration

periods. Numerous installation methods will be utilized to install the electric transmission cables. These methods include HDD, jetting, and open cutting/trenching. It is anticipated that during the installation of the electric transmission cables, an increase in sediment disturbance and turbidity is likely to occur. To mitigate for the potential increase in turbidity during migration periods, the Department will impose a timing prohibition on installation of the electric transmission cables in State waters between March 1st and June 30th of each calendar year. The timing restriction will be added as a condition of the permit. With implementation of this timing restriction measure coupled with stringent BMPs to reduce turbidity, compliance with 9.5(c)1 is met.

9.5(d) applies to the installation of migration access structures, such as fish ladders. As the State project does not propose the installation of any migration access structures, 9.5(d) is not applicable to the project.

As discussed in detail above, with the conditions imposed, the State project meets the requirements of this rule.

Submerged Vegetation Habitat 7:7-9.6

As per N.J.A.C. 7:7-9.6(a), submerged vegetation habitat consists of water areas supporting or documented as previously supporting rooted, submerged vascular plants such as widgeon grass (Ruppia maritima), sago pondweed (Potamogeton pectinatus), horned pondweed (Zannichellia palustris), and eelgrass (Zostera marina). A review of the applicable submerged aquatic vegetation (SAV) habitat mapping referenced at N.J.A.C. 7:7-9.6(a) indicates that the following work locations are mapped for shellfish habitat:

- In Barnegat Bay, in the area of the proposed cable landing on Block 100, Lot 1.06 in Lacey Township, Ocean County. This area is mapped for eelgrass on the Forked River map from the "New Jersey Submersed Aquatic Vegetation Distribution – 1979" mapping.
- In Barnegat Bay, in the area of the proposed cable offshore of IBSP. This area is mapped for eelgrass on the 1986 "Eelgrass Inventory" maps prepared by the Division of Fish and Wildlife, Bureau of Shellfisheries.
- In Barnegat Bay, in the area of the proposed cable offshore of Island Beach State Park. This area is mapped for SAV on the Department's Upper Barnegat Bay 2012 map.

The proposed BL England cable route beneath Crook Horn Creek is not mapped on any applicable mapping for SAV habitat. Therefore, the requirements of this rule do not apply to the BL England cable route. However, the requirements of this rule are applicable to the Oyster Creek cable route portion of the project in the areas referenced above.

Information provided by the Applicant via email on April 13, 2023 confirms that the installation of the electric transmission cables within Barnegat Bay will result in impacts to 2.971 acres of mapped SAV habitat. This acreage of impact is based on the worst case scenario of open-cut/trenching cable installation methods at the Holtec Landfall and disturbed prior channel locations.

In accordance with N.J.A.C. 7:7-9.6(b)1 of this rule, trenching for the installation of submarine cables in the public interest is an allowable activity provided there is no practicable or feasible alternative, the impact area is minimized, and the disturbed area is restored to its pre-construction conditions. As further described in Project Description and History, above, the installation of the electric transmission cables associated with the Applicant's offshore wind farm is in the public interest as the project will aid in advancing the use of renewable energy, reducing greenhouse gas emissions, combating climate change, and improving resiliency within the State of New Jersey.

As indicated in the submitted application package, trenchless cable installation methodologies (HDD) were the primary consideration for cable installation to minimize environmental impacts, such as impacts to SAV habitat and existing SAV beds. As discussed in detail above in the Shellfish Habitat 7:7-9.2 section of this report, trenchless cable installation methods (HDD), which typically provide less

disturbances and impacts to environmentally sensitive resources, were evaluated to cross Barnegat Bay. Ultimately, as discussed in detail in the provided Alternatives Analysis, dated January 2023, and found in Appendix A of the submitted application, the use of HDD to install the cables across Barnegat Bay would result in greater impacts to environmentally sensitive aquatic resources due to necessary staging to accommodate numerous HDD installations as the length limit is too great for one HDD installation. Additionally, the use of the previously disturbed channel off of IBSP within an area of deeper water will minimize impacts to SAV beds that do not typically colonize atat these water depths. Furthermore, the use of jetting or open-cut/trenching cable installation methodology within the prior disturbed channel will allow for reduced cable separation between the two (2) electric transmission cables along the Oyster Creek route (20 meters vs. 50 meters for HDD), resulting in a majority of the workspace to be confined to the disturbed channel as opposed to the dense SAV beds surrounding the channel.

The initial State permit application proposed to utilize an HDD method of cable installation as the primary installation methodology for the Holtec Landfall. However, information provided by the Applicant, dated March 14, 2023, confirms that there is a likely possibility of an inadvertent return of drilling fluid if HDD cable installation methodology is utilized at this location. An inadvertent return of drilling fluid would result in significant impacts to water quality and protected resources within Barnegat Bay. Therefore, the installation of the electric transmission cables in this location will be accomplished through either jetting (primary installation method) or open-cut/trenching (secondary installation method), as jetting installation methods will result in less impacts to SAV habitat as opposed to open-cut/trenching.

As the installation of the electric transmission cables may result in temporary and/or permanent disturbances to existing SAV beds and/or suitable habitat, mitigation for the impacts is being required in accordance with N.J.A.C. 7:7-17.10. The mitigation requirements for SAV specified at N.J.A.C. 7:7-17.10 require the restoration of permanently impacted SAV habitat. In addition, temporary impacts to SAV habitat are required to be restored to pre-construction condition and contours. This may also include monitoring and replanting of SAV in the disturbed areas if these areas have not recolonized within three years. The Applicant has begun coordination on an SAV Mitigation Plan with the Department and BOEM. However, this plan is still being formulated and finalized. However, in accordance with N.J.A.C. 7:7-17.2(b), the SAV Mitigation Plan has not been considered in determining whether to approve the State project.

The above referenced quantified impact of 2.971 acres to SAV habitat is based upon available mapping and worst case scenario impacts. However, in order to determine the exact impacts to suitable SAV habitat and existing SAV beds, the Applicant is proposing to conduct pre-construction and post-construction surveys to more accurately quantify impacts to SAV habitat and to inform the Department on required mitigation. Therefore, in consultation with the MRA, a condition will be included in the permit requiring the Applicant to perform a pre-construction survey no more than six months prior to construction. The pre-construction survey will be utilized to accurately inform the Department of the State project's impacts to SAV habitat and to formulate a mitigation plan for both temporary and permanent impacts as required per N.J.A.C. 7:7-17.10.

With implementation of the condition requiring the Applicant to provide the required pre-construction survey and implement any required mitigation as a result of the defined impacts to SAV habitat, the State project meets the requirements of this rule.

Navigation Channels 7:7-9.7

As per N.J.A.C. 7:7-9.7(a), navigation channels are tidal water areas including the Atlantic Ocean, inlets, bays, rivers, and tidal guts with sufficient depth to provide safe navigation. Navigation channels are often marked or shown on NOAA/National Ocean Service Charts.

The installation of the proposed electric transmission cables will cross beneath the Intracoastal Waterway (ICW) in Barnegat Bay and within New Jersey State channels. Therefore, the requirements of this rule apply to the project.

As required per N.J.A.C. 7:7-9.7(b)1, 2 & 3, the proposed electric transmission cables will not extend into any navigation channels as the cables will be installed below the bottom of the channels. The installation of the electric transmission cables below the navigation channels will not cause a loss of navigability, terrestrial soil and shoreline erosion, or siltation of any navigation channels.

As mentioned above, the Applicant may be performing the maintenance dredging of the Oyster Creek Federal Channel on behalf of the ACOE in order for the Applicant's construction vessels to access the project locations in the bay. The proposed maintenance dredging of the Oyster Creek Federal Channel is an acceptable activity in accordance with this rule at N.J.A.C. 7:7-9.7(b)5.

Initial comments received via email on November 3, 2022 from the New Jersey Department of Transportation's (NJDOT) Office of Maritime Resources (OMR) requested clarification on the required depth of the electric transmission cables below the ICW per the ACOE and any concerns the ACOE may have with the proposed work in the ICW. Information provided by the Applicant via email on January 6, 2023 confirms that this work below the ICW was included in their request made to ACOE for Section 408 approval. The Applicant will continue to coordinate with the ACOE on the work proposed below the ICW and will further coordinate with the US Coast Guard ("USCG"). Additional feedback from the OMR via email on January 9, 2023 requested a condition be added into any issued permit that requires the Applicant to maintain consistent awareness of the depth and location of their electric transmission cables to prevent any future navigational hazards. This condition will be included in the State permit.

With implementation of the appropriate conditions discussed above, the State project meets the requirements of this rule.

Inlets 7:7-9.9

As per N.J.A.C. 7:7-9.9(a), inlets are natural channels through barrier islands allowing movement of fresh and salt water between the ocean and back bay system.

This rule at N.J.A.C. 7:7-9.9(b) discourages the construction of submerged infrastructure within inlets. The proposed cable routes will not be constructed within any inlets as defined under this rule.

Therefore, the requirements of this rule are not applicable to the State project.

Submerged Infrastructure Routes 7:7-9.12

As per N.J.A.C. 7:7-9.12(a), a submerged infrastructure route is the corridor in which a pipe or cable runs on or below a submerged land surface.

The project includes the installation of electric transmission cables below the submerged land surface of Barnegat Bay, the Atlantic Ocean, Oyster Creek, and Crook Horn Creek. These cable corridors will become a submerged infrastructure route. As discussed above, the cables are intended to be installed to a depth a minimum of 4 feet or 1.2 meters to avoid and minimize possible future impacts to this installed infrastructure. No additional work is proposed within this corridor which would increase the likelihood of damage or breakage to the proposed cables in accordance with N.J.A.C. 7:7-9.12(b).

Based on the above discussion, the State project meets the requirements of this rule.

Shipwreck and Artificial Reef Habitats 7:7-9.13

As per N.J.A.C. 7:7-9.13(a), this special area includes all permanently submerged or abandoned remains of vessels and other structures, including but not limited to, artificial reefs, anchors, quarry rocks or lost cargo, which serve as a special marine habitat or are fragile historic and cultural resources.

Based on a review of applicable Department GIS mapping, the portion of the project within State waters will not impact any existing artificial reef habitats. This was also confirmed in the MRA's final review

comments dated April 4, 2023 and provided to the Division via email on April 6, 2023. In addition, the information obtained from the State's Historic Preservation Office ("HPO") in their March 15, 2023 comments and discussed later in this report did not identify any known shipwrecks within the project footprint. Furthermore, the Applicant indicates that a geophysical survey of the potential project areas within the State waters of the Atlantic Ocean was completed and the project was sited to avoid any impacts to any shipwrecks. Therefore, the installation of the electric transmission cables within State waters will not impact any artificial reef habitats or known shipwrecks.

Based on the above discussion, compliance with the requirements of this rule is not applicable to the State project.

Intertidal and Subtidal Shallows 7:7-9.15

Intertidal and subtidal shallows are defined at N.J.A.C. 7:7-9.15(a) as all permanently or temporarily submerged areas from the spring high water line to a depth of four feet below mean low water.
Temporary disturbance to intertidal and subtidal shallows is anticipated during installation of the electric transmission cables within State waters. However, this temporary disturbance will not result in the placement of any fill or structures which would destroy any intertidal and subtidal shallows.

In accordance with this rule at 9.15(e), the installation of submerged infrastructure is an acceptable activity provided directional drilling is utilized unless it is not feasible, alternative routes to avoid intertidal and subtidal shallows are not feasible, the infrastructure is located deeply enough to avoid exposure or hazard, and all trenches are backfilled to the preconstruction depth with naturally occurring sediment.

As detailed in the application, the use of HDD for the electrical transmission cable will be utilized where feasible. Along the BL England cable route, HDD will be utilized to install the electric transmission cables below intertidal and subtidal at the Ocean City beach landfall and in Crook Horn Creek. This method of installation will avoid impacts to intertidal and subtidal shallows along this cable route.

Along the Oyster Creek cable route, trenchless cablet installation methods (i.e. HDD) are not feasible at the disturbed prior channel location off the western coast of IBSP or the Holtec Landing as discussed in this report. Open cut installation methods or jetting technology will be utilized at these locations. Any trenches from open-cut/trenching installation methods will be backfilled to preconstruction contours with clean sand. Additionally, the electric transmission cables will be buried at a minimum target depth of 4 feet or 1.2 meters to prevent the cables from becoming exposed or posing a hazard risk. Furthermore, there are no alternatives available to avoid cable installations within intertidal and/or subtidal shallows as the cables need to be brought onshore from the Applicant's offshore wind farm in order to provide renewable wind energy to the residents of the State.

As discussed above, the State project meets the requirements of this rule.

Dunes 7:7-9.16

A dune is defined at N.J.A.C. 7:7-9.16 as a wind or wave deposited or man-made formation of sand (mound or ridge), that lies generally parallel to, and landward of, the beach and the foot of the most inland dune slope. This includes the foredune, secondary or tertiary dune ridges and mounds, and all landward dune ridges and mounds, as well as man-made dunes, where they exist.

The proposed electric transmission cables along the Oyster Creek cable route are proposed to be installed beneath the existing oceanfront dunes on IBSP. In addition, the proposed electric transmission cables along the BL England cable route are proposed to be installed beneath the existing oceanfront dunes in Ocean City, Cape May County. As some the work is proposed beneath dunes, the requirements of this rule apply to those portions of the State project.

Acceptable activities on dunes referenced at N.J.A.C. 7:7-9.16(b) include linear development which meets the Rule on Location of Linear Development at N.J.A.C. 7:7-14.1. The portion of the project proposed beneath the dunes includes the installation of the electric transmission cables and meets the definition of a "linear development" as defined at N.J.A.C. 7:7-1.5. Therefore, this work is an acceptable activity on a dune. Compliance with the Rule on Location of Linear Development at N.J.A.C. 7:7-14.1 is discussed later in this report.

In order to avoid impacts to the existing dunes, the electric transmission cables installed beneath the dunes at the above two specified locations will be installed utilizing HDD trenchless cable installation methods. This method of cable installation in these locations has been deemed feasible per engineering analysis conducted by the Applicant. The length of the cable installation beneath the dunes and the low potential for an inadvertent return of drilling fluids during cable installation makes the use of HDD feasible at these locations. Installing the cables beneath the dunes will eliminate any surface disturbance to this resource. Any necessary maintenance over the lifetime of the cables located beneath the dunes will be accessed from the TBJs and/or manholes being constructed within existing disturbed areas outside of the limits of any existing dunes. Therefore, the installation of the cables will not result in any surface disturbance to the existing dune systems during installation or during future maintenance events.

It should be noted that due to the installation of the electric transmission cables beneath the ACOE's federal beach and dune project on the Ocean City beach and dune system, a Section 408 approval is required from the ACOE. The Section 408 approval will ensure that the installation of the cables will not be injurious to the public interest and will not impair the usefulness of the Federal beach and dune project in Ocean City. The condition requiring the Applicant to obtain all necessary Federal, State and local approvals will be further clarified to indicating that Section 408 approval is required from the ACOE.

Comments on the State project were requested and received from the Watershed & Land Management Program's ("Program") Office of Coastal Engineering ("OCE") as discussed in detail in the Coastal Engineering 7:7- 15.11 section of this report. Conditions will be added to the permit to ensure that the work taking place in the area of the existing dunes located on IBSP and in Ocean City will not impact the dunes.

With implementation of the appropriate permit conditions, the State project meets the requirements of this rule.

Coastal High Hazard Areas 7:7-9.18

As per N.J.A.C. 7:7-9.18, coastal high hazard areas are flood prone areas subject to high velocity waters (V zones) as delineated on FEMA flood mapping, and areas within 25 feet of oceanfront shore protection structures, which are subject to wave run-up and overtopping. The coastal high hazard area extends from offshore to the inland limit of a primary frontal dune along an open coast subject to high velocity wave action from storms or seismic sources. The inland limit of the V zone is defined as the V zone boundary line as designated on FEMA flood mapping or the inland limit of the primary frontal dune, whichever is most landward.

A review of the applicable FEMA flood mapping indicates that the following work will occur within a coastal high hazard area:

- Along the BL England cable route, the portion of the electric transmission cable beneath the Ocean City public beach will be located in a V zone per the Effective and Preliminary FEMA mapping.
- Along the Oyster Creek cable route:
    - Portions of the electric transmission cables on the beach and dunes and in a parking area on Island Beach State Park ("IBSP") will be located in a V zone per the Effective and Preliminary FEMA mapping.

- Portions of the electric transmission cables within Barnegat Bay at the landfall location of Block 100, Lot 1.06 in Lacey Township, Ocean County ("Holtec landfall") are located in a V zone per Preliminary FEMA mapping.

The requirements of this rule apply to the above work located in coastal high hazard areas.

As discussed in the beginning of this report, the project meets the definition of an industrial development. Since the project is not a residential or commercial development, the requirements at N.J.A.C. 7:7-9.18(b), (c), (d), and (f) do not apply to the project.

N.J.A.C. 7:7-9.18(e) indicates that water dependent development is conditionally acceptable within coastal high hazard areas provided the development complies with the Federal flood reduction standards at 44 CFR Part 60 and the Uniform Construction Code ("UCC"). "Water dependent development" is defined at N.J.A.C. 7:7-1.5 as "development that cannot physically function without direct access to the body of water [within] which it is proposed". As discussed in this report, the State project is associated with the construction of an offshore wind farm within the Applicant's Ocean Wind 1 lease area off the coast of New Jersey. An offshore wind farm meets the definition of a water dependent use as defined above. An offshore wind farm meets the definition of a water dependent use as defined above. Without the onshore components of the project to bring wind energy from the wind farm sited within Federal waters onshore in New Jersey, the offshore wind farm would not serve its intended function. There are no alternatives that would avoid siting of the electric transmission cables within coastal high hazard areas. It's also important to note that the installation of the below grade structures within coastal high hazard areas would not preclude future potential uses of these areas for additional water dependent uses.

Regarding compliance with the Federal flood reduction standards at 44 CFR Part 60 and the UCC, as reviewed by the Program's reviewing engineer and discussed in the April 25, 2023approved engineering report, the State project is in compliance with these standards. In addition, the State project is in compliance with the applicable requirements of the Flood Hazard Area Control Act Rules with implementation of the conditions referenced in the engineering report. These conditions will be added to the State permit.

As discussed above and with implementation of the applicable permit conditions, the State project meets the requirements of this rule.

Barrier Island Corridor 7:7-9.20

Barrier island corridors as defined at N.J.A.C. 7:7-9.20 are the interior portions of the oceanfront barrier islands, spits and peninsulas. Portions of the proposed project will be located on New Jersey's barrier islands. Specifically, the cable landfalls on Island Beach State Park in Berkeley
Township, Ocean County and on the public beach in Ocean City, Cape May County. Therefore, the requirements of this rule apply to these portions of the project.

New or expanded development within the oceanfront barrier island corridor is conditionally acceptable provided the development complies with the requirements for impervious cover and vegetative cover. As discussed in detail below, the requirements of Subchapter 13 at N.J.A.C. 7:7-13 do not apply to the project. Additionally, the electric transmission cables on the barrier island portions of the project will be installed within unvegetated, disturbed areas to the maximum extent practicable utilizing feasible trenchless installation methods at selected locations to avoid surface disturbances.

Based on the above discussion, the State project meets the requirements of this rule.

Beaches 7:7-9.22

Beaches are defined at N.J.A.C. 7:7-9.22(a) as "gently sloping areas of sand or other unconsolidated material, found on all tidal shorelines, including ocean, bay, and river shorelines, that extend landward

from the mean high water line to either a man-made feature generally parallel to the water or the waterward limit of dunes.

The project involves the installation of electric transmission cables beneath the beach utilizing HDD installation methods in Ocean City and in IBSP. Therefore, the requirements of this rule apply to these portions of the project.

Development on beaches is prohibited with the exception of development that has no prudent feasible alternative and that will not result in significant long-term impacts to the natural functioning of the beach and dune system. Limited acceptable activities on beaches are outlined at N.J.A.C. 7:7-9..22(b). Acceptable activities as described in this section include linear development which meets the Rule on Location of Linear Development at N.J.A.C. 7:7-14.1. The installation of electric transmission cables meets the definition of a "linear development", and therefore, is an acceptable activity in accordance with N.J.A.C. 7:7-9.22(b). Compliance with the Rule on Location of Linear Development at N.J.A.C. 7:7-14.1 is discussed later in this report.

While linear development is an acceptable activity on beaches per the rule at N.J.A.C. 7:7-9.22(b), measures are being implemented to avoid any surface impacts to the existing beach as well as any future impacts to any beach nourishment projects in Ocean City. The portion of the cable installation at the beach in IBSP will not impact any existing and/or proposed beach nourishment projects. The portion of the electric transmission cables traversing the beaches in Ocean City and IBSP will be installed via HDD beneath the existing beach at a sufficient depth to avoid impacting the beaches and their current natural function. The use of HDD cable installation in these locations has been deemed feasible based upon engineering analysis conducted by the Applicant. The length of the cable installation beneath the beaches and the low potential for an inadvertent return of drilling fluids during cable installation makes the use of HDD feasible at these locations. Installing the cables beneath the beaches will eliminate any surface disturbance to this resource. Any maintenance of the electric transmission cables located beneath the beach will be accessed from TBJs and/or manholes, which will be located outside of the limits of the beach and within previously disturbed areas. Based on the intended installation methods and future maintenance plans which will avoid any surface impacts to the beach, the electric transmission cables installed beneath the beaches in Ocean City and IBSP will not cause any significant adverse long-term impacts to the natural functioning of the beach and dune system.

Comments on the State project were requested and received from the Program's Office of Coastal Engineering ("OCE") as discussed in detail in the Coastal Engineering 7:7- 15.11 section of this report. Conditions will be added to the permit to ensure that the work taking place in the area of the existing dunes located on IBSP and in Ocean City will not impact the dunes.

As discussed in detail above, the Applicant will be required to obtain Section 408 approval from the ACOE prior to any work beneath the Federal beach and dune project in Ocean City.

With implementation of the appropriate permit conditions, the State project meets the requirements of this rule. for the work proposed beneath the existing beaches in Ocean City and IBSP.

Filled Water's Edge 7:7-9.23

Per N.J.A.C. 7:7-9.23(a), filled water's edge areas are existing filled water, wetland, or upland areas lying between wetlands or water areas, and either the upland limit of fill or the first paved public road or railroad landward of the adjacent water area, whichever is close to the water.

Portions of the electric transmission cables transitioning from offshore to onshore will likely impact areas that meet the definition of a filled water's edge. Therefore, compliance with the requirements of this rule is applicable for the work within filled water's edge areas.

Per N.J.A.C. 7:7-9.23(d), on filled water's edge sites with direct water access, the site shall be developed with a water-dependent use, an at-grade deck, or left undeveloped for future water dependent uses. As discussed above in the Coastal High Hazard Areas 7:7-9.18 section of this report, an offshore wind farm meets the definition of a water dependent use as defined at N.J.A.C. 7:7-1.5. The overall project is intended to aid in advancing the use of renewable energy, reducing greenhouse gas emissions, combating climate change, and improving resiliency within the State of New Jersey. Without the onshore components of the project to bring wind energy from the wind farm sited within Federal waters onshore in New Jersey, the offshore wind farm would not serve its intended function. There are no alternatives that would avoid siting of the electric transmission cables within filled water's edge areas. It is important to note that the installation of the below grade structures within filled water's edge areas would not preclude future potential uses of these areas for additional water dependent uses.

As discussed above, the State project meets the requirements of this rule.

Flood Hazard Areas 7:7-9.25

As per N.J.A.C. 7:7-9.25, flood hazard areas area areas subject to flooding from the flood hazard area design flood, as defined by the Department under the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13. These include areas mapped as such by the Department, areas defined or delineated as an A or V zone by FEMA, and any unmapped areas subject to flooding by the flood hazard area design flood.

A review of FEMA Preliminary and Effective FEMA mapping indicates that portions of the proposed electric transmission cables along both cable routes as well as the proposed two (2) onshore substations will be located within flood hazard areas. The requirements of this rule apply to the work within flood hazard areas with the exception of the areas discussed below.

The work below the mean high water line does not include the development of habitable buildings or the construction of railroads, bridges, and/or culverts. The work below the mean high water line is limited to the installation of electric transmission cables. Therefore, in accordance with N.J.A.C. 7:7-9.25(b), this rule does not apply to this portion of the project.

N.J.A.C. 7:7-9.25(d) and(e) discuss development in an undeveloped portions of a flood hazard area. Portions of the State project, including the electric transmission cable installations and portions of the proposed substations, will be located in flood hazard areas as discussed above. N.J.A.C. 7:7-9.25(d) allows development within 100 feet of a navigable waterbody of an undeveloped flood hazard area if the use is water dependent. As discussed in detail in the Coastal High Hazard Area 7:7-9.18 section of this report, the State project is associated with a water dependent development. N.J.A.C. 7:7-9.25(e) allows development further than 100 feet from a navigable waterbody of an undeveloped flood hazard area provided the development would not prevent future water dependent uses within 100 feet of a navigable waterbody. The installation of below grade electric transmission cables would not preclude the future use of an additional water dependent development along a navigable waterbody. Furthermore, the construction of the substations would be a significant distance from navigable waterbodies as to not inhibit additional, future water dependent development.

N.J.A.C. 7:7-9.25(f) requires development in flood hazard areas conform to the applicable design and construction standards of the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13, the Uniform Construction Code (UCC), and the Federal flood reduction standards As discussed above in the Coastal High Hazard Areas 7:7-9.18 section of this report, the Program's reviewing engineer determined that the State project is in compliance with these standards as described in the April 25, 2023 engineering report. In addition, the State project is in compliance with the applicable requirements of the Flood Hazard Area Control Act Rules with implementation of the conditions referenced in the engineering report. These conditions will be added to the permit.

N.J.A.C. 7:7-9.25(g) & (h) requires a development to comply with the impervious cover and vegetative cover requirements of Subchapter 13 along with the Endangered or threatened wildlife or plant species

habitats at N.J.A.C. 7:7-9.36. As discussed throughout this report, all applicable requirements of the Coastal Zone Management Rules, including N.J.A.C. 7:7-9.36, will be met by the State project. The requirements of Subchapter 13 do not apply to the electric transmission cables and substations as described in detail under the Subchapter 13 – Requirements For Impervious Cover and Vegetative Cover for General Land Areas and Certain Special Areas section of this report.

With implementation of the appropriate permit conditions referenced in the approved engineering report, the State project meets the requirements of this rule.

Riparian Zones 7:7-9.26

A riparian zone is defined at N.J.A.C. 7:7-9.26(a) as the land and vegetation within and adjacent to a regulated water. As discussed previously in this report, a Flood Hazard Area Verification (DLRP File# 0000-21-0008.2 LUP220004) was issued on March 22, 2023 for the properties where the two (2) onshore substations will be constructed. The issued FHA Verification established the following riparian zone widths at the following locations:

B.L. England Substation Property (Block 479, Lot 76 in Upper Township, Cape May)

The Tuckahoe River is a Category 1 waterway. In addition, the waterway of Flat Creek/South Fork Creek drains to the Tuckahoe River within the same HUC-14 watershed. Therefore, the Tuckahoe River and Flat Creek/South Fork Creek receive a 300 foot riparian zone.

The Great Egg Harbor River/Bay receives a 50 foot riparian zone at the project location.

While not verified per the issued FHA Verification, along the B.L. England cable route, the riparian zone width associated with Crook Horn Creek and associated tributaries is 50 feet. There is no riparian zone along the barrier island complex or along the Atlantic Ocean in Ocean City in accordance with N.J.A.C. 7:13-2.3(c)1i and ii.

Oyster Creek Substation Property (Block 1001, Lots 4.05 & Partial 4.02 & 4.06)

Oyster Creek receives a 50 foot riparian zone at the project location.

In accordance with the Flood Hazard Area Control Act Rules at N.J.A.C. 7:13-2.3(c)1i and ii, the installation of the electric transmission cables on the barrier island in Ocean City and in IBSP and along the Atlantic Ocean will not impact any riparian zones as there are no riparian zones along or within the Atlantic Ocean or New Jersey's barrier island complex.

While not verified per the issued FHA Verification, along the Oyster Creek cable route, additional areas of the electric transmission cables will occur within close proximity to Barnegat Bay, a Category 1 waterway, which receives a 300 foot riparian zone. All tributaries associated with Oyster Creek receive a 50 foot riparian zone. There is no riparian zone along the barrier island complex or along the Atlantic Ocean in IBSP in accordance with N.J.A.C. 7:13-2.3(c)1i and ii.

While the construction of the substation on the Oyster Creek property will not impact any riparian zone vegetation, the installation of the electric transmission cables along the Oyster Creek cable route will result in disturbance to riparian zone vegetation. The installation of the electric transmission cables and construction of the substation along the B.L. England cable route will not result in any impacts to riparian zone vegetation. Therefore, the discussion below pertains to only the riparian zone vegetation impacts along the Oyster Creek cable route.

As represented on the project plans, the construction of the electric transmission cables along the Oyster Creek cable route will result in impacts to **1.636 acres** of riparian zone vegetation. It is important to note and as clarified in the Applicant's April 19, 2023 email correspondence, the above referenced disturbance

to **1.636 acres** of riparian zone vegetation consisting of emergent tidal and upland meadow is for placement of matting for a period exceeding six (6) months for access to the work locations. "Temporary" as defined at N.J.A.C. 7:13-1.2 means a regulated activity that persists for no more than six (6) months. However, the definition gives discretion to the Department to consider disturbances longer than six (6) months to be temporary provided the disturbed area is restored to its previous or a better condition. In this instance, the Department has determined that this disturbance is temporary provided the Applicant adheres to the permit conditions requiring restoration of these areas in accordance with N.J.A.C. 7:13-11.2(z).

In accordance with N.J.A.C. 7:13-11.2(k), for a new utility line, 30 square feet of disturbance is permissible per linear foot of utility line. Per the information provided in the submitted application, the project proposes the placement of approximately 3,950 linear feet of underground utility line (i.e. the electric transmission cables) within riparian zones. Therefore, the allowable disturbance to riparian zone vegetation would be approximately 117,960 square feet or 2.71 acres. As mentioned above, the proposed disturbance to riparian zone vegetation will not exceed the allowable disturbance up to 2.71 acres. In accordance with N.J.A.C. 7:13-13.4(b)1 and(c)3, mitigation for the disturbance to riparian zone vegetation is not required. Some of the work involves construction of underground utility lines in a 300 foot riparian zone associated with Barnegat Bay, meeting the exception at N.J.A.C. 7:13-13.4(b)1. and the Further, the overall disturbance, including the work in the 50 foot riparian zone associated with Oyster Creek, will not exceed the limit set forth in Table 11.2, and thus no mitigation is required per N.J.A.C. 7:7-13.4(c)3.

The project meets all applicable requirements specified at N.J.A.C. 7:13-11.2(k). As discussed previously in this report, the proposed State project component of the overall offshore wind farm project is an essential component of the overall project, which will aid in advancing renewable energy, reducing greenhouse gas emissions, combating climate change, and improving resiliency within the State of New Jersey. The electric transmission lines have been sited to the maximum extent practicable within paved or cleared areas to minimize impacts to riparian zone vegetation. However, the areas of riparian zone vegetation impacted by the project do not exceed the allowable limits specified in Table 11.2. Staging, storing and stockpiling of materials will take place outside of any riparian zones.

As discussed above in detail above, the disturbance to 1.636 acres of riparian zone vegetation is intended to be temporary in nature. The appropriate conditions for temporary disturbance to riparian zone vegetation will be added to the permit.

Based on the above discussion and with implementation of the appropriate riparian zone conditions, the State project meets the requirements of this rule.

Wetlands 7:7-9.27

As per N.J.A.C. 7:7-9.27(a), wetlands or wetland means an areas that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation. The project as proposed will impact areas of mapped coastal wetlands depicted on the Department's promulgated mapping and wetlands regulated under the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A. Therefore, the requirements of this rule apply to the project.

Mapped Coastal Wetlands

As discussed in the submitted application and represented on the project plans, the construction of the State project will impacts areas of mapped coastal wetlands. Specifically, along the B.L. England cable route, the construction of the substation will result in permanent impacts to **0.007 acres** of mapped coastal wetlands. Along the Oyster Creek cable route, the installation of the electric transmission cables will result in permanent impacts to **5.630 acres** of mapped coastal wetlands. It is important to note that as

clarified in the April 19, 2023 email correspondence from the Applicant, **5.338 acres** of the specified 5.630 acres of permanent impacts is associated with the placement of matting over mapped coastal wetlands occuring for more than six months for construction acess to the project area for cable installations.

In accordance with N.J.A.C. 7:7-9.27(c), development in mapped coastal wetlands is acceptable provided the development is water dependent, has no prudent or feasible alternative to a non-wetland site, will result in the minimum feasible alteration or impairment of natural tidal circulation, and will result in a minimum feasible alteration or impairment of natural contour or the natural vegetation of the wetlands. As discussed in detail throughout this report, the overall project is the construction of an offshore wind farm, which is a water dependent use. Without the onshore components of the project to bring wind energy onshore in New Jersey, the offshore wind farm would not serve its intended function to aid in advancing renewable energy, reducing greenhouse gas emissions, combating climate change, and improving resiliency within the State of New Jersey. A detailed alternatives analysis, dated January 2023, and included in Appendix A of the application demonstrates that there are no other alternatives to siting for the State project that would provide less impacts to mapped coastal wetlands. To the maximum extent practicable, the installation of the electric transmission cables along the Oyster Creek cable route and substation construction on the B.L. England property will occur within existing paved roadways or historically disturbed areas to avoid impacting existing areas of mapped coastal wetlands.

In accordance with N.J.A.C. 7:7-9.27(i), the Applicant will be providing mitigation for the above specified impacts to mapped coastal wetlands. N.J.A.C. 7:7-17.1 defines temporary disturbance as a regulated activity that occurs on a site for no more than six months. However, the definition indicates that the Department can consider disturbances exceeding six months to be temporary provided the disturbances are restored to their original topography and all necessary measures are implemented to ensure that the original vegetative cover is restored to its previous or an improved condition. As mentioned above, the Applicant has indicated that the placement of matting over 5.338 acres of mapped coastal wetlands will likely be in place for a period exceeding six (6) months, but less than 12 months. Provided a restoration plan for these areas is prepared and the area is monitored for one year to confirm the area has reverted to pre-disturbance condition or the restoration plan is implemented, these areas of disturbance would meet the definition of temporary disturbance and could be mitigated as such. The conditions to provide a restoration plan and monitoring of the area to ensure that the areas temporarily disturbed revert to pre-disturbance condition is outlined in the Program's Mitigation Unit's April 26, 2023 memo. The appropriate mitigation conditions from the April 26, 2023 mitigation memo and will be included in the State permit.

The remaining acreage of 0.292 acres out of the 5.630 acres of permanent impacts will require mitigation in accordance with the hierachy established at N.J.A.C. 7:7-17.14. This acreage of permanent impacts to mapped coastal wetlands along the Oyster Creek cable route in addition to the specified 0.007 acres of permanent impacts to mapped coastal wetlands along the B.L. England cable route will result in a requirement to mitigate for 0.299 acres of permanent impacts to mapped coastal wetlands. The Applicant is proposing the purchase of credits from the Evergreen Great Bay Mitigation Bank. The conditions for the required mitigation are detailed in the Program's Mitigation Unit's April 26, 2023 memo. These conditions for mitigation will be added to the permit.

With implementation of the appropriate permit conditions including the requirements for restoration of temporary disturbance and mitigation for permanent disturbances, compliance with the requirements of this rule is met for the State project's disturbance to mapped coastal wetlands.

<u>Wetlands Regulated under the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-1.1 et seq.</u>
The installation of the electric transmission cables and construction of the two (2) substations will result in impacts to state open waters, freshwater wetlands, and unmapped coastal wetlands. In accordance with N.J.A.C. 7:7-9.27(b), development in wetlands defined under the Freshwater Wetlands Protection Act is prohibited unless the development is found to be acceptable under the Freshwater Wetlands Protection

Act Rules, N.J.A.C. 7:7A. Therefore, the Applicant has submitted an application for a Freshwater Wetlands Individual Permit for this work. The below discusses how the State project meets the requirements of the Freshwater Wetlands Protection Act Rules.

Letters of Interpretation (LOIs) were previously issued for the B.L. England Generating Station property and the Oyster Creek Nuclear Generating Station property. An LOI, which verfiied the extent of wetlands and transition areas, was issued for Block 479, Lot 76 in Upper Township, Cape May County, which is part of the B.L. England Generating Station property, under Division file# 0511-03-0011.4 FWW180001 on March 19, 2019 and continues to remain valid. Areas of wetlands and associated transition areas along the remainder of the B.L. England cable route were verified in coordination with the Division's wetlands specialist and Program's reviewing biologist during the review of this State permit application.

An LOI was issued for portions of the Oyster Creek Nuclear Generating Station property, specifically Block 1001, Lot 4.05 in Lacey Township, Ocean County, under Division file# 1512-17-0013.1 FWW170001 on August 15, 2017. While the LOI for the Oyster Creek property is no longer valid as it expired on August 14, 2022, coordination with the Division's wetlands specialist during the review of the subsequently withdrawn application for an LOI (Division file# 0000-21-0021.1 FWW210001) confirmed the location of wetlands and transition areas widths along the Oyster Creek cable route.

For the B.L. England cable route and substation construction, the impacts provided on the project plans indicate that **0.090 acres** of wetlands will be temporaily disturbed and **0.243 acres** of wetlands will be permanently disturbed. For the Oyster Creek cable route and substation construction, the impacts provided on the project plans indicated that **0.008 acres** of wetlands will be temporaily disturbed and **1.279 acres** of wetlands will be permanently disturbed. Temporary impacts totaling **0.07 acres** to state open waters will also occur. While 0.059 acres of the specified 1.279 acres of permanent impacts to wetlands along the Oyster Creek cable route are intended to be restored after project construction, this disturbance has been counted as permanent and must be mitigated for as such since this disturbance for matting placement for construction access will result in forested wetlands being cleared.

In accordance with N.J.A.C. 7:7A-10.1(a), the State project within these regulated areas must meet the requirements specified at N.J.A.C. 7:7A-10.2, which details the requirements for all individual permits. However, as discussed throughout this report, the State project is a component of the overall project which is a water dependent development. Therefore, compliance with the requirements of N.J.A.C. 7:7A-10.3 and 10.4 is not required.

There are no practicable alternatives that have been presented to the Division that would allow the Applicant to achieve the project's intent that will further minimize disturbance to state open waters, freshwater wetlands, unmapped coastal wetlands, transition areas, and other environmentally sensitive resources. A detailed alternatives analysis, dated January 2023, and included as Appendix A in the application details a no build alternative along with alternatives to the proposed siting of State project components. The submitted alternatives analysis discusses alternatives the Applicant considered for siting of the State project componets, including the cables in State waters, landfalls of cables, onshore cable routes, cable installation methods, and substation construtction. Phases of the screening process to determine the appropriate siting of the State project resulting in the least environmental impact included an initial screening with a high-level view of options for siting, a desktop analysis to determine environemntal constraints, and site specific surveys, studies and engineering analysis to confirm location of environmentally sensitive resources and construction feasiblity. A preferred project location was developed from this information. As indicated in the submitted alternatives analysis, no practicable alternative was identified that would have less impacts on the aquatic ecosystem, would not involve disturbance to wetlands, or would not have other significant environmental consequences.

An overview of the alternatives analysis is provided below.

- No build alternative: This alternative would eliminate the construction of the State project, which is necessary to transmit wind power from the Applicant's offshore wind farm located in Federal waters off the coast of New Jersey to the residents of the State. Without constructing the State project components, the benefits of clean renewable energy would not be provided to the State of New Jersey and its residents. These benefits include replacing fossil fuel energy with a clean energy source, improvements in air quality, increased employment being generated by the project, contribution to combating sea level rise, and meeting New Jersey's established clean energy goals. Continued use of fossil fuel energy would ultimately result in significant future environmental impacts to the State.
- Alternatives:
    - Points of interconnection within the PJM electric transmission system were identified and narrowed down to the following locations: Oyster Creek, B.L. England, and Higbee/Ontario. A detailed analysis of the initial 15 potential locations is available in the provided alternative analysis. Further surveys of these areas including habitat assessements and cultural resource surveys and assessments regarding the ability of these points to accept power generated by the Applicant's offshore wind farm were conducted. Ultimately, Oyster Creek and BL England were selected as locations for substation construction. The chosen locations of the substations on these properties are areas that are either previously disturbed or that will result in the least amount of impacts to regulated, environmentall sensitive resources.
    - Numerou landfall locations, onshore and offshore cable routes, and cable installation methods were evaluated in order to select locations to avoid impacting sensitive resources. Evaluated routes to the B.L. England and Oyster Creek substations that were determined infeasible or not practicable include the Great Egg Harbor route, Sea Isle City landfall and cable route, Strathmere landfall and cable route, north of IBSP landfall, single HDD under IBSP, routes to minimize impacts to SAV, a southern IBSP route, Barnegat Inlet route, Ship Bottom landfall and cable route, Oyster Creek channel route, and Forked River channel route.
    - Oyster Creek cable route
        - The chosen alternative of an initial landfall in IBSP will utilize existing paved parking area and a disturbed maintenance area to access the location of the cable entry to Barnegat Bay. Utilizing these maintained areas will minimize impacts to wetlands and associated transition areas.
        - Once crossing Barnegat Bay, cable landfall locations were evaluated at the chosen Holtec Landfall location, Bay Parkway, Nautilius Drive, Lighthouse Drive, and several other landfall options including use of an existing marina. The selected Holtec Landfall location will result in increased impacts to wetlands and transition areas as opposed to other options. However, environmental and practicable constraints regarding use of the alternative locations makes these options infeasible.
    - B.L. England cable route
        - The chosen alternative of an Ocean City cable landfall will utilize cable installation methods and paved rights-of-way to minimize impacts to wetlands, transition areas, and other environmentall sensitive resources. The majority of the cable route to the substation will continue to follow paved rights-of-way to minimize impacts. Additionally, HDD cable installation methodology will be utilized to cross Crook Horn Creek to avoid any surface impacts to State waters.

As discussed above, efforts have been made to minimize impacts to all envrionmentally sensitive resources, including impacts to state open waters, wetlands, and associated transition areas by siting the electric transmission cables and substations within areas of paved or maintained rights-of-way and within historically disturbed areas. Matting will be utilized over areas of existing wetlands and transition areas for construction access to prevent soil disturbance and disturbance to rooted vegetation. Ultimately, upon

review of the alternatives of the project, the selected cable routes and substation locations will provide the least amount of impacts to all regulated, environmentally sensitive resources while still maintaining project constructability. The Applicant is proposing to mitigate for the temporary and permanent disturbances to freshwater wetlands and unmapped coastal wetlands as described in detail below.

N.J.A.C. 7:7A-11.8 outlines requirements for mitigation temporary disturbances. The project will result in temporary disturbances to 0.168 acres of wetlands and state open waters. The appropriate conditions for wetlands mitigation for temporary disturbances to 0.168 acres of wetlands and state open waters has been provided by the Program's reviewing mitigation specialist and documented in their April 26, 2023 memo. The mitigation conditions for temporary impacts will be added to the permit.

N.J.A.C. 7:7A-11.9 outlines requirements for mitigation for projects with smaller disturbances. As the project will result in approximately 1.5 acres of permanent wetland impacts, the primary method of mitigation shall be performed through the purchase of in-kind credits from a mitigation bank with a service area that includes the site of the disturbance. The permittee is proposed to and will be required as conditions of the State permit to purchase credits from the Evergreen Great Bay Mitigation Bank to compensate for the permanent impacts to 1.47 acres of wetlands. The appropriate conditions for wetlands mitigation has been provided by the Program's reviweing mitigation specialist and documented in their April 26, 2023 memo. The mitigation conditions for permanent impacts will be added to the permit.

With implementation of the appropriate wetlands permit conditions and the conditions requiring mitigation, the State project meets the requirements of this rule., as well as with the requirements of the Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A-1.1 et seq., is met.

Wetlands Buffers 7:7-9.28

The proposed onshore work associated the transmission cable installation and construction of two (2) substations at the BL England property in Upper Township, Cape May County and at the Oyster Creek property in Lacey Township, Ocean County will result in impacts to mapped coastal, unmapped coastal, freshwater wetlands, and associated transition areas.

Wetlands Buffers Associated with Mapped Coastal Wetlands

Information provided on the project plans indicates that along the B.L. England cable route, the State project will result in **0.849 acres** of temporary impacts and **0.189 acres** of permanent impacts to wetlands buffers associated with mapped coastal wetlands. Along the Oyster Creek route, the State project will result in permanent impacts to **1.045 acres** of wetlands buffers associated with mapped coastal wetlands.

In accordance with N.J.A.C. 7:7-9.28(c), development in wetlands buffers around wetlands can occur when it has been determined that the intended project will not have a significant adverse impact and will only cause minimim feasible adverse impact, through the use of mitigation where appropriate on the wetlands, on the natural ecotone between the wetlands and surrounding upland. As discussed in detail above, the project has been sited to avoid areas of wetlands and wetlands buffers through use of disturbed areas, paved areas, and maintained rights-of-way for installation of the State project components of the overall project. As indicated in teh submitted State permit application, the appropriate BMPs and soil erosion control methods will be utilized by the Applicant during construction activities to prevent sedimentation of existing areas of wetlands and maintain natural surface drainage features to prevent impacts to existing wetlands hydrology.

With implementation of the appropriate conditions for work in wetlands buffers, compliance with this rule is met.

Wetlands Buffers Associated with Wetlands Regulated under the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-1.1 et seq.

For the B.L. England cable route and substation construction, the impacts provided on the project plans indicate that **1.32 acres** of transition area will be temporily disturbed and **0.189 acres** of transition area

will be permanently disturbed. For the Oyster Creek cable route and substation construction, the impacts provided on the project plans indicated that **0.66 acres** of transition area will be temporarily disturbed and **3.259 acres** of transition area will be permanently disturbed.

As discussed above, the areas of wetlands were verified under previously issued Letters of Interpretation or were verified during the review of this State permit application. In accordance with the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A-2.3(b)2, the placement of utility lines under a legally existing, currently serviceable paved roadway is not a regulated activity in a transition area. Therefore, any installation of the electric transmission cables within the paved roadway have not been quantified in the proposed transition area disturbance.

As discussed above, the proposed impacts to wetlands and associated transition areas are necessary to implement the overall project to deliver clean, renewable wind energy to New Jersey residents as well as aid in combating climate change and improving resiliency within the State of New Jersey. No other alternatives have been presented or identified that would avoid or further minimize impacts to these resources. The disturbances wetlands transition areas depicted on the project plans are in compliance with the applicable requirements of the Freshwater Wetlands Protection Act Rules at N.J.A.C. 7:7A.

With implementation of the appropriate conditions for work within wetlands buffers, the State project meets the requirements of this rule, as well as with the requirements of the Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A-1.1 et seq., is met.

Historic and Archeological Resources 7:7-9.34

As per N.J.A.C. 7:7-9.34(a), historic and archaeological resources include objects, structures, shipwrecks, buildings, neighborhoods, districts, and man-made or man-modified features of the landscape and seascape, including historic and prehistoric archaeological sites, which either are on or are eligible for inclusion on the New Jersey or National Register of Historic Places.

The HPO is reviewing the Ocean Wind 1 offshore wind project as a whole under Section 106 of the National Historic Preservation Act of 1966. Section 106 requires federal agencies to consider the effects of historic properties of projects they carry out, assist, fund, permit, license, or approve.

In consultation between the HPO and BOEM, it has been determined that the Ocean Wind 1 offshore wind project as a whole will adversely affect the following historic properties:

- Brigantine Hotel, Brigantine City, Atlantic County
- Absecon Lighthouse, Atlantic City, Atlantic County
- Atlantic City Boardwalk, Atlantic City, Atlantic County
- Atlantic City Convention Hall, Atlantic City, Atlantic County
- Ritz-Carlton Hotel, Atlantic City, Atlantic County
- Riviera Apartments, Atlantic City, Atlantic County
- Vassar Square Condominiums, Ventnor City, Atlantic County
- House at 114 South Harvard Avenue, Ventnor City, Atlantic County
- Lucy the Margate Elephant, Margate City, Atlantic County
- Great Egg Coast Guard Station, Longport Borough, Atlantic County
- Ocean City Boardwalk, Ocean City, Cape May County
- Ocean City Music Pier, Ocean City, Cape May County
- The Flanders Hotel, Ocean City, Cape May County
- Hereford Inlet Lighthouse, North Wildwood, Cape May County
- North Wildwood Lifesaving Station, North Wildwood, Cape May County
- U.S. Lifesaving Station #35, Stone Harbor Borough, Cape May County
- Little Egg Harbor U.S. Lifesaving Station #23 (U.S. Coast Guard Station #119), Little Egg Harbor Township, Ocean County

- Thirteen ancient, submerged landforms (Targets 21–26, 28–31, and 33–35)

The Ocean Wind 1 offshore wind project will introduce visual and add cumulative effects from visibility of the wind turbine generators (WTG) to 17 historic properties where ocean views are character-defining features that contribute to their National Register of Historic Places ("NRHP") eligibly. As a result, the Project is considered to have an adverse effect on these marine cultural resources, which are historic properties potentially eligible for listing in the NRHP. The thirteen ancient, submerged landforms (Targets 21-26, 28 – 31, and 33 – 35) reference above are located in federal waters within the offshore wind lease area. Therefore, the impacts to these resources will be discussed under separate cover in the report associated with the Federal Consistency Certification for the work within federal waters.

As indicated in the HPO's March 15, 2023 comments, Section 106 consultation is still ongoing. BOEM is currently in the process of evaluating ways to avoid, minimize, and mitigate project adverse effects in accordance with 36 CFR § 800.6. To resolve the adverse effects of the project, BOEM is proposing the development and execution of a Memorandum of Agreement in accordance with 36 CFR § 800.6(c) to memorialize the steps BOEM will take to avoid, minimize, and mitigate the project's adverse effects. Execution of the Memorandum of Agreement will demonstrate BOEM's compliance with Section 106 of the National Historic Preservation Act. As a result, the Applicant is consistent with New Jersey's Coastal Management Program through the completion of Section 106 consultation and the execution of the Memorandum of Agreement among the Section 106 consulting parties for the Ocean Wind 1 offshore wind project.

A condition will be added to the State permit indicating there shall be an executed Ocean Wind 1 offshore wind project Memorandum of Agreement among the Section 106 consulting parties, which includes the Applicant, to the avoidance, minimization, and mitigation of project adverse effects on historic properties, pursuant to Section 106 of the National Historic Preservation Act. This must be executed prior to any construction of the project.

With execution of the Memorandum of Agreement to avoid, minimize, and mitigate the adverse effects of the project on historic properties and resources, the State project meets the requirements of this rule.

Endangered or Threatened Wildlife or Plant Species Habitats 7:7-9.36

Endangered or threatened wildlife or plant species habitats, as defined at N.J.A.C. 7:7-9.36(a), are terrestrial and aquatic (marine, estuarine, or freshwater) areas known to be inhabited on a seasonal or permanent basis by or to be critical at any stage in the life cycle of any wildlife or plant identified as "endangered" or "threatened" species on official Federal or State lists of endangered or threatened species, or under active consideration for State or Federal listing.

A review of Landscape 3.3 mapping indicates that areas within state waters and onshore are mapped (ranks 4 and 5) for numerous threatened and/or endangered species and their associated habitats. As a result, comments on the application were requested from the MRA, the New Jersey Division of Fish and Wildlife's Office of Environmental Review ("OER"), and the Program's reviewing biologists to confirm any steps necessary to avoid and/or minimize impacts to documented species and their habitats.

Comments received via email on September 9, 2022 from the OER indicates that they will defer to comments from the Program's reviewing biologists for on land work and to the MRA for in-water work. The comments further indicate that timing for the Peck Bay/Crook Horn Creek in the Ocean City area would be the same for the creeks in the tidal uplands, and the Barnegat Bay would be the same as the Oyster Creek & tidal creeks inland. Follow up comments received from the OER on September 13, 2022 clarified that in order to protect anadromous migration corridors, any burial of transmission cables using open cutting/trenching through streams and/or creeks would need to be done outside of the March 1st through June 30th time period. Further clarification on this timing restriction from the MRA as detailed in their April 4, 2023 final comments memo indicates that this restriction is also necessary to protect spawning migration for diadromous fish. This timing restriction will be added to the permit.

Final comments on the project were received from the Program's reviewing biologist via memo, dated April 13, 2023, indicate that timing restrictions must be implemented to protect sensitive habitat for osprey and northern long-eared bat. Additionally, measures must be implemented to protect sensitive habitat for beach-nesting birds and protected marine mammal species. The appropriate conditions from the Program's reviewing biologist's April 13, 2023 memo will be incorporated in the permit.

Vernal Habitat

"Vernal habitat" as defined at N.J.A.C. 7:7A-1.3 is a wetland or state open water that contains a confined basin depression, feature evidence of breeding by one or more species of fauna adapted to reproduce in ephemeral aquatic conditions, maintains ponded water for at least two continuous months between March and September of a normal rainfall year, and is free of reproducing fish populations throughout the year or dries up at some time during a normal rainfall year.

Initial feedback from the Program's reviewing biologists indicated concerns over an area of isolated forested wetlands along the Oyster Creek electrical transmission cable route that may feature suitable vernal habitat as defined above. Information was requested via email on January 25, 2023 regarding clarification on this area and permanent versu temporary impacts to wetlands and transition areas. A response to this request was provided from the Applicant's agent via email on February 16, 2023. The information provided indicated that an examination of this area during numerous field visits over the past three years did not indicate characteristics of this wetland area featuring vernal habitat. A site inspection of this area was completed by Program staff on March 14, 2023. Final comments, dated March 15, 2023, received from the Program's reviewing biologist confirm that this area of concern as well as all of areas of wetlands within the project vicinity do not feature suitable vernal habitat. Therefore, the project will not result in any impacts to vernal habitats.

With implementation of all required timing restrictions and permit conditions referenced above, the State project meets the requirements of this rule.

Critical Wildlife Habitats 7:7-9.37

Critical wildlife habitats, as defined at N.J.A.C. 7:7-9.37, are specific areas known to serve an essential role in maintaining wildlife, particularly in wintering, breeding, and migrating. Based on guidance received from the NJ Division of Fish and Wildlife's Endangered and Nongame Species Program ("ENSP"), the Department considers patches of woody vegetation along the Atlantic seaboard to serve a critical role in providing resting and foraging habitat for migratory birds. Within the coastal zone mainland, patches of woody vegetation (i.e., trees, scrub-shrub, etc.) equivalent to 20 acres in size and greater function as migratory bird stopover habitat. Information provided on the project plans indicates that the construction of the State project along the Oyster Creek cable route will result in the disturbance of 16.119 acres of woody vegetation. The proposed 16.119 acres of disturbance to woody vegetation associated with the cable installation and substation construction along the Oyster Creek cable route will result in impacts to critical wildlife habitat based on the threshold discussed above.

Pursuant to N.J.A.C. 7:7-9.37(b), development that would directly, or through secondary impacts on the relevant site or in the surrounding region, adversely affect critical wildlife habitats is discouraged unless: (1) minimal feasible interference with the habitat can be demonstrated; (2) there is no prudent or feasible alternative location for the development; and (3) the proposal includes appropriate mitigation measures to offset the direct loss of habitat to result from the proposed project. The Applicant has sited the electric transmission cables and substation along the Oyster Creek cable route within disturbed areas and areas devoid of woody vegetation to the maximum extent practicable. No alternative to minimize disturbance to woody vegetation has been identified. Mitigation measures are necessary to offset the direct loss of Critical Wildlife Habitat and comply with this special area rule. The Department has established a practice of authorizing critical wildlife habitat mitigation for the direct loss of migratory songbird habitat at a 2:1 ratio.

The comments received from the Program's reviewing biologist via memo dated April 13, 2023 indicate that the Applicant is required to submit to the Program within 90 days of permit issuance and prior to any construction activities, a proposal for mitigation to the specified impacts to 16.119 acres of woody vegetation which meets the criteria for providing critical wildlife habitat for migratory birds. Additionally, the Applicant is also required to submit to the Program within this same timeframe a mitigation proposal designed to address disturbance of barn owl breeding habitat in the vicinity of the authorized limit of disturbance.

There will also be 0.572 acres of disturbance to woody vegetation associated with the cable installation and substation construction on the B.L. England property in Upper Township, Cape May County does not meet the definition of critical wildlife habitat as confirmed by the Program's reviewing biologist. This disturbance is located further north than the 30 kilometer line across the Cape May peninsula. Areas south of the 30 kilometer line across the Cape May peninsula would have a threshold of one acre or more to be considered suitable critical wildlife habitat for migratory birds. However, at this location north of this area, the threshold for woodland blocks to be considered suitable critical wildlife habitat for migratory birds is 20 acres in size or greater as discussed above. As the woody vegetation disturbance along the B.L. England cable route is not associated with a woodland block of 20 acres or greater, the referenced woody vegetation disturbance is not an impact to critical wildlife habitat.

With implementation of the required mitigation for disturbance to critical wildlife habitat and barn owl breeding habitat, the State project meets the requirements of this rule.

Public Open Space 7:7-9.38

As per N.J.A.C. 7:7-9.38(a), public open space constitutes land areas owned or maintained by State, Federal, county and municipal agencies or private groups (such as conservation organizations and homeowner's associations) and used for or dedicated to conservation of natural resources, public recreation, visual or physical public access or, wildlife protection or management. This also includes, but is not limited to, State Forests, State Parks, State Fish and Wildlife Management Areas, lands held by the New Jersey Natural Lands Trust, lands held by the New Jersey Water Supply Authority, and designated Natural Areas within DEP-owned and managed lands.

The project involves the construction of electric transmission cables on and across IBSP in Berkeley Township, Ocean County. As this land is owned by the State, an application has been submitted to the Department for a Lease and Right of Entry Across State Lands for this work on IBSP. The application was submitted via email on December 22, 2022.

In addition, the project involves the construction of electric transmission cables on and across the public beach in Ocean City in Cape May County and in Cape May County ROWs. The installation of the electric transmission cables will require permanent rights-of-way and easements on County property and through encumbered parkland on the public beach in Ocean City.

In July of 2021, N.J.S.A. 48:3-87(f)-(g) amended the Offshore Wind Economic Development Act of 2010 ("OWEDA") by granting offshore wind projects the ability to petition the Board of Public Utilities ("BPU") to obtain property interests from local government and preemption of local government approvals "reasonably necessary" for construction or operation of an offshore wind project. On February 2, 2022 and May 20, 2022, the Applicant filed petitions with the BPU pursuant to the 2021 OWEDA amendment. The February 2, 2022 petition sought the BPU's determination that certain easements across Green Acres-restricted properties Ocean City owns, and that certain municipal approvals needed for particular environmental permits in or with respect to Ocean City, are reasonably necessary for the construction or operation of Ocean Wind 1's offshore wind project. On September 28, 2022, the BPU granted the Applicant's February 2, 2022 petition. A diversion application was submitted by Ocean Wind to the Department's Office of Transactions and Public Lands Administration ("OTPLA") (formerly the Green Acres Program) on June 10, 2022.

The May 20, 2022 petition filed with the BPU sought the BPU's determination that certain easements across properties owned by the County of Cape May and certain consents needed from the County for certain environmental permits in and with respect to the County are reasonably necessary for the construction and/or operation of Ocean Wind 1's offshore wind project. On February 17, 2023, the BPU granted the Applicant's May 20, 2022 petition which allows the Applicant to obtain easements over Cape May County property and obtain permits for construction on Cape May County property without the county's consents and approvals.

Comments during review of the State permit application were requested from OTPLA. Email correspondence from OTPLA on September 6, 2022 confirmed that Ocean Wind 1 has applied to their office for a diversion of Green Acres encumbered parkland pursuant to N.J.A.C. 7:36-26. As of this date, the office is currently processing the application (File# SHC 0508007) and has given the Applicant permission to move to the final public hearing which is scheduled for October 3, 2022. The public hearing scheduled for October 3, 2022 was moved to a later date and held on November 14, 2022.

Recent email correspondence on March 17, 2023 from OTPLA confirmed that the State House Commission ("SHC") approved all agenda items related to Ocean Wind 1's requested diversion and lease for work on state lands at the March 9, 2023 SHC meeting. Therefore, OTPLA is in the process of finalizing the appropriate release and lease documents. A standard permit condition is included in every issued permit requiring the permittee to obtain all necessary local, state, and federal approvals for the project (see N.J.A.C. 7:7-27.2, N.J.A.C. 7:7A-20.2, and N.J.A.C. 7:13-22.2). This standard condition will be clarified to indicate that all appropriate diversion and land lease approvals must be obtained prior to any work on state lands or encumbered lands.

The portions of the State project on public land, which includes only the installation of the below grade electric transmission cables, will not adversely affect any open space and is compatible with adjacent and surrounding land uses in accordance with N.J.A.C. 7:7-9.38(b) and (c). The below grade electric transmission cables will not preclude the use of the open space by the public. Furthermore, the buried cables will be sited to the maximum extent practicable within existing, maintained right-of-way where other utility lines are currently situated.

With implementation of the condition to obtain the necessary approvals for work on state and encumbered lands, the State project meets the requirements of this rule.

Special Hazard Areas 7:7-9.39

As per N.J.A.C. 7:7-9.39(a), special hazard areas include area with a known actual or potential hazard to public health, safety, and welfare, or to public or private property, such as the navigable air space around airports and seaplane landing areas, potential evacuation zones, and areas where hazardous substances as defined at N.J.S.A. 58:10-23.11b are used or disposed, including adjacent areas and areas of hazardous material contamination.

The State project does not propose the construction of any residential or labor-intensive economic development, which are particularly discouraged in special areas in accordance with 9.39(b). A review of the work proposed within state waters and onshore indicates that areas of the B.L. England Generating Station property, Island Beach State Park, and the Oyster Creek Nuclear Generating Station property are mapped on the Department's GIS mapping as known contaminated sites. All of these properties are currently under the supervisor of a Licensed Site Remediation Professional ("LSRP"). Additionally, the Applicant has indicated in the submitted application that the linear portions of the State project will be enrolled under the Department's Site Remediation Program ("SRP") as a linear construction project and handled in accordance with all applicable regulations. The Applicant has also indicated that they intend to manage any encountered contamination in accordance with the Department's SRP guidance as well as a Materials Management Plan and Materials Handling Plan, both of which will be developed prior to project construction. With implementation of these measures and coordination with the Department's SRP, the construction of the State project will not adversely impact public health and safety. A condition

will be added to the permit requiring the permittee to conduct any necessary remediation activities under the supervision of a LSRP.

In addition, comments received via email on March 20, 2023 from the Department's Bureau of Emergency Response indicate that based on available information, there are no known concerns related to military munitions and explosives of concern ("MECs") and unexploded ordinances ("UXOs") within the Ocean Wind 1 project area. However, there is potential for MECs and UXOs to be encountered during project construction. As noted in the submitted application, the Applicant indicates that likelihood of encountering UXO/MECs is very low, however, they intend to implement an UXO/MECs Risk Assessment with Risk Mitigation Strategy designed to evaluate and reduce risk. A condition will be added to permit requiring the permittee to notify the USCG if MECs or UXOs are encountered during project construction.

With implementation of the conditions referenced above, the State project meets the requirements of this rule.

Pinelands National Reserve and Pinelands Protection Area 7:7-9.42

As discussed at N.J.A.C. 7:7-9.42(a), the Pinelands National Reserve includes those lands and water areas defined in the National Parks and Recreation Act of 1978, Section 502(P.L. 95-625). The Pinelands Area is a slightly smaller area within the Pinelands National Reserve.

A portion of the proposed onshore cable and new substation at the BL England property in Upper Township, Cape May County will occur outside of the state-designated Pinelands Area, but within the Pinelands National Reserve ("PNR"). This work within the PNR will occur in a Regional Growth Area and a Forest Area. Additionally, a portion of the proposed onshore cable and new substation at the Oyster Creek property in Berkeley, Lacey, and Ocean Townships in Ocean County will occur outside of the state-designated Pinelands Area, but within the PNR. This work within the PNR will occur in a Forest Area and in a Rural Development Area.

In February of 1988, the Pinelands Commission entered into a Memorandum of Agreement (MOA) with the NJDEP to formalize a framework for coordinating the activities of NJDEP's Coastal Management Program and the Pinelands' Comprehensive Management Plan (CMP) in those portions of the PNR located in the Coastal zone. The MOA provides that NJDEP will consider comments submitted by the Pinelands Commission for certain types of NJDEP development applications in the PNR. The Commission's review comments are intended to address the extent to which the proposed development is consistent with the intent, policies, and objectives of the National Parks and Recreation Act of 1978 creating the PNR and the Pinelands Protection Act of 1979 as required by (b) of this rule.

A request for comments on the application from the Pinelands Commission regarding the work proposed within the PNR was made via email on August 11, 2022. Communication received via email on March 30, 2023 from the Pinelands Commission confirmed that their comments on the overall project are detailed in their December 7, 2021 letter to the Division.

The issued December 7, 2021 letter confirmed that portions of the State project are located within the federally designated PNR. The letter discusses that the B.L. England electric transmission cable route is located in the Parkway Overlay District and, in a Pinelands, Regional Growth Area. The electric transmission cable, defined in the Pinelands' Comprehensive Management Plan ("CMP") as public service infrastructure, is a permissible land use in these areas. The Oyster Creek electric cable transmission route is located in a Pinelands Rural Development Area and in a Pinelands Forest Management Area. The electric transmission cable, defined in the Pinelands' Comprehensive Management Plan ("CMP") as public service infrastructure, is a permissible land use in a Rural Development Area. However, in a Forest Management Area, the public service infrastructure must be intended to primarily serve only the needs of the "Pinelands", defined in the CMP as the area comprising the combined geographic boundaries of both the state-designated Pinelands Area and the federally

designated PNR. While the electric transmission cable does not strictly meet the Pinelands Forest Management Area permitted use standard as described above, the installation of the cables associated with the Applicant's offshore wind farm does not result in the State project within this area to be inconsistent with the intent, policies and objectives of the National Parks and Recreation Act of 1978 creating the Pinelands National Reserve and the Pinelands Protection Act of 1978, which is the requirement per this rule. The siting of the electric transmission cables within the Pinelands Forest Management Area will not result in any less protection of this Pinelands area. Furthermore, as discussed throughout this report, the State project will not adversely impact the State's and Pinelands' protected resources without the appropriate mitigating and compensating measures.

A follow up memo, dated April 27, 2023, from the Pinelands Commission confirms the proposed onshore cable and new substation at the B.L. England property in Upper Township, Cape May County is consistent with the intent, policies, and objectives of the National Parks and Recreation Act of 1978, creating the PNR and the State of New Jersey's Pinelands Protection Act of 1979. While not required per the rule, the memo further indicates that the work on the B.L. England property is consistent with the CMP wetlands protection standards and the plant and animal threatened and endangered species protection standards of the CMP. Deference to the Department was given regarding consistency with protections regarding stormwater management, cultural resources, and air quality.

Based on the comments received on the project from the Pinelands Commission, it can be concluded that the State project meets the requirements of this rule.

Geodetic Control Reference Marks 7:7-9.45

As per N.J.A.C. 7:7-9.45(a), geodetic control reference marks are traverse stations and benchmarks established or used by the New Jersey Geodetic Control Survey pursuant to P.L. 1934, c. 116.

Comments received by the Division via email on August 12, 2022 from the NJDOT Geodetic Survey indicate that the entire project area is clear of any geodetic control reference marks. Therefore, the construction of the project within state waters and onshore will not impact any geodetic control reference marks and is in compliance with the requirements of this rule specified at N.J.A.C. 7:7-9.45(b).

The project as proposed is in compliance with the requirements of this rule.

Maintenance Dredging 7:7-12.6

Maintenance dredging is defined under this rule at N.J.A.C. 7:7-12.7(a) as the periodic removal of accumulated sediment from previously legally dredged navigation and access channels, marinas, lagoons, canals, or boat moorings for the purpose of safe navigation. Maintenance dredging of the Oyster Creek Federal Channel may be undertaken by the Applicant on behalf of the ACOE as the dredging of the channel needs to occur in a timely manner in order for the Applicant's construction vessel to access the intended cable routes. As there is a potential for this work to be done by the Applicant, it is being authorized per this permit and the requirements of this rule apply to this work.

As indicated in the April 19, 2023 report prepared by the Division's dredging specialist, the material within the Federal channel was characterized in accordance with a Department-approved Sediment Sampling and Analysis Plan ("SSAP"), however, the ACOE dredged the channel during the fall of 2022 after sampling was conducted by the Applicant. The data that was obtained through the SSAP can no longer be utilized for any future maintenance dredging event since the material has already been removed from the system. It is important to note that the proposed project depth extended to -10' MLLW (from -8' MLLW) based on ACOE solicitation to perform maintenance dredging.

The ACOE plans to conduct another round of maintenance dredging in the fall of 2023. Coordination is ongoing between the Applicant and ACOE with regard to potential future dredging needs in the Oyster Creek Federal Channel. In order for the Applicant to dredge the channel, they will need to obtain another Department-approved SSAP to characterize the material that will be removed as the previously

characterized material was removed in the fall of 2022 as discussed above. As is required for any five year maintenance dredging permit, the Applicant will be required to submit an application for a Major Technical Modification to the issued Waterfront Development Individual In-Water permit, which includes the sediment sampling results, current hydrographic survey with volume calculation, and written consent from a proposed dredged material management site. The necessary conditions will be included in the permit.

With implementation of the necessary permit conditions for the maintenance dredging of the Oyster Creek Federal Channel as discussed above, the State project meets the requirements of this rule.

New Dredging 7:7-12.7

New dredging is defined under this rule at N.J.A.C. 7:7-12.7(a) as the removal of sediment that does not meet the definition of maintenance dredging at N.J.A.C. 7:7-12.6 or the definition of environmental dredging at N.J.A.C. 7:7-12.8. In addition, the temporary or permanent displacement or removal of sediment for the purpose of installing submerged pipelines and cables is considered new dredging.

The proposed installation of electric transmission cables within the Atlantic Ocean and Barnegat Bay will involve the temporary displacement and removal of sediment from these waterways. However, this rule only applies to this type of disturbance for the installation of submerged pipelines and cables. Submerged pipelines are defined at N.J.A.C. 7:7-12.15(a) as "underwater pipelines which transmit liquid or gas, including crude oil, natural gas, water, petroleum products or sewerage". The proposed electric transmission cables are not pipelines being installed to transmit a liquid or gas. Submerged cables are defined at N.J.A.C. 7:7-12.21(a) as "underwater telecommunication cables" and "all associated structures in the water". The installation of electric transmission cables to convey electricity from an offshore wind farm to two (2) proposed substations are not telecommunication cables.

Since the electric transmission cables do not meet the definitions of submerged pipelines or cables, their installation is not considered new dredging and the requirements of this rule are not applicable to the State project.

Dredge Material Disposal 7:7-12.9

As per N.J.A.C. 7:7-12.9(a), dredged material disposal is the discharge of sediments removed during dredging operations in water areas. Portions of the State project involves the removal of sediments within the Atlantic Ocean and Barnegat Bay associated with the electric transmission cable installations well as maintenance dredging of the Oyster Creek Federal Channel within Barnegat Bay.

The removed sediments will not be disposed of within water areas. Disposal of these sediments is further discussed in the report, dated April 19, 2023, prepared by the Division's dredging specialists and in the Dredged Material Placement on Land 7:7-15.12 section of this report. As no discharge of sediments in water areas is proposed, the requirements of this rule do not apply to the State project.

Filling 7:7-12.11

Filling is defined at N.J.A.C. 7:7-12.11(a) as the deposition of material including, but not limited to, sand, soil, earth, and dredged material, into water areas for the purpose of raising water bottom elevations to create land areas.

The project as proposed will result in the restoration of areas disturbed by the installation of the electric transmission cables below the MHWL to pre-disturbance conditions. Impacted water areas will not be filled to increase water bottom elevation to create land areas.

Therefore, the requirements of this rule do not apply to the State project.

Submerged Pipelines 7:7-12.15
As per N.J.A.C. 7:7-12.15(a), submerged pipelines are underwater pipelines which transmit liquids or gas, including crude oil, natural gas, water petroleum products, or sewerage.

As discussed above, the proposed electric transmission cables to convey electricity from an offshore wind farm within Ocean Wind 1's lease area off the coast of New Jersey to two (2) proposed substations do not meet the definition of submerged pipelines per this rule since the cables will not transmit liquid or gas, such as crude oil, natural gas, water, petroleum products, or sewerage.

Therefore, the requirements of this rule do not apply to the State project.

Submerged Cables 7:7-12.21
As per N.J.A.C. 7:7-12.21(a), submerged cables are underwater telecommunication cables, and shall include all associated structures in the water, such as repeaters.

As discussed above, the proposed electric transmission cables to convey electricity from an offshore wind farm within Ocean Wind 1's lease area off the coast of New Jersey to two (2) proposed substations do not meet the definition of submerged cables per this rule since the cables are not telecommunication cables. Therefore, the requirements of this rule do not apply to the State project.

Living Shorelines 7:7-12.23
Living shorelines are a shoreline management practice that addresses the loss of vegetated shorelines and habitat in the littoral zone by providing for the protection, restoration, or enhancement of these habitats as described at N.J.A.C. 7:7-12.23(a).

The original application submission included a proposal for a living shoreline in Barnegat Bay off the coast of Island Beach State Park. The proposed living shoreline consisted of a rock sill with a 0.08 acre (3,360 square foot) footprint along with the placement of fill landward of the sill to match the existing land grade. However, information provided via email on October 6, 2022 from the Applicant indicated that the living shoreline proposal would need to be eliminated from the project proposal due to this component's likely delay of the overall project's Essential Fish Habitat (EFH) consultation for BOEM's process. The living shoreline proposal has been eliminated from the project plans.

Therefore, the requirements of this rule do not apply to the State project.

Subchapter 13 – Requirements For Impervious Cover and Vegetative Cover for General Land Areas and Certain Special Areas
The project consists of the installation of export cables and the construction of two (2) electrical substations onshore and in state waters. An electrical substation, as defined at N.J.A.C. 7:7-1.5, includes "the footprint of the substation equipment, the safety zone, and the area necessary for access and parking". In accordance with N.J.A.C. 7:7-13.1(d)2 and9, Subchapter 13 does not apply to linear developments, such as electrical export cable installations, or electrical substations. As the rule rationale notes, certain activities such as linear projects and substations need not address impervious cover and vegetative cover requirements because they serve a public need, the benefit of which would be reduced if the requirements applied. That is true here as well. The electric transmission cables are necessary to bring the offshore wind turbines' electricity on-shore and the substations are required to feed the renewable energy to New Jersey's grid. Therefore, the impervious cover and vegetative cover requirements do not apply to the portion of the State project within state waters and onshore.
Therefore, the requirements of this subchapter do not apply to the State project.

Rule on Location of Linear Development 7:7-14.1
"Linear development" is defined at N.J.A.C. 7:7-1.5 as "a development with the basic function of connecting two points, such as a road, drive, public walkway, railroad, sewerage pipe, stormwater management pipe, gas pipeline, water pipeline, or electric, telephone or other transmission lines. The

project includes the installation of electric transmission cables to transfer electric power from the Ocean Wind 1 windfarm off the coast of New Jersey to two (2) onshore substations in Lacey Township, Ocean County and Upper Township, Cape May County. The proposed electric transmission cables meet the definition of a "linear development" as defined above and, therefore, the requirements of this rule apply to this portion of the State project.

As per N.J.A.C. 7:7-14.1(a), the proposed alignment of a linear development is acceptable provided there is no prudent or feasible alternative alignment which would have less impact on sensitive areas and marine fish or fisheries, there will be no permanent or long-term loss of unique or irreplaceable areas, appropriate measures will be used to mitigate adverse environmental impacts, and the alignment is located on or in existing transportation corridors and alignments to the maximum extent practicable. Information provided in the submitted application, specifically the Alternative Analysis provided in Appendix A of the application, indicates the Applicant evaluated numerous cable routes during the design phase of the overall project. The selected cable routes and alignment were chosen to avoid impacts to special areas to the maximum extent practicable which includes siting the cables below grade within existing, disturbed public ROWs. In addition, selected installation methods were chosen based upon constructability and the method's ability to avoid impacts to protected resources, such as beaches, dunes and SAV habitat with the use of HDD cable installation technology. While some impacts to special areas, such as shellfish habitat, SAV habitat, riparian zone vegetation, wetlands, and wetlands transition areas, will occur, measures will be implemented to mitigate these impacts in accordance with the applicable regulations. The appropriate mitigation will be required as a condition of the State permit.

Based on the above discussion, the State project meets the requirements of this rule.

Basic Location Rule 7:7-14.2

As discussed at N.J.A.C. 7:7-14.2(a), a location may be acceptable for development under N.J.A.C. 7:7-9, 12, 13, and 14, but the Department may reject or conditionally approve the proposed location of the development as reasonably necessary to promote the public health, safety, and welfare; to protect public and private property, wildlife and marine fisheries; and to preserve, protect and enhance the natural environment.

The construction of the State project is necessary to support the construction of the Applicant's Ocean Wind 1 offshore wind farm located within their existing lease area off the coast of New Jersey. The construction of the offshore wind farm is intended to assist in New Jersey's established goal of 11 gigawatts (GW) of offshore wind energy generation by 2040 as outlined in New Jersey's Governor's Executive Order No. 307, issued on September 21, 2022. Benefits of wind power include, but are not limited to, the production of clean renewable energy to replace fossil fuel-based energy sources, air quality improvements, and economic growth. As discussed above, the siting and design of the State project components of the overall project will avoid environmental impacts to the maximum extent practicable. Measures taken to avoid environmental impacts include using HDD cable installation technology to avoid impacts to beaches and dunes, locating the electric transmission cables within existing, disturbed public ROWs to the maximum extent practicable, and siting the two (2) onshore substations at existing industrial developments.

The measures taken, as discussed above, to minimize environmental impacts, mitigate for unavoidable impacts, and to provide the overall benefit of clean, renewable energy to New Jersey residents promotes the public health, safety, and welfare, protects property, wildlife, and marine fisheries, and preserves, protects, and enhances the natural environment as required per this rule.

As discussed above, the State project meets the requirements of this rule.

Secondary Impacts 7:7-14.3

As per N.J.A.C. 7:7-14.3(a), secondary impacts are the effects of additional development likely to be constructed as a result of approval of a particular proposal and can include offsite traffic increases,

increased recreational demand, and any other offsite impacts generated by onsite activities which affect the site and the surrounding region.

The portion of the project within state waters and onshore is not anticipated to result in any secondary impacts. The project within state waters and onshore is not a proposed transportation project or development of any wastewater treatment systems, which would require a secondary impact analysis per N.J.A.C. 7:7-14.3(b). The nature of the work within New Jersey State jurisdiction is similar to that seen with other utility installation projects. The proposed project is in compliance with the Critical Wildlife Habitats rule at N.J.A.C. 7:7-9.37, the Air Quality rule at N.J.A.C. 7:7-16.8, and the Traffic rule at N.J.A.C. 7:7-16.12 as discussed in detail in this report. The construction of the portion of the project proposed under this application will not result in the future construction of additional unregulated development. Accompanying infrastructure to allow for manufacturing and assembly of the turbines and maintenance of the offshore wind farm have or will undergo review for compliance with the applicable CZM Rules, FHA Rules, and FWW Rules under separate State permit applications. Furthermore, any temporary impacts as a result of construction of the project will be minor in nature. Restoration of temporarily disturbed areas is required as a condition of the State permit.

As discussed above, the State project meets the requirements of this rule.

Energy Facility 7:7-15.4

As per N.J.A.C. 7:7-15.4(a), energy facilities include facilities, plants or operations for the production, conversion, exploration, development, distribution, extraction, processing, or storage of energy or fossil fuels. The overall project involves the construction of an offshore wind farm along with the appropriate electric transmission cable installations and onshore substations. The components of the State project include facilities for distribution and processing of wind energy. Therefore, the requirements of this rule apply to the State project.

N.J.A.C. 7:7-15.4(b) applies to new facilities, which would include the overall project. N.J.A.C. 7:7-15.4(b)1 states that new energy facilities shall not be sited in special areas as defined at N.J.A.C. 7:7-9.1 through 9.40, 9.42, 9.44 and 16.2 unless site-specific information demonstrates that such facilities will not result in adverse impacts to these areas. As discussed throughout this report, the components of the State project will be located within special areas as defined above. A detailed alternatives analysis, dated January 2023, and provided in Appendix A of the submitted application demonstrates that the selected locations for the State project components will result in the least impacts to regulated resources while maintaining project constructability. Additionally, mitigation will be required for the resource impacts in accordance with all applicable rules.

N.J.A.C. 7:7-15.4(b)2 regarding the siting of energy facilities at least 500 feet inland of the mean high water line of tidal waters in the CAFRA area does not apply to the components of the State project as these components are associated with the Ocean Wind 1 offshore wind farm, which is a water dependent energy facility as discussed throughout this report.

N.J.A.C. 7:7-15.4(b)3 requires wind energy facilities, including blades, towers, and site disturbance to be sited at least 50 feet inland of the mean high water line of tidal waters in the CAFRA area. The State project does not include the construction of the wind farm, but only includes the installation of below grade electric transmission lines and substation construction. The offshore wind farm, which includes the turbines themselves, will be located within a lease area outside of New Jersey state waters and not within the CAFRA area. Therefore the turbines are outside of New Jersey's direct State permitting jurisdiction.

N.J.A.C. 7:7-15.4(b)3 and 4 require public access to be provided and the scenic and visual qualities of coastal areas to be maintained. The State project's compliance with the requirements of N.J.A.C. 7:7-16.9 and N.J.A.C. 7:7-16.10 are discussed in detail below.

N.J.A.C. 7:7-15.4(c) requires coastal energy facilities construction and operation to not directly or indirectly result in net loss of employment in the State for any single year. As discussed in the submitted application, the construction of the overall offshore wind farm project, which includes the State project components, is anticipated to create over 3,000 direct jobs, thereby resulting in an increase in employment in the State.

The requirements specified at N.J.A.C. 7:7-15.4(d), (e), (f), (g), (h), (i), (j), (k), (l), (m), (n), (o), (p), (q) and (s) are not relevant to the State project.

N.J.A.C. 7:7-15.4(r) applies to the construction of the two (2) substations located on the B.L. England and Oyster Creek properties. The new substations will be located at existing industrial facilities previously utilized for energy production and conversion. The chosen locations for the substations on these properties will provide the least amount of impacts to regulated resources. Therefore, the siting of the two (2) substations will have the least practicable impacts to the coastal zone in accordance with N.J.A.C. 7:7-15.4(r)1i. N.J.A.C. 7:7-15.4(r)ii, iii, iv, and v do not apply specifically to electric energy produced via offshore wind as this overall project proposes to do.

N.J.A.C. 7:7-15.4(r)vi indicates that electric generating facilities using renewable forms of energy, such as wind, are conditionally acceptable provided such facilities do not significantly detract from scenic or recreational values. The components of the State project only involve construction of below grade electric transmission lines and substations, which will not detract from scenic or recreational values. The construction of the overall project, which includes the offshore wind farm, is not the subject of the State permit application. Compliance with this section of the rule, in addition to N.J.A.C. 7:7-15.4(r)vii and viii which apply to wind turbines, is discussed in the prepared report associated with the components of the Federal project.

As discussed above, the State project meets the requirements of this rule.

Public Facility 7:7-15.6

As per N.J.A.C. 7:7-15.6(a), public facilities include a broad range of public works for production, transfer, transmission, and recovery of water, sewerage and other utilities. As discussed previously, the project includes the installation of electric transmission cables to transfer electric power from the Ocean Wind 1 windfarm off the coast of New Jersey to two (2) onshore substations in Lacey Township, Ocean County and Upper Township, Cape May County. The project also includes the construction of two (2) onshore substations which will receive electric power from the cables. As the structures proposed under this application include production and transfer of electric power, the requirements of this rule apply to this portion of the State project.

The State project does not include the construction of a solid waste facility or a wastewater treatment facility. Therefore, the requirements at N.J.A.C. 7:7-15.6(b) & (c) do not apply to the project.

N.J.A.C. 7:7-15.6(d) states that new or expanded public facilities are conditionally acceptable provided the facility services a need that cannot be met by an existing public facility at the site or region, alternate technologies are impractical or infeasible, and the facility would not generate significant secondary impacts inconsistent with this chapter. As discussed throughout this report, the overall project will aid in advancing the use of renewable energy, reducing greenhouse gas emissions, combating climate change, and improving resiliency within the State of New Jersey. The cable and substation components of the overall project are necessary to serve the offshore wind farm being constructed within the Applicant's approved lease area off the coast of New Jersey. Additionally, a robust alternatives analysis was prepared and considered during the design phase of the project to minimize impacts to regulated environmental resources to the maximum extent practicable.

Furthermore, as discussed in this report under the Secondary Impacts rule at N.J.A.C. 7:7-14.3, the construction of the components of the State project is not anticipated to result in any secondary impacts.

Any impacts to regulated resources are being mitigated as required per applicable regulations. All appropriate mitigation conditions have been included in the permit.

Based on the above discussion, the State project meets the requirements of this rule.

Industry 7:7-15.7

As per N.J.A.C. 7:7-15.7(a), industry uses are uses that involve industrial processing, manufacturing, storage, or distribution activities and include electric power production. The work proposed under this application is for electric transmission cables and construction of two (2) onshore substations to transmit electric power from the Applicant's Ocean Wind 1 offshore wind farm to be located in their existing lease area in federal waters off the coast of New Jersey. Therefore, the requirements of this rule apply to this project.

The proposed two (2) substations will be located at existing industrial sites and therefore meet N.J.A.C. 7:7-15.7(c) and are compatible with the existing uses at these locations. Per N.J.A.C. 7:7-15.7(b), the proposed electric transmission cables will be located in existing, disturbed areas to the maximum extent practicable to minimize impacts to special areas. The project is in compliance with the applicable location and resource rules as discussed in detail throughout this report, and N.J.A.C. 7:7-15.7(d), (e) and (f) are not applicable. Public access is being provided as described below.

Based on the above discussion, the State project meets the requirements of this rule.

Coastal Engineering 7:7-15.11

Coastal engineering measures include a variety of non-structural, hybrid, and structural shore protection and storm damage reduction measures to manage water areas and protect the shorelines from the effects of erosion, storms, and sediment and sand movement as per N.J.A.C. 7:7-15.11(a). Examples of coastal engineering measures include beach nourishment, sand fences, pedestrian crossing of dunes, stabilization of dunes, dune restoration projects, dredged material management, living shorelines, and the construction of retaining structures.

The project does not include the construction of shore protection measures, beach nourishment, or dune restoration projects. However, the State project involves the installation of electric transmission cables beneath an existing Federal beach nourishment project in Ocean City, Cape May County. As beach nourishment projects are a non-structural shore protection and/or storm damage reduction measure that is encouraged per this rule, it is appropriate to discuss how the portion of the State project in this area will not impact the Federal beach nourishment project.

In order to assess the potential impacts of the electric transmission cable installation beneath the Federal beach nourishment project in Ocean City, comments were requested from the Program's OCE. Initial draft comments on this component of the project was provided from OCE via email on September 12, 2022 and October 21, 2022. In response to these comments, a request for clarification on State project components, including the HDD cable installation proposal below the Federal beach nourishment project in Ocean City, the installation of electric transmission cables within the Atlantic Ocean, and the work in the ICW was sent to the Applicant via email on December 9, 2022. The Applicant provided a response to this request via email on January 6, 2023. The Applicant confirmed in their response that:

- The location of the cables within the Atlantic Ocean will not be located within 0.25 miles of any approved borrow areas.
- The installation of the electric transmission cable beneath the public beach in Ocean City via HDD installation methodology is not anticipated to change the beach berm width and elevation.

- Pre- and post-construction monitoring surveys of the HDD entry and exit pits, as well as along the portion of the HDD alignment from the onshore pit to the MHWL will be completed. However, a bathymetric survey from the MHWL to the offshore HDD pit is not proposed.
- The Applicant will rely on the prepared Cable Risk Burial Assessment ("CRBA") to inform the safe cable burial depths to avoid becoming uncovered during the life of the project as a result of natural processes. The response indicated that due to the weight of the cable, it is not possible for the cable to drift over the lifetime of the project. As-built plans will be developed following cable installation and coordination will occur with OCE and appropriate Federal agencies to properly mark the cable on navigational charts to avoid future conflicts with potential beach nourishment activities and navigation. A multi-beam echosounder (MBES) bathymetry survey along the entirety of the cable routes following installation will be completed to evaluate burial depth and confirm cable locations.
- The Applicant agrees to implement a hotline with email and phone number contacts for unintended interaction with the installed cables and confirmation on cable location prior to construction activities in the area. The Applicant also agrees to coordinate protocols with NJDEP and any other appropriate agencies prior to the start of construction activities.
- The Applicant indicates that the construction activities will cause no additional vibration levels beyond ambient levels at nearby infrastructure, bridges, businesses, homes, and drainage structures. Therefore, monitoring vibration levels during construction would not be warranted. However, if there is a potential for excessive vibrations upon completion of the detailed engineering design, the Applicant agrees to develop a plan for vibration monitoring at appropriate locations.
- The Applicant clarified that TBJ construction, HDD cable installation, and cable-pull in activities will be occurring within the temporary 35th Street workspace.
- The Applicant indicated that the work crossing the ICW in Barnegat Bay is part of the application submitted to the ACOE for Section 408 approval. The Applicant agrees to continue coordination with the ACOE and the US Coast Guard ("USCG") prior to the start of the cable installation in this area.

As a result of this information, OCE issued final comments on the project via email on April 5, 2023 to the Division. The appropriate conditions from the final comments will be included as conditions of the permit. The implementation of the applicable conditions will ensure that the cable installations will not impact the existing and future Federal beach nourishment project.

Based on the above discussion and with implementation of the appropriate permit conditions, the State project meets the requirements of this rule.

Dredged Material Placement on Land 7:7-15.12

As per N.J.A.C. 7:7-15.12(a), dredged material placement is the disposal or beneficial use of sediments removed during dredging operations. This rule applies to the placement of dredged material landward of the spring high water line.

As discussed above, the project involves the following dredging activities: dredging for the electric transmission cable HDD exit pits within the Atlantic Ocean, the dredging of the prior channel located in Barnegat Bay off the coast of IBSP, and the maintenance dredging of the Oyster Creek Federal Channel to provide safe construction vessel access to the work locations in the bay.

As indicated in the report, dated April 19, 2023 and prepared by one of the Division's dredging specialists, any material removed during dredging of the Federal Channel or cable installation will be disposed of and managed at the appropriate disposal facilities. Conditions applicable for the appropriate management and disposal of material will be included in the permit.

With implementation of the appropriate conditions discussed above, the State project meets the requirements of this rule.

Marine Fish and Fisheries 7:7-16.2

As per N.J.A.C. 7:7-16.12(a), marine fish are marine and estuarine animals other than marine mammals and birds. Marine fisheries means one or more stocks of marine fish which can be treated as a unit for the purposes of conservation and management and which are identified on the basis of geographical, scientific, technical, recreational, and economic characteristics and the catching, taking, or harvesting of marine fish. The components of the State project involve the installation of electric transmission cables in state waters, which provide habitat for marine fish. Therefore, the requirements of this rule apply to the work in state waters.

N.J.A.C. 7:7-16.2(b) discourages activities that would adversely impact the natural functioning of marine fish or New Jersey based marine fisheries. Final comments received from the MRA via memo dated April 4, 2023 and provided to the Division via email on April 6, 2023 indicates that the work in state waters may directly impact marine fisheries, including the loss of access to transit areas and fishing grounds during construction, and loss of access to fishing grounds post-construction for mobile bottom gear fisheries.

"Discouraged" is defined at N.J.A.C. 7:7-1.5. Where an activity is discouraged under the applicable rule, the proposed use may still be approved if the use is determined by the Department to be in the public interest, provided that mitigating or compensating measures can be undertaken so that there is a net gain in quality and quantity of the coastal resources of concern. As discussed above in Project Description and History, this project is in the public interest because it will aid in advancing renewable energy, reducing greenhouse gas emissions, combating climate change, and improving resiliency within the State of New Jersey. Additionally, the components of the State project have been sited to avoid adverse impacts to regulated marine resources to the maximum extent practicable.

In order to mitigate the potential impacts to marine fish and fisheries, the Applicant is currently coordinating with BOEM on a fisheries mitigation plan. Mitigation efforts outlined in the plan include implementation of an updated gear claim procedure to exist for the life of the project in the event of any damage to commercial fishing gear from the overall project, implementation of a direct compensation program for impacted fishermen existing for the life of the project, and creation of a navigational safety fund to enable eligible fishermen to acquire navigation equipment to navigate the Applicant's leased wind farm area. Furthermore, a Memorandum of Understanding (MOU) to be executed by the Department and Ocean Wind LLC will establish a Compensatory Mitigation Fund to compensate fishers for verifiable claims of negative impacts of a significant nature, including economic losses, caused by the Ocean Wind 1 offshore wind facility during its construction, operation and/or decommissioning. The Letter of Intent to execute the MOU was executed by the Department and Ocean Wind LLC on April 26, 2023. These mitigating measures will help alleviate impacts to New Jersey based marine fisheries.

N.J.A.C. 7:7-16.2(d) further clarifies that that activities that interfere with marine fish and fisheries include activities which block diadromous finfish spawning runs, create unacceptable increases in turbidity, and/or involve excavation of marine substrate. In order to prevent any impacts to diadromous finfish spawning runs, a timing restriction will be implemented between March 1st and June 30th of each calendar year on sediment generating activities for work within state waters. Mitigation will be provided for the impacts to shellfish habitat for the installation of electric transmission cables within Barnegat Bay as in the Shellfish Habitat 7:7-9.2 section of this report. Furthermore, BMPs will be implemented during project construction to limit turbidity and impacts to water quality in order to avoid adverse impacts to marine fish and their habitats.

With implementation of the appropriate fisheries timing restrictions and implementation of mitigating measures, the State project complies with the requirements of this rule.

Water Quality 7:7-16.3

In accordance with this rule at N.J.A.C. 7:7-16.3(b), coastal development which would violate the Federal Clean Water Act, or State laws, rules and regulations is prohibited. Additionally, coastal development that is inconsistent with an approved Water Quality Management (208) Plan under the New Jersey Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq., is prohibited.

The two (2) onshore substations and electric transmission cables will be located within or partially within the boundaries of the approved sewer service area. The onshore substations will be unmanned substations and will not require potable water or sewer services. As the State project does not require an increase in demand for water or sewer services at the work locations, the project is considered consistent with the applicable WQM (208) Plan.

As detailed in the April 19, 2023 report prepared by the Division's dredging specialists, sediment sampling and material characterization for potential contaminants was undertaken at the locations of the proposed HDD pits, at the Holtec Landfall location, and within the prior disturbed channel off the western coast of IBSP. A detailed description of the results of the sampling can be found in the Division's dredging specialist's report. Recharacterization of sediments will be required at the Holtec Landfall location and in the prior disturbed channel if open-cut/trenching depths change for cable installation. The appropriate conditions for additional sampling will be added to the permit. In order to prevent adverse impacts to water quality along the cable installation route, the most stringent BMPs were imposed per conditions of the permit to ensure adverse effects to water quality during jetting or trenching operations are minimized to the maximum extent possible. BMPs to be imposed include the use of sheet pile cofferdams, turbidity curtains, and construction methods to prevent adverse effects to water quality.

For locations in State waters where HDD is the proposed cable installation method, contingency plans have been prepared in the event of an inadvertent return of drilling fluid during cable installations. The contingency plan can be found in Appendix P of the application.

With adherence to the appropriate permit conditions as well as the prepared Inadvertent Returns Contingency Plans, water quality is not anticipated to be adversely impacted during cable installations in State waters.

As discussed above, with implementation of the appropriate conditions related to use of BMPs during cable installation within Barnegat Bay and adherence to the contingency plan in the event of an inadvertent return of drilling fluid, the State project is not anticipated to result in a decrease in water quality at the site or in the surrounding region.

Therefore, the State project meets the requirements of this rule.

Surface Water Use 7:7-16.4

Surface water is defined at N.J.A.C. 7:7-16.4 as water in lakes, ponds, streams, rivers, bogs, wetlands, bays, and ocean that is visible on land.

N.J.A.C. 7:7-16.4(b) requires that coastal development demonstrate that the anticipated surface water demand of the facility will not exceed the capacity of the local potable water supply system or reserve capacity, and that the construction of the facility will not cause unacceptable surface water disturbances, such as drawdown, bottom scour, or alteration of flow patterns.

As indicated in the submitted application, the State project will not require the use the potable water or surface waters for use in the development. In addition, while the State project will result in the installation of electric transmission cables below the seabed within state waters, these installations will not result in any unacceptable surface water disturbances as described in this rule. BMPs will be utilized as appropriate to reduce turbidity.

As discussed above, the State project meets the requirements of this rule.

Stormwater Management 7:7-16.6

Per N.J.A.C. 7:7-16.6(a), if a project or activity meets the definition of a "major development" at N.J.A.C. 7:8-1.2, then the project or activity shall comply with the Stormwater Management Rules at N.J.A.C. 7:8.

A "major development" is defined at N.J.A.C. 7:8-1.2 as a development that individually or collectively results in the disturbance of one or more acres of land since February 2, 2004, the creation of one-quarter acres or more of regulated impervious surface since February 2, 2004, the creation of one-quarter acres or more of regulated motor vehicle surface since March 2, 2021, or a combination of impervious surface and motor vehicle surface that totals an area of one-quarter acre or more. A review of the State project by the Program's reviewing engineer indicates that the State project involves the addition of a quarter acre of new impervious area, the addition of a quarter acre of new regulated motor vehicle surface, and/or the disturbance of greater than one acre of land. Therefore, the State project meets the definition of a "major development" and compliance with the requirements of this rule is required.

As documented in the engineering report, dated and approved on April 25, 2023, prepared by the Program's reviewing engineer, the electric transmission cable installations are linear developments, and therefore, exempt from the requirements of groundwater recharge, quality, and quantity as per N.J.A.C. 7:8-5.2(d)1. However, the proposed Oyster Creek and B.L. England substations are required to meet all applicable requirements of the Stormwater Management Rules at N.J.A.C. 7:8 and provide their own stormwater management systems.

As detailed in the April 15, 2023 engineering report, the substation components of the State project meet the applicable requirements of the Stormwater Management Rules at N.J.A.C. 7:8 provided the conditions referenced in the permit are implemented.

With implementation of the appropriate conditions referenced in the approved engineering report, the portions of the State project subject to the requirements of the Stormwater Management Rules at N.J.A.C. 7:8 meet the requirements of this rule.

Vegetation 7:7-16.7

As per N.J.A.C. 7:7-16.7, vegetation is the plant life or total plant cover that is found on a specific area, whether indigenous or introduced by humans.

N.J.A.C. 7:7-16.7(b) requires coastal development to preserve, to the maximum extent practicable, existing vegetation within a development site and to plant new vegetation, particularly appropriate coastal species, native to New Jersey to the maximum extent practicable. As discussed in detail throughout this report, the proposed cable alignments and substations have been sited in areas that are devoid of vegetation or significantly disturbed to minimize impacts to existing vegetation. Areas where vegetation must be temporarily disturbed for construction activities will be allowed to revert back to pre-disturbance conditions upon completion of regulated activities. Furthermore, the appropriate mitigation will be provided for permanent impacts to woody vegetation, wetlands, and riparian zone vegetation in accordance with all applicable regulations.

Additionally, a condition will be added to the permit indicating that any landscaping or plantings shall be done with coastal native species to the maximum extent practicable.

With implementation of the appropriate permit conditions discussed above, the State project meets the requirements of this rule.

Air Quality 7:7-16.8

The project proposes the installation of electric transmission cables within existing roadways and/or rights of way. Additionally, the work will involve the construction of two (2), unmanned automated and

remotely operated substations, one at the BL England property in Upper Township, Cape May County and one at the Oyster Creek property in Lacey Township, Ocean County.

As per N.J.A.C. 7:7-16.8(b), coastal development shall conform with all applicable State and Federal regulations, standards, and guidelines and be consistent with the strategies of New Jersey's State Implementation Plan (SIP).

Initial comments received from the Department's Division of Air Quality's (DAQ) Bureau of Evaluation and Planning via email on August 22, 2022 indicates that they are not able to complete their review based on the information contained in the initial application submittal. In order to review the project's impacts on air quality, they requested a summary of air pollution sources and an assessment of traffic to be generated by the proposed project. This request for information was relayed to the Applicant's agent via email on August 25, 2022. Clarification on this request was provided to the Applicant via email on September 1, 2022.

A response to the request for additional information was provided by the Applicant via email on December 22, 2022. The submitted response indicated that there will be no increase in traffic or change in traffic patterns due to the proposed project. Once constructed, traffic to the newly constructed substations will be minimal and infrequent as they will be unmanned and operated remotely. This response was forwarded to the DAQ for review on December 28, 2022.

After reviewing the provided additional information, the DAQ reached out to the Applicant via email on January 6, 2023 requesting clarification on whether the New Jersey Department of Transportation (NJDOT) has requested a traffic study for the proposed development. Per correspondence received from the Applicant via email on January 11, 2023, it was confirmed that a traffic study was not completed for the project nor discussed with or requested from NJDOT. Email correspondence from the DAQ on January 17, 2023 requested of the Applicant a formal document or letter to certify that the information provided about the substations regarding traffic is accurate. This formal letter, dated February 2, 2022 (incorrectly dated 2022 instead of 2023), was provided to the DAQ and DLRP via email on February 2, 2023.

After reviewing the information provided by the Applicant, final comments from DAQ were received by DLRP via email on February 3, 2023. The final comments received on the project confirmed that the project would not result in any significant impacts to ambient air quality and will not cause or contribute to an exceedance of ambient air quality standards at the site and in the surrounding area. Therefore, it can be concluded that the State project meets the requirements specified at (b).

As discussed above, the State project meets the requirements of this rule.

<u>Public Access 7:7-16.9 & Public Access Law</u>
Public access, as defined at N.J.A.C. 7:7-16.9(a), is the ability of the public to pass physically and visually to, from, and along tidal waterways and their shores and to use such shores, waterfronts and waters for activities such as navigation, fishing, and recreational activities. Additionally, the 2019 Public Access Law requires public access to be provided for any coastal application involving the change in the footprint of a structure.

The project site involves the construction of onshore cables on waterfront properties located in Lacey, Ocean & Berkeley Townships in Ocean County and Ocean City & Upper Township in Cape May County. Lacey Township, Ocean Township and Ocean City do not have municipal public access plans. Therefore, the work proposed in these municipalities is subject to the requirements of this rule at N.J.A.C. 7:7-16.9(k)3. While Berkeley Township and Upper Township have approved Municipal Public Access Plans (MPAPs), these plans have not yet been adopted into the municipal Master Plan. Therefore, in accordance with N.J.A.C. 7:7-16.9(c)2, public access is required in accordance with N.J.A.C. 7:7-16.9(k)3.

In accordance with N.J.A.C. 7:7-16.9(k)3ii of this rule, new industrial or public development shall provide onsite public access during normal operating hours unless it can be demonstrated that onsite public access is not practicable based on the risk of injury from proposed hazardous operations, or substantial permanent obstructions, or upon documentation of a threat to public safety due to unique circumstances concerning the subject property, and no measures can be taken to avert these risks. In this instance, offsite public access shall be provided on the same waterway in the same municipality as the development in accordance with N.J.A.C. 7:7-16.9(k)3iii. An initial request to provide a proposal for satisfying the public access requirements of this rule and the 2019 Public Access Law was made in the Division's December 28, 2022 deficiency letter. An initial response to this request was provided by the Applicant via email on March 1, 2023. This response provided discussions on why onsite public access is not feasible at the project locations along with conceptual proposals for offsite public access.

As indicated in the submitted response, onsite public access is not feasible at the substation locations due to the nature of the site conditions and the current industrial uses of these properties. The energized equipment associated with the State project provide hazards to public safety if these areas were to be accessed by the public. Additionally, the portions of the B.L. England and Oyster Creek properties being leased by the Applicant do not provide sufficient access to tidal waters where an onsite public access project could be constructed. The proposed cable installations will, to the maximum extent practicable, will take place within existing, paved and/or maintained rights-of-way, where public access to the water is not practicable or feasible.

As onsite public access is not practicable as discussed above, the Applicant is required to provide offsite public access at locations in the same municipality and along the same waterway as the State project per N.J.A.C. 7:7-16.9(k)3iii. Further refinement of the conceptual proposals for offsite public access was submitted to the Division for review via email on March 15, 2023, April 5, 2023 and April 10, 2023 in response to requests made by the Division via email on March 9, 2023 and April 5, 2023. The Applicant indicated in their correspondence that they intend to design, permit, and construct the offsite public access improvements. These conceptual proposals consist of the following public access improvements:

- Construction of a dune walkover at Island Beach State Park, Block 1750, Lot 1 in Berkeley Township, Ocean County for access to the public beach and Atlantic Ocean.
- Potential improvements, including but not limited to parking, at the existing 24th Street marina property, Block 1719, Lots 242 & 242.01 in Berkeley Township, Ocean County owned by the Department and located along Barnegat Bay. Discussions regarding potential public access improvements on this property are ongoing.
- Construction of a 250 foot walkway extension and appropriate shore protection on a property owned by Lacey Township at the end of Laurel Boulevard, Block 848, Lot 6 in Lacey Township, Ocean County and located along Barnegat Bay.
- Construction of a public fishing pier at the end of North Shore Road in Upper Township, Cape May County for fishing access to Great Egg Harbor Bay. Parking, trash/recycling receptacles, and a bench would also be provided at this location.
- Improvements to the existing beach and Atlantic Ocean access location at the intersection of Neptune Drive and Seaview Avenue in Strathmere (part of Upper Township), Cape May County. Improvements include a bike rack, trash containment, and bench.

The Applicant has demonstrated that the conceptual proposals outlined above are comparable to what would be constructed onsite if onsite access were feasible. As discussions regarding the conceptual public access proposals are ongoing with Upper Township as well as the Department for further refinement, a condition will be added to the permit requiring the Applicant to submit a final, formal proposal outlining in detail the proposed offsite public access improvements for Division review and approval. This will be required prior to any construction activities. A second condition will be added to the permit requiring the Applicant to implement/construct the Division approved offsite public access improvements prior to or concurrently with construction of the State project.

The project is in compliance with the requirements of this rule and the Public Access Law with implementation of permit conditions to provide finalized public access proposals prior to construction and to implement the Division approved public access prior to or concurrently with construction of the State project. Therefore, the State project meets the requirements of this rule.

Scenic Resources and Design 7:7-16.10

Scenic resources include the views of the natural and/or built landscape as described at N.J.A.C. 7:7-16.10(a). As per N.J.A.C. 7:7-16.10(c), new coastal development that is not visually compatible with existing scenic resources in terms of large-scale elements of building and site design is discouraged.

The State project involves the installation of underground electric transmission cables. As these cables will be below grade, they will not result in any visual conflicts with existing scenic resources. The proposed construction of two (2) onshore unmanned substations at the former Oyster Creek Nuclear Power Station in Lacey Township, Ocean County and the closed B.L. England Generating Station in Upper Township, Cape May County, both industrial properties, is compatible with existing scenic resources in the area.

The substation on the B.L. England property is on a property adjacent to Great Egg Harbor Bay, but will be constructed more than 1,000 feet from the bay. Therefore, the requirements of N.J.A.C. 7:7-16.10(d) are met for the unmanned substation due to the significant distance between the substation and bay. In addition, the substation on the Oyster Creek property will not be located adjacent to a bay or ocean. Therefore, the requirements specified at N.J.A.C. 7:7-16.10(d) are not applicable to the substation on the Oyster Creek property.

The wind turbines, which are part of the Federal project not under review as part of the State permit application, will introduce visual effects to New Jersey's coastline. An analysis of the Federal project's compliance with the requirements of this rule has been detailed in the report accompanying the Federal Consistency Certification application.

As discussed above, the State project meets the requirements of this rule.

Buffers and Compatibility of Uses 7:7-16.11

As per N.J.A.C. 7:7-16.11(a), buffers are natural or man-made areas, structures, or objects that serve to separate distinct uses or areas. Compatibility of uses is the ability for uses to exist together without aesthetic or functional conflicts.

The installation of electric transmission cables will occur below grade within existing disturbed areas and rights-of-way, consistent with other public utility infrastructure, to the maximum extent practicable. The two (2) onshore substations will be constructed at decommissioned power generation facilities and are, therefore, consistent with the existing development on these properties.

As discussed throughout the application, temporarily impacted areas will be restored to pre-existing grade and will either be replanted with native species or allowed to revert back naturally to pre-disturbance conditions. Therefore, the State project meets the requirements of this rule.

Traffic 7:7-16.12

As per N.J.A.C. 7:7-16.12(a), traffic is the movement of vehicles, pedestrians or ships along a route.

The project proposes the installation of electric transmission cables within existing roadways and/or rights of way. Additionally, the work will involve the construction of two (2), unmanned automated and remotely operated substations, one at the BL England property in Upper Township, Cape May County and one at the Oyster Creek property in Lacey Township, Ocean County. The proposed development will not involve the construction of any parking spaces as the proposed substations will be unmanned.

Information provided by the Applicant via email on December 22, 2022 indicates that once constructed, trips to the substations would be on the order of 1 to 2 times per month for maintenance or periodic inspections. These infrequent trips to the two (2) new substations will not result in any significant traffic impacts or a decrease in Levels of Service on any nearby roadways below existing levels.

To discern potential temporary traffic impacts during installation of the electric transmission cables within the existing roadways and rights-of way for N.J.A.C. 7:7-16.12(c) and (d) purposes, the Division requested clarification from the Applicant via email on December 28, 2022. Information received via email on January 4, 2023 from the Applicant indicates that "construction activities associated with the offshore export cable landfalls and the onshore export cables would generate relatively short-term and localized increases in vehicular traffic in the area, but would typically be consistent with current levels of traffic. Duct bank construction within the roadway may result in temporary traffic impacts such as lane closures, shifted traffic patterns, or temporarily closed roadways. Any temporary lane or road closures or shifted traffic patterns will be coordinated with the applicable local municipalities through local road opening permits. Additionally, temporary lane or road closures or shifted traffic patterns in residential areas will be coordinated with homeowners to ensure that access to homes is maintained throughout construction. Ocean Wind LLC will develop and implement an Onshore Maintenance of Traffic Plan. Ocean Wind LLC will designate and utilize onshore construction vehicle traffic routes, construction parking areas, and carpool/bus plans to minimize potential impacts. Additional BMPs will be developed, as needed, and coordinated with local and State agencies." Based on the information above, the temporary disruptions to traffic in the area during construction would not result in any long term adverse impacts to traffic. Additionally, the proposed development will not result in any decreases below existing levels of service on any roadways in the project vicinity. Further information provided by the Applicant via email on January 11, 2023 clarified that a traffic study was not completed for the project nor discussed with or requested from NJDOT.

The parking requirements specified at N.J.A.C. 7:7-16.12(e) do not apply to the proposed onshore substation development proposed in Lacy Township, Ocean County and Upper Township, Cape May County. Lacey Township is not a municipality bordering the Atlantic Ocean and the non-oceanfront portion of Upper Township is excluded from the parking requirement as specified at N.J.A.C. 7:7-16.12(e)1iii. The work proposed within the oceanfront municipalities of Ocean City, Cape May County and Berkeley Township, Ocean County involve only the installation of electric transmission cables and do not require any parking facilities.

As discussed above, the State project meets the requirements of this rule.

Section 10 Compliance N.J.S.A 13:19-1 et seq. for work within the CAFRA Area

a. **Conforms with all applicable air, water and radiation emission and effluent standards and all applicable water quality criteria and air quality standards.** The State project conforms with all applicable standards, which are air, water, effluent and water quality standards. The required air permits and Section 401 and 404 of the Clean Water Act for the overall project have been submitted. As discussed above, the requirements of the Stormwater Management Rules at N.J.A.C. 7:8 apply to the proposed substation construction at the BL England and Oyster Creek properties. These portions of the project will implement appropriate stormwater measures that comply with the applicable requirements of the Stormwater Management Rules at, ensuring the regulations at N.J.A.C. 7:8 are being met for the State project. Additionally, the Applicant intends to implement a suspended sediment/water quality monitoring plan as well as applicable BMPs to ensure conformance with all applicable water quality criteria.
b. **Prevents air emissions and water effluents in excess of the existing dilution, assimilative, and recovery capacities of the air and water environments at the site and within the surrounding region.** The State project will implement all necessary measures to prevent air emissions and water effluents in excess of the existing dilution, assimilative and recovery

capacities of the air and water environments at the site and within the surrounding regions. The State project will not result in any negative impacts to air or water quality in the area as discussed in detail in the report above.

c. **Provides for the handling and disposal of litter, trash, and refuse in such a manner as to minimize adverse environmental effects and the threat to the public health, safety, and welfare.** The Applicant will prepare and implement waste management plans and hazardous materials plans as appropriate for the State project. During construction activities for the State project, waste material will be disposed of at an appropriate licensed disposal facility and/or recycling center in a manner so as to minimize adverse environmental effects and the threat to the public health, safety, and welfare. All waste generated by the State project, including but not limited to solid trash, drilling solids, drilling muds, and stormwater, will be managed in accordance with all applicable state and federal regulations.

d. **Would result in minimal feasible impairment of the regenerative capacity of water aquifers or other ground or surface water supplies.** The State project will not require the use of potable water and sewer services. The State project will not impact water aquifers or other ground or surface water supplies. Temporary dewatering activities will be completed under the appropriate permitting and discharges and releases will be managed using the Spill Prevention, Control, and Countermeasure ("SPCC") Plan. The proposed construction of the State project will, therefore, not impair the regenerative capacity of water aquifers or ground/surface water supplies.

e. **Would cause minimal feasible interference with the natural functioning of plant, animal, fish, and human life processes at the site and within the surrounding region.** As discussed above and in the submitted application, the State project has been sited and designed to minimize impacts to regulated resources and the environment. The requirements for tree preservation and plantings in Subchapter 13 of the Coastal Zone Management Rules (N.J.A.C. 7:7-1.1 et seq.) are not applicable to the linear portion of the State project and electric substations as discussed above. Avoidance, minimization, and mitigation measures will be implemented to preserve existing trees and vegetation to the maximum extent practicable. The project will not result in any adverse impacts to threatened and endangered species or their habitats or critical wildlife habitats with implementation of the conditions in the permit. The disturbance to shellfish habitat, submerged vegetation habitat, marine fish and fisheries, riparian zone vegetation, wetlands, and wetlands transition area is consistent with the applicable regulations and will be mitigated as required. The construction of the State project will, therefore, only cause minimal interference with the natural functioning of plant, animal, fish, and human life processes at the site and within the surrounding region.

f. **Is located or constructed so as to neither endanger human life or property nor otherwise impair the public health, safety, and welfare**. The State project has been sited and designed so as to neither endanger human life or property nor otherwise impair the public health, safety, and welfare. Minimization of impacts will be accomplished through avoidance and mitigation. The onshore cables will be buried below grade and located within disturbed rights-of-way to the maximum extent practicable to minimize and/or avoid impacts. The onshore substations will be constructed within existing industrial areas so as to not endanger public health, safety and welfare.

g. **Would result in minimal practicable degradation of unique or irreplaceable land types, historical or archaeological areas, and existing scenic and aesthetic attributes at the site and within the surrounding region**. The portions of the State project within the CAFRA area include the installation of below grade electrical transmission lines and the construction of two (2) onshore substations. This work, which has been sited and designed to minimize environmental impacts, is not anticipated to result in degradation or unique or irreplaceable land types, historical or archaeological areas, and existing scenic and aesthetic attributes at the site and within the surrounding region. As discussed in detail above, both components of the project, the State and Federal project, are being reviewed as a whole through Section 106 consultation with BOEM. In consultation between the HPO and BOEM, it has been determined that the Ocean Wind 1 offshore wind project as a whole will adversely affect

historic properties. To resolve the adverse effects of the project, BOEM, in conjunction with other parties including the Applicant, is proposing the development and execution of a Memorandum of Agreement in accordance with 36 CFR § 800.6(c) to memorialize the steps BOEM will take to avoid, minimize, and mitigate the project's adverse effects. Execution of the Memorandum of Agreement will demonstrate BOEM's compliance with Section 106 of the National Historic Preservation Act. As a result, the Applicant is consistent with New Jersey's Coastal Management Program through the completion of Section 106 consultation and the execution of the Memorandum of Agreement among the Section 106 consulting parties for the Ocean Wind 1 offshore wind project.

h. **Provides, pursuant to standards established by rule or regulation adopted pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.S2:14B-1 et seq.), on-site public access to the waterfront and adjacent shoreline, or off-site public access to the waterfront and adjacent shoreline if on-site public access is not feasible as determined by the Department. Nothing in this subsection shall be construed to abrogate or otherwise affect any public access obligations or requirements of any permit, administrative order, consent decree, or court order in effect prior to the effective date [Jan. 19, 2016] of P.L.2015, c.260.** As discussed in detail above, the project will take place directly adjacent to tidal waterbodies. Therefore, the requirements for public access are applicable to the project. A conceptual proposal for public access was provided by the Applicant in numerous correspondence to the Division in March and April of 2023. As the final, formal proposals are still being developed, a condition will be added to the permit requiring the Applicant to provide final, formal proposals and implement the required public access improvements prior to or concurrently with construction of the State project.

PERMIT CONDITIONS
Coastal Permit Conditions

1. This permit is issued subject to compliance with N.J.A.C 7:7-27.2, Conditions that apply to all coastal permits.

2. The permittee shall obtain all applicable Federal, State, and local approvals prior to commencement of regulated activities authorized under a permit. Approvals include, but are not limited to, authorization from the US Army Corps of Engineers to conduct work below the high tide line and a Section 408 approval.

3. Additional development or other related construction will require either a modification to this permit #0000-21-0008.2 LUP220001 & LUP230001 or, a new permit depending on the size and scope of the proposed development as well as the activity status of the existing permit.

4. Prior to any construction or site preparation, the permittee must receive new Tidelands licenses for the electric transmission cables and installation of the cables below the mean high water line authorized by this permit. The applications for new Tidelands licenses are pending under file# 0000-21-0008.2 TDI220001, TDI220002, TDI220003 & TDI220004. Failure to comply with this condition will result in fines up to $1000 plus $100 per day, a higher fee for the conveyance and possible prosecution by the Attorney General's office to remove unauthorized structures and to pay use and occupancy charge.

5. **No activities authorized in Barnegat Bay under this permit may commence until a monetary contribution has been made to the Department's account for Shellfish Habitat Mitigation.** This contribution is based upon the area of shellfish habitat impacted by the electric transmission cable installations, the documented shellfish density, and the commercial value of the shellfish resource. The formula for assessing the monetary contribution is as follows:

C = Area * Density * AV * PVF

Where: C = Contribution
Area = Area, in square feet, of shellfish habitat impacted
Density = Applicable density of shellfish, in animals/square foot
AV = Annual value of the shellfish resource, which is set at $0.25 per animal
PVF = Present Value Factor, which is set at 31.6

Hard Clam Density =	High	Moderate
	.75	.35
Soft Clam Density =	.75 (all cases)	

The impacted area of shellfish habitat is 29.077 acres (1,266,594.12 square feet). Using the above formula, **a monetary contribution of $7,504.570.16 is required.** This contribution must be made to the Department's account for Shellfish Habitat Mitigation within 90 days of the issuance date of this permit. An invoice will be forwarded to the permittee in the amount of $7,504,570.16. This contribution is based upon the impact acreage provided by the Applicant utilizing worst case scenario impacts. The Division reserves the right to modify the contribution amount if information is provided by the Applicant which demonstrates a reduction of the specified 29.077 acres of impact to shellfish habitat and the Division concurs the impacts have been reduced.

6. Prior to any construction activities in Barnegat Bay authorized by this permit, the permittee shall perform a submerged aquatic vegetation ("SAV") habitat pre-construction survey of the work area no more than six (6) months prior to construction and submit the survey results to the Department for review. The pre-construction survey methodology must be included in any SAV mitigation plan and be approved by the Department prior to execution. The pre-construction survey must be performed within the growing season window of mid-April through early November, but avoiding July, August, and early September may be necessary to avoid macroalgae blooms that can adversely affect survey results. Upon completion of the pre-construction survey, the permittee shall coordinate with the Department to develop a mitigation plan for the impacts to SAV. The Department must be provided with a mitigation plan at least 30 days prior to a planned start date for the pre-construction survey. Implementation of the required mitigation for impacts to SAV habitat shall be defined in the Department approved mitigation plan.

7. Prior to the commencement of site preparation, inclusive of site clearing, project staging, onsite storage of materials, pre-construction earth movement, other site disturbance, and all authorized activities, and within 90 days of the issuance of this permit authorization, the Permittee shall complete mitigation for the direct loss of Critical Wildlife Habitat:

    a. To the NJDEP Watershed and Land Management Program, Endangered & Threatened Species Unit, the Permittee shall first submit a proposal of mitigation for direct impacts to 16.119 acres of stopover habitat for migratory birds. After the mitigation proposal is accepted by the Division in writing, the Permittee shall then proceed with the placement of a conservation restriction over the approved mitigation site. The Permittee shall record the conservation restriction on the deed, and shall file the restriction with the appropriate County Clerk's Office (the Registrar of Deeds and Mortgages). The conservation restriction shall run with the land and be binding upon all successive owners. A copy of the recorded conservation restriction shall be forwarded to and received by the Division. No project site preparation and authorized activities may commence until the required conservation restriction has been recorded and a signed copy has been received by the Division of Land Resource Protection. Any activities undertaken on the site before a copy of the recorded restriction is received by the Division will be considered a violation of the Coastal Area Facility Review Act.

    b. Within 90 days of the issuance of this permit authorization, the Permittee shall develop and submit a proposed "Barn Owl Breeding Habitat *Mitigation Proposal*" ("proposal") designed

to address disturbance of barn owl breeding habitat in the vicinity of the authorized limit of disturbance on the B.L. England Generating Station property. An approvable proposal will include the installation and stewardship of two barn owl nest boxes on the B.L. England Generating Station property and will demonstrate that nest box structure, design, and locations have been vetted by the NJDEP Division of Fish & Wildlife. No component of the required barn owl breeding habitat mitigation effort may take place until the required proposal has been approved in writing by the Division of Watershed Protection and Restoration Endangered and Threatened Species Unit, indicating that the Permittee is authorized to commence with the installation of the nest box structures. No component of project site preparation, clearing, grading, or disturbance associated with the authorized activity(-ies) may take place until after the Permittee has demonstrated to the Department that the barn owl breeding habitat mitigation effort has been completed. Any regulated activities, including site preparation, undertaken on the site before proof of mitigation completion has been received by the Department will be considered a violation of the Coastal Area Facility Review Act.

8. Prior to any construction or site preparation, the permittee shall provide to the Department for review and approval a final, formal proposal outlining in detail the proposed offsite public access improvements which will be designed, permitted, and constructed by the permittee. The Department-approved public access improvements must be constructed prior to or concurrent with construction of the project authorized under this permit.

9. Concurrent with the construction of the offsite public access improvements, the permittee in conjunction with the property owner shall file a conservation restriction dedicating the improvements for public access. The permittee shall include the conservation restriction on the deed and shall file the restriction with the Ocean County and Cape May County Clerk's Office (the Registrar of Deeds and Mortgages). Said restriction shall run with the land and be binding upon all successive owners. The conservation restriction shall conform, verbatim, to the format and content of the model Declaration of Restriction for Public Access to the Waterfront on the Division's website at www.nj.gov/dep/landuse/forms.html. A copy of the recorded conservation restriction shall be emailed to the Division's Project Manager, Lindsey Davis, at Lindsey.Davis@dep.nj.gov within 30 days of filing of the conservation restriction.

10. To avoid impacts to Northern Long-eared Bat, Tricolored Bat (proposed federal listing), and nesting migratory bird species, the Permittee shall adhere to a seasonal restriction on the clearing of all woody vegetation from April 1 through September 30 of each calendar year.

11. To protect sensitive habitat for the State-listed Osprey, the permittee shall adhere to a seasonal restriction on the use of heavy construction equipment/machinery within 300 meters (1000 feet) of all active osprey nests along the project limit of disturbance from April 1 through August 31 of each calendar year. The initiation and implementation of work which generates disturbance (e.g., sound levels, visual interruption) that is out of character with what currently exists at or surrounding the anticipated work area during the restricted time period recommended above may result in the permittee being in violation of the "take" clause within State of New Jersey Endangered and Nongame Species Conservation Act (N.J.S.A. 23:2A-1). Please note that adherence to this seasonal restriction shall also be applied if nest building and nest occupancy is observed at any given osprey nest location during the months of March and April of the given calendar year of work.

12. No sediment generating activities (e.g. pile-driving, sheet driving, dredging, etc.) shall occur within State waters, including the Atlantic Ocean inlets and/or any tidal waterway, between March 1st and June 30th of each calendar year to protect anadromous fish and spawning activities during migration for diadromous fish.

13. The Permittee shall adhere to the provisions of the *City of Ocean City Beach Management Plan For the Protection of Federally & State-Listed Species* (dated January 2016 unless superseded by the most current edition) adopted by the Borough and created in coordination with the United States Department of the Interior Fish & Wildlife Service New Jersey Field Office and the New Jersey Department of Environmental Protection Division of Fish and Wildlife Endangered and Nongame Species Program. Particular attention must be given to provisions within "Protected" and "Precautionary" Zones outlined within the Beach Management Plan.

14. If activity of rare beach-nesting shorebird species (i.e. State- or federally listed threatened or endangered species, or migratory shorebird species of special concern), or a State-/Federally listed endangered beach plant population, is discovered at or near the permitted limit of disturbance, work and recreational use of the area shall cease until the Permittee has coordinated with, and guidance on habitat management practices can be issued by, the New Jersey Department of Environmental Protection and, potentially, the US Fish & Wildlife Service. Please note that this coordination may result in the need for the Permittee's adherence to provisions as necessary to protect this sensitive habitat (e.g., seasonal restriction on regulated activities). The Department reserves the right to suspend all regulated activities onsite should it be determined that the Permittee has not taken proper precautions to ensure continuous compliance with these conditions.

15. Prior to commencement of project construction, there shall be an executed Ocean Wind Offshore Project Memorandum of Agreement among the Section 106 consulting parties, which includes the permitttee, for the avoidance, minimization, and mitigation of project adverse effects on historic properties, pursuant to Section 106 of the National Historic Preservation Act.

16. The permittee shall notify the Department's Bureau of Marine Water Monitoring 30 days prior to the start of construction and/or site preparation for the work within Barnegat Bay and Peck Bay/Crook Horn Creek. Notification shall be made via email to the following addresses: lisa.dielmo@dep.nj.gov, debbie.watkins@dep.nj.gov, sarah.gentile@dep.nj.gov, and robert.schuster@dep.nj.gov. The permittee shall abide by any restrictions put in place by the Bureau of Marine Water Monitoring during construction and/or site preparation.

17. If any military munitions and explosives of concern (MECs) or unexploded ordinances (UXOs) are encountered during project construction, the permittee shall immediately notify the United States Coast Guard (USCG) of the munition and its location.

18. Any necessary remediation activities shall be conducted in accordance with all applicable regulations and under the supervision of a Licensed Site Remediation Professional.

19. Any work within the limits of the Great Egg Harbor Inlet and Pecks Beach or Great Egg Harbor Inlet to Townsends Inlet beach nourishment projects inshore of the 2,500-foot limit as measured from project baseline and/or at or below -35 feet NAVD88 within the US Army Corps of Engineers beach and dune design template (including slopes) is subservient to the to the construction, operation, maintenance, repair, rehabilitation and replacement of the Federal beachfill project and is subject to removal prior to future project-related construction.

20. The permittee shall conduct and provide to the Department pre-construction topographic and bathymetric surveys that capture the entire profile of the existing conditions between the HDD pit located at 35th Street in Ocean City and the offshore HDD pit before commencing construction.

21. The permittee shall conduct and provide to the Department post-construction topographic and bathymetric surveys that capture the entire profile of the existing conditions between the HDD pit located at 35th Street in Ocean City and the offshore HDD pit within 30 days of the completion of construction of the entry and exit HDD pits.

22. No excavation or grading of a beach or dune is authorized by this permit.

23. No disturbance to dune vegetation or dune fencing is authorized by this permit.

24. No disturbance to dune crossovers, including but not limited to split rail fencing, subsurface geotextile base matting, compacted I-5 surface, etc., within the City of Ocean City is authorized by this permit.

25. Beach berm elevations and widths shall not be lowered or lessened during temporary occupation within the limits of the Federal beach template during construction.

26. All occupations within the limits of the Federal beach template shall maintain and not alter any public access without the pre-approval of all local, State and Federal agencies including the USACE, the NJDEP's OCE, and NJDEP's Division of Land Resource Protection.

27. The permittee shall provide to the NJDEP's OCE as-built surveys for the entire length of the cable installed from the HDD pits in the Atlantic Ocean to the State's 3 nautical mile (nm) jurisdictional limit.

28. Prior to electric transmission cable installation, the permittee shall establish a hotline with contact information, including an email and a phone number. Protocols regarding unintended interaction with the cables and proposed nearby construction activities should be included with the hotline information. Coordination of the development of these protocols shall occur with NJDEP's OCE, the USACE, and the US Coast Guard.

29. Barges and other vessel hauls shall not rest on the bay bottom to the maximum extent practicable to eliminate the potential for scour.

30. Any landscaping of the properties shall be done with native plants to maximum extent practicable. The use of plastic or other impervious material under newly landscaped or gravel areas is prohibited. All sub-surface liners must be made of filter cloth or other permeable material.

31. Vegetation within a riparian zone shall only be disturbed in the areas specifically shown on the approved drawing(s). No other vegetation within a riparian zone shall be disturbed for any reason.

32. Upon completion of the project, all temporarily disturbed areas within a riparian zone shall be restored to original topography and replanted with indigenous, non-invasive vegetation in accordance with N.J.A.C. 7:13-11.2(z).

33. All excavated material must be lawfully disposed of outside any flood plain, open water, freshwater wetlands or transition area.

34. All debris generated from the construction is to be disposed of at an approved disposal site.

<u>Oyster Creek Federal Channel Maintenance Dredging Conditions</u>

1. Prior to dredging the Oyster Creek federal navigation channel, the permittee shall apply for a modification to this permit and submit:

    1. Sediment sampling results obtained in accordance with a sampling plan approved by the Office of Dredging and Sediment Technology,
    2. Current hydrographic survey including a calculation of the quantity of sediment to be dredged, and,
    3. Written consent from the proposed dredged material management site to accept the specified quantity of dredged material.

Cable Installation Conditions – West Coast of IBSP in Barnegat Bay (Prior Channel)

1. Prior to trenching and open-cut activities in the Prior Channel, the permittee shall apply for a modification to this permit and submit:
    1. Sediment sampling results obtained in accordance with a sampling plan approved by the Office of Dredging and Sediment Technology,
    2. Current hydrographic survey including a calculation of the quantity of sediment to be dredged, and,
    3. Written consent from the proposed dredged material management site to accept the specified quantity of dredged material.

2. Prior to in-water construction activities in the Prior Channel within Barnegat Bay, the permittee shall submit a Sediment Containment Plan for review and approval. Said plan shall detail the specific turbidity control methods and measures that will be utilized during construction to demonstrate that turbidity associated with cable installation will be minimized. Questions regarding the requirements of the Sediment Containment Plan should be directed to katherine.todoroff@dep.nj.gov.

3. Prior to the installation of the sheet pile for construction of open-cut areas, the area must be enclosed with a full-depth turbidity curtain and anchored. This sediment control measure shall be maintained for the duration of sheet pile installation and removal. In the instance where a turbidity curtain cannot be installed in shallow water, the applicant shall propose another measure of turbidity control and provide details in the sediment containment plan, specified in Prior Channel Condition No. 2 above.

4. sheet pile cofferdam proposed for open-cut areas must extend 100’ waterward of sediment core DS007. The open-end of the sheet pile enclosure must be enclosed with a full-depth turbidity curtain and anchored. This sediment control measure shall be maintained for the duration of sheet pile installation and removal.

5. Prior to jetting operations, an anchored, full-depth turbidity curtain must be installed in parallel along the entire length of the Prior Channel within Barnegat Bay. This sediment control measure shall be maintained for the duration of jetting operations.

6. Prior to trenching operations, the work area must be enclosed by a full-depth turbidity curtain and anchored. This sediment control measure shall be maintained for the duration of trenching within that specific area.

7. Open-cut areas supported by trenches are limited to thirty feet (30’) in length, five feet (5’) in width, and six and one-half feet (6.5’) in depth below the mudline.

8. Sediment removal in open-cut areas shall be limited to approximately seventy-two cubic yards (72 yds^3).

9. Trenching shall be restricted to the limits as depicted on the authorized plans. The depth of trenching shall be limited to a maximum depth of eleven and one-half feet below mean lower low water (-11.5’ MLLW).

10. Sediment removal in proposed trench areas shall be limited to approximately fifty-two thousand six hundred seventy-five cubic yards (52,675 CY).

Cable Installation Conditions - Holtec Landfall in Barnegat Bay

1. Prior to trenching or open-cut activities for the Holtec Landfall, the permittee shall apply for a modification to the permit and submit:

    1. Sediment sampling results obtained in accordance with a sampling plan approved by the Office of Dredging and Sediment Technology,
    2. Current hydrographic survey including a calculation of the quantity of sediment to be dredged, and,
    3. Written consent from the proposed dredged material management site to accept the specified quantity of dredged material.

2. Prior to in-water construction activities associated with the Holtec Landfall, the permittee shall submit a Sediment Containment Plan for review and approval. Said plan shall detail the specific turbidity control methods and measures that will be utilized during construction to demonstrate that turbidity associated with cable installation will be minimized. Questions regarding the requirements of the Sediment Containment Plan should be directed to katherine.todoroff@dep.nj.gov.

3. Prior to the installation of the sheet pile for construction of open-cut areas, the area must be enclosed with a full-depth turbidity curtain and anchored. This sediment control measure shall be maintained for the duration of sheet pile installation and removal. In the instance where a turbidity curtain cannot be installed in shallow water, the applicant shall propose another measure of turbidity control and provide details in the sediment containment plan, specified in condition Holtec Property Landing No. 2 above.

4. Prior to jetting operations, an anchored, full-depth turbidity curtain must be installed in parallel along the entire length of the Holtec route. This sediment control measure shall be maintained for the duration of jetting operations.

5. Prior to trenching operations, the work area must be enclosed by a full-depth turbidity curtain and anchored. This sediment control measure shall be maintained for the duration of trenching within that specific area.

6. Open-cut areas supported by trenches are limited to fifty feet (50') in length, five feet (5') in width, and six and one-half feet (6.5') in depth below the mudline.

7. Sediment removal in open-cut areas shall be limited to approximately one hundred and twenty cubic yards (120 yds^3).

8. Trenching shall be restricted to the limits as depicted on the authorized plans. The depth of trenching shall be limited to a maximum of depth of twelve and one-half feet below mean lower low water (-12.5' MLLW).

9. Sediment removal in proposed trench areas shall be limited to approximately twenty-eight thousand five hundred sixty-eight cubic yards (28,568 CY).

Cable Installation Conditions – Ocean City, 35th Street HDD Landfall

1. The single HDD pit in the Atlantic Ocean is limited to two hundred forty-three feet (243') in length, one hundred thirty- four feet (134') in width, and ten feet (10') in depth below the mudline.

2. Sediment removal in the HDD pit in the Atlantic Ocean shall be limited to approximately two thousand cubic yards (2000 yds^3).

Cable Installation Conditions: IBSP Oceanfront HDD Landfall

1. The two HDD pits in the Atlantic Ocean are limited to two hundred fifty feet (250') in length, one hundred fifty feet (150') in width, and thirteen feet (13') in depth below the mudline.

2. Sediment removal in the HDD pits in the Atlantic Ocean shall be limited to approximately three thousand six hundred yards per pit for an approximate total of seven thousand two hundred yards (7200 yds^3).

In-Water Cable Installation & Maintenance Dredging Conditions – Sediment Removal

1. Side casting of dredge material is prohibited.

2. Use and/or location of all vessels, barges, equipment, etc. utilized for cable installations and maintenance dredging shall be properly coordinated with the U.S. Coast Guard.

3. Jetting shall be restricted to the limits as depicted on the authorized plans. The depth of cable burial installed by jetting technology shall be at least 4 feet (4') minimum below the seabed.

4. The applicant shall exercise caution and employ all reasonable controls to minimize the release of sedimentation into the adjacent waters during the dredging and deposition process.

5. All sediments from this project shall be removed using a closed clamshell environment bucket.

6. The dredge shall be operated to control the rate of descent of the bucket so as to maximize the vertical cut of the clamshell bucket while not penetrating the sediment beyond the vertical dimension of the open bucket (i.e. overfilling the bucket). This will reduce the amount of free water in the dredged material, will avoid overfilling the bucket, and minimize the number of dredge bucket cycles needed to complete the dredging contract. The dredging contractor shall use appropriate software and sensors on the dredging equipment to ensure consistent compliance with this condition during the entire dredging operation. The independent dredging inspector shall monitor the operation of the software and sensors during the inspections as specified in the below conditions. Any malfunction of the software and sensors on the dredge at any time shall be immediately reported to the independent dredging inspector and the permittee by the dredging contractor and shall be immediately repaired to working order.

7. The closed clamshell environmental bucket shall be equipped with sensors to ensure complete closure of the bucket before lifting the bucket. Said sensors shall be operational during the entire dredging operation.

8. The closed clamshell environmental bucket shall be lifted slowly through the water, at a rate of 2 feet per second or less.

9. Dredged material shall be placed deliberately in the barge in order to prevent spillage of material overboard.

10. The discharge (i.e. "overflow") of water from the barge/scow into which dredged material is placed is prohibited.

11. All barges or scows used to transport sediment shall be of solid hull construction or be sealed with concrete.

12. The gunwales of the dredge scows shall not be rinsed or hosed during dredging except to the extent necessary to ensure the safety of workers maneuvering on the dredge scow.

13. All decant water holding scows shall be water tight and of solid hull construction.

14. Decant water from this project may only be discharged within the area of Barnegat Bay from where the sediments originated, in close proximity to the dredging contract area. Discharge to another receiving waterbody requires prior approval from the Department and may require a New Jersey Discharge Pollutant Elimination System/Discharge to Surface Water (NJDPES/DSW) permit.

15. All decant water shall be held in the decant holding scow a minimum of 24 hours after the last addition of water to the decant holding scow. Said water contained in the decant holding scow may only be discharge after this mandatory 24-hour retention time.

16. During pumping of the decant water from the holding scow, great care shall be taken to avoid re-suspending or pumping sediment which has settled in the decant holding scow.

17. Dewatering on land must be completed within a secured watertight container.

18. **REPORTING REQUIREMENTS:** At the completion of the project, the permittee shall submit the following information to the Department. This information shall be submitted within three months of completion of dredging.

    1. Start and finish date of work order(s).
    2. Post-dredge hydrographic survey.
    3. Completed "Notice of Completion of Dredging" attached for each work order(s)/completion of project.

Barnegat Bay In-Water Backfill Conditions

1. All backfill must be sourced from clean material and/or over 90% sand.

2. Trenches must be backfilled with a clamshell bucket. The bucket shall remain closed until it reaches the bottom of the trench.

Freshwater Wetlands Permit Conditions

1. This permit is issued subject to compliance with N.J.A.C 7:7A-9.3, Conditions applicable to an individual permit.

2. Prior to the commencement of site clearing, grading, or construction onsite, the permittee shall install a sediment barrier at the limits of disturbance authorized herein, which is sufficient to prevent the sedimentation of the remaining freshwater wetlands and transition areas and shall serve as a physical barrier protecting these areas from encroachment by construction vehicles or other soil-disturbing activities. All sediment barriers and soil erosion control measures shall be kept in place and maintained throughout the duration of construction, until such time that the site is stabilized.

3. The permittee shall ensure that the authorized activities do not interfere with the natural hydraulic characteristics of any wetlands, transition area, or State open water.

4. Access through wetlands and transition areas shall be only as depicted on the above-referenced plans.

5. This authorization for a Freshwater wetland Individual Permit (FWIP) is valid for a term not to exceed five (5) years from the date of this letter. If the permittee wishes to continue an activity covered by the permit after the expiration date of the permit, the permittee must apply for and obtain a permit extension or a new permit, prior to the permit's expiration.

6. The total amount of disturbance associated with this authorization shall not exceed a combined total of **7.118 acres** to state open waters, wetlands and transition areas. The wetlands affected by this permit authorization are of exceptional intermediate, and ordinary resource value. The standard transition area required adjacent to exceptional wetlands is 150ft. The standard transition area required adjacent to intermediate wetlands is 50ft. There is no transition area associated with ordinary resource value wetlands. Any additional disturbance of freshwater wetlands, State open waters and/or transition areas besides that shown on the approved plans shall be considered a violation of the Freshwater Wetlands Protection Act rules unless the activity is exempt or a permit is obtained from the Department prior to the start of the proposed disturbance.

Engineering Conditions

1. This permit is issued subject to compliance with N.J.A.C 7:13-5.6, Conditions that apply to an issued or reissued verification and N.J.A.C. 7:13-10.3 Conditions applicable to an individual permit.

2. **Recording of Permit:** This permit shall be recorded in its entirety in the office of the County Clerk or the Registrar of Deeds and Mortgages for each county where this project is located. Verified notice of this action shall be forwarded to the Division immediately thereafter. **NOTE:** The following information is to be submitted to the clerk for all Flood Hazard Area Verifications:
    a. The Department file number for the verification;
    b. The approval and expiration dates of the verification;
    c. A metes and bounds description of any flood hazard area limit and/or floodway limit approved under the verification;
    d. The flood hazard area design flood elevation, or range of elevations if variable, approved under the verification; and
    e. The width and location of any riparian zone approved under the verification; and
    f. The following statement: "The State of New Jersey has determined that all or a portion of this lot lies in a flood hazard area. Certain activities in flood hazard areas are regulated by the New Jersey Department of Environmental Protection and some activities may be prohibited on this site or may first require a permit. Contact the Division of Land Use Regulation at (609) 777-0454 for more information prior to any construction onsite."

3. The Department has approved this permit because the project satisfies the requirements of the Flood Hazard Area Control Act Rules and Coastal Rules. The Department has not reviewed the proposed structure/s to determine compliance with the International Building Code or any other local construction codes or flood ordinances. The proposed building/s may therefore not fully comply with any such requirements. Please contact your municipal construction official for further information.

4. All foundations, slabs, footings and walls of the proposed structure/s shall be designed to resist uplift, flotation, collapse and displacement due to hydrostatic and hydrodynamic forces resulting from flooding up to an elevation of one foot above the flood hazard area design flood elevation as shown on the approved plan sheets. Furthermore, all structural components shall be designed to resist the same forces.

5. The floor elevation labeled "12.0'" on the approved drawing(s) is the elevation of the lowest finished floor of the proposed building(s) at the B.L. England Substation project site. The construction of any habitable area below this elevation, such as a basement, is prohibited.

6. The Department has determined that this project meets the requirements of the Stormwater Management rules at N.J.A.C. 7:8. Any future expansion or alteration of the approved stormwater management system, which would affect water quality, increase the rate or volume of stormwater leaving the site, affect the infiltration capacity on the site, or alter the approved low impact site design, shall be reviewed and approved by the Department prior to construction. This includes any proposed changes to the discharge characteristics of any basin, the construction of new inlets or pipes that tie into the storm sewer network and/or the replacement of existing inlets or pipes with structures of different capacity.

7. The applicant shall make specific arrangements to ensure the continuous maintenance and efficient operation of all proposed stormwater management measures onsite. This includes the inspection (and cleaning where necessary) of any and all constructed swales, basins, inlets, and mechanical treatment devices at least four times per year and after every major storm totaling 1 inch of rainfall or more, the use of appropriate soil conservation practices onsite, and any other reasonable effort required to maintain the stormwater management system in good working order.

8. Prior to the start of any construction onsite, the applicant/owner shall record a deed notice for all stormwater management measures authorized under this permit which shall be recorded in the Office of the County Clerk or the registrar of deeds and mortgages of the county in which the development, project, project site, or mitigation area containing the stormwater management measure is located. A form of deed notice shall be submitted to the Watershed and Land Management Program (Program) for approval prior to filing. The deed notice shall contain a description of the stormwater management measure(s) used to meet the green infrastructure, groundwater recharge, stormwater runoff quality, and stormwater runoff quantity standards at N.J.A.C. 7:8-5.3, 5.4, 5.5, and 5.6 and shall identify the location of the stormwater management measure(s) in NAD 1983 State Plane New Jersey FIPS 2900 US Feet or Latitude and Longitude in decimal degrees. The deed notice shall also reference the maintenance plan required to be recorded upon the deed pursuant to N.J.A.C. 7:8-5.8(d). Prior to the commencement of construction, proof that the above required deed notice has been filed shall be submitted to the Program. Proof that the required information has been recorded on the deed shall be in the form of either a copy of the complete recorded document or a receipt from the clerk or other proof of recordation provided by the recording office. However, if the initial proof provided to the Program is not a copy of the complete recorded document, a copy of the complete recorded document shall be provided to the Program within 180 calendar days of the authorization granted by the Program.

9. In accordance with N.J.A.C. 7:13-12.6(f), the deed for each lot on which the private roadway or parking area is constructed, as well as any lot served by the private roadway or parking area, and each lease or rental agreement for a unit within the multi-residence building served by a private roadway or parking area that lies below the flood hazard area design flood elevation shall be modified to:

    i. Explain that the private roadway or parking area is likely to be inundated by floodwaters, which may result in damage and/or inconvenience; and
    ii. Disclose the depth of flooding that the private roadway or parking area would experience during the FEMA 100-year flood, if available, and the flood hazard area design flood; and
    iii. The modified deeds are recorded in the Office of the County Clerk or the registrar of deeds and mortgages of the county in which the building is located, and proof that the modified deed has been recorded is provided to the Department prior to the sooner of either:

1) The start of any site disturbance (including pre-construction earth movement, removal of vegetation or structures, or construction of the project); or
2) The date that is 90 calendar days after the issuance of the permit.

10. Construction may only occur while the stream area is dry or in a de-watered condition. No work may be performed where the stream channel is wet.

11. De-watering of cofferdams must include properly sized temporary sediment basins or other filtering methods to reduce turbidity. The stream area to receive return water discharged from cofferdams must be encompassed by a turbidity barrier. The turbidity barrier must be located parallel to the stream banks and anchored to the shoreline to maintain freeflow of the stream center. In order to avoid obstruction of stream flows or fish passage, turbidity barriers must not be placed across the entire stream channel.

Mitigation Conditions

Wetlands Permanent Impact Mitigation Conditions

1. The permittee shall mitigate for the permanent loss of 0.302 acres of forested and 1.519 acres of emergent wetlands with the purchase of 1.821 credits from a mitigation bank serving the appropriate watershed management area.

2. At this time, the following bank(s) are approved to serve the project area; additional banks may be approved at any time, so please contact the Mitigation unit for the most up to date service area information if you would like additional options. **Within 60 days and prior to initiation of regulated activities**, the permittee shall submit proof of purchase for the amount of mitigation credits listed above to the attention of the Mitigation Unit Supervisor, NJDEP, Division of Watershed Protection and Restoration at Mail Code 501-02A, P.O. Box 420, Trenton, NJ 08625-0420.

   Great Bay Wetland Mitigation Bank - Contact Mark Renna of Evergreen Environmental, LLC at (201)644-7302 (office) or 973-356-7164 or at mrenna@evergreenenv.com

3. If mitigation credits are no longer available from the above referenced mitigation bank, the permittee shall contact the Division of Watershed Protection and Restoration, Mitigation Unit to arrange for an alternative mitigation option **prior to the initiation of regulated activities.**

Wetlands Temporary Impact Mitigation Conditions

1. The permittee shall mitigate for the temporary disturbance to 5.436 acres of emergent wetlands and 0.07 acres of open waters through an on-site restoration project. (N.J.A.C. 7:7A-11 et seq/N.J.A.C. 7:7-17.1)

2. Within 30 days of receipt of the permit, or at least 90 calendar days prior to the commencement of regulated activities authorized by the permit, the applicant shall submit to the Department for review a temporary restoration plan providing details regarding the number, type, size and location of restoration plantings and the contents of any seed mix, if applicable.

3. Regulated activities shall not commence until the temporary restoration plan has been reviewed and approved by the Department. (N.J.A.C. 7:7A-11.6(a)).

4. All mitigation shall be conducted immediately following completion of the activity that caused the disturbance and shall be continued to completion within six months after the end of the activity that caused the disturbance.

5. If the permittee fails to perform mitigation within the applicable time-period the activity shall be considered permanent and mitigation shall be required to replace the affected resource. (N.J.A.C. 7:7A-11.3(c)).

6. If the permittee is conducting a temporary restoration project, the following conditions shall apply:

    a. **Prior to the initiation of regulated activities** authorized by this permit the permittee shall submit a final design of the mitigation project for approval and include all of the items listed on the checklist entitled Checklist for Completeness: Creation, Restoration or Enhancement for a Coastal Wetland Mitigation Proposal located at http://www.nj.gov/dep/landuse/forms/index.html.

    b. The permittee shall obtain a secured bond or other financial surety acceptable to the Division from a firm licensed to provide such services in New Jersey. (N.J.A.C. 7:7-17.17)

    c. The permittee shall notify the Mitigation Unit at the Division of Watershed Protection and Restoration in writing **at least 30 days prior to the start of construction of the wetland restoration project** to arrange an on-site pre-construction meeting among the permittee, the contractor, the consultant and the Division.

    d. To ensure the intent of the mitigation design and its predicted wetland hydrology is realized in the landscape, the mitigation designer shall be present on-site during all critical stages of mitigation construction and during the restoration of any temporarily impacted areas. Critical stages of construction include but are not limited to herbicide applications, earthmoving activities, planting, and inspections.

    e. The permittee shall be responsible for ensuring that best management practices are used throughout construction to control the spread and colonization of highly invasive plants. Specifically, all equipment, especially tracks and tires, must be thoroughly cleaned every time equipment or vehicles move from an area containing invasive plants or from off-site to the mitigation area. In addition, soil containing root fragments and above-ground vegetative material from invasive plants shall be carefully managed during earthmoving activities and disposed of at a suitable offsite location rather than mulched and reused or stockpiled elsewhere on the site. For information on the specific species that are considered to be invasive, please refer to the Invasive Plant Atlas at http://www.invasiveplantatlas.org/index.html.

    f. If changes to the mitigation design are necessary to ensure success of the project as a result of on-site conditions, the mitigation designer shall immediately notify the Division in writing and submit an alternative plan which achieves the proposed wetland conditions. Any modifications to the plan that are reviewed and approved by the Division must be shown on a signed and sealed revised plan. The As-Built plans required as a part of the Construction Completion Report may serve as the signed and sealed revised plan required to be submitted as part of the construction modification process described above if time constraints warrant such action and have been approved by the Division in writing.

    g. **Within 30 days of final grading of the mitigation site and prior to planting**, the permittee shall notify the Mitigation Unit at the Division of Watershed Protection and Restoration in writing to arrange a post-grading construction meeting among the permittee, contractor, consultant and the Division.

    h. **Within 60 days following the completion of the mitigation project**, the permittee shall submit a Construction Completion Report to the Division detailing as-built conditions (N.J.A.C. 7:7-17.11(h)). The Construction Completion Report shall contain, at a minimum, the following information:

1) A completed Wetland Mitigation Project Completion of Construction Form that certifies the mitigation project has been constructed as designed and that the proposed area of wetland restoration has been accomplished. This form is located at on the Division's website at: www.nj.gov/dep/landuse in the Mitigation tab of Forms & Checklists.

2) An as-built plan of the completed mitigation area showing grading and any structures included in the approved mitigation proposal;

3) Photographs, both pre- and post-construction, of the intertidal and subtidal shallows mitigation project including a photo location map as well as the GPS waypoints in NJ state plane coordinates NAD 1983; and

4) Any changes to the approved mitigation plan that were made during construction and an explanation for the deviation(s).

9. **Within 30 days following final planting of the mitigation project**, the permittee shall post the mitigation area with permanent signs which identify the site as a wetland mitigation project and that all-terrain vehicle use, motorbike use, mowing, dumping, draining, cutting and/or removal of plant materials is prohibited and that violators shall be prosecuted and fined to the fullest extent under the law. The signs must also state the name of the permittee, a contact name and phone number, and the Department's permit number.

10. The permittee shall monitor the mitigation for 5 full growing seasons beginning the year after the mitigation project has been completed. The permittee shall submit monitoring reports to the Division of Watershed Protection and Restoration no later than December 31st of each full monitoring year (N.J.A.C. 7:7-17.13(e)). All monitoring reports must include the standard items identified in the checklists entitled Wetland Mitigation Monitoring Project Checklist and Tidal Wetland Mitigation Monitoring Checklist. The Wetland Mitigation Monitoring Project Checklist and Tidal Wetland Mitigation Monitoring Checklist are located at http://www.nj.gov/dep/landuse/forms/index.html.

    Please note: The monitoring period may be reduced if the restoration is successful more quickly.

11. Once the required monitoring period has expired and the permittee has submitted the final monitoring report, the Division will make the finding that the mitigation project is either a success or a failure. In accordance with N.J.A.C. 7:7-17.11(k), the mitigation project will be considered successful if the permittee demonstrates all of the following:

    1) A completed Wetland Mitigation Project Completion of Construction Form that certifies the mitigation project has been constructed as designed and that the proposed area of wetland creation, restoration or enhancement has been accomplished. This form is located at on the Division's website at: www.nj.gov/dep/landuse in the Mitigation tab of Forms & Checklists.

    2) An as-built plan of the completed mitigation area showing grading and any structures included in the approved mitigation proposal;

    3) Photographs, both pre and post-construction, of the tidal wetland mitigation project including a photo location map as well as the GPS waypoints in NJ state plane coordinates NAD 1983;

    4) The site has an 85 percent survival and 85 percent area coverage of the mitigation plantings or target hydrophytes, which are species native to the area and similar to

ones identified on the mitigation planting plan. All plant species in the mitigation area must be healthy and thriving; and

5) The site has less than 10 percent coverage by invasive or noxious species.

Please note: If the site is originally comprised of invasive species, the percent coverage and composition of invasive plants on the site shall be document in advance of the conduct of the activity. During restoration, the applicant shall make a good faith effort to avoid restoration with invasives, but the Department will consider the pre-construction site composition when determining whether this criteria has been satisfied.

7. The permittee is responsible for assuming all liability for any corrective work necessary to meet the success criteria established above (N.J.A.C. 7:7-17.13(h)). The Division will notify the permittee in writing if the mitigation project is considered to be a failure. Within 30 days of notification, the permittee shall submit a revised mitigation plan to meet the success criteria identified above for Division review and approval. The financial surety, if required, will not be released by the Division until such time that the permittee satisfies the success criteria as stipulated above.

Prepared by: Lindsey J. Davis Date: April 27, 2023

Lindsey J. Davis, Environmental Scientist 3
Division of Land Resource Protection

Reviewed by: Date: April 27, 2023

Janet L. Stewart

Janet L. Stewart, Bureau Chief
Division of Land Resource Protection

Approved by: Date: April 27, 2023

Jennifer Moriarty

Jennifer Moriarty, Director
Division of Land Resource Protection